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ESENCIA, BOQUERÓN, CABO ROJO
TOMO III

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ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

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NOVIEMBRE 2025

COMPLEMENTARY SUBSOIL EXPLORATION AND GEOTECHNICAL REPORT FOR ESENCIA CABO ROJO, PUERTO RICO

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COMPLEMENTARY SUBSOIL EXPLORATION AND GEOTECHNICAL REPORT FOR ESENCIA CABO ROJO, PUERTO RICO

CABO ROJO LAND ACQUSION, LLC.
Requested for

Boring Logs Performed & Supervised By:
SUELOS, PSC.

Submitted on June 17, 2024
Job No. 5355.rep

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COMPLEMENTARY SUBSOIL EXPLORATION AND GEOTECHNICAL REPORT FOR ESENCIA CABO ROJO, PUERTO RICO

1.0 INTRODUCTION

This report covers the results of the complementary field work towards the preliminary geotechnical investigation undertaken at the request of **Cabo Rojo Land Acquisition, LLC.,** pursuant to the terms and conditions stated in our proposal dated January 31, 2024. It contains the results of the complementary geotechnical exploration performed for Esencia, a comprehensive tourist development in Cabo Rojo, Puerto Rico.

The geotechnical study embracing this work has been targeted to evaluate the index and physical properties of the underlying soils in areas not covered before, in order to characterize the different geologic materials and be able to discuss possible buildability scenarios and foundation challenges. The scope of work was prepared based on the conceptual real estate diagram provided to us (**Figure 1**).

2.0 GENERAL PROJECT DESCRIPTION AND LOCATION

The project involves the development of residences, hotels, club houses, school, hospital and other related structures. **Figure 1** shows the aerial extension of the site.

The topography of the site varies significantly; from sea level to 200 meters in elevation. The topography is comprised of moderately to steep slopes with a relatively leveled fringe of land that runs from east to west along the northermost portion of the site. In this report, areas of moderately to steep slopes are referred to as “highland” while the relatively leveled fringe of land is referred to as “lowland”.

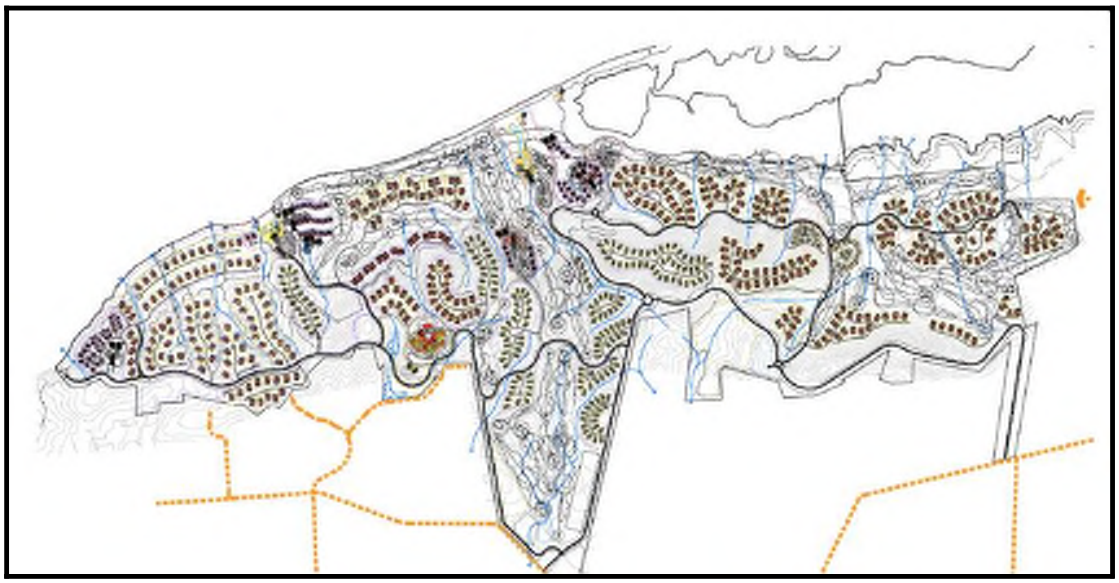

Figure 1. Aerial extension of site.

At the time of this complementary report, final grading plans are not available. Considering the steep topography in some areas, it is preliminary conceived that earthworks involving cut and fill would be required. Likely, retaining walls would also be needed to contain fill embankments and to retain vertical cuts. All these presumptions shall be clarified during the final phase of the geotechnical study, once grading plans are available.

3.0 WORK PERFORMED

The complementary drilling program consisted of 26 test holes (borings). These 26 borings complement 38 previous test holes (our Job#5252), totaling 62. The test hole locations were selected by the geotechnical engineer and laid out at the field using GPS. The location of all 62 borings are depicted in **Figure 2** (see also **Plate 1** at end of report). A table containing boring coordinates is included at the end of this report.

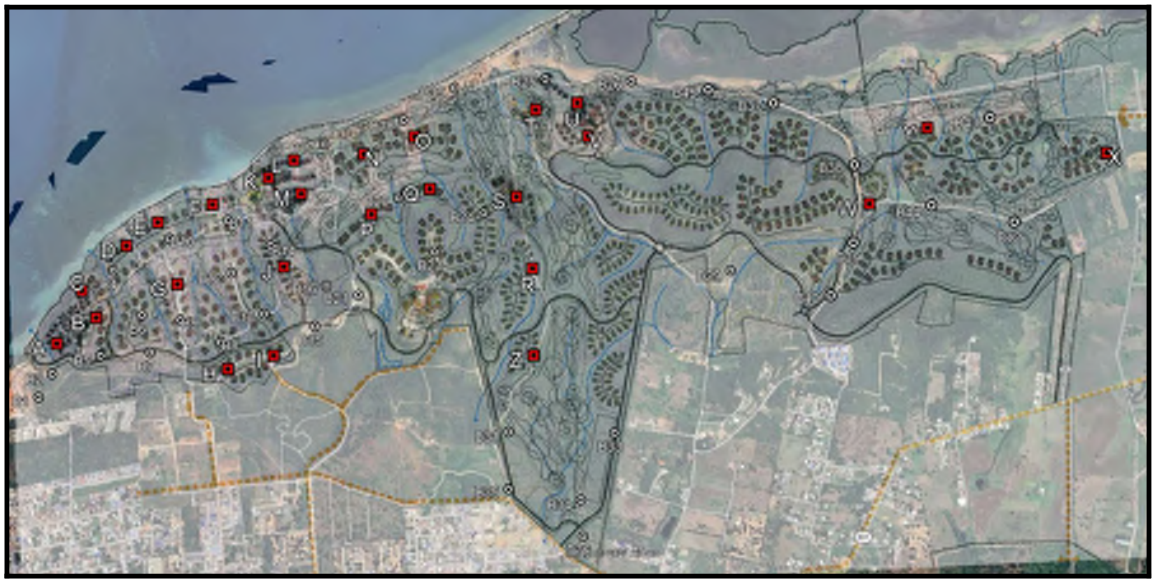

Figure 2. Approximate boring locations.

The test holes were advanced by means of the Power Auger Method employing a CME-45 Model drilling rig. The borings were bottomed at 30 feet deep for a total footage of 780 ft drilled into different geomaterials. Visual/manual procedures were used to characterize the underlying soils. As part of the work, natural moisture contents, Atterberg limits, natural moisture contents and grain size distributions were performed on selected samples to determine soil behavior type, estimate strength parameters and obtained soil classification as per AASHTO Standards. The results of the testing program are discussed further in this report.

4.0 GEOLOGICAL CONDITIONS OF THE SITE

The southern half of the area of interest has been mapped as part of the Cabo Rojo-Parguera Geologic Quadrangle, while the norther half is contained in the Puerto Real Geologic Quadrangle. These quadrangles were prepared for the U.S. Geological Survey by R. P. Volckmann (1984). Refer to **Figure 3** for portion of the USGS Geologic Quadrangles.

The Cabo Rojo and Parguera Quadrangles lie in the extreme southwest of Puerto Rico. The mapped area is bordered on the south by the Caribbean Sea and on the west by the Mona Passage. Coastal areas are fringed by mangrove swamps, beach deposits, intertidal deposits, and locally by sea cliffs. The highest topographic feature is the Sierra Bermeja, in the north-central part of the mapped area.

The land area of the Cabo Rojo and Parguera Quadrangles is underlain by serpentinite, amphibolite, chert, and basalt of the Late Jurassic to Early Cretaceous age, limestone and volcanic rocks of Late Cretaceous age, and limestone and gravel of middle Tertiary age. The central part of the area has been intruded by stocks and dikes, some of Late Cretaceous age; others may be as old as Early Cretaceous. Extensive deposits of quartz sand in the western part of the area may have been derived from quartz-rich intrusive rocks possibly Tertiary age. The rocks are folded and offset by high-angle faults (Volckman, 1984).

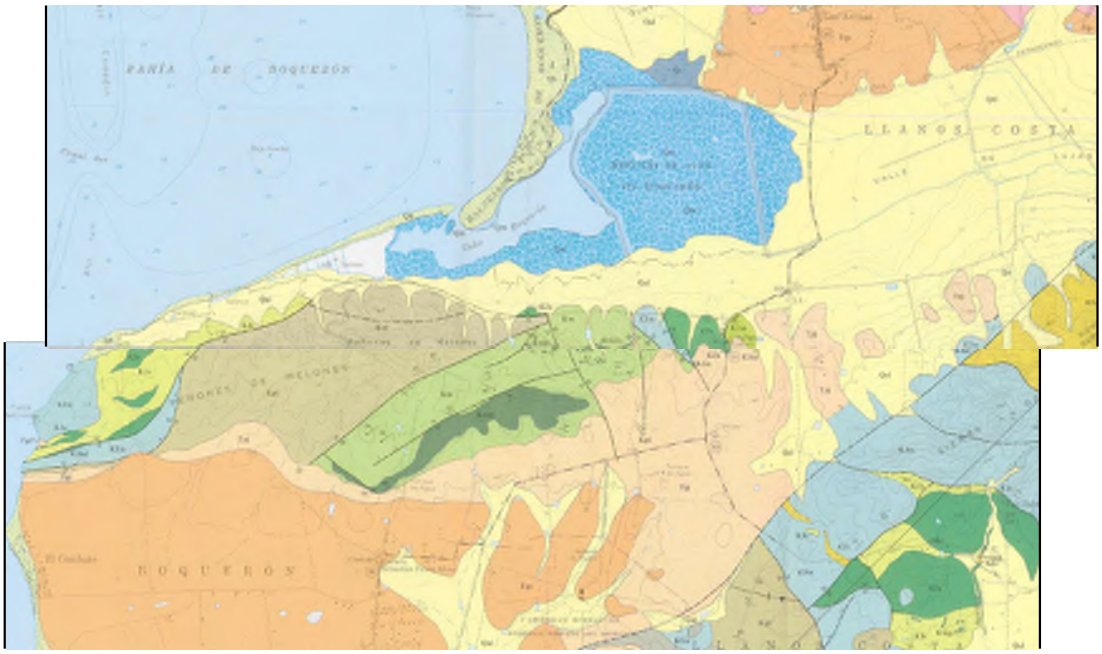

Figure 4. Geologic setting.

The 26 borings subject of this report were able to find the different geomaterials described by Volckman (1984). Table 1 lists all borings performed with the geologic unit drilled. The last column in Table 1 contains the geologic description of the unit.

TABLE 1; Summary of Geologic Units Drilled

Boring No.	Geologic Unit	Geologic Description
1, 2, 5, A, B, C, H	KJm	Mariquita Chert: Yellowish-red, brownish-red, grayish green, black or white, fine to medium grained bedded chert and silicified limestone.
4, 6, 7, 8, 9, 10, 11, 12, 14, G, Y	Kjs, a	Serpentinite and Amphibolite: Black, blackish-green, pale-green, bluish-green, grayish-red, pervasively fractured rock consisting primarily of serpentinite minerals and dark gray to dark greenish-gray, well-foliated, gneissic amphibolite.
17, 18, 19, 25, 26, 37, 45, E, F, K, L, M, N, O, T, U	Qal	Alluvium: Clay, silt, sand, and gravel. **Weak man-made fill and/or peat in the upper 8 or 12 ft of borings K, L, M and N.**
13, 15, 16, 20, 21, 23, 24, 38, P, Q, R, S, V, Z, I, J	Kpl	Parguera Limestone, lower member: Thick to medium bedded conglomerate containing sand- to cobble size, rounded to angular clasts of volcanic rocks and chert with minor serpentinite and amphibolite.
29, 31, 33, 39, 40, 42, 43, 44, W, X	Km	Melones Limestone: Reddish-orange, yellowish-orange, massive, rarely thick-bedded, cherty calcarenite, limestone and sandstone.
34, 35, 36	Tqs	Quartz sand: Irregularly shaped and distributed deposits consisting of quartz grains and minor iron oxide and clay. Exposures are typically variegated in color and range from reddish-brown to reddish-orange to dark yellowish-orange.

5.0 SUBSOIL STRATIGRAPHY

The stratigraphy made by the previously described geologic formation is quite complex, as it is comprised of various geologic units in variable stages of weathering.

In simple geotechnical terms, borings located at the highland grounds found very competent geomaterials in the form of moderately to throughly weathered sedimentary rocks (limestone, sandstone, siltstone and chert). Samples were retrieved as silty sands, sandy silts, gravel and rock fragments of variable size.

At the highland, Standard Penetration Tests during sampling operations recorded N-values that normally exceed 20 blows per foot, frequently reaching more than 100 bpf, evidencing good bearing capacity and low compressibility. Based on Atterberg limits, most of these samples are non-plastic, with fine contents below 15% or 20%, showing AASTHO classifications A-2-4 to A-1-a or A-1-b. Natural moisture contents are usually less than 15%. Geotechnically speaking, the competence of this material is very good and its quality for re-use as fill material is good to excellent.

On the other hand, the test holes located at the lowland (borings no. 17, 18, 19, 25, 26, 35, 45, D, F, K, L, M, N, O, T) found alluvium essentially in the form of fat clay or plastic silt, see **Figure 5**. N-values average 12 to 25 blows per foot in the uppermost 15 ft, and 25 to 40 bpf below 15 ft. Unconfined compressive strengths range from 0.5 tsf to 3.0 tsf. The upper 15 ft can be characterized as a medium bearing capacity geomaterial, where very high structural loads would tend to exceed pre-consolidation stresses and produce detrimental settlements. Moreover, the complementary explorations found weak man-made fill and/or peat in the upper 8 or 12 ft of borings K, L, M and N. Deep soils removal operations or ground improvement will be necessary in areas representative of borings K, L, M and N.

Figure 5. Hashed area indicates the presence of alluvial soils of medium to marginal bearing capacity.

Of particular interest are borings B-7, K, L and N, which found very soft organic silt and peat (decomposed vegetative matter) down to 10 or 12 feet deep. Final geotechnical explorations for particular structures in these areas shall take into account these findings. A test pit program is recommended in these areas to better define the extension and depth of weak soil/organic material removal.

6.0 SWELLING POTENTIAL

Borings no. 18, 25, 43, 45, I, K and O resulted with liquid limits between 62%<LL<84% and plastic limits between 22%<PL<36%. The Plasticity Index of the fat clay averages 47%. Free swell tests conducted in fat clay samples resulted with free swell indexes of 20 to 70%. According to Dakshanamurthy and Raman (1973), the swell severity is medium to high for soils with LL>50% (**Figure 6**). Holtz and Gibbs (1956) also suggested that swell severity can be medium to high in soils showing free swell test results >50% (**Figure 7**). Based on these results, it can be preliminary concluded that the fat clays of alluvial nature show medium to high swelling potential. We

recommend to provide a 3 ft thick layer of select, non-expansive fill material over these soils to preclude excessive moisture variability and volume changes in the native fat clays. Particular earthwork recommendations will be presented during the detailed phase of the geotechnical study, once the proposed grading plans area available.

LL (%)	Swell Severity
0 to 20	Non-Swelling
20 to 35	Low Swelling
35 to 50	Medium Swelling
50 to 70	High Swelling
70 to 90	Very High Swelling
> 90	Extra High Swelling

Figure 6. Swell severity according to Dakshanamurthy and Raman (1973).

FSI (%)	Swelling Severity
< 50	Low
50 to 100	Medium
100 to 140	High
> 140	Very High

Figure 7. Swelling severity according to Holtz and Gibbs (1956).

7.0 GROUNDWATER

The groundwater table was not registered in borings located at the highland, but was observed in some of the lowland borings. Boring B-17 encountered water at 4 feet deep and B-19 at 9 feet deep. Borings B-18, B-25 and B-26 detected groundwater at 24 and 29 feet deep. Complementary borings D, F, L, N and T also found groundwater at depths between 4 and 14 ft.

It should be understood that the groundwater level is always being affected by natural factors such as the distance from water sources, the permeability of the subsoil, the topography of the area, and the amount of precipitation. Consequently, the information given about the actual groundwater condition is not to be taken as reliable or invariant. Long term observation wells should be installed to obtain reliable readings on the groundwater table regimen.

Moreover, it should be taken into account that whenever changes in the topography of a site are made (such as the planned for this project), changes in the groundwater characteristics of the region frequently occur. Such conditions are difficult to detect within the normal scope of time of the exploration. Usually, springs are detected during the construction period, when excavations or ground surface stripping are made.

8.0 DISCUSSION ON FINDINGS

The results of this subsoil exploration demonstrate that most borings, particularly those located in the highland, show very competent soils that favor the development. Exception is made for borings no. 17, 18, 19, 25, 26, 35, 45, D, F, K, L, M, N, O, T which found alluvium in the form of fat clay (N-values averaging 15 blows per foot in the uppermost 15 ft). In areas representative of these borings, ground improvement would be necessary if high structural loads are involved. Alternatives like soil removal/replacement, rammed aggregate piers or deep foundations would need to be considered to cope with high structural loads.

In terms of liquefaction potential, borings that found groundwater are also characterized by clayey soils and elastic silts which are less susceptible to significant strength lost during high earthquake motions. Liquefaction potential should not be of concern in this type of soil.

The following sections contain preliminary recommendations on soil parameters necessary for the conceptual design of the planned structures. The proceeding sections also present guidelines on how to prepare the project site for an adequate performance of fill embankments and retaining structures.

9.0 FOUNDATION RECOMMENDATIONS

9.1 Selection of Foundation System

Taking into account the soil conditions encountered at the site, the proposed structures at the highland can consider typical shallow foundation like spread/strip footings or mat foundations.

Considering the steep topography of the highland, structures will likely be placed partially over cut and partially over fill. Therefore, concern should be given to any potential differential settlement occurring below the structures on account of the different yielding surfaces (cut vs. fill). The mat foundation is the preferred foundation system under this scenario because it will help in controlling differential settlements. Spread footings, on the other hand will need to be designed with differential settlements in mind.

Spread footings can be cast at a minimum depth of 3 ft below existing grade or cast on compacted fill. An allowable soil bearing pressure of 3 ksf can be preliminary considered. Footings cast on deep cut areas (cuts deeper than 7 feet) can use an allowable bearing pressure of 5 ksf. Based on these recommendations, total and differential settlements between spread footings cast on in-situ soils should not exceed 0.2 inch.

The minimum depth of footing, or **Df**, measured from the proposed finished grade, should be 3 feet except for structures located near the peripheral steep slopes. **Df** requirements for these particular structures shall be discussed in the final report, once the proposed grading is available.

9.2 Design Parameters for Retaining Walls

We conceive the need for retaining walls throughout the project site. The project may consider the use of either the cantilever type of retaining wall or modular systems (like the **KEYSTONE** or **MESA wall**) at areas requiring up to 3 meters high walls. Higher walls and retaining walls to be constructed near sloping grounds shall be carefully evaluated in terms of their global stability.

When dimensioning the base of the retaining walls, the designer shall use the allowable soil bearing pressure given in Table 1.

TABLE 1; Strength Parameters for Foundation Soils

Retaining Wall Location	Df, ft	fb, psf	c, psf	φ, Degrees	Γn, pcf
At Cut Areas[1]	3 ft	5,000	0	36	138
At Fill Areas[2]	3 ft	3,000	0	32[3]	130

[1]Provided the cut is 7 ft deep (or deeper) measured from existing ground surface.

[2]At fill or cut areas < 7 ft deep.

[3]Fill A-1-a or A-2-4.

Df	=	Depth of footing measured from proposed finished grade.
fb	=	Allowable soil bearing.
c	=	Unit cohesion at foundation level.
φ	=	Angle of internal friction for foundation soils.
Γn	=	Moist unit weight of soil.

The actual footing depth for the wall can be increased to provide an adequate safety factor against overturning or sliding, if necessary by the designer's computations.

The coefficient of passive earth pressure (**Kp**) as well as the coefficient active earth pressure ($\mathbf{K_a}$) may be computed using the following formula:

$$K_p = \tan^2 (45 + \varphi/2) = 1/k_a$$

$$K_a = \tan^2 (45 - \varphi/2)$$

Since the walls need to be backfilled with good quality fill material, the soil parameters included in Table 2 may be used compute the earth pressure to act behind the walls (based on the type of backfill used):

TABLE 2

Typical Properties of Compacted Materials Allowed Behind Non-Critical Walls

Group Symbol	Soil Type	Γ, pcf	c, psf	φ, Degree	k, ft/m
GW (A-1-a)	Well graded clean gravels, gravel-sand mixtures	130	0	36°	0.05
GP (A-1-a)	Poorly graded clean gravels gravel-sandy-mix	125	0	36°	0.10
GM (A-1-b)	Silty gravels poorly graded gravel-sand-silt	130	neglect	34°	greater than 0.000001
GC (A-2-4)	Clayey gravels, poorly graded gravel-sand-clay	130	neglect	34°	greater than 0.000001
SW (A-3)	Well graded clean sand, gravelly sands	125	0	32°	greater than 0.0000001
SP (A-3/A-1-b)	Poorly graded clean sands, sand-gravel mix	120	0	32°	greater than 0.001
SM (A-2-4)	Silty sands poorly graded sand-silt mix	125	neglect	32°	0.00005

***Approximate AASHTO Classification**

Γ = Approx. dry unit weight

c = Unit cohesion

φ = Angle of internal friction

K = Coefficient of permeability

It should be understood that the previous soil parameters are based on our experience and existing empirical relationships. For more precise values, special laboratory tests to such end would have to be made.

The wedge formed by the backfill behind the retaining wall shall be sufficiently large so as to extend beyond the limit delimited by the failure wedge of the Coulomb's earth pressure theory (active case). That is, the select material used for backfilling the walls must extend farther than the line which makes an angle of 45 - φ/2 with the horizontal.

9.3 Sliding Considerations

The stability of the walls against sliding must satisfy factor of safety of not less than 1.5. Sliding must be resisted by the shear between the soil and the base of the wall.

The shearing resistance parameters used to estimate the safety factor will depend on the character of the soil at the base of the wall. Refer to Table 2 for parameters on foundation soils.

It is important to point out that all surfaces at the base must be roughened and dry before the concrete is placed. If required, the resistance to sliding can be increased by a concrete key that projects into the soil below the base. This key will increase the passive resistance against sliding.

9.4 Overturning Considerations

For overturning considerations, the wall base must be dimensioned in such a way that the resultant of all the forces acting on the supporting wall must intersect the base within its middle third. This is true for pure Cantilever Walls only.

The material used for backfilling retaining walls shall be of a A-2-4 type, or better (as shown in Table 3). This material has a high shearing resistance and good drainage. The use of soft backfills behind the walls produce high horizontal pressures. We do not recommend the use of such material as backfill for the retaining walls.

Great care is required to avoid over compaction behind the retaining wall, otherwise, the wall may be displaced or over stressed. The Designer shall also verify the design against dynamic loadings such as, those of Earthquakes. The recommended allowable bearing pressures may be increased by 33 percent during these events evaluations.

For designing the retaining walls under earthquake loading, the additional forces resulting from ground acceleration shall be added to the pressures obtained for the static condition. The earth pressure coefficient for dynamic increase in lateral force can be approximated as 75 percent of kh, kh being the expected horizontal acceleration in **g's**. That is, for a given wall subjected to an active **"static "** pressure (**Pa**) equal to $\mathbf{0.5 \cdot \gamma \cdot H^2 \cdot Ka}$, the combined effect of static and dynamic force (**Pae**) would be ($\mathbf{0.5 \cdot \gamma \cdot H^2 \cdot Ka}$) + ($\mathbf{0.5 \cdot \gamma \cdot H^2 \cdot 75\%\ kh}$).

10.0 EARTHWORK RECOMMENDATIONS

10.1 General

As previously mentioned in this report, the topography suggests a grading schedule requiring fill and cut operations. The following paragraphs explain the works that would be necessary to achieve the final grade for the structures.

10.2 Clearing Operations

The first step to be followed corresponds to the clearing and grubbing operations. It is known that some areas of the project need to be cleared from vegetation and top soil material. These works shall be performed thoroughly and consciously. Only after the completion of the clearing works the cut and fill operations will be allowed.

Once all deleterious materials are removed to the satisfaction of the observing Soils Engineer (on a full time basis), the cut operations could be performed. After cutting, the exposed surface shall be proof rolled using a 15 ton vibratory roller. The need for additional removal/replacement works will be established at the field based on the proof rolling results and test hole data. Most likely, removal/recompaction operations will be required at the area of borings no. 17, 18, 19, 25, 26, 35, 45, K, L, M and N. We recommend to perform a test pit program in these areas to better define the aerial extension and depth of removal.

10.3 Cut Operations

The steep topography of the site would likely require the buildings to be placed simultaneous over fill and over cut. Wherever a structure footprint is expected over cut and fill simultaneously, the cut operations will need to be deepened in order to reduce the difference in the fill thickness under said building. This is to minimize the occurrence of cracks and distress in cast-on-grade floor slabs due to different yielding surfaces underlaying a given building footprint.

For instance, if a particular building is planned to be placed over 2 mts of cut and 5 mts of fill, the cut operations will need to be deepened one (1) meter more so as to limit the difference in thickness between cut and fill to 2 meters.

Note that the undercut process consists of cutting additional soil and then using it as backfill in the same excavation. By doing so the yielding characteristics of the entire embankment remain relatively uniform, which minimize the occurrence of differential settlements. An uniform embankment shall not have more than two (2) meters of difference between the thicker fill zone and the deeper cut zone.

In some instances, the soil conditions may render the additional cut operation highly expensive and time consuming (where rock is found). As an alternative, the contractor may consider applying a surcharge load over the fill zone, in order to pre-empt any potential differential settlement prior casting the floor slab. The load to be modeled by the surcharge should be equal to that imparted by the floor slab dead and live load. The surcharge should be built with fill material and maintained for at least two (2) months prior concrete pouring.

10.4 Fill Requirements

The fill (or backfill) used to attain the final grade below structures construction shall resemble the characteristic of an A-2-4 or better soil based on the AASHTO Soil Classification System. For high slope filling A-2-4 or better material will be necessary. The implementation of this type of fill is of upmost importance in the project because their good strength characteristics are necessary for the well behave and stability of high fill slopes and retaining structures.

Most of the native soils at the highland have been found to be adequate to be used as fill material. The classification of these equals or exceed the A-2-4 type, based on the samples tested.

The fill should be placed in single layers not exceeding 12 inches thick. Every layer shall be compacted so that the dry unit weight of the material is equal to or greater than 95 percent of its maximum dry unit weight as obtained in the laboratory under a Modified Proctor Compaction Test. It should be the responsibility of the Resident Engineer to instruct the Soils Engineer retained by the owner on a consultative basis to determine the optimum moisture and corresponding dry density of the fill to be used in this project.

Over the fill material the contractor should employ a 15-ton vibratory smooth steel roller to obtain the required percentage of compaction. He shall not place any additional fill until the preceding compacted layer has been found to fulfill the aforementioned compaction criteria.

Regarding the compaction operations, each successive pass should overlap the preceding adjacent pass by ten (10) percent. Roller passes made on material in unsuitable condition will not be considered in judging compliance with our recommendations. In case the Contractor fails to obtain the required compaction energy, he must get the appropriate type of equipment to comply with these compaction criteria.

11.0 EARTHWORK SPECIAL CONSIDERATIONS

Prior to the construction of the fill embankments, every slope surface to be filled should be stepped in order to key-in the fill. Under no circumstances the fill should be placed over a sloping ground surface without first benching the ground surface. The following table contains guidelines for determining the geometry and size of the required benches.

TABLE 4

Slope Ratio of Existing Ground	Maximum Vertical Spacing of Benches	Minimum Width of Surface Benches
5H:1V	0.5 mts	2 mts
4H:1V	1 mts	2 mts
3H:1V	1 mts	3 mts
2H:1V	2 mts	3 mts
1H:1V and Steeper	2 mts	3 mts

These requirements might be slightly varied by the observing Soil Engineer, depending on actual field conditions.

Prior experiences with similar projects have shown that when the fill thickness (new or due to over excavation) exceeds some 3 meters, it can undergo subsidence or volume changes, even under the best controlled conditions. This behavior is associated with the re-adjustment of the soil particles under the weight of the fill embankment itself. Therefore, in areas where the fill layer exceeds this height, the construction or structures shall be delayed until the fill embankment is stabilized under its own weight.

In order to determine the time needed for stabilization (embankment re-adjustment), the stabilization period must be carefully monitored. The monitoring program should consist of reading settlement platforms distributed throughout the filled area, and specially at sectors deeply filled. Settlement readings can be obtained every two weeks.

Based on information obtained from periodical readings on the settlement platforms, a time-settlement plot will be obtained. This information will be used to determined the actual time of the fill's stabilization period.

At least two (2) settlement plates shall be placed per building footprint, where the fill exceeds 3 meters thick.

It should be pointed out that the settlements expected to occur in the A-2-4 or better fill mass can be relatively small. Therefore, the use of highly precise, well-calibrated instruments should be a standard requirement for this project.

11.1 Permanent Fill and Cut Slopes

Earthworks at the site will require the performance of cut slopes and the construction of fill slopes. Cut slopes may follow a 1.5H:1.0V geometry, if higher than 3 mts or 1H:1V, if the cut is less than 3 meters. Two (2) meters wide benches shall be incorporated in the cut slopes every 6 mts of rise. Non-reinforced fill slopes or cut slopes made into less competent soils should be 2.0H:1.0V. Otherwise, these will need to be internally reinforced. Slope stability analyses shall be performed in the final geotechnical reports. Particular recommendations regarding slope geometries will be presented once the final gradings are known.

The use of select fill (A-2-4 or better) are recommended for the construction of reinforced slopes because of their good strength and drainage properties. Requirements for benching, drainage and erosion control as given in this report shall also be made part of the specifications for the mechanical stabilized slopes.

Reinforced slopes, if necessary, shall be designed for an internal stability safety factor of 1.5 (static) and 1.1 (seismic). Safety factor for global stability shall also follow these requirements. The final design of the reinforced slopes will need to be submitted to us for verification of soil parameters used.

11.2 Finish Slopes

The fill operation shall be continued in twelve (12) inch compacting layers until the fill has been brought to the finished slopes elevation.

11.3 Run-Off Waters

Run-off waters will not be permitted to drain off the face of the exposed cuts. To prevent the run-off from spilling over the face of the cuts, longitudinal concrete drainage swales will be provided at the cutslope benches. The drainage swales will be provided with proper gradients so as to properly dispose the surface run-off through the swales and into properly designed outlets. Where no benches are required for the cutslope, the construction of the concrete swale immediately adjacent to the top of the cut and one at the cut toe shall be performed.

Regarding the exposed cutslope faces several additional measures shall be evaluated in order to further minimize erosion.

11.4 Erosion Control

Surface water promote particle migration from the soil mass. Erosion, in an advanced stage, can lead to stability problems such as local slope and foundation failures. In order to minimize the erosive action produced by these conditions there are some feasible and cost-effective protection devices that can be considered.

Accordingly, the face of all the slopes shall be protected providing, for example, erosion control blankets, three-dimensional Geocells, or promoting the growth of highly erosion-resistant vegetation, such as robust rooted grasses.

The blankets consist of an open-mesh-type fabric in conjunction with straw, mulch, wood pieces, or coconut fiber. These blankets are very useful in controlling soil erosion because they reduce the runoff velocity while enhancing seed germination and vegetative growth above the soils being protected.

Regardless which protection is finally selected for this project, it shall be applied as soon as the cut and fill slopes are finished. However, at areas where high and/or constant flow conditions will prevail, stronger remedial actions will need to be considered. Accordingly, provisions for aprons and cutoffs (embedded end sections) should constitute normal design provisions for preventing undermining in this area.

12.0 GUIDELINES ON DRAINAGE FOR THE RETAINING WALLS

We recommend that all surface drainage at existing crest slope be diverted away from the wall backfill area. Weep holes properly protected against clogging in the wall spaced six (6) inches vertically from bottom at six (6) feet center are also recommended. We further recommend to build a collector underdrain along the entire length of the wall footing. This underdrain should have a perforated 6 inch diameter drainage pipe at the bottom with discharge at a suitable location outside of the wall foundation. The actual design of the wall is not in our scope of work and should be performed by the Structural Engineer of the project.

13.0 GENERAL RECOMMENDATIONS FOR REINFORCED CONCRETE WALLS

The use of soft backfills such as sandy silts and clays produce high pressures on the wall and present detrimental settlement problems. It is not recommended to use these materials as backfills.

The stability of the cantilever wall must be checked against:

- **Bearing Capacity of the wall foundations**
- **Sliding along the base**
- **Overturning of the wall**

To design the foundations of the retaining walls, an allowable soil bearing capacity as recommended before in this report shall be used.

The stability of the wall against sliding must satisfy factor of safety of not less than 1.5. Sliding must be resisted by the shear between the soil and the base of the wall, and by passive earth pressures of the soil in front of the wall or the members of the proposed structure to restrain the wall. The shearing resistance parameters used to estimate the safety factor will depend on the character of the soil at the base of the wall. Retaining walls higher than 2 meters shall be evaluated for global stability.

It is important to point out that all surfaces at the bases must be roughened and dry before the concrete is placed. If required, the resistance to sliding can be increased by a concrete key that projects into the soil below the base. This key will increase the passive resistance against sliding.

For overturning considerations, the wall base must be dimensioned in such a way that the resultant of all the forces acting on the supporting wall must intersect the base within its middle third.

Great care is required to avoid over compaction behind the retaining walls, otherwise, the walls may be displaced or over stressed. The designer shall also verify the design against dynamic loadings such as those of Earthquakes. The recommended allowable bearing pressures may be increased by 33 percent during this event evaluation.

13.1 Temporary Support System

For the soil conditions found at the site, a slope ratio of 0.5:1 (H:V) can be implemented for unsupported provisional slopes.

Whenever a temporary cut slopes steeper than 0.5:1 it will be necessary to construct a temporary retaining structure. This can be accomplished by means of a temporary earth retaining system such as cantilever soldier piles with wood lagging. Soldier piles at the highland shall be drilled instead of driven due to the hard soil conditions expected.

14.0 EARTHQUAKE RECOMMENDATIONS

Based in the present PRBC (2018), the project is located over **Class C soils**. The following table describes the criteria, according to the PRBC, to categorize the soil profiles in order to model the seismic response of the structures. Refer to the table below:

Soil Profile Type	Soil Profile Name/Generic Description	Average Soil Properties for top 100 feet (30 480 mm) of Soil Profile		
		Shear Wave Velocity, Vs feet/second (m/s)	Standard Penetration Test, N (or NCH for Cohesionless Soil Layers)	Undrained Shear Strength, Su psf (kPa)
SA	Hard Rock	>5,000 (1,500)	---	---
SB	Rock	2,500 to 5,000 (760 to 1,500)		
SC	Very Dense Soil & Soft Rock	1,200 to 2,500 (360 to760)	>50	>2,000 (100)
SD	Stiff Soil Profile	600 to 1,200	15 to 50	1,000 to 2,000 (50 to 100)
SE[1]	Soft Soil Profile	<600 (180)	<15	<1,000 (50)
SF	Soil Requiring Site-Specific Evaluation. See Section 1629.3.1.			

[1] Soil Profile Type SE also includes any soil profile with more than 10 feet (3048mm) of soft clay defined as soil with a plasticity index, PI >20, Wmc ≥ 40 percent and Sm <500 psf (24 kPa). The Plasticity Index PI, and the moisture content, Wmc, shall be determined in accordance with approved national standards.

15.0 COMMENTS

The above preliminary conclusions and preliminary recommendations are being based on representative tests which we consider appropriate. A final exploration shall be performed where additional borings will be made to better delineate the subsoil conditions mentioned in this report, so as to better address foundations and slope stability issues of the project.

The preliminary recommendations issued in this report shall only be used for conceptual designs and preliminary budgeting purposes, but never for final design considerations nor for detailed budgeting.

The standard procedures followed during the drilling of the test borings are discussed in detailed form in the Appendix to this report.

This report has been prepared taking into consideration the design factors presently known to us. The project designers shall be alerted to any item that might have been overlooked, that could require clarification or that may need additional recommendations to those discussed herein.

Respectfully submitted,

IVAN JACKSON MADURO, P.E., M.S.C.E.,
Partner

mgn

Reference No. 5355.rep

COMPLEMENTARY SUBSOIL EXPLORATION AND PRELIMINARY GEOTECHNICAL REPORT FOR ESENCIA, CABO ROJO, PUERTO RICO
June 17, 2024

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Suelos, PSC.
258 Chile St., San Juan, P.R. 00917-2103
Phone (787) 753-0147. Emails: suelosinc@gmail.com / jackson.suelos@gmail.com

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CLASSIFICATION TESTS

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BORING COORDINATES

BORING LOGS

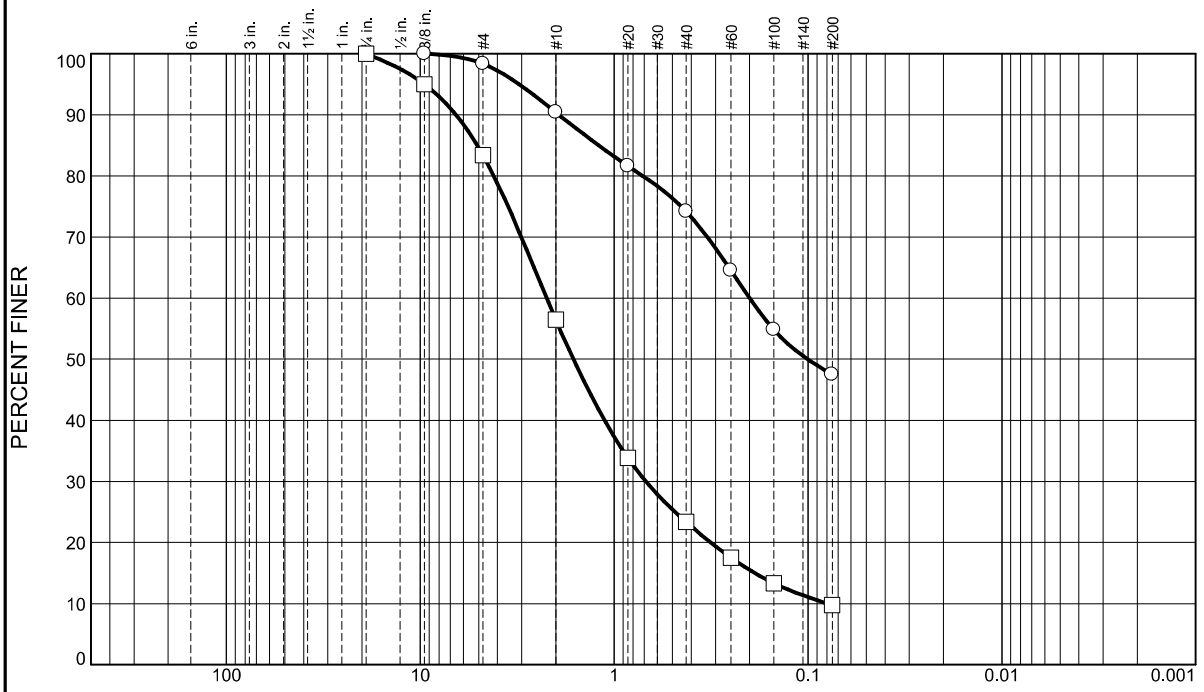
DRILLING APPENDIXES

Suelos, PSC.
258 Chile St., San Juan, P.R. 00917-2103
Phone (787) 753-0147. Emails: suelosinc@gmail.com / jackson.suelos@gmail.com

CLASSIFICATION TESTS

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	1.7	7.9	16.2	26.7	47.5	
□	0.0	0.0	16.6	26.9	33.1	13.6	9.8	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	24	15	1.2030	0.2000	0.1004					
□	NV	NP	5.0829	2.2305	1.6226	0.6860	0.1881	0.0791	2.67	28.19

	Material Description	USCS	AASHTO
○	clayey sand	SC	A-4(1)
□	well-graded sand with silt and gravel	SW-SM	A-1-b

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.Y **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.Y **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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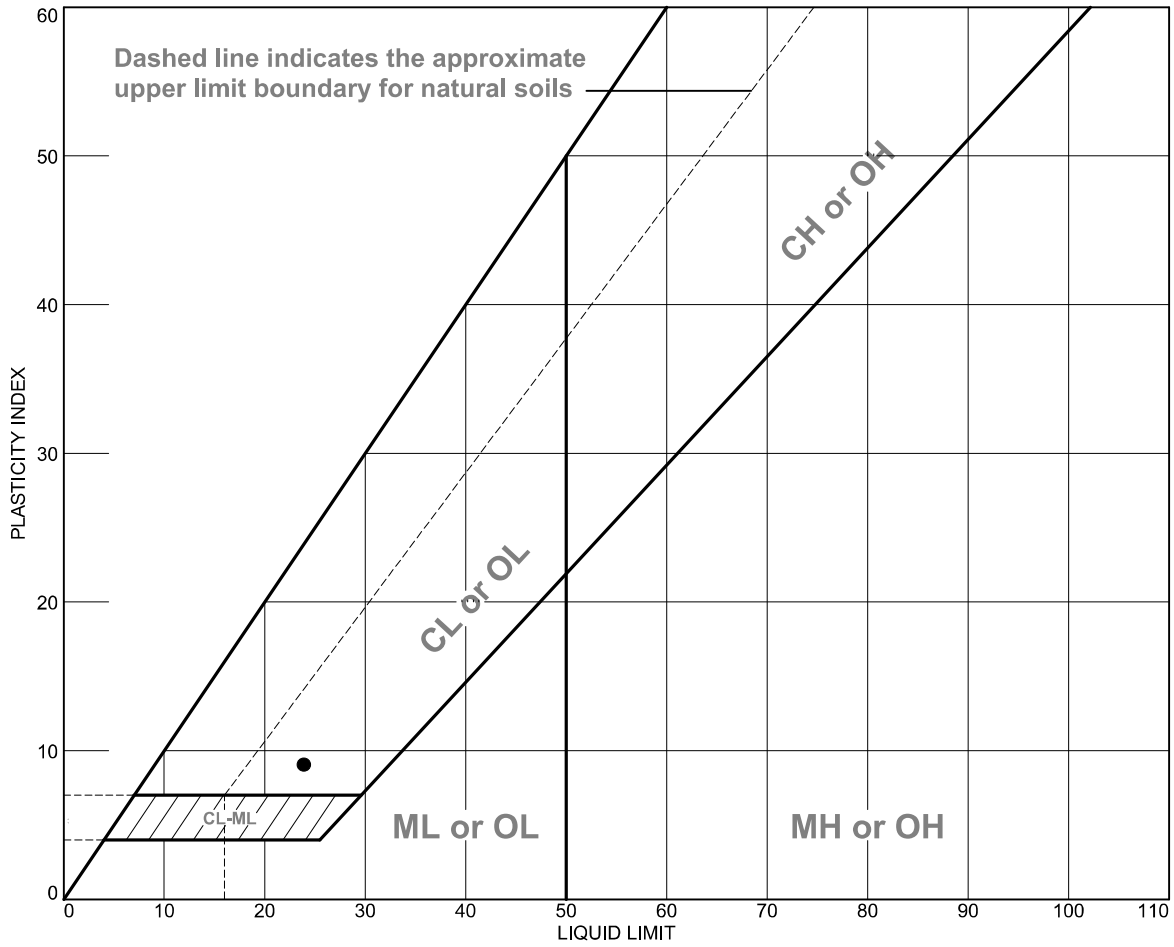
San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	clayey sand	24	15	9	74.2	47.5	SC
■	well-graded sand with silt and gravel	NV	NP	NP	23.4	9.8	SW-SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.Y **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.Y **Depth:** 9'-10.5' **Sample Number:** 5

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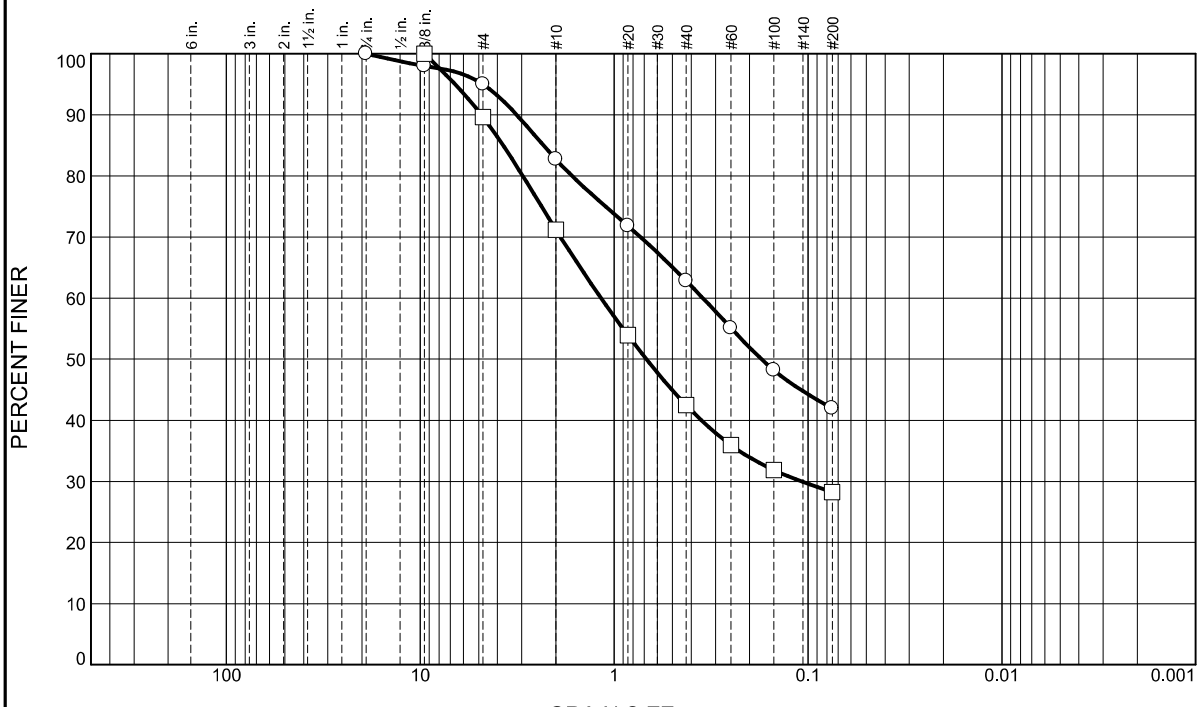
Remarks:

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	5.0	12.3	19.9	20.8	42.0	
□	0.0	0.0	10.4	18.4	28.7	14.2	28.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	33	16	2.3197	0.3487	0.1736					
□	28	15	3.7404	1.1692	0.6814	0.1081				

Material Description	USCS	AASHTO
○ clayey sand	SC	A-6(3)
□ clayey sand	SC	A-2-6(0)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.U **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.U **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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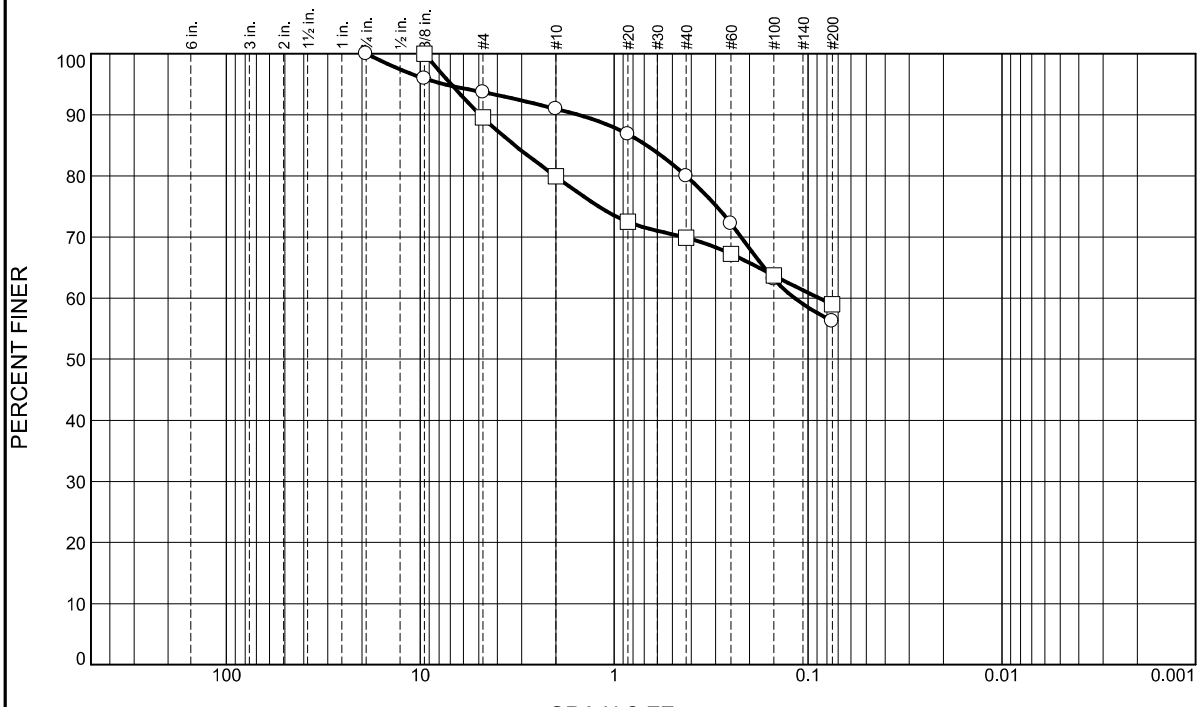
Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	6.3	2.7	11.0	23.8	56.2	
□	0.0	0.0	10.4	9.7	10.0	10.9	59.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	31	19	0.6783	0.1170						
□	29	15	3.2546	0.0876						

	Material Description	USCS	AASHTO
○	sandy lean clay	CL	A-6(4)
□	sandy lean clay	CL	A-6(5)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.W **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.W **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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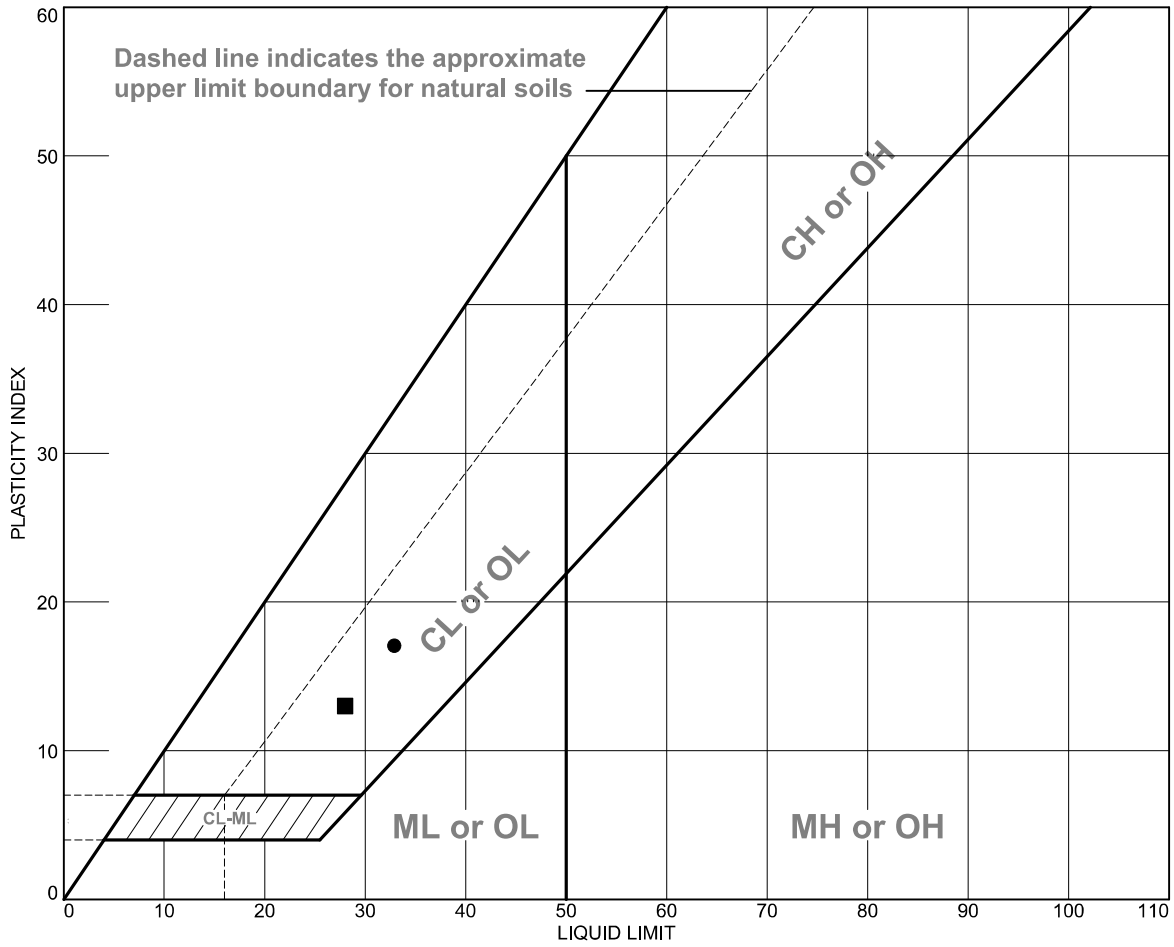
Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	clayey sand	33	16	17	62.8	42.0	SC
■	clayey sand	28	15	13	42.5	28.3	SC

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.U **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.U **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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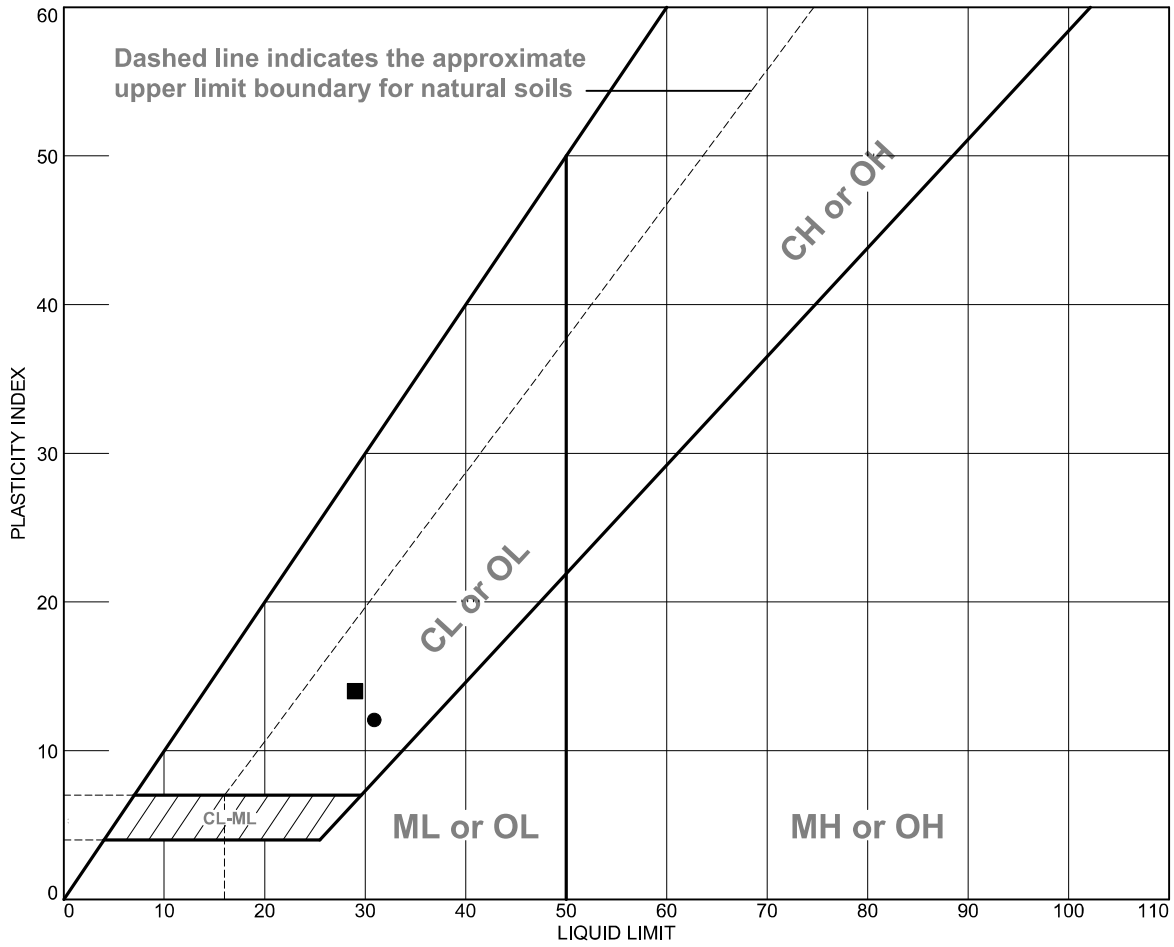
Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	sandy lean clay	31	19	12	80.0	56.2	CL
■	sandy lean clay	29	15	14	69.9	59.0	CL

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.W **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.W **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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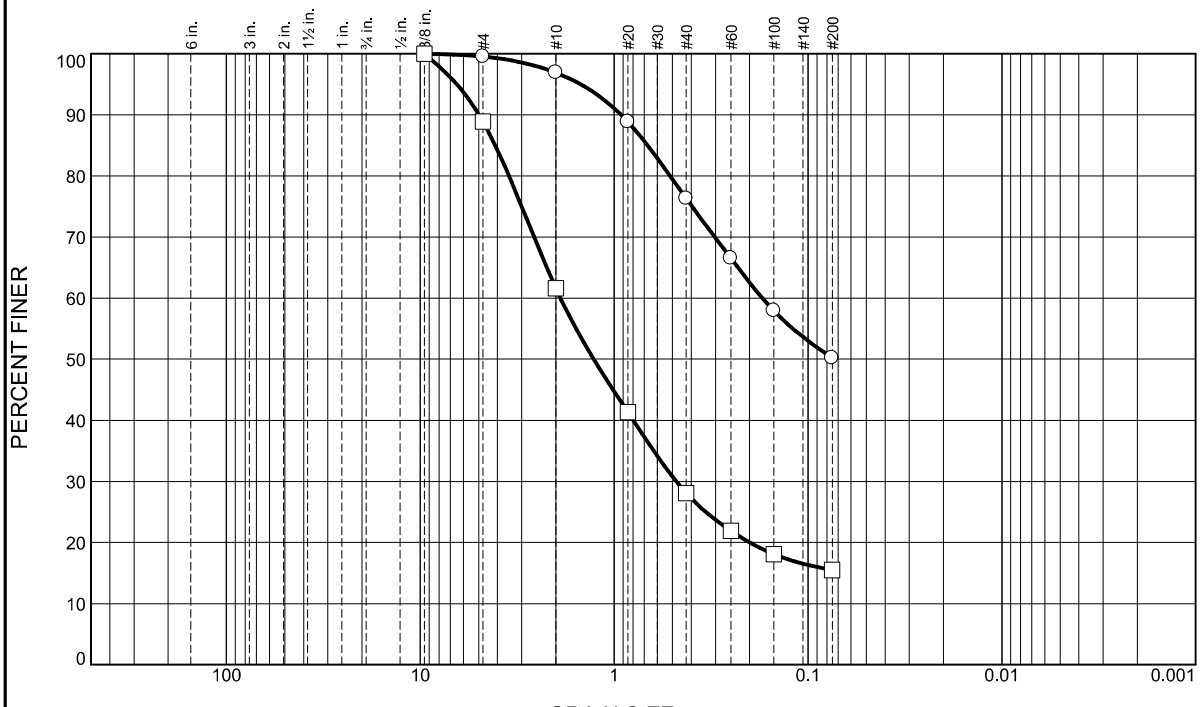
Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	0.5	2.6	20.6	26.1	50.2	
□	0.0	0.0	11.1	27.3	33.5	12.6	15.5	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	26	20	0.6728	0.1719						
□	34	17	4.1050	1.8920	1.2762	0.4777				

Material Description	USCS	AASHTO
○ sandy silty clay	CL-ML	A-4(1)
□ clayey sand	SC	A-2-6(0)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.S **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.S **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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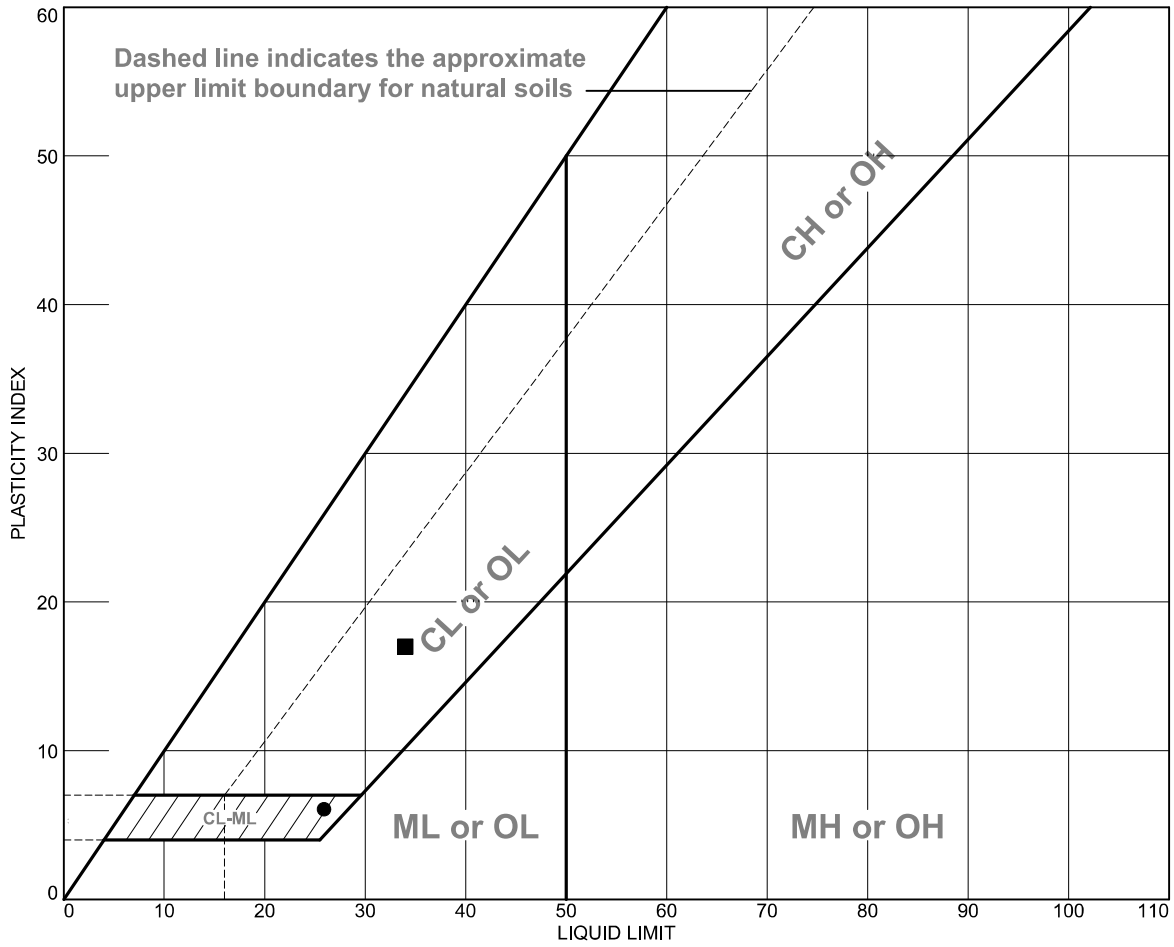
San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	sandy silty clay	26	20	6	76.3	50.2	CL-ML
■	clayey sand	34	17	17	28.1	15.5	SC

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.S **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.S **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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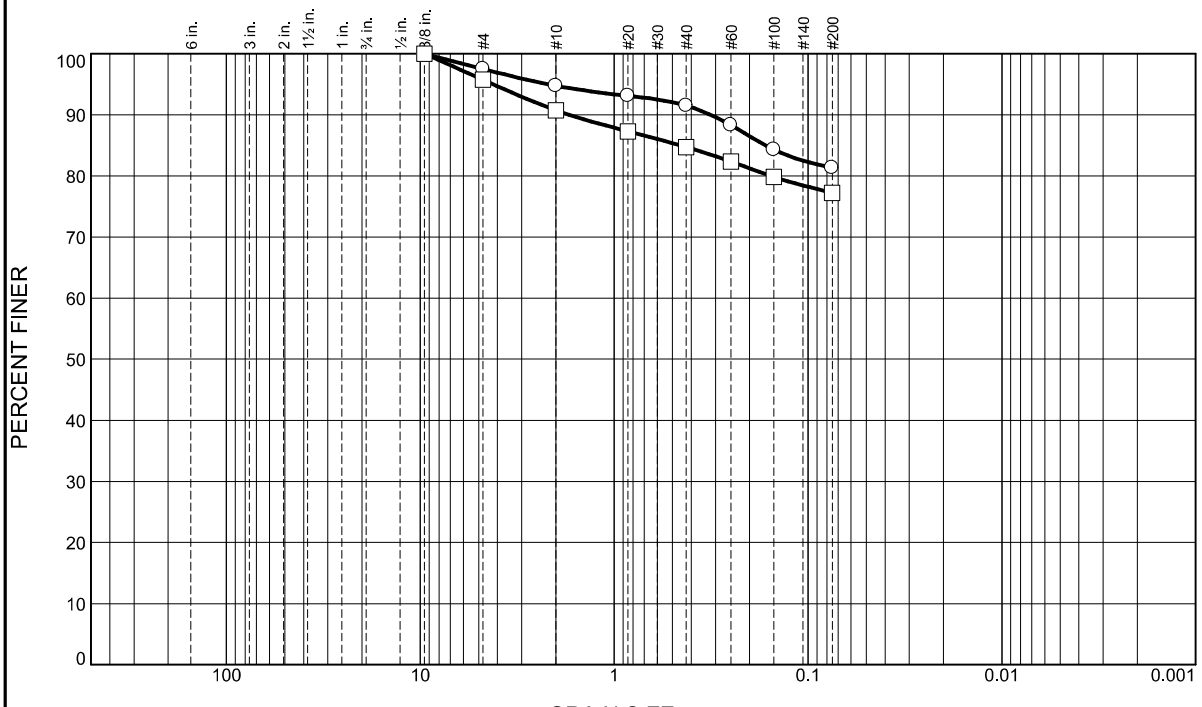
San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.5	2.8	3.2	10.2	81.3	
□	0.0	0.0	4.3	5.0	6.0	7.5	77.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	84	36	0.1654							
□	51	23	0.4574							

	Material Description	USCS	AASHTO
○	fat clay with sand	CH	A-7-5(44)
□	fat clay with sand	CH	A-7-6(22)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.O **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.O **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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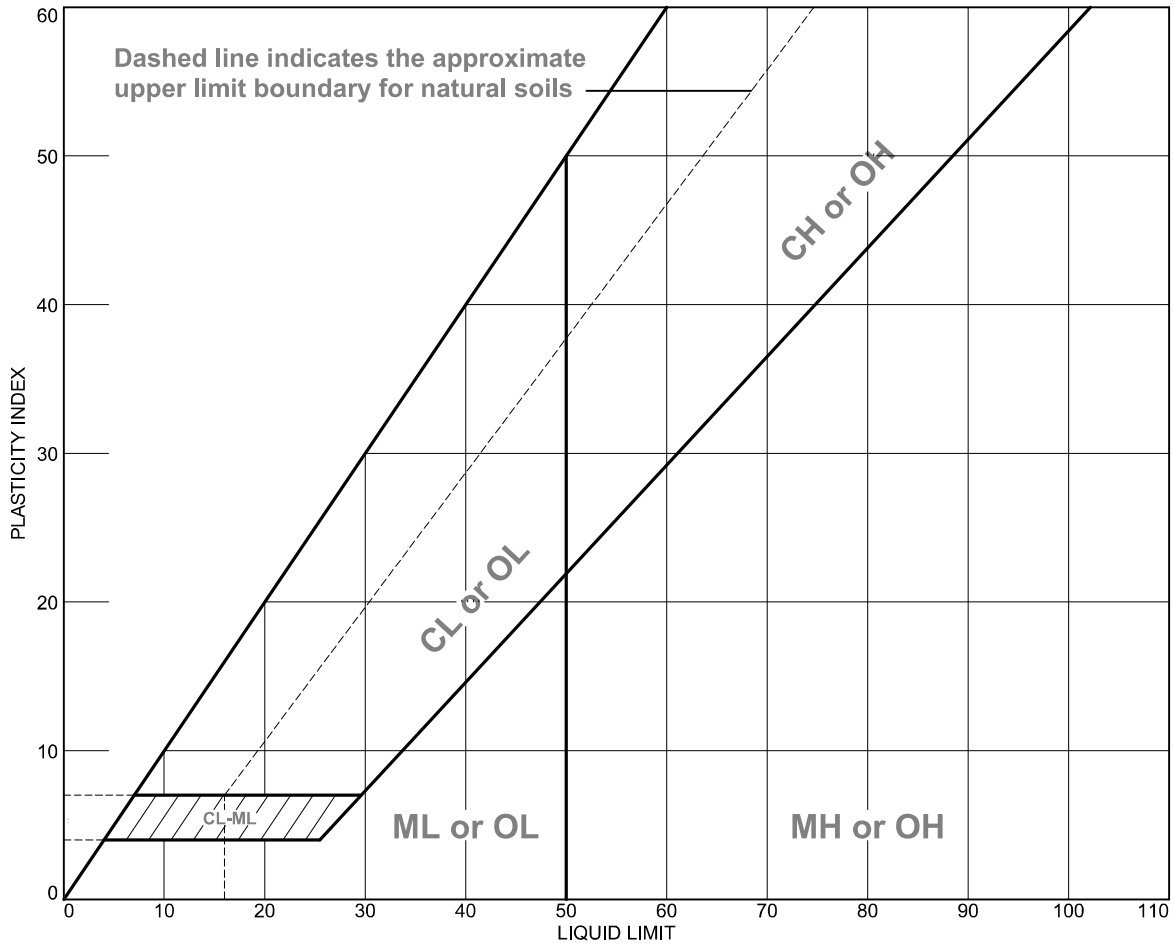
Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	well-graded sand with silt and gravel	NV	NP	NP	15.8	6.4	SW-SM
■	well-graded sand with silt and gravel	NV	NP	NP	14.0	6.0	SW-SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.Q **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.Q **Depth:** 9'-10.5' **Sample Number:** 5

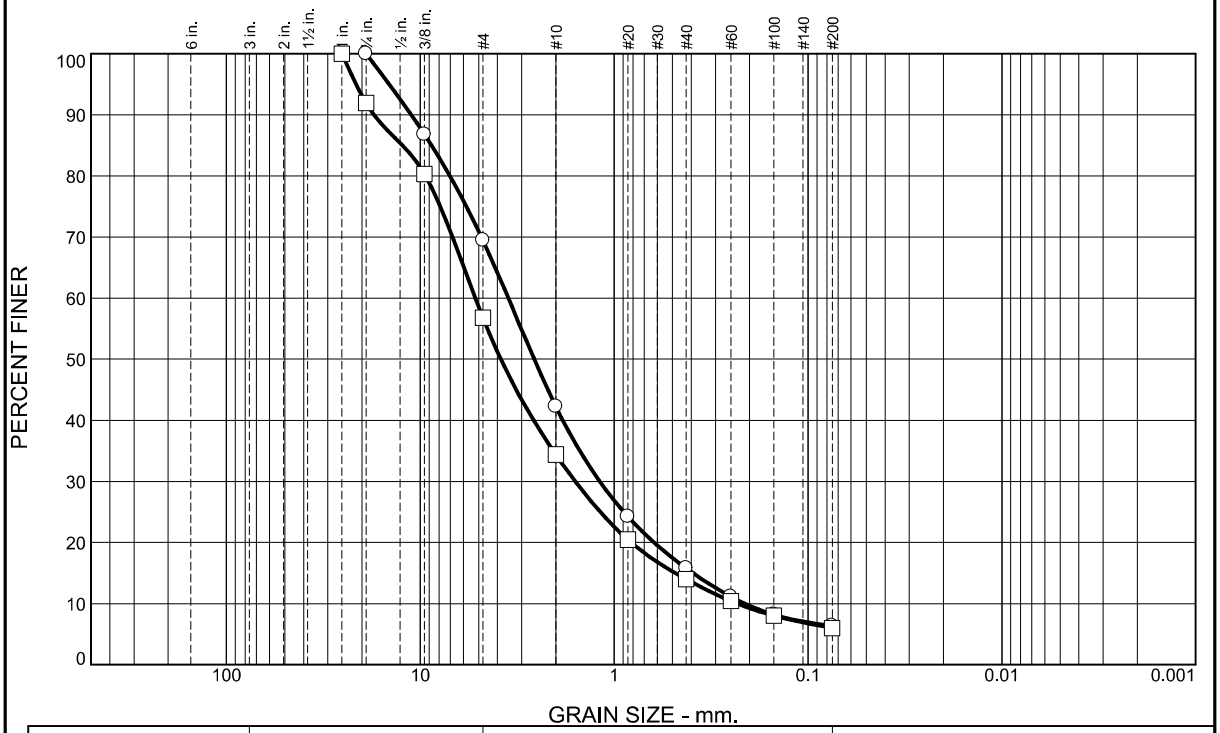
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	30.5	27.3	26.4	9.4	6.4	
□	0.0	8.1	35.1	22.4	20.4	8.0	6.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	8.7582	3.5155	2.5852	1.1888	0.3921	0.2119	1.90	16.59
□	NV	NP	12.3640	5.2021	3.8387	1.5878	0.4830	0.2322	2.09	22.40

	Material Description	USCS	AASHTO
○	well-graded sand with silt and gravel	SW-SM	A-1-a
□	well-graded sand with silt and gravel	SW-SM	A-1-a

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.Q **Depth:** 4'-5.5' **Sample Number:** 3

□ **Source of Sample:** Bo.Q **Depth:** 9'-10.5' **Sample Number:** 5

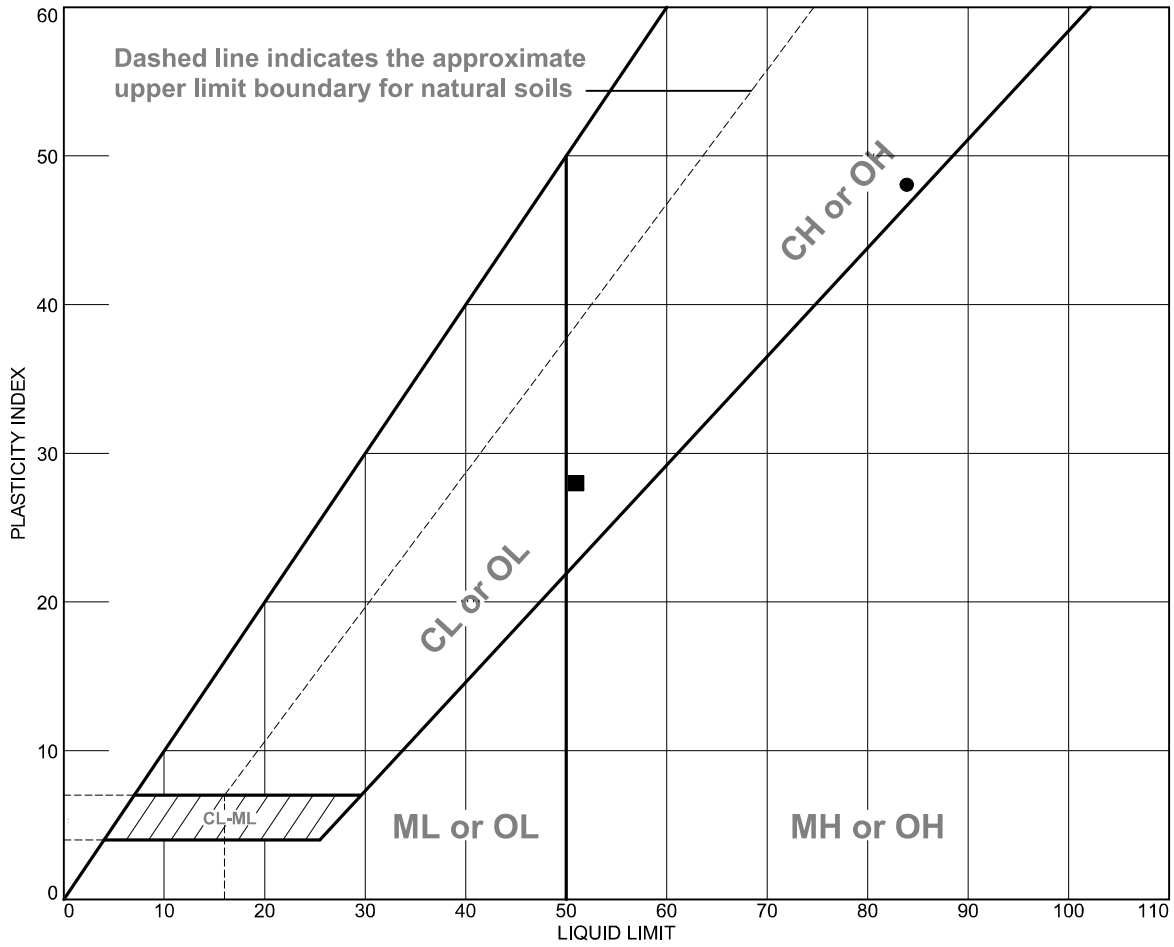
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	fat clay with sand	84	36	48	91.5	81.3	CH
■	fat clay with sand	51	23	28	84.7	77.2	CH

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.O **Depth:** 4'-5.5' **Sample Number:** 3

■**Source of Sample:** Bo.O **Depth:** 9'-10.5' **Sample Number:** 5

Remarks:

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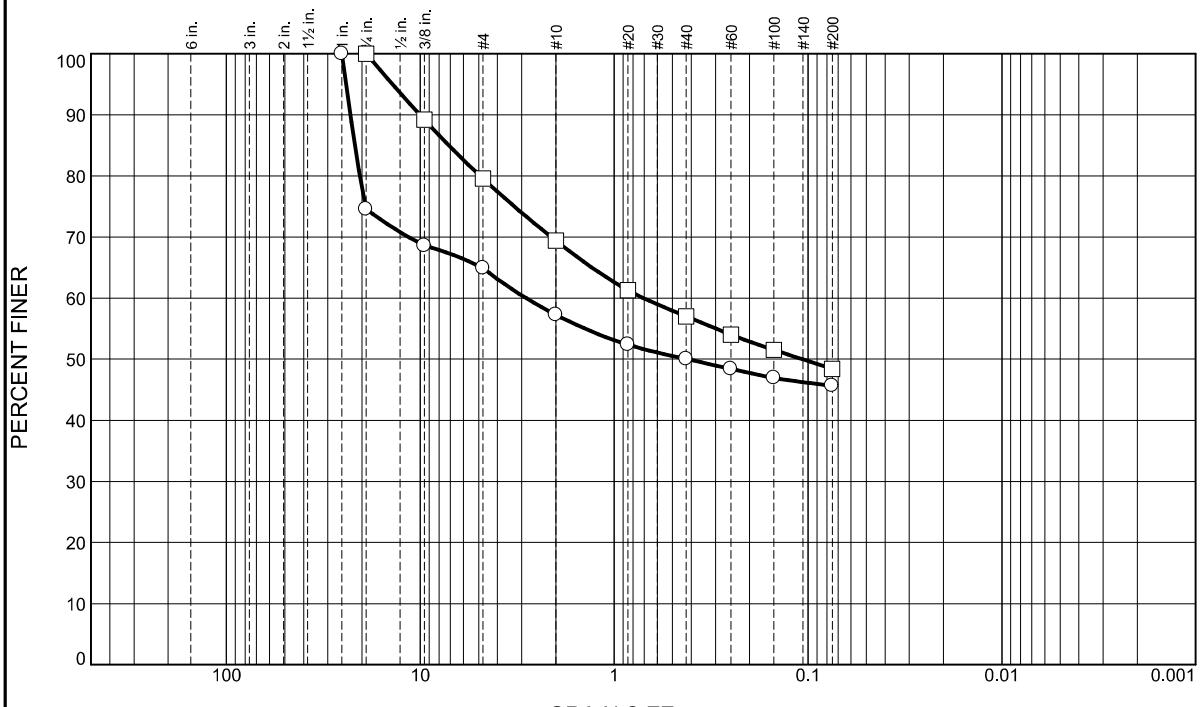
San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	25.4	9.7	7.6	7.3	4.3	45.7	
□	0.0	0.0	20.4	10.2	12.4	8.6	48.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	21.7786	2.8464	0.4212					
□	45	14	7.1245	0.7052	0.1070					

	Material Description	USCS	AASHTO
○	silty gravel with sand	GM	A-4(0)
□	clayey sand with gravel	SC	A-7-6(10)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.M **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.M **Depth:** 6'-7.5' **Sample Number:** 4

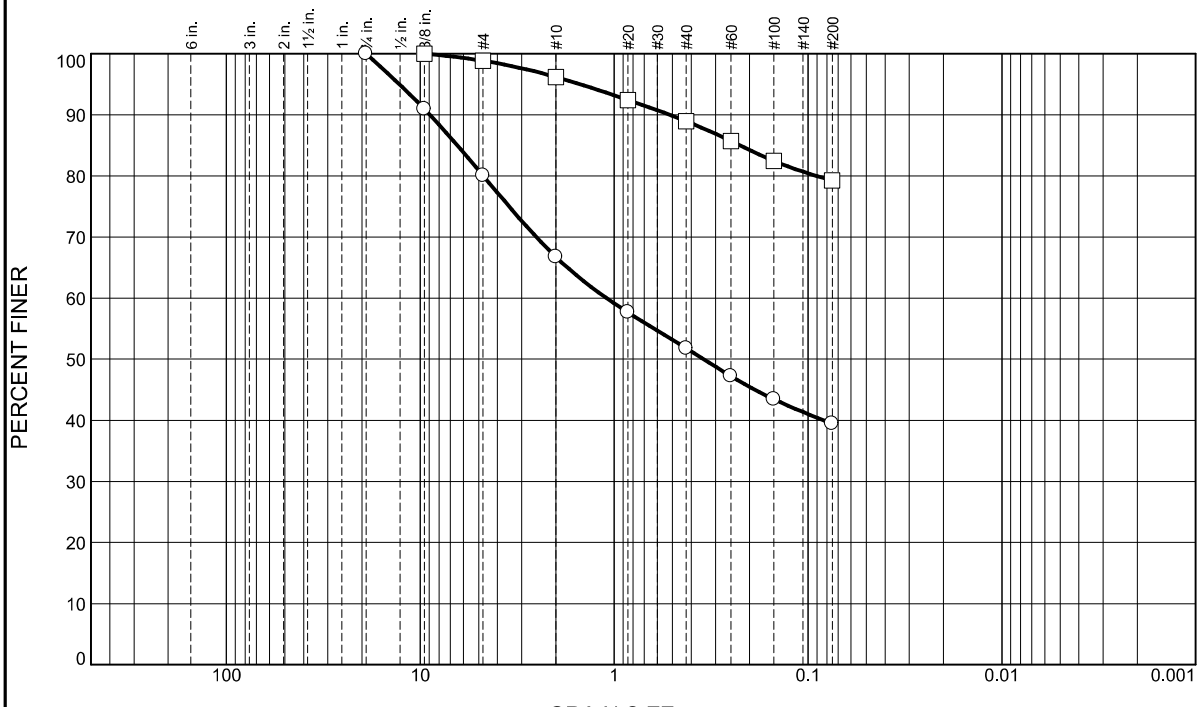
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	19.9	13.4	14.9	12.3	39.5	
□	0.0	0.0	1.2	2.6	7.3	9.7	79.2	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	54	22	6.4443	1.0944	0.3458					
□	81	21	0.2240							

Material Description	USCS	AASHTO
○ clayey sand with gravel	SC	A-7-6(7)
□ fat clay with sand	CH	A-7-6(50)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.K **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.K **Depth:** 6'-7.5' **Sample Number:** 4

Remarks:

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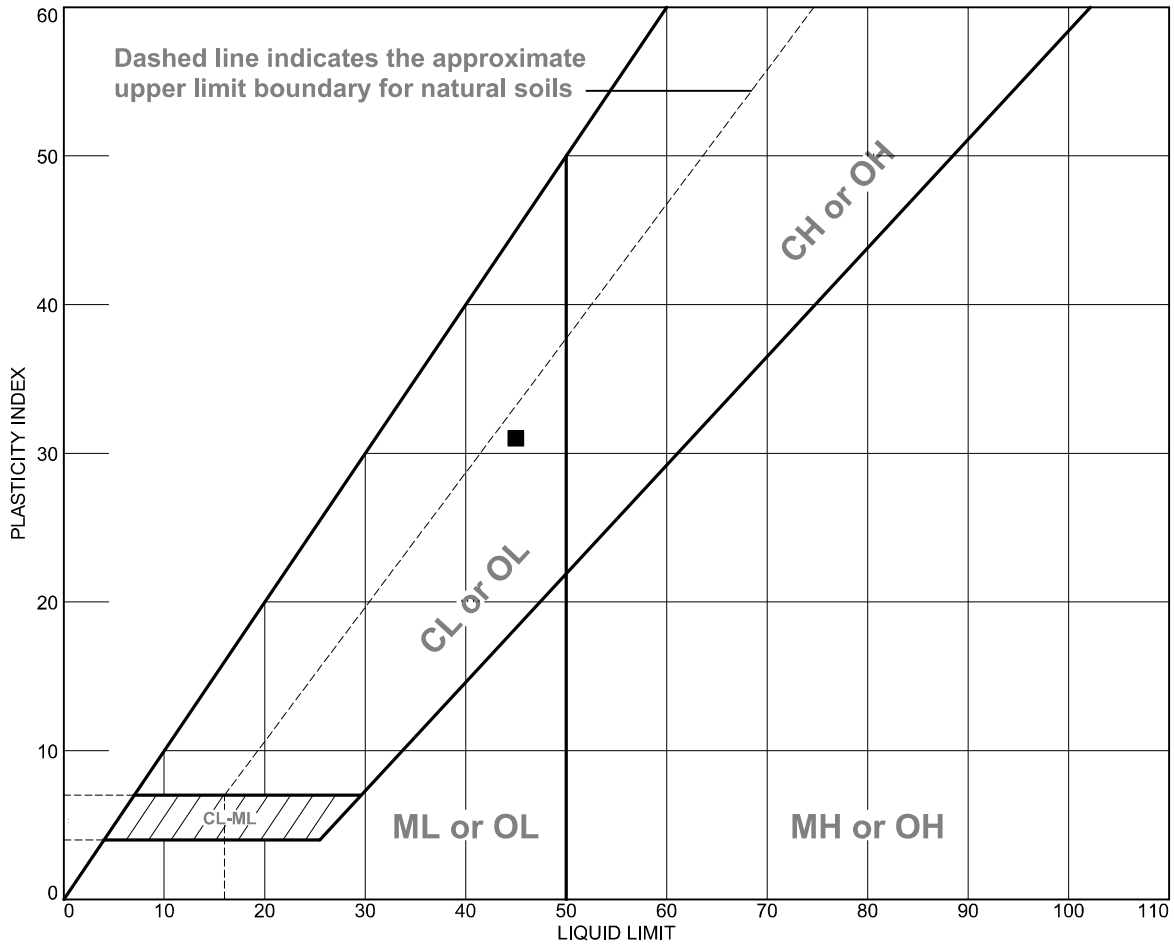
San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	silty gravel with sand	NV	NP	NP	50.0	45.7	GM
■	clayey sand with gravel	45	14	31	57.0	48.4	SC

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.M **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.M **Depth:** 6'-7.5' **Sample Number:** 4

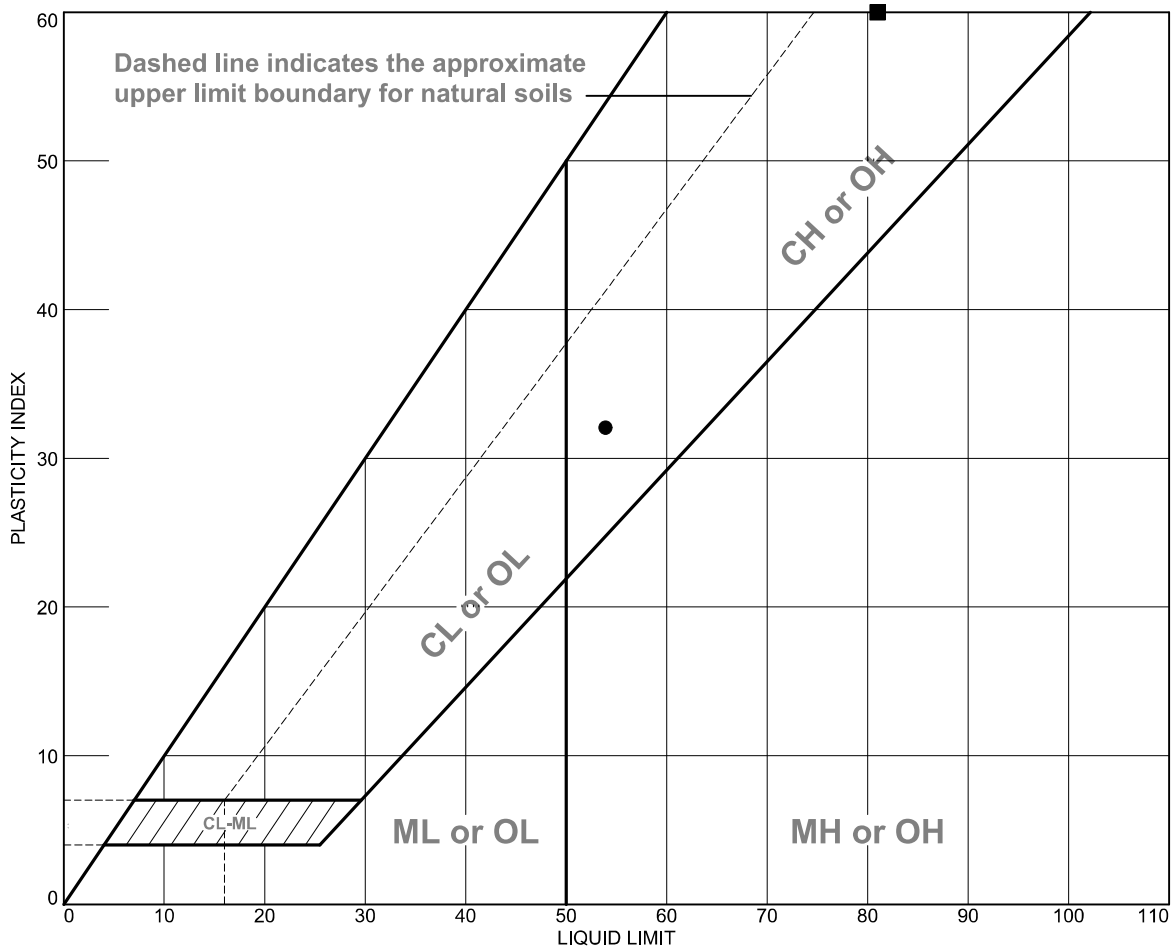
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	clayey sand with gravel	54	22	32	51.8	39.5	SC
■	fat clay with sand	81	21	60	88.9	79.2	CH

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.K **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.K **Depth:** 6'-7.5' **Sample Number:** 4

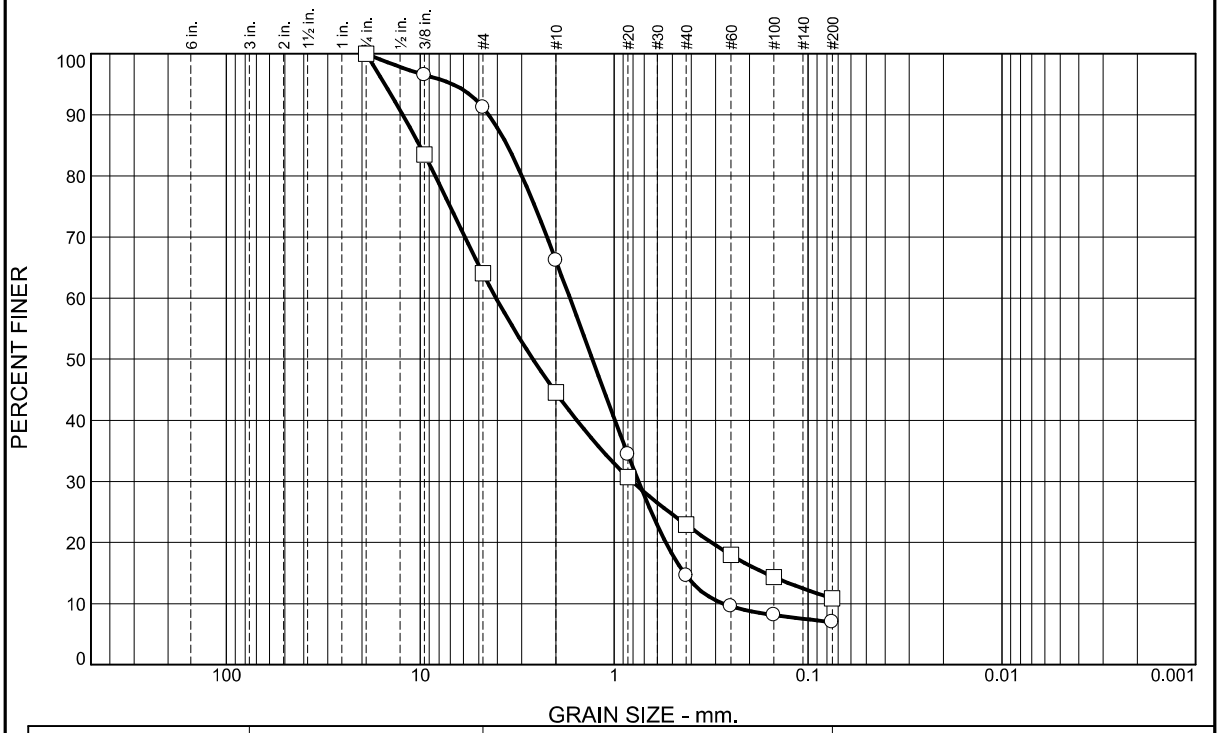
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	8.8	25.0	51.6	7.6	7.0	
□	0.0	0.0	36.0	19.4	21.7	12.0	10.9	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	3.5675	1.6922	1.2968	0.7487	0.4349	0.2733	1.21	6.19
□	NV	NP	10.0876	4.0615	2.6254	0.8057	0.1669			

	Material Description	USCS	AASHTO
○	well-graded sand with silt	SW-SM	A-1-b
□	poorly graded sand with silt and gravel	SP-SM	A-1-a

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.E **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.E **Depth:** 6'-7.5' **Sample Number:** 4

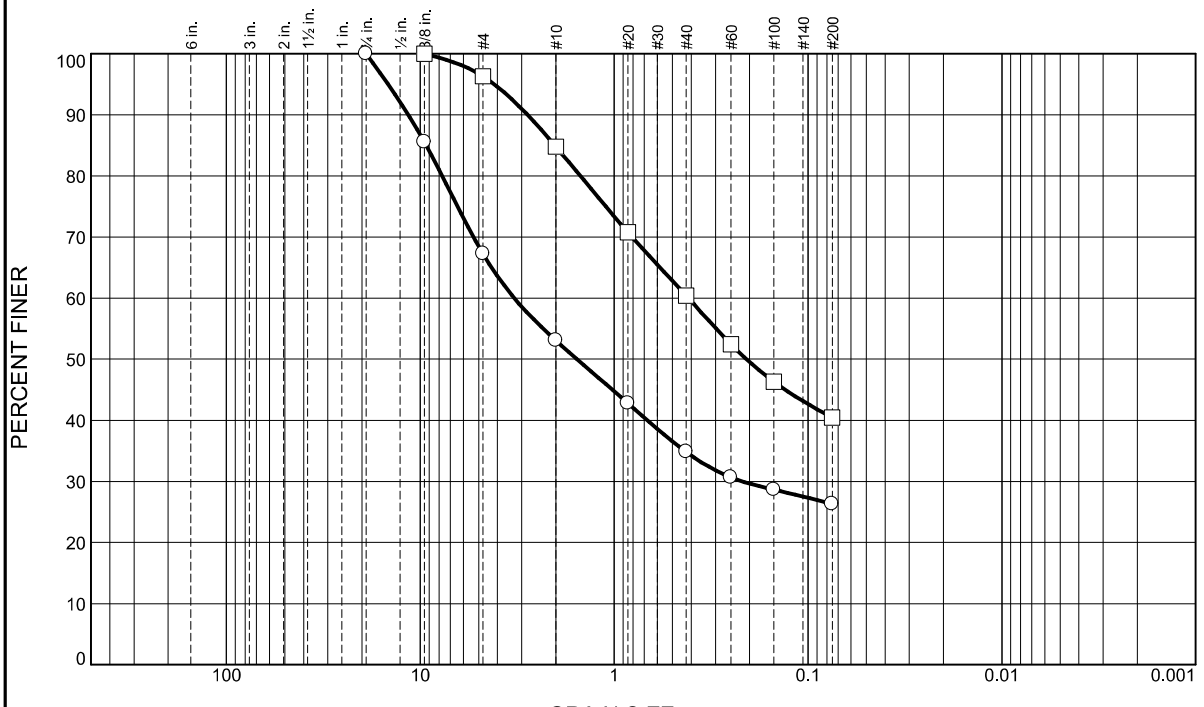
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	32.7	14.2	18.3	8.5	26.3	
□	0.0	0.0	3.7	11.5	24.4	20.0	40.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	28	23	9.3214	3.2758	1.5561	0.2187				
□	72	28	2.0265	0.4139	0.2077					

	Material Description	USCS	AASHTO
○	silty sand with gravel	SM	A-2-4(0)
□	clayey sand	SC	A-7-6(10)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.I **Depth:** 2'-3.5 **Sample Number:** 2

□ **Source of Sample:** Bo.I **Depth:** 6'-7.5' **Sample Number:** 4

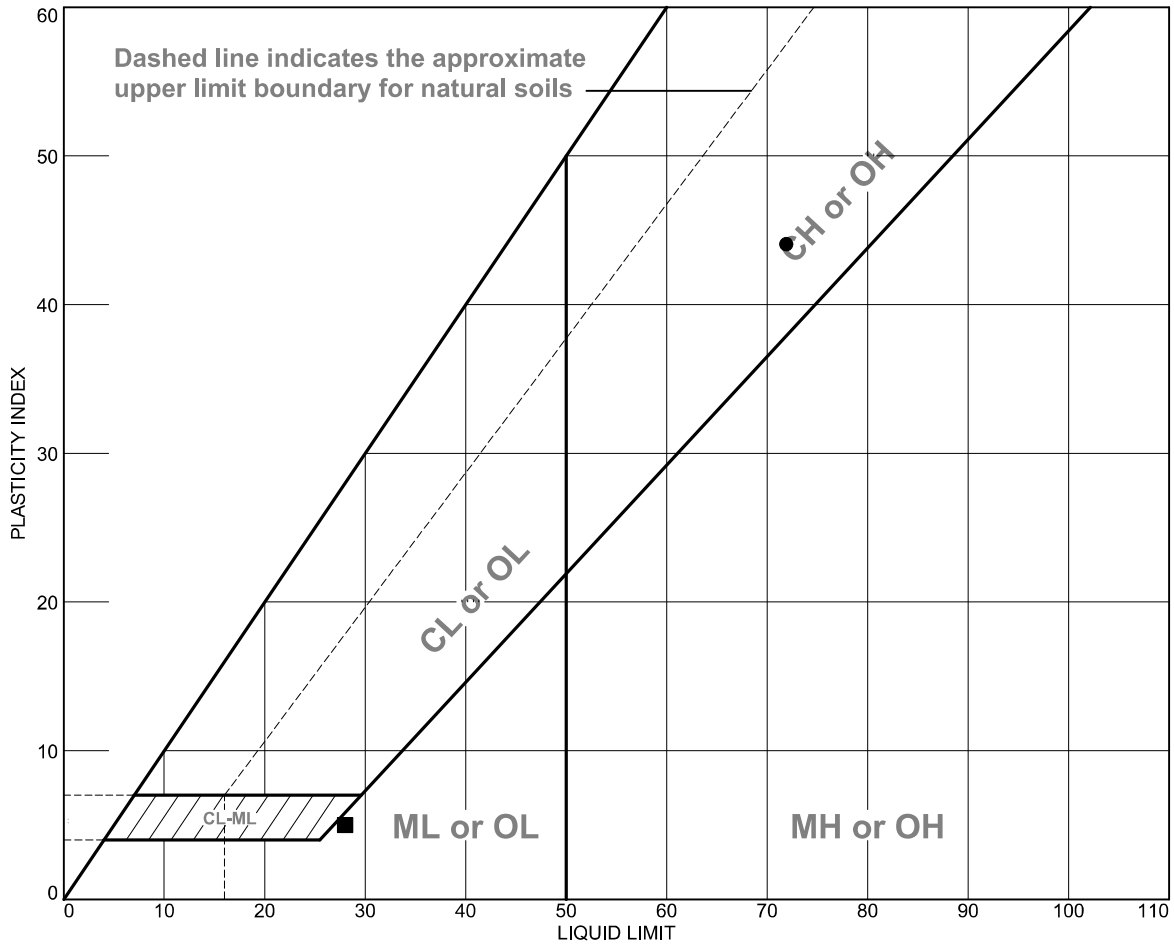
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	clayey sand	72	28	44	60.4	40.4	SC
■	silty sand with gravel	28	23	5	34.8	26.3	SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.I **Depth:** 6'-7.5' **Sample Number:** 4

■**Source of Sample:** Bo.I **Depth:** 2'-3.5 **Sample Number:** 2

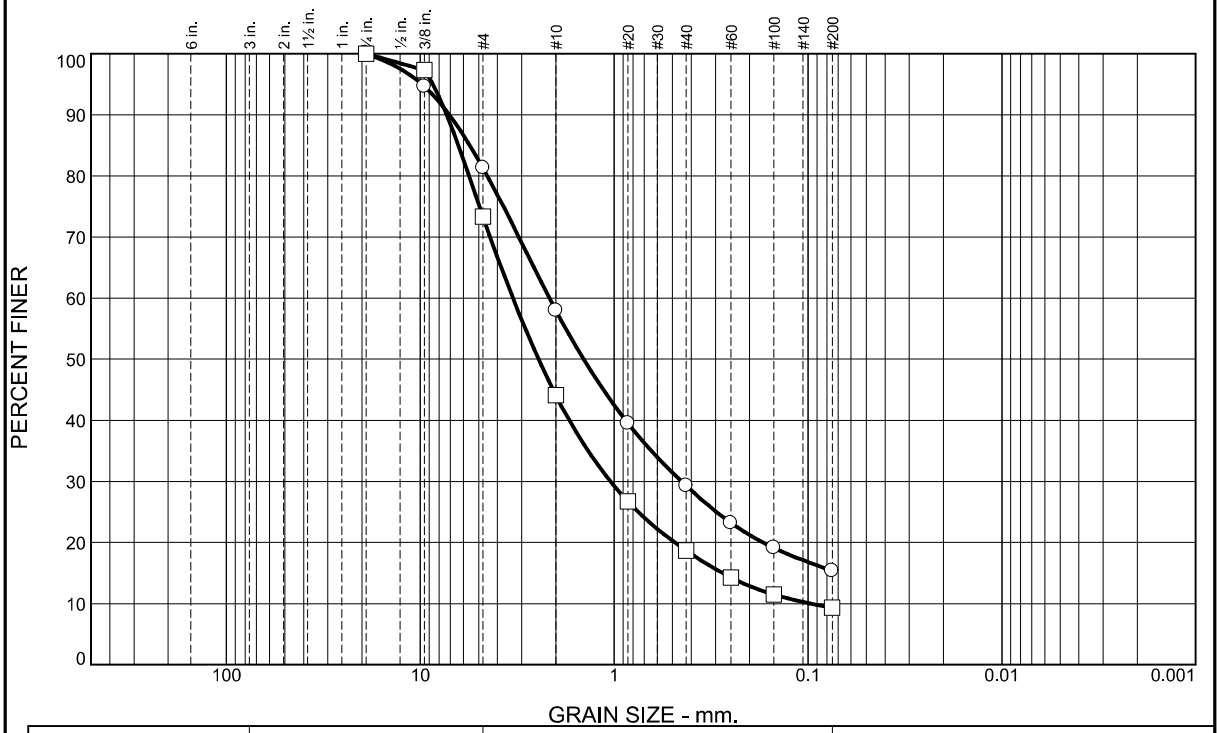
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	18.7	23.3	28.7	13.9	15.4	
□	0.0	0.0	26.6	29.3	25.4	9.4	9.3	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	5.5544	2.1589	1.4373	0.4485				
□	NV	NP	6.3663	3.3273	2.4546	1.0460	0.2761	0.0968	3.40	34.38

	Material Description	USCS	AASHTO
○	silty sand with gravel	SM	A-1-b
□	poorly graded sand with silt and gravel	SP-SM	A-1-a

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.G **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.G **Depth:** 6'-7.5' **Sample Number:** 4

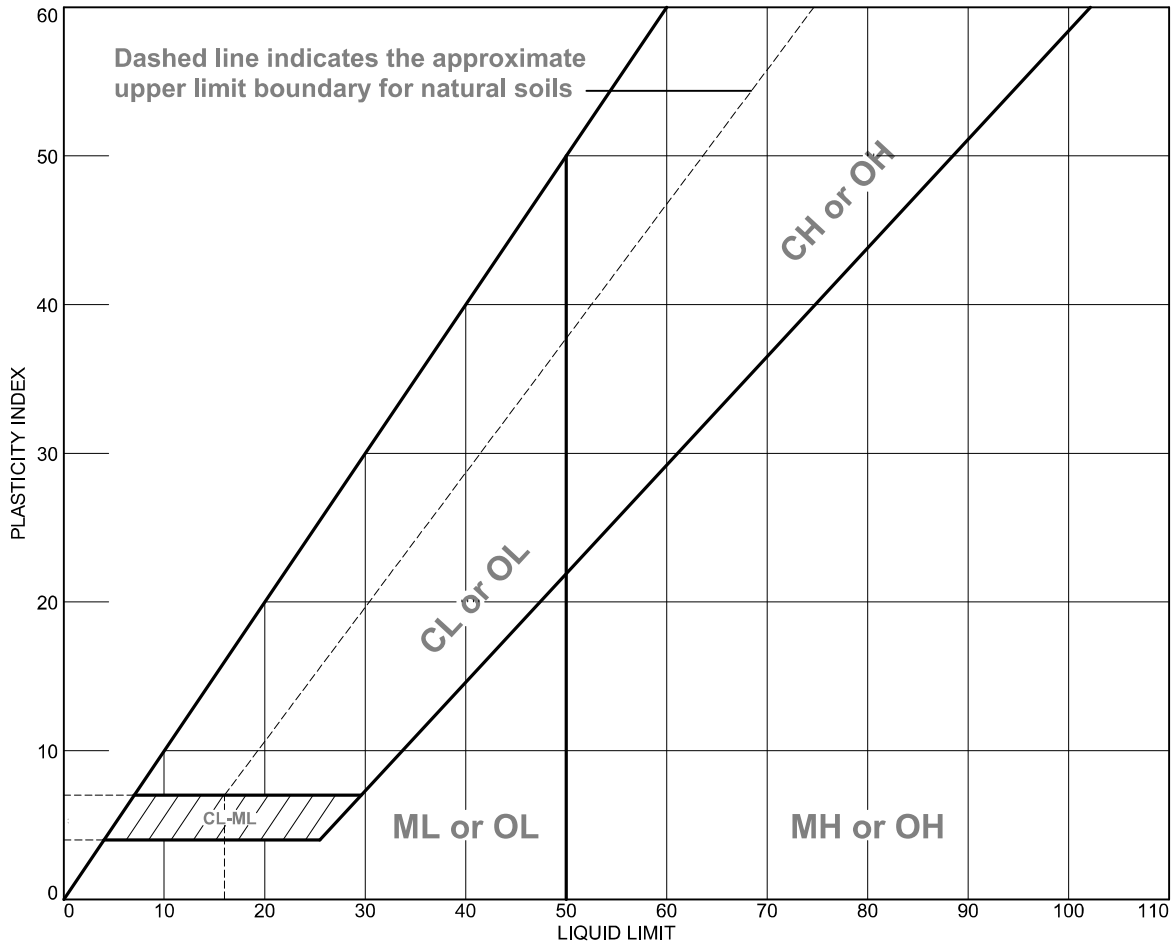
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	silty sand with gravel	NV	NP	NP	29.3	15.4	SM
■	poorly graded sand with silt and gravel	NV	NP	NP	18.7	9.3	SP-SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.G **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.G **Depth:** 6'-7.5' **Sample Number:** 4

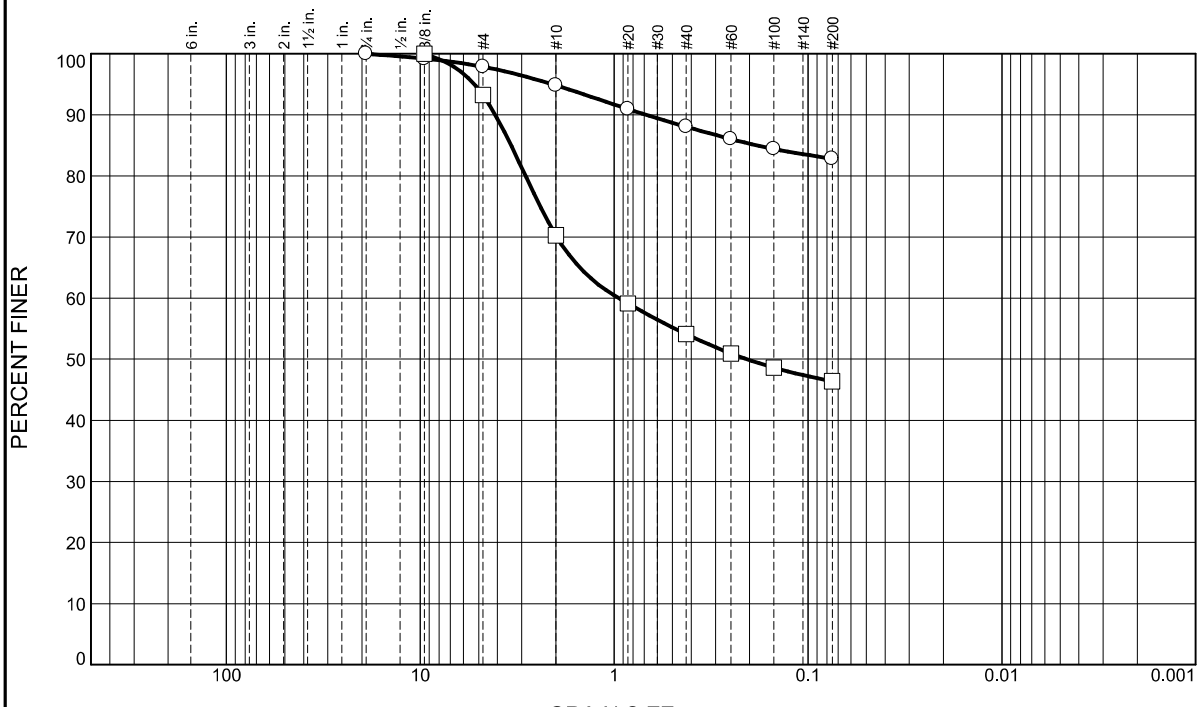
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	2.1	3.1	6.8	5.2	82.8	
□	0.0	0.0	6.8	22.9	16.2	7.7	46.4	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	40	16	0.1831							
□	NV	NP	3.4042	0.9496	0.2073					

	Material Description	USCS	AASHTO
○	lean clay with sand	CL	A-6(19)
□	silty sand	SM	A-4(0)

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.C **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.C **Depth:** 6'-7.5' **Sample Number:** 4

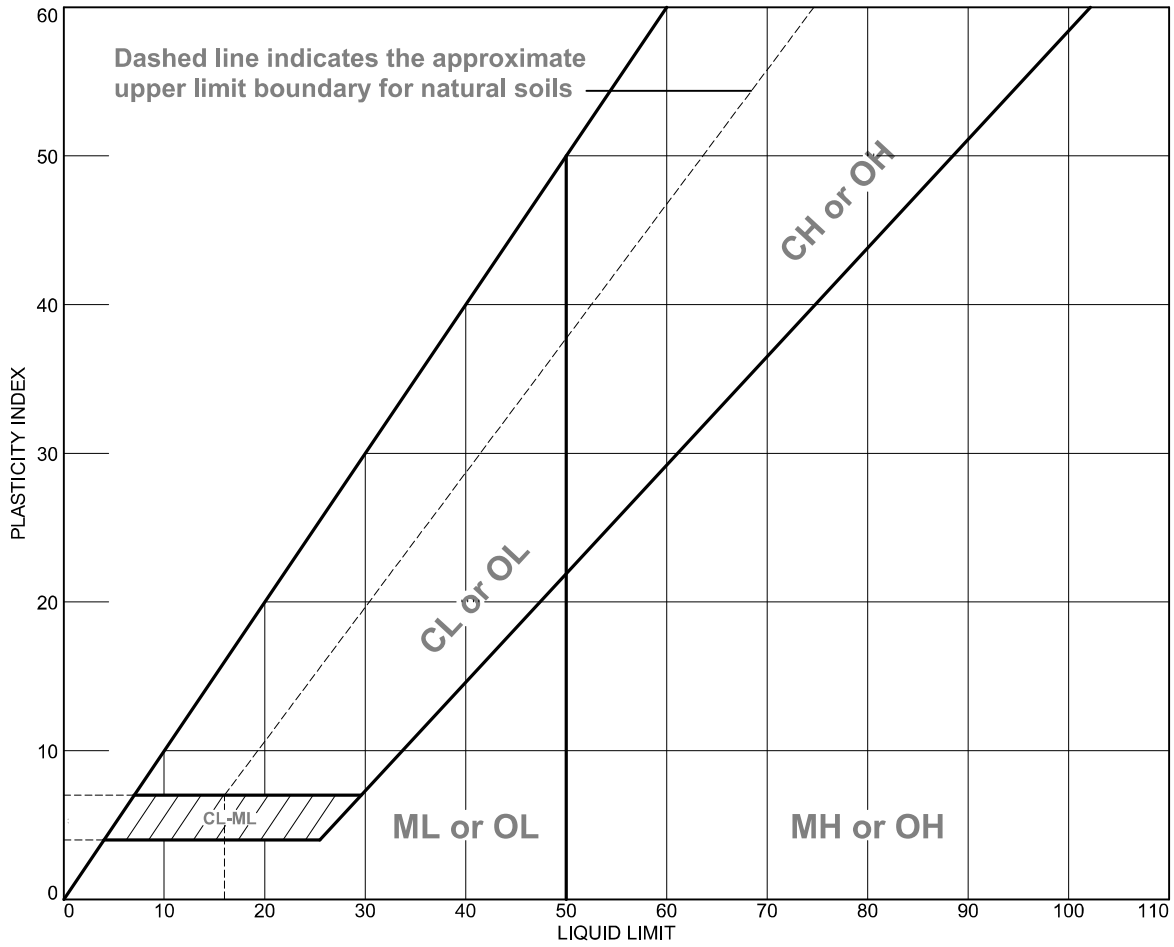
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	well-graded gravel with silt and sand	NV	NP	NP	12.6	6.0	GW-GM
■	silty gravel with sand	NV	NP	NP	23.7	19.0	GM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.A **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.A **Depth:** 6'-7.5' **Sample Number:** 4

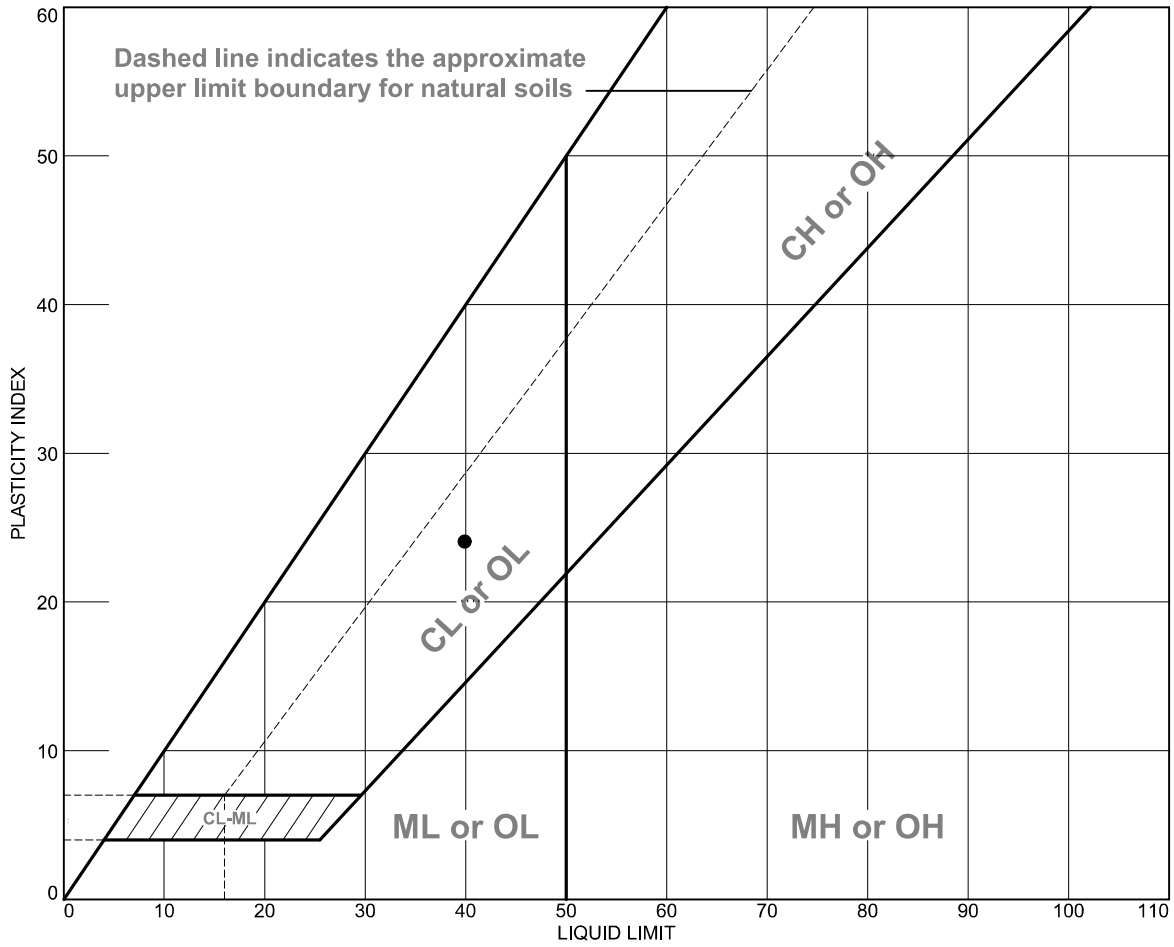
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	lean clay with sand	40	16	24	88.0	82.8	CL
■	silty sand	NV	NP	NP	54.1	46.4	SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.C **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.C **Depth:** 6'-7.5' **Sample Number:** 4

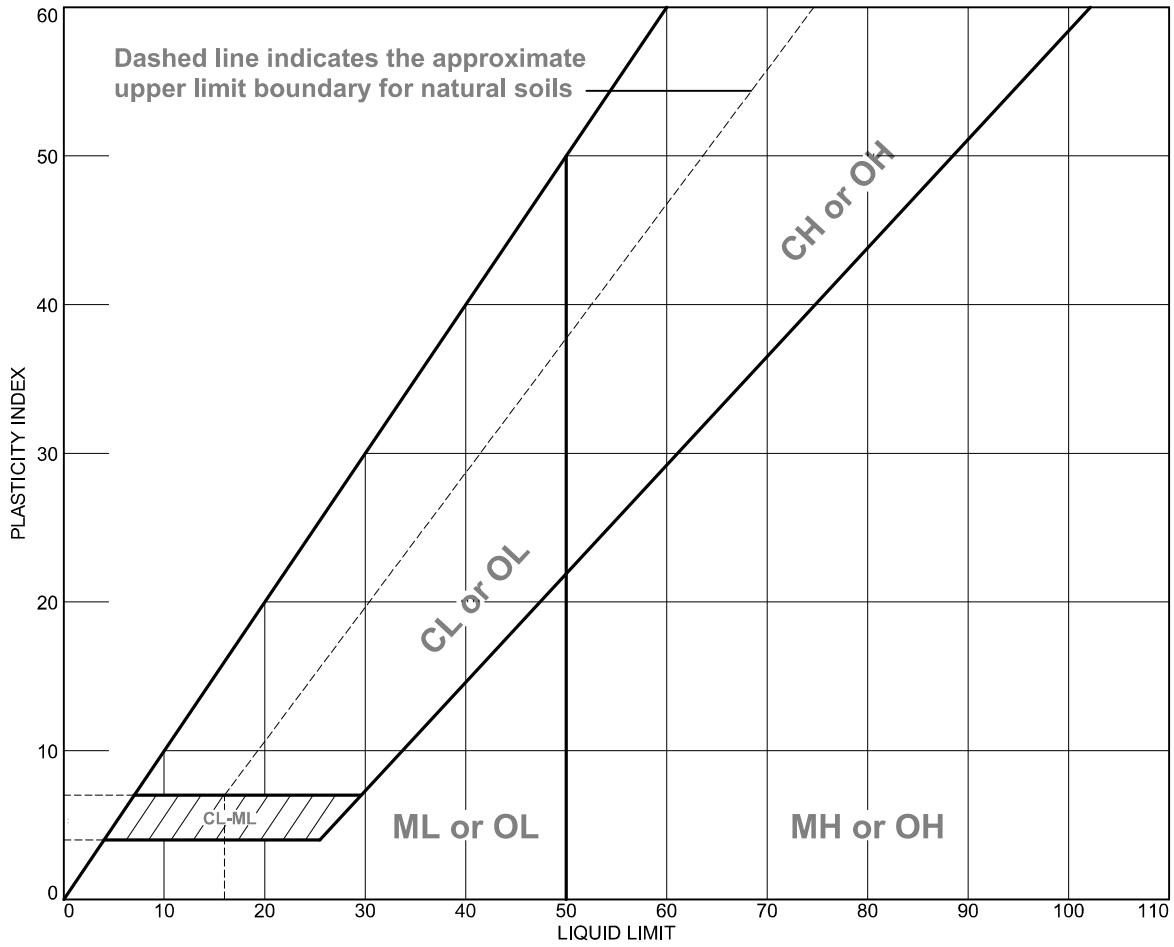
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

LIQUID AND PLASTIC LIMITS TEST REPORT



	MATERIAL DESCRIPTION	LL	PL	PI	%<#40	%<#200	USCS
●	well-graded sand with silt	NV	NP	NP	14.6	7.0	SW-SM
■	poorly graded sand with silt and gravel	NV	NP	NP	22.9	10.9	SP-SM

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

●**Source of Sample:** Bo.E **Depth:** 2'-3.5' **Sample Number:** 2

■**Source of Sample:** Bo.E **Depth:** 6'-7.5' **Sample Number:** 4

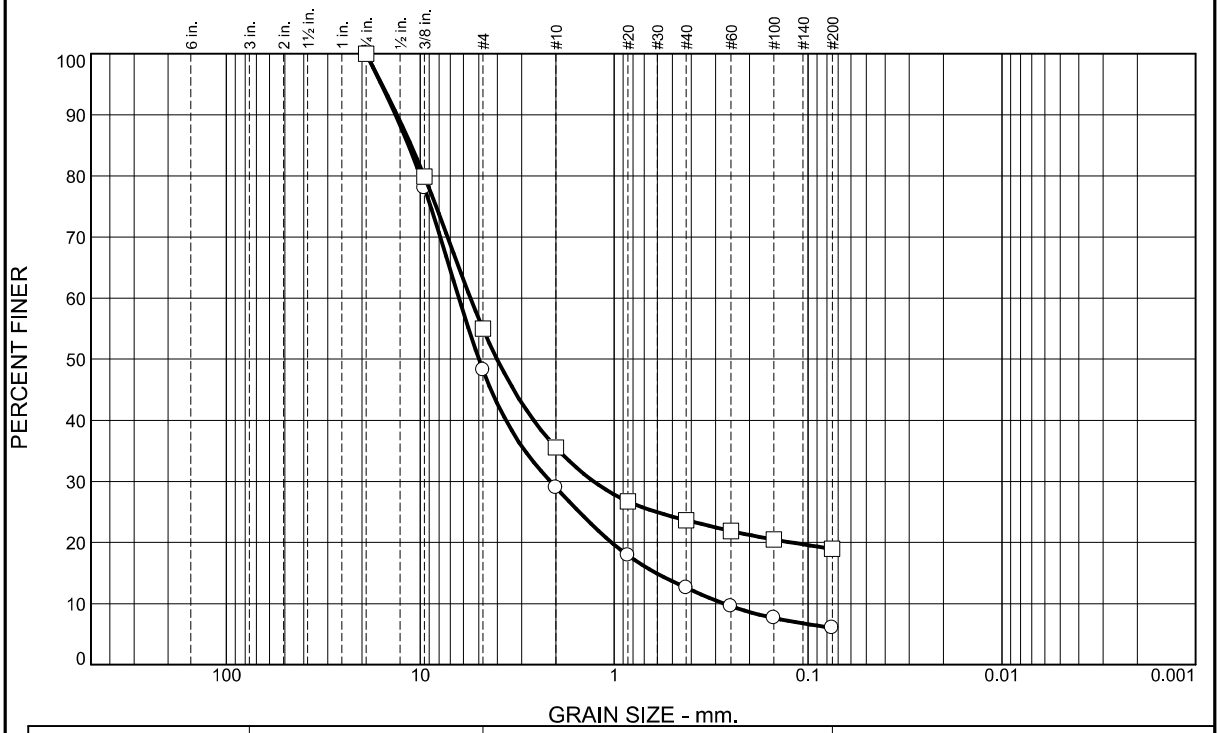
Remarks:

SUELOS, INC.

San Juan, Puerto Rico

Figure

Particle Size Distribution Report



	% +3"	% Gravel		% Sand			% Fines	
		Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
○	0.0	0.0	51.8	19.2	16.4	6.6	6.0	
□	0.0	0.0	45.0	19.4	11.9	4.7	19.0	

	LL	PL	D_{85}	D_{60}	D_{50}	D_{30}	D_{15}	D_{10}	C_c	C_u
○	NV	NP	11.5059	6.3209	4.9806	2.1363	0.6067	0.2721	2.65	23.23
□	NV	NP	11.1491	5.5089	4.0184	1.2769				

	Material Description	USCS	AASHTO
○	well-graded gravel with silt and sand	GW-GM	A-1-a
□	silty gravel with sand	GM	A-1-b

Project No. 5355 **Client:** AD&V

Project: ESENCIA DEVELOPMENT, CABO ROJO

○ **Source of Sample:** Bo.A **Depth:** 2'-3.5' **Sample Number:** 2

□ **Source of Sample:** Bo.A **Depth:** 6'-7.5' **Sample Number:** 4

Remarks:

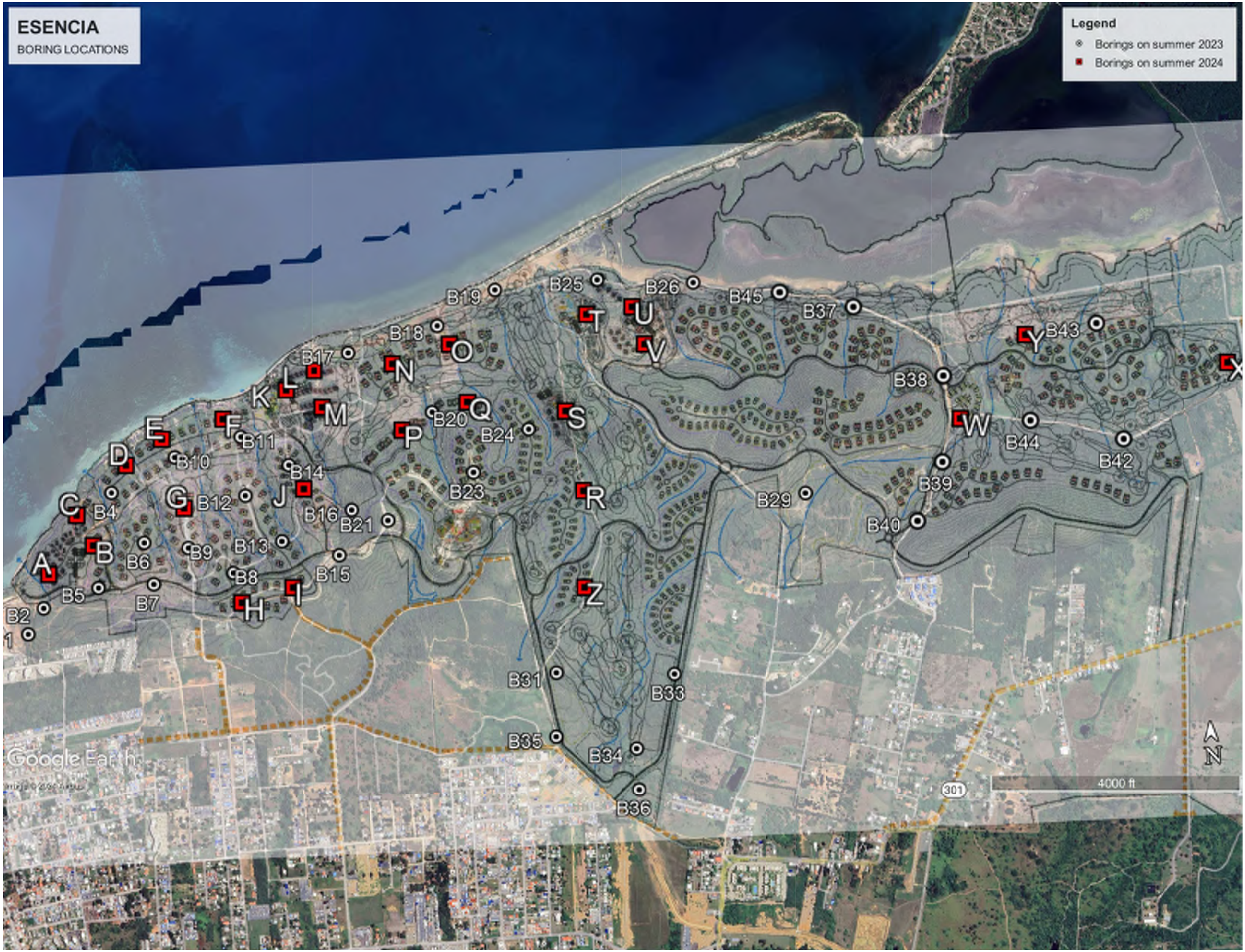
SUELOS, INC.

San Juan, Puerto Rico

Figure

PLATE 1

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com


ESENCIA
BORING LOCATIONS
Legend
Borings on summer 2023
Borings on summer 2024
A
B
C
D
E
F
G
H
I
J
K
L
M
N
O
P
Q
R
S
T
U
V
W
X
Y
Z
B1
B2
B4
B5
B6
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B16
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B18
B19
B20
B21
B23
B24
B25
B26
B29
B31
B33
B34
B35
B36
B37
B38
B39
B40
B42
B43
B44
B45
301
4000 ft
N
Google Earth

BORING COORDINATES

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com

BORING COORDINATES

A	Latitude:	17.993512°
	Longitude:	-67.210254°
B	Latitude:	17.994488°
	Longitude:	-67.208455°
C	Latitude:	17.995630°
	Longitude:	-67.209116°
D	Latitude:	17.997387°
	Longitude:	-67.207194°
E	Latitude:	17.998287°
	Longitude:	-67.205774°
F	Latitude:	17.998921°
	Longitude:	-67.203343°
G	Latitude:	17.995711°
	Longitude:	-67.204684°
H	Latitude:	17.992163°
	Longitude:	-67.202814°
I	Latitude:	17.992634°
	Longitude:	-67.200808°
J	Latitude:	17.996211°
	Longitude:	-67.200288°
K	Latitude:	17.999902°
	Longitude:	-67.200861°
L	Latitude:	18.000576°
	Longitude:	-67.199713°
M	Latitude:	17.999186°
	Longitude:	-67.199450°
N	Latitude:	18.000690°
	Longitude:	-67.196653°
O	Latitude:	18.001315°
	Longitude:	-67.194415°
P	Latitude:	17.998193°
	Longitude:	-67.196359°
Q	Latitude:	17.999123°
	Longitude:	-67.193807°
R	Latitude:	17.995671°
	Longitude:	-67.189485°
S	Latitude:	17.998612°
	Longitude:	-67.190045°
T	Latitude:	18.002180°
	Longitude:	-67.189078°
U	Latitude:	18.002380°
	Longitude:	-67.187257°
V	Latitude:	18.000969°
	Longitude:	-67.186839°
W	Latitude:	17.997673°
	Longitude:	-67.174781°
X	Latitude:	17.999301°
	Longitude:	-67.164348°
Y	Latitude:	18.000674°
	Longitude:	-67.172079°
Z	Latitude:	17.992148°
	Longitude:	-67.189613°

SUELOS PSC
Geotechnical Engineers

BORING LOGS

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com

BORING LOGS

The description of subsurface profile and results of field and laboratory tests, as enclosed, pertain to conditions actually encountered at the borings location proper and at the depths indicated. Profile tracings between borings, when give, represent a reasonable interpolation of subsoil characteristics and should not be taken to indicate true intermediate conditions.

NOTES:

N	**-**	**Number of blows required to drive the sampling spoon a distance of 12" with a 140 lbs hammer falling 30".**
NW	**-**	**No water.**
WH	**-**	**Weight of hammer.**
WR	**-**	**Weight of Rods.**
W	**-**	**Natural moisture content in % of dry weight.**
qu	**-**	**Unconfined compressive strength in tons/sq ft.**
*****	**-**	**Penetrometer value.**

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. A
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/06/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		19 25 50/3"	50/3"	56	1		Red, dry silty sand with some chert fragments, roots			3				
		50/2" -- --	50/2"	11	2		-gray, angular chert fragments, crushed by sampling process			--				
5		50/5" -- --	50/5"	28	3		Red, fine coarse silty sand with angular chert fragments, dry			7				
		50/3" -- --	50/3"	17	4		-same as above;			5				
10		23 43 49	92	67	5		Red, gray hard silty clay with some sand, angular chert fragments			12				
15		56/5" -- --	56/5"	28	6		Crushed, angular chert fragments with sand, trace clay pockets, dry			8				
20		17 25 34	59	61	7		Hard, red, gray silty clay with some sand, few angular gravel, dry			13				4.5+*
25		20 27 21	48	67	8		-same as above;			14				3.7
30		30 27 28	55	43	9		-same as above;			15				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. B
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/05/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		8 14 16	30	61	1		Hard, strong brown snady clay, trace small angular gravel			10				4.0*
		11 23	23	82	2					6				4.0*
		33 36 55/5"	55/5"	50	3		Gray, fine-coarse sand with little weathered volcanic rock fragments			4				
5		35 50/7" --	50/7"	33	4		-same as above;			5				
		50/4" -- --	50/4"	22	5		-grayish-brown colored			14				
10														
		52/3" -- --	52/3"	17	6		-same as above;			1				
15														
		50/3" -- --	50/3"	17	7		-same as above;			1				
20														
		50/3" -- --	50/3"	22	8		Gray, fine-coarse sand with little weathered volcanic rock fragments			2				
25														
		50/3" -- --	50/3"	17	9		-same as above;			1				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST
1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. C
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/05/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		8 9 13	22	72	1		Very stiff-hard, red silty clay with sand traces, dry			21			4.5	+
		10 26 54/3"	54/3"	67	2		-with little sand			15			4.5	+
5		54/3" -- --	54/3"	17	3		Crushed coarse-small angular rock fragments with some sand, gray-grayish brown			2				
		50/2" -- --	50/2"	11	4		-same as above;			2				
10		52/6" -- --	52/6"	22	5		-same as above;			4				
15		20 36 50/4"	50/4"	50	6		Very dense, strong brown silty sand with some weathered subangular gravel, weakly cemented, dry			5				
20		52/3" -- --	52/3"	17	7		Crushed angular weathered chert fragments with some sand			2				
25		50/3" -- --	50/3"	17	8		-same as above;			2				
30		50/2" -- --	50/2"	9	9		-same as above;			1				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST
1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. D
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: 9' M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/05/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		4 8 9	17	61	1		Medium density, dark brown silty sand, trace subrounded gravel, trace roots			19				
		6 9 7	16	61	2					16				
		5 5 6	11	67	3		-same as above;			28				
5		6 6 7	13	61	4		Stiff, gray colored silty clay with some sand			31				
		10 9 6	15	39	5		Medium density, fine grained calcareous sand, few coarse subrounded gravel			43				
10														
		6 8 11	19	67	6		-with some silt			32				
15														
		8 13 15	28	67	7		Very stiff, light gray-silt with some fine sand			68				3.5
20														
		10 12 13	25	67	8					53				3.0
25														
		15 15 17	32	61	9		-same as above; sandy			42				4.1
30							-same as above; stiff sandy clay							

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. E
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/04/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		4 8 16	24	67	1		Topsoil: dark brown silty sand with roots, few subangular gravel			20				
		18 30 53/6"	53/6"	50	2		Fine-medium grained sand, little silt, few angular, basaltic rock fragments			7				
		54/5" -- --	54/5"	28	3		-same as above;			12				
5		50/4" -- --	50/4"	22	4		-same as above;			10				
		52/4" -- --	52/4"	22	5		-same as above;			6				
10														
		50/3" -- --	50/3"	17	6		-same as above;			7				
15														
		52/3" -- --	52/3"	17	7		-same as above;			5				
20														
		50/3" -- --	50/3"	17	8		Fine-medium grained sand, little silt, few angular, basaltic rock fragments			3				
25														
		50/3" -- --	50/3"	17	9		-same as above;			2				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. F
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: 14' M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/04/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		5 5 5	10	72	1		Stiff, dark brown silty clay with little sand			36				4.0*
		6 6 7	13	67	2		Very stiff, reddish brown sandy silt, some clay pockets			25				
		9 12 14	26	67	3		Very stiff, yellowish blueish silty clay with some sand			17				4.0*
5		11 16 19	35	72	4		Fine-medium grained silty sand black mottled, trace small subrounded gravel			19				
10		14 19 23	42	67	5		-same as above;			14				
15		18 27 31	58	61	6		-same as above;			18				
20		11 14 16	30	72	7		Hard, yellowish brown, silty clay with sand traces, black mottled			35				
25		12 15 16	31	61	8		Very stiff, yellow to yellowish brown sandy silt			33				
30		14 15 18	33	67	9		-same as above; sandy clay			30				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. G
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/05/24
GROUND ELEV.
DEPTH OF HOLE 29
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		11 24 49	73	61	1		Olive, gray fine-coarse sand with some angular basalt fragments			14				
		27 50/5" --	50/5"	44	2					11				
5		42 50/3" --	50/3"	39	3		-same as above;			7				
		55/4" -- --	55/4"	22	4		-same as above;			5				
10		50/3" -- --	50/3"	17	5		-same as above;			3				
15		52/3" -- --	52/3"	17	6		-same as above;			5				
20		50/2" -- --	50/2"	11	7		-same as above;			5				
25		50/3" -- --	50/3"	11	8		Olive, gray fine-coarse sand with some angular basalt fragments			4				
30		50/2" -- --	50/2"	9	9		-same as above;			5				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. H
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/06/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		13 20 29 23 19 15	49	67	1		Residual soil: gray colored silty sand with some subangular gravel fragments			16				
			34	56	2					12				
5		52/4" -- --	52/4"	22	3		Gray weathered volcanic rock fragments, sampled with some silty sand, crushed by sampling process			12				
		50/4" -- --	50/4"	22	4		-same as above;			12				
10		50/3" -- --	50/3"	17	5		-same as above;			10				
15		56/5" -- --	56/5"	22	6		-same as above;			11				
20		54/4" -- --	54/4"	17	7		-same as above;			11				
25		50/4" -- --	50/4"	19	8		Gray weathered volcanic rock fragments, sampled with some silty sand, crushed by sampling process			8				
30		50/3" -- --	50/3"	9	9		-same as above;			9				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST
1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. I
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/06/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		8 20 21	41	67	1		Dense gray, light gray calcareous silty sand with some clay pockets, limestone fragments			6				
		19 28 20	48	56	2					3				
5		30 27 46	73	61	3		-same as above;			6				
		25 30 31	61	56	4		-same as above;			10				
10		20 41 29	70	61	5		Hard, calcareous sandy silt with some weathered limestone fragments			10				
15		26 38 28	66	56	6		Strong brown very dense fine-coarse sand with silt, weakly cemented			5				
20		31 35 40	75	56	7		-same as above;			14				
25		25 30 32	62	61	8		Hard or very dense, sand and silt			13				
30		20 42 40	82	9	9		Hard sandy silt, light brown			10				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. J
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/04/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		7 28 49	77	67	1		Olive, dark gray volcanic rock fragments with some silty sand (residual)			13				
		31 50/3" --	50/3"	33	2					6				
5		55/3" -- --	55/3"	17	3		Weathered volcanic rock fragments, crushed by sampling process			4				
		50/3" -- --	50/3"	17	4		-same as above;			4				
10		52/4" -- --	52/4"	22	5		-same as above;			5				
15		54/4" -- --	54/4"	22	6		-same as above;			4				
20		50/3" -- --	50/3"	17	7		-same as above;			4				
25		50/3" -- --	50/3"	17	8		-same as above;			3				
30		50/4" -- --	50/4"	9	9		-same as above;			4				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. K
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/04/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		3 6 7	13	61	1		Topsoil: dark brown sandy clay with roots, little gravel			13				2.0*
		5 8 12	20	61	2		Silty sand with small coarse subangular - subrounded gravel			10				
5		2 2 2	4	50	3		Medium lgiht gray, clayey silt, little sand			58				.5*
		2 1 1	2	67	4		-same as above;			58				.5*
10		1 1 2	3	72	5		-dark gray colored			65				.5*
15		6 8 13	21	67	6		Very stiff strong brown silty clay with some sand, trace subrounded, gravel			28				3.0*
20		8 14 18	32	61	7		-same as above;			16				3.0*
25		13 15 15	30	72	8		-same as above; hard			15				3.5
30		18 17 18	35	9	9		-same as above; sandy, no gravel			17				4.0

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. L
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING: SAMPLER:
HAMMER: WT DROP HAMMER: WT 140# DROP 30"
TYPE SIZE TYPE SIZE
DEPTH OF WATER: 4' M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/03/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		5 6 6	12	67	1		Fill: stiff, brown, yellow sandy silt with trace gravel			17				
		7 7 7	14	56	2					32				
		2 2 2	4	67	3		Soft-medium gray-grayish brown elastic silt, sand traces, moist			56				.25
5		1 1 1	2	61	4		-same as above;			63				.25
		1 1 1	2	61	5		Peat			157				
10														
		31 13 27	40	56	6		Yellow-calcareous limestone fragments with some silt, some sand, wet			15				
15														
		11 21 15	36	33	7		-same as above;			20				
20														
		12 18 18	36	61	8		-same as above;			17				
25														
		18 20 22	42	79	9		-same as above;			13				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. M
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/03/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		5 8 6	14	67	1		Stiff, dark brown silty clay with some fine sand, trace subrounded gravel			30				4.5+*
		24 42 50/2"	50/2"	28	2		Small loose angular gravel with few sand			--				
5		5 6 7	13	56	3		Very stiff, grayish brown sandy clay with some subangular limestone fragments			14				4.5*
		6 8 8	16	56	4		-same as above;			13				
10		8 6 5	11	56	5		-same as above;			5				
15		18 32 43	75	61	6		Very dense, gray-medium grained silty sand, weakly cemented, olive gray-dark gray colored			17				
20		29 55/5" --	55/5"	61	7		-same as above;			13				
25		50/4" -- --	50/4"	61	8		-same as above;			12				
30		50/3" -- --	50/3"	61	9		-same as above;			8				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. N
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/31/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: 4' M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

GROUND ELEV.
DEPTH OF HOLE 29
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		2 2	2	18	1		Medium, dark brown-grayish brwon silty clay with roots traces, moist			33				1.5*
		2 1 1	2	67	2		Soft, gray elastic silt, sand traces, organic inclussions traces			51				.5*
5		1 1 1	2	61	3		-same as above;			87				
		1 1 1	2	61	4		Peat			--				
10		2 4 6	10	67	5		Strong brown-gray silty clay with sand and small gravel traces, moist			40				1.0*
15		8 10 11	21	67	6		Very stiff, yellowish brown-yellowish red clay with some subrounded gravel, trace sand			26				2.0*
20		9 13 16	29	67	7		-same as above;			26				2.75*
25		12 15 15	30	8	8		Very stiff, yellowish brown-yellowish red clay with some subrounded gravel, trace sand			23				3.0
30		13 16 17	33	9	9		-same as above; no gravel			21				3.2

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST
1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. O
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/31/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		5 6 6	12	67	1		Stiff, strong brown-dark brown silty clay with sand traces, roots			24				4.0*
		6 9 9	18	61	2		Stiff, yellowish brown silty clay with sand traces			29				3.25
		4 7 4	11	56	3		-same as above;			34				
5		6 10 13	23	67	4		Very stiff-hard, yellowish brwon clay with little angular-subrounded small gravel and sand traces			25				4.5+*
		8 14 22	36	61	5		-same as above;			21				4.25*
10														
		9 13 16	29	61	6		Very stiff-hard, strong brown sandy clay with some angular-subangular gravel			18				4.5+*
15														
		10 15 18	33	61	7		-no gravel			22				4.5*
20														
		12 15 16	31	69	8		Very stiff-hard, strong brown sandy clay with some angular-subangular gravel			20				4.0
25														
		16 17 20	37	61	9		-same as above; hard			14				4.5
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. P
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30" TYPE SIZE

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DATE 06/03/24
GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		8 345 55/5"	55/5"	50	1		Dark brown silty sand, some angular rock fragments			7				
		55/5" -- --	55/5"	28	2		Gray, volcanic rock fragments, sampled with sand (crushed by sampling process)			7				
5		52/4" -- --	52/4"	33	3		-same as above;			3				
		50/4" -- --	50/4"	22	4		-same as above;			3				
10		54/3" -- --	54/3"	17	5		-same as above;			3				
15		55/3" -- --	55/3"	17	6		-same as above;			--				
20		50/3" -- --	50/3"	17	7		-same as above;			--				
25		50/3" -- --	50/3"	17	8		Gray, volcanic rock fragments, sampled with sand (crushed by sampling process)			2				
30		50/2" -- --	50/2"	17	9		-same as above;			3				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. Q
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/31/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		13 13	28	61	1		Gray to olive gray, fine-coarse sand with some angular volcanic rock fragments			8				
		15 11	23	61	2					7				
		11 12												
		59/6" -- --	59/6"	33	3		Weathered volcanic rock fragments with some fine-coarse sand, crushed by sampling process, gray-olive gray colored (saprolitic)			11				
5		54/5" -- --	54/5"	28	4		-same as above;			6				
		40 50/4" --	50/4"	33	5		-same as above;			7				
10														
		57/6" -- --	57/6"	33	6		-same as above;			8				
15														
		30 52/4" --	52/4"	44	7		-same as above;			9				
20														
		50/3" -- --	50/3"	71	8		Weathered volcanic rock fragments with some fine-coarse sand, crushed by sampling process, gray-olive gray colored (saprolitic)			9				
25														
		50/4" -- --	50/4"	9	9		-same as above;			9				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. R
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/07/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		8 10 14	24	67	1		Hard, yellowish brown sandy silt with some subangular gravel, moderately cemented			16				
		13 15 17	32	67	2					8				
5		15 21 18	39	61	3		-same as above;			13				
		14 23 23	46	61	4		-trace roots			11				
10		17 20 17	37	67	5		-same as above;			17				
15		16 23 26	49	56	6		-same as above;			13				
20		22 29 36	65	56	7		-same as above;			12				
25		25 27 30	57	67	8		same as above; hard			10				4.5
30		30 32 35	67	56	9		-same as above; hard			12				4.5

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. S
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/30/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		6 6 7	13	50	1		Strong brown silty sand with trace small gravel			17				
		7 11 11	22	50	2		Vrey stiff, strong brown-grayish brwon sandy clay with some silt			22				4.5+*
5		12 14 14	28	56	3		Medium-dense, light gray silty sand with some weathered friable gravel, trace roots, dry			10				
		13 16 18	34	44	4		-same as above;			8				
10		57/6" -- --	57/6"	33	5		Light gray silty sand with some angular weathered rock fragments, dry (residual)			12				
15		55/4" -- --	55/4"	22	6		-same as above;			10				
20		52/4" -- --	52/4"	22	7		-same as above;			7				
25		50/3" -- --	50/3"	17	8		Light gray silty sand with some angular weathered rock fragments, dry (saprolitic)			6				
30		50/3" -- --	50/3"	17	9		-same as above;			5				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. T
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/30/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

DEPTH OF WATER: 14' M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		18 26 15	41	39	1		Strong brown fine-coarse sand with some angular gravel, dry			10				
		9 11 12	23	33	2					8				
5		8 10 10	20	56	3		Very stiff-strong brown, silty clay with some small medium round-subangular gravel, sand, traces			23				4.5+*
		9 10 12	22	56	4		-same as above;			16				4.5*
10		9 12 16	28	67	5		Very stiff, strong brown, sandy clay, moist			17				3.0*
15		10 13 16	29	67	6		-same as above;			16				3.0*
20		9 11 15	26	67	7		-wet			18				3.0*
25		10 15 16	31	67	8		Very stiff, strong brown, sandy clay, moist			17				3.2
30		15 16 16	32	67	9		-same as above;			13				3.7

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. U
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/30/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		7 8	14	56	1		Stiff-very stiff, yellowish brown silty sand with some subangular gravel, dry			20				
		6 8	28	50	2					18				
		13 15												
		26 38	80	44	3		Light gray silty sand with some angular, friable weathered rock fragments			8				
5		42												
		34 50/4" --	50/4"	39	4		-same as above;			9				
		55/4" -- --	55/4"	28	5		-same as above;			7				
10														
		52/4" -- --	52/4"	22	5		-same as above;			8				
15														
		50/2" -- --	50/2"	11	7		-same as above;			--				
20														
		50/3" -- --	50/3"	17	8		Light gray silty sand with some angular, friable weathered rock fragments			6				
25														
		50/3" -- --	50/3"	17	9		-same as above;			6				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. V
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/30/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		7 11 14	25	67	1		Dense, light grayish brown silty sand with some friable rock fragments, calcareous			11				
		13 24 30	54	67	2					13				
		28 50/3" --	50/3"	39	3		Residual: light gray, olive weathered rock fragments, friable			13				
5		54/4" -- --	54/4"	22	4		-same as above;			10				
		38 50/2" --	50/2"	44	5		-same as above;			12				
10														
		52/3" -- --	52/3"	17	6		-same as above;			13				
15														
		50/2" -- --	50/2"	11	7		Weathered sandstone fragments, grayish brown			6				
20														
		50/3" -- --	50/3"	17	8		-same as above;			6				
25														
		50/2" -- --	50/2"	11	9		-same as above;			5				
30														

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. W
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/30/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		6 8	16	61	1		Medium density, fine-coarse silty sand with few limestone fragments, white, calcareous			5				
		8 8	27	61	2					5				
		11 16												
		29 53/6"	53/6"	56	3		Grayish brown, calcareous weakly cemented, sandy silt			9				
5		--												
		58/5" --	58/5"	28	4		-same as above;			8				
		--												
		59/6" --	59/6"	33	5		-same as above;			8				
10		--												
		54/5" --	54/5"	28	6		Weathered, grayish brown siltstone fragments with some silty sand (residual)			9				
15		--												
		50/4" --	50/4"	22	7		-same as above;			9				
20		--												
		50/3" --	50/3"	22	8		Weathered, grayish brown siltstone fragments with some silty sand			7				
25		--												
		50/2" --	50/2"	17	9		-same as above;			7				
30		--												

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. x
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/29/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u^*
		7 7 7	14	67	1		Stiff-very stiff, strong brown sandy silt, trace subrounded-subangular gravel, dry			17				
		9 12 15	27	67	2					13				
5		9 9 10	19	67	3		Very stiff-hard, yellowish brown, sandy clay with few round-subangular gravel			19				
		10 12 15	27	61	4		-same as above;			22				
10		56/3" -- --	56/3"	17	5		Strong brown sandstone/silstone fragments, weathered, crushed by sampling process			6				
15		54/3" -- --	54/3"	17	6		-same as above;			6				
20		54/3" -- --	54/3"	17	7		-same as above;			8				
25		50/3" -- --	50/3"	17	8		Strong brown, sandstone/silstone fragments, weathered, crushed by sampling process			7				
30		50/3" -- --	50/3"	11	9		-same as above;			8				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. Y
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 05/29/24

CASING:
HAMMER: WT DROP
TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		4 6	84	67	1		Stiff dark brown silty clay with sand traces, roots			21				4.5+*
		78 8	28	67	2					20				4.5+*
		15 13												
5		42 50/3" --	50/3"	50	3		Very dense, olive gray silty sand, fine-coarse gravel with some weathered angular rock fragments, dry (residual)			13				
		52/4" -- --	52/4"	22	4		-same as above;			6				
10		54/3" -- --	54/3'	17	5		-same as above;			6				
15		50/3" -- --	50/3"	17	6		-same as above;			7				
20		56/4" -- --	56/4"	33	7		-same as above;			3				
25		50/4" -- --	50/4"	22	8		-same as above;			4				
30		50/3" -- --	50/3"	17	9		-same as above;			3				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

SUELOS, INC.

SUBSURFACE EXPLORATION LOG

BORING NO. Z
SHEET 1 OF 1
LOCATION
NORTHING
EAST

PROJECT ESENCIA DEV., CABO ROJO CODE NO.

DATE 06/06/24

CASING:
HAMMER: WT DROP TYPE SIZE

SAMPLER:
HAMMER: WT 140# DROP 30"
TYPE SIZE

GROUND ELEV.
DEPTH OF HOLE 30.5
DRILL MACHINE CME-45
DRILLER: J. CALDERON
DRILL METHOD: AUGER

DEPTH OF WATER: N/O M. AFTER COMPLETION
M. HOURS AFTER COMPLETION

DEPTH (FT)	SAMPLERS	BLOWS/6"	SPT N VALUE (BLOWS/FT)	% RECOVERY	SAMPLE NO.	SYMBOL	MATERIAL DESCRIPTION[1]	U.S.C.S. DESIGNATION	R.Q.D. (R.M.R.)	W_n	W_l	W_p	I_p	q_u*
		8 20	39	67	1		Angular-subangular limestone fragments			11				
		19 9 7 5	12	56	2		with some strong brown, silty sand Yellow, calcareous sandy silt with some angular limestone fragments			9				
5		18 30 36	66	61	3		-same as above;			17				
		21 33 48	81	56	4		Calcareous sandstone fragments with some silty sand, yellow colored			5				
10		55/2" -- --	55/2"	22	5		-same as above;			2				
15		50/2" -- --	50/2"	11	6		-same as above;			2				
20		50/1" -- --	50/1"	0	7		-no recovery			--				
25		50/3" -- --	50/3"	11	8		Calcareous sandstone fragments pale yellow			2				
30		50/2" -- --	50/2"	0	9		-no recovery			--				

*q_u - UNCONFINED COMPRESSION STRENGTH; REPORTED VALUES OBTAINED FROM:
A. POCKET PENETROMETER
B. SPRING TEST
C. UNCONFINED COMPRESSION TEST

1 - INCLUDES AASHTO CLASSIFICATION

Rev. May 20, 1999

DRILLING APPENDIX

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Email: suelosinc@gmail.com

APPENDIX NO. 1

General

Comprised in this report is a description of the project as made know to **SUELOS, PSC**. and details of the project with pertinent recommendations for the design of foundations and other earth related structures. It should be considered that the design recommendations are relative to the project aspects discussed and subject to the limitations imposed by all practical considerations in the determination of subsoil conditions.

The field and laboratory data shown in boring logs represent subsoil conditions encountered at the borehole proper. The analysis and conclusions herein presented and discussed are based on such results and on a reasonable interpolation of subsoil characteristics. Whenever cross-sections with a schematic representation of the interpreted subsoil stratification between borings are included, the same should not be taken to represent true intermediate conditions but are rather given for general comparison purposes only.

Copy of this report should be made available to the Project Designers for their information and guidance, as well as to the Contractor and Resident Engineer, in order to secure maximum protection in the case of possible unexpected variations. Any such variations as well as any changes or modifications to the scope of project described after submittance of this report shall be notified by writing to these Consultants in order to evaluate same and decide upon the need to alter or modify the recommendations given.

APPENDIX NO. 2

Field and Laboratory Work

Field exploration was made by **SUELOS, PSC.**, a private laboratory to the services of these Consultants. The field work consisted of a visual observation of the area and existing structures at the site, if any, and of performance of test borings as indicated.

Test borings were made in accordance to the "Standard Penetration Test and Split-Spoon Sampling of Soils Method", as proposed by the Standards of the American Society for testing and Materials Designation ASTM D-1586, Latest Revision.

The testing hole is bored either by manual and mechanical augers or by driving a 2.5 inch inside diameter casing into the ground which is washed clean internally each time a soil sample is to be secured below its reach. While sampling, the Standard Penetration Test is performed and the "N" values recorded. This is the number of blows required to drive the split-spoon sampler 12 inches into the ground using a 140 lbs. hammer with a free fall of 30 inches.

The value gives an indication of the consistency of cohesive soils and the relative density of granular soils as shown in the following table:

COHESIVE SOILS

"N" Values	Consistency	Unconfined Comp. Strength (TSF)
less than 2	very soft	less than 0.25
2 - 4	soft	0.25 - 0.50
4 - 8	medium	0.50 - 1.00
8 - 15	stiff	1.00 - 2.00
15 - 30	very stiff	2.00 - 4.00
over 30	hard	over 4.00

GRANULAR SOILS

"N" Values	Relative Density
0 - 5	very loose
5 - 10	loose
10 - 30	medium
30 - 50	dense
over 50	very dense

Depth of water surface shown on logs indicate the phreatic level found either prior to use of any casing and water or taken 24 hours after the test borings was completed and the casing, if any, is pulled out. The information given, unless otherwise indicated, is not a adequate for study of deep excavations and is only to be used as an approximate level in the study of a normal foundation of the project. Phreatic or underground water levels may vary with seasonal rainshower variations thus water may appear where none is shown and the reader of this report should be aware of this fact. For excavations where ground water levels are of utmost importance special studies consisting of long range observations on installed wellpoint-type devices should be performed. Where deep excavations are contemplated, as in pumping stations, study of artesian or sub-artesian aquifers should be made by means of deep test borings and pumping tests.

DIAMOND CORE DRILLING

Whenever drilling through rock is necessary the same is made following the "Diamond Core Drilling for Site Investigation" method as proposed by the standards of the American Society for Testing and Materials Designation ASTM D-2113-L.R. In general a double tube core barrel with diamond bit is rotated under pressure into the rock. The drilled rock enters into the barrel using circulating water as cooling agent. At intervals of 2 to 5 feet the barrel is lifted and the core is removed. The length of each core run as well as the length of the core recovered is noted.

LABORATORY WORK

➢Water Contents

The natural moisture content was determined for all samples, except for those with high percentage of gravel or coarse sand.

The tests follow standards of the American Society for Testing and Materials ASTM Designation D-2216, Latest Revision. The water or moisture content of a given soil mass is by definition the ratio of the weight of water to the oven dry weight of the soil, expressed as a percentage.

➢Unconfined Compression Tests

All suitable samples of cohesive soil recovered from the split-spoon sampler were tested in unconfined compression. The ratio of the maximum load required for failure to the corrected cross sectional area of the sample expressed in tons per square foot is defined as the unconfined compressive strength.

➢Examination and Description

Soil samples are classified according to their constituents, the following terminology used to denote the approximate percentage by weight of each component.

Description Term	Percent by Weight
Trace	1 - 10
Little to some	10 - 20
Sandy, silty clayey	20 - 35
and	35 - 50

The examined samples are related into one of the following main groups; boulders, gravel, sand, clay, and silt. On peat, the presence of the decomposed and partly decomposed vegetable matter, is used for identification. The differentiation between a clay and a silt is based on the presence or lack of plasticity, dilatancy and dry strength rather than on grain size. The description of the soil includes: color, odor, minerals, presence of foreign matter, geological history, etc. These descriptions as well as the results of the laboratory testing are used in grouping similar samples into a stratigraphic unit as shown on the final boring logs. Therefore, the data on subsurface exploration logs represent subsoil conditions at the precise locations of the boreholes only.

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 3b
Traducción de Cortesía
NOVIEMBRE 2025

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INFORME COMPLEMENTARIO DE
EXPLORACIÓN DEL SUBSUELO Y
GEOTÉCNICO PARA ESENCIA
CABO ROJO, PUERTO RICO

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INFORME COMPLEMENTARIO DE EXPLORACIÓN DEL SUBSUELO Y GEOTÉCNICO PARA ESENCIA CABO ROJO, PUERTO RICO

CABO ROJO LAND ACQUSITION, LLC.
Solicitado por

Registros de perforación realizados y supervisados por:
SUELOS, PSC.

Presentado el 17 de junio de 2024.
N.º de trabajo 5355.rep

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INFORME COMPLEMENTARIO DE EXPLORACIÓN DEL SUBSUELO Y GEOTÉCNICO PARA ESENCIA CABO ROJO, PUERTO RICO

1.0 INTRODUCCIÓN

Este informe recoge los resultados del trabajo de campo complementario realizado para la investigación geotécnica preliminar solicitada por **Cabo Rojo Land Acquisition, LLC.,** en conformidad con los términos y condiciones establecidos en nuestra propuesta de fecha 31 de enero de 2024. Contiene los resultados de la exploración geotécnica complementaria realizada para Esencia, un complejo turístico integral en Cabo Rojo, Puerto Rico.

El estudio geotécnico que abarca este trabajo se ha centrado en evaluar el índice y las propiedades físicas de los suelos subyacentes en áreas no cubiertas anteriormente, con el fin de caracterizar los diferentes materiales geológicos y poder analizar posibles escenarios de construcción y retos de cimentación. El alcance del trabajo se preparó basándose en el diagrama conceptual inmobiliario que se nos proporcionó **(Figura 1).**

2.0 DESCRIPCIÓN GENERAL DEL PROYECTO Y UBICACIÓN

El proyecto incluye el desarrollo de residencias, hoteles, clubes sociales, escuelas, hospitales y otras estructuras relacionadas. La figura 1 muestra la extensión aérea del sitio.

La topografía del terreno varía considerablemente, desde el nivel del mar hasta los 200 metros de altitud. La topografía se compone de pendientes moderadas a pronunciadas, con una franja de terreno relativamente llana que se extiende de este a oeste a lo largo de la parte más septentrional del terreno. En este informe, las zonas de pendientes moderadas a pronunciadas se denominan «tierras altas», mientras que la franja de terreno relativamente llana se denomina «tierras bajas».

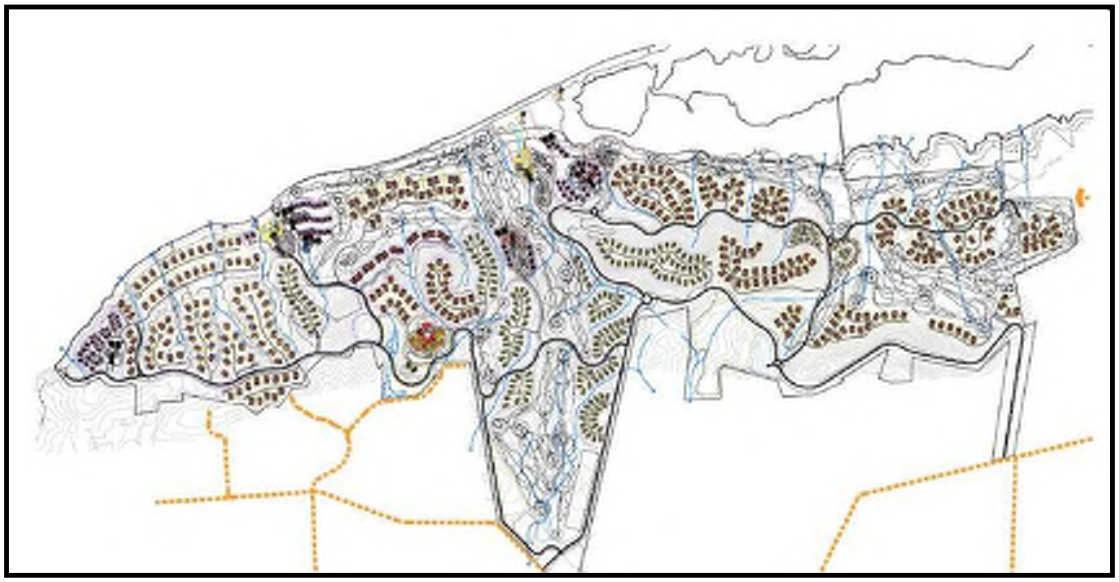

Figura 1. Extensión aérea del sitio.

En el momento de elaborar este informe complementario, aún no se dispone de los planos definitivos de nivelación. Teniendo en cuenta la topografía escarpada de algunas zonas, se prevé de manera preliminar que será necesario realizar movimientos de tierra que impliquen cortes y rellenos. Es probable que también se necesiten muros de contención para contener los terraplenes de relleno y retener los cortes verticales. Todas estas hipótesis se aclararán durante la fase final del estudio geotécnico, una vez que se disponga de los planos de nivelación.

3.0 TRABAJOS REALIZADOS

El programa de perforación complementario consistió en 26 pozos de prueba (perforaciones). Estas 26 perforaciones complementan los 38 pozos de prueba anteriores (nuestro trabajo n.º 5252), lo que suma un total de 62. La ubicación de los pozos de prueba fue seleccionada por el ingeniero geotécnico y se trazó sobre el terreno utilizando GPS. La ubicación de las 62 perforaciones se muestra en la figura 2 (véase también la lámina 1 al final del informe). Al final de este informe se incluye una tabla con las coordenadas de las perforaciones.

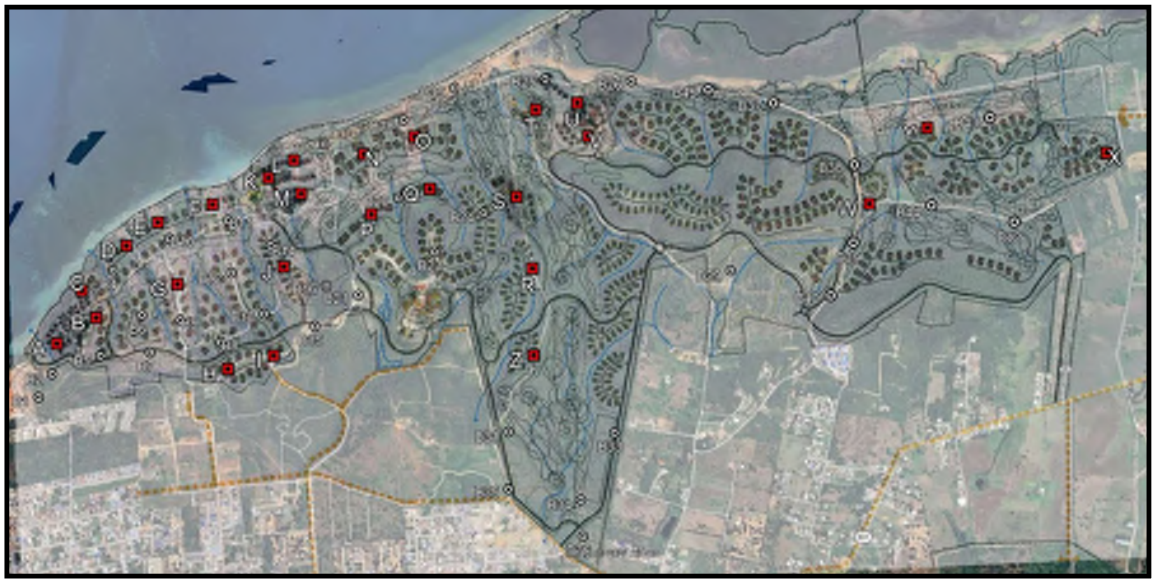

Figura 2. Ubicaciones aproximadas de las perforaciones.

Los pozos de prueba se perforaron mediante el método Power Auger, utilizando una plataforma de perforación modelo CME-45. Las perforaciones alcanzaron una profundidad de 30 pies, con un total de 780 pies perforados en diferentes geomateriales. Se utilizaron procedimientos visuales y manuales para caracterizar los suelos subyacentes. Como parte del trabajo, se determinaron los contenidos de humedad natural, los límites de Atterberg y las distribuciones granulométricas de muestras seleccionadas para determinar el tipo de comportamiento del suelo, estimar los parámetros de resistencia y obtener la clasificación del suelo según las normas AASHTO. Los resultados del programa de pruebas se analizan con más detalle en este informe.

4.0 CONDICIONES GEOLÓGICAS DEL SITIO

La mitad sur del área de interés ha sido cartografiada como parte del cuadrángulo geológico Cabo Rojo-Parguera, mientras que la mitad norte está incluida en el cuadrángulo geológico Puerto Real. Estos cuadrángulos fueron elaborados para el Servicio Geológico de los Estados Unidos por R. P. Volckmann (1984). Consulte la figura 3 para ver la parte de los cuadrángulos geológicos del USGS.

Los cuadrantes de Cabo Rojo y Parguera se encuentran en el extremo suroeste de Puerto Rico. El área cartografiada limita al sur con el mar Caribe y al oeste con el paso de Mona. Las zonas costeras están bordeadas por manglares, depósitos de playa, depósitos intermareales y, en algunas zonas, acantilados marinos. La característica topográfica más destacada es la Sierra Bermeja, situada en la parte centro-norte del área cartografiada.

La superficie terrestre de los cuadrángulos de Cabo Rojo y Parguera se asienta sobre serpentinita, anfibolita, sílex y basalto del Jurásico tardío al Cretácico temprano, rocas calizas y volcánicas del Cretácico tardío, y rocas calizas y grava del Terciario medio. La parte central de la zona ha sido invadida por macizos y diques, algunos del Cretácico tardío y otros que pueden ser tan antiguos como el Cretácico temprano. Los extensos depósitos de arena de cuarzo en la parte occidental de la zona pueden provenir de rocas intrusivas ricas en cuarzo, posiblemente del Terciario. Las rocas están plegadas y desplazadas por fallas de alto ángulo (Volckman, 1984).

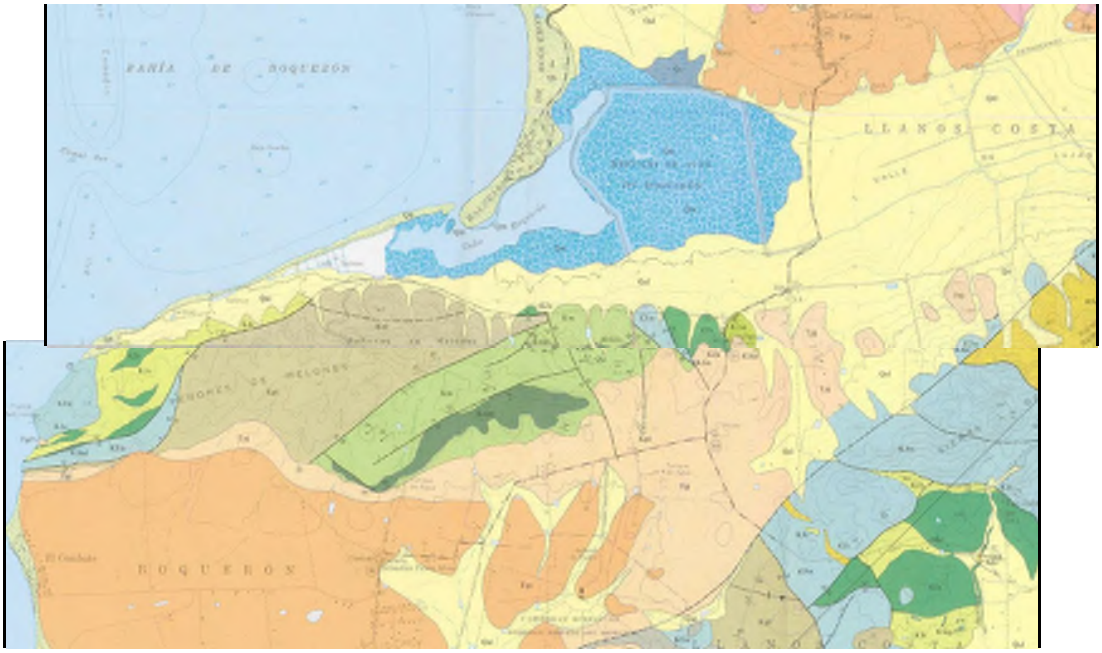

Figura 4. Entorno geológico.

Las 26 perforaciones objeto de este informe permitieron encontrar los diferentes geomateriales descritos por Volckman (1984). La tabla 1 enumera todas las perforaciones realizadas con la unidad geológica perforada. La última columna de la tabla 1 contiene la descripción geológica de la unidad.

TABLA 1; Resumen de las unidades geológicas perforadas

N.º de perforación	Unidad geológica	**Descripción geológica**
1, 2, 5, A, B, C, H	KJm	Mariquita Chert: Chert y caliza silicificada de grano fino a medio, de color rojo amarillento, rojo parduzco, verde grisáceo, negro o blanco.
4, 6, 7, 8, 9, 10, 11, 12, 14, G, Y	Kjs, a	Serpentina y anfibolita: Roca negra, verde negruzca, verde pálida, verde azulada, rojo grisáceo, con fracturas generalizadas, compuesta principalmente por minerales de serpentina y anfibolita gneísica de color gris oscuro a gris verdoso oscuro, bien foliada.
17, 18, 19, 25, 26, 37, 45, E, F, K, L, M, N, O, T, U	Qal	Aluvión: Arcilla, limo, arena y grava. Fi11 **artificial** débil **y/o** turba **en los** 8 **o 12 pies** superiores **de las perforaciones K, L,** M **y N.**
13, 15, 16, 20, 21, 23, 24, 38, P, Q, R, S, V, Z, I, J	Kpl	Parguera Caliza, miembro inferior: Conglomerado de capas gruesas a medianas que contiene clastos redondeados a angulares de rocas volcánicas y sílex, de tamaño entre arena y guijarros, con pequeñas cantidades de serpentinita y anfibolita.
29, 31, 33, 39, 40, 42, 43, 44, W, X	Km	Caliza Melones: Calcarenita, caliza y arenisca de color rojo anaranjado, amarillo anaranjado, maciza, rara vez con estratificación gruesa y con pedernal.
34, 35, 36	Tqs	Arenas de cuarzo: Depósitos de forma y distribución irregulares compuestos por granos de cuarzo y pequeñas cantidades de óxido de hierro y arcilla. Las exposiciones suelen ser de colores variados, que van del marrón rojizo al naranja rojizo y al naranja amarillento oscuro.

5.0 ESTRATIGRAFÍA DEL SUBSUELO

La estratigrafía formada por la formación geológica descrita anteriormente es bastante compleja, ya que está compuesta por diversas unidades geológicas en diferentes etapas de meteorización.

En términos geotécnicos sencillos, las perforaciones realizadas en los terrenos de las tierras altas encontraron materiales geológicos muy competentes en forma de rocas sedimentarias moderadamente a completamente erosionadas (caliza, arenisca, limolita y sílex). Las muestras se recuperaron en forma de arenas limosas, limos arenosos, grava y fragmentos de roca de tamaño variable.

En las tierras altas, las pruebas de penetración estándar realizadas durante las operaciones de muestreo registraron valores N que normalmente superan los 20 golpes por pie, alcanzando con frecuencia más de 100 bpf, lo que evidencia una buena capacidad de carga y una baja compresibilidad. Según los límites de Atterberg, la mayoría de estas muestras no son plásticas, con un contenido fino inferior al 15 % o al 20 %, lo que las clasifica según la AASTHO como A-2-4 a A-I-a o A-l-b. El contenido natural de humedad suele ser inferior al 15 %. Desde el punto de vista geotécnico, la competencia de este material es muy buena y su calidad para su reutilización como material de relleno es buena a excelente. Por otro lado, los pozos de prueba situados en las tierras bajas (perforaciones n.º 17, 18, 19, 25, 26, 35, 45, D, F, K, L, M, N, O, T) encontraron aluviones esencialmente en forma de arcilla grasa o limo plástico, véase **la figura 5.** Los valores N promedian de 12 a 25 golpes por pie en los 15 pies superiores, y de 25 a 40 bpf por debajo de los 15 pies. Las resistencias a la compresión no confinada oscilan entre 0,5 tsf y 3,0 tsf. Los 15 pies superiores pueden caracterizarse como un geomaterial de capacidad portante media, en el que las cargas estructurales muy elevadas tenderían a superar las tensiones de preconsolidación y producir asentamientos perjudiciales. Además, las exploraciones complementarias encontraron relleno artificial débil y/o turba en los 8 o 12 pies superiores de las perforaciones K, L, M y N. Será necesario realizar operaciones de remoción de suelos profundos o mejora del terreno en las áreas representativas de las perforaciones K, L, M y N.

Figure 5. Hashed area indicates the presence of alluvial soils of medium to Capacidad portante marginal.

Son de **especial** interés **las perforaciones** B-7, K, L **y** N, que **encontraron** limo **orgánico** muy blando y turba (materia vegetal descompuesta) a una profundidad de **entre 3 y 3,6** metros. Las exploraciones geotécnicas **finales** para estructuras concretas en estas zonas deberán tener en cuenta estos hallazgos. Se recomienda realizar un programa de pozos de sondeo en estas zonas para definir mejor la extensión y la profundidad de la eliminación del suelo **débil/material** orgánico.

6.0 POTENCIAL DE HINCHAMIENTO

Las perforaciones n.º 18, 25, 43, 45, I, K y O dieron como resultado límites de líquido entre el 62 % y el 84 % y límites de plasticidad entre el 22 % y el 36 %. El índice de plasticidad de la arcilla grasa es de un promedio del 47 %. Las pruebas de hinchamiento libre realizadas en muestras de arcilla grasa dieron como resultado índices de hinchamiento libre del 20 al 70 %. Según Dakshanamurthy y Raman (1973), la gravedad del hinchamiento es de media a alta para suelos con LL>50 % (Figura 6). Holtz y Gibbs (1956) también sugirieron que la gravedad de la hinchazón puede ser de media a alta en suelos que muestran resultados de pruebas de hinchamiento libre >50 % (Figura 7). A partir de estos resultados, se puede concluir de manera preliminar que las arcillas grasas de naturaleza aluvial muestran un potencial de hinchamiento de medio a alto. Nosotros

Se recomienda aplicar una capa de 3 pies de espesor de material fi11 selecto y no expansivo sobre estos suelos para evitar la variabilidad excesiva de la humedad y los cambios de volumen en las arcillas grasas nativas. Las recomendaciones específicas sobre los movimientos de tierra se presentarán durante la fase detallada del estudio geotécnico, una vez que se disponga de los planos de nivelación propuestos.

LL (%)	Swell Severity
0 to 20	Non-Swelling
20 to 35	Low Swelling
35 to 50	Medium Swelling
50 to 70	High Swelling
70 to 90	Very High Swelling
> 90	Extra High Swelling

Figura 6. Hinchazón **gravedad según Raman (1973)** .

FSI (%)	Swelling Severity
< 50	Low
50 to 100	Medium
100 to 140	High
> 140	Very High

Figura 7. Gravedad de la hinchazón **según Dakshanamurthy y Holtz y Gibbs (1956)**.

7.0 AGUAS SUBTERRÁNEAS

No se registró el nivel freático en las perforaciones realizadas en las tierras altas, pero sí se observó en algunas de las perforaciones realizadas en las tierras bajas. La perforación B-17 encontró agua a 4 pies de profundidad y la B-19 a 9 pies. Las perforaciones B-18, B-25 y B-26 detectaron agua subterránea a 24 y 29 pies de profundidad. Las perforaciones complementarias D, F, L, N y T también encontraron agua subterránea a profundidades de entre 4 y 14 pies.

Debe entenderse que el nivel de las aguas subterráneas siempre se ve afectado por factores naturales como la distancia a las fuentes de agua, la permeabilidad del subsuelo, la topografía de la zona y la cantidad de precipitaciones. Por consiguiente, la información proporcionada sobre el estado real de las aguas subterráneas no debe considerarse fiable ni invariable. Deben instalarse pozos de observación a largo plazo para obtener lecturas fiables sobre el régimen del nivel freático.

Además, hay que tener en cuenta que, cada vez que se realizan cambios en la topografía de un emplazamiento (como los previstos para este proyecto), suelen producirse cambios en las características de las aguas subterráneas de la región. Estas condiciones son difíciles de detectar en el plazo normal de la exploración. Por lo general, los manantiales se detectan durante el periodo de construcción, cuando se realizan excavaciones o se retira la superficie del terreno.

8.0 DISCUSIÓN SOBRE LOS RESULTADOS

Los resultados de esta exploración del subsuelo demuestran que la mayoría de las perforaciones, en particular las situadas en las tierras altas, muestran suelos muy competentes que favorecen el desarrollo. Se exceptúan las perforaciones n.º 17, 18, 19, 25, 26, 35, 45, D, F, K, L, M, N, O y T, en los que se encontró aluvión en forma de arcilla grasa (con valores N medios de 15 golpes por pie en los 15 pies superiores). En las zonas representativas de estas perforaciones, sería necesario mejorar el terreno si se trata de cargas estructurales elevadas. Habría que considerar alternativas como la remoción/sustitución del suelo, pilares de agregado apisonado o cimentaciones profundas para hacer frente a las cargas estructurales elevadas.

En términos de potencial de licuefacción, las perforaciones que encuentran agua subterránea también se caracterizan por suelos arcillosos y limos elásticos que son menos susceptibles a una pérdida significativa de resistencia durante movimientos sísmicos intensos. El potencial de licuefacción no debería ser motivo de preocupación en este tipo de suelo.

Las siguientes secciones contienen recomendaciones preliminares sobre los parámetros del suelo necesarios para el diseño conceptual de las estructuras previstas. Las secciones siguientes también presentan directrices sobre cómo preparar el emplazamiento del proyecto para un rendimiento adecuado de los terraplenes de relleno y las estructuras de contención.

9.0 RECOMENDACIONES SOBRE EL SISTEMA DE CIMENTACIÓN

9.1 Selección del sistema de cimentación e

Teniendo en cuenta las condiciones del suelo encontradas en el emplazamiento, las estructuras propuestas en la zona alta pueden considerar cimentaciones superficiales típicas, como zapatas corridas o zapatas individuales.

Teniendo en cuenta la topografía escarpada de las tierras altas, es probable que las estructuras se coloquen parcialmente sobre corte y parcialmente sobre relleno. Por lo tanto, se debe prestar atención a cualquier posible asentamiento diferencial que se produzca debajo de las estructuras debido a las diferentes superficies de rendimiento (corte frente a relleno). La cimentación por losa es el sistema de cimentación preferido en este caso, ya que ayudará a controlar los asentamientos diferenciales. Por otro lado, las zapatas continuas deberán diseñarse teniendo en cuenta los asentamientos diferenciales.

Las zapatas continuas se pueden moldear a una profundidad mínima de 3 pies por debajo del nivel existente o sobre suelo compactado. Se puede considerar de manera preliminar una presión admisible del suelo de 3 ksf. Las zapatas moldeadas en áreas de corte profundo (cortes de más de 7 pies) pueden utilizar una presión admisible de 5 ksf. Según estas recomendaciones, los asentamientos totales y diferenciales entre las zapatas continuas moldeadas sobre suelos in situ no deben exceder 0.2 pulgadas.

La profundidad mínima de la zapata, o Df, medida desde el nivel final propuesto, debe ser de 3 pies, excepto en el caso de las estructuras situadas cerca de pendientes pronunciadas periféricas. Los requisitos de Df para estas estructuras concretas se analizarán en el informe final, una vez que se disponga del nivelado propuesto.

9.2 Parámetros de diseño para muros de contención

Consideramos que es necesario construir muros de contención en todo el emplazamiento del proyecto. El proyecto puede considerar el uso de muros de contención en voladizo o sistemas modulares (como los muros KEYSTONE o MESA) en las zonas que requieran muros de hasta 3 metros de altura. Los muros más altos y los muros de contención que se construyan cerca de terrenos inclinados se evaluarán cuidadosamente en términos de su estabilidad global.

Al dimensionar la base de los muros de contención, el diseñador deberá utilizar la presión admisible del suelo indicada en la Tabla 1.

TABLA 1; Parámetros de resistencia de los suelos de cimentación

Ubicación del muro **de contención**	**Df, pies**	fb, psf	c, **psf**	‹p, grados	Fn, pcf
En áreas de corte	3 pies	5,000	0	36	138
En áreas de llenado [2]	3 pies	3000	0	32	130

Siempre que el corte tenga una profundidad de 7 pies (o más) medidos desde la superficie del terreno existente.

[2]En áreas de excavación o corte de

menos de 7 pies de profundidad.

Rellenar A-l-a o A-2-4.

Df	Profundidad de la zapata medida desde el nivel final propuesto.
fb	Capacidad de carga admisible del suelo.
c	Cohesión unitaria a nivel de cimentación.
φ	Ángulo de fricción interna para suelos de cimentación.
Γn	Peso unitario húmedo del suelo.

La profundidad real de la zapata para el muro puede aumentarse para proporcionar un factor de seguridad adecuado contra el vuelco o el deslizamiento, si es necesario según los cálculos del diseñador.

El coeficiente de presión pasiva del terreno (Kp), así como el coeficiente de presión activa del terreno (K,) pueden calcularse utilizando la siguiente fórmula:

$$Kp \text{ —— } \tan^2 (45 + \$/2) = 1/kg$$

$$Kg \text{ — } \tan^2 (45 - ip/2)$$

Dado que los muros deben rellenarse con material de relleno de buena calidad, los parámetros del suelo incluidos en la Tabla 2 pueden utilizarse para calcular la presión del terreno que actúa detrás de los muros (en función del tipo de relleno utilizado):

TABLA 2

Propiedades típicas de los materiales compactados permitidos detrás de muros no críticos

Símbolo del grupo	Tipo de suelo	F, pcf	c, psf	‹p, grado	k, ft/m
GW (A-l-a)	Grava limpia bien clasificada, mezclas de grava y arena	130	0	36	0
GP (A-l-a)	Grava limpia mal clasificada, mezcla de grava y arena	125	0	36	0
GM (A-1-b)	Grava limosa mal clasificada, grava-arena-limo	«3	descuido	34	superior a 0,000001
GC (A-2-4)	Grava arcillosa, grava-arena-arcilla mal clasificada	13	descuido	34	mayor que 0,000001
SO (A-3)	Arena limpia bien clasificada, arenas gravosas	125	0	32	mayor que 0.0000001
SP (A-3/A-1-b)	Arenas limpias mal clasificadas, mezcla de arena y grava	120	0	32	mayor que 0,001
SM (A-2-4)	Arenas limosas Mezcla de arena y limo mal clasificada	125	descuido	32	0

*Clasificación aproximada de la AASHTO

Γ = Peso unitario seco aproximado

c = Cohesión unitaria

‹p = Ángulo de fricción interna

K = Coeficiente de permeabilidad

Debe entenderse que los parámetros del suelo anteriores se basan en nuestra experiencia y en relaciones empíricas existentes. Para obtener valores más precisos, sería necesario realizar pruebas de laboratorio especiales con ese fin.

La cuña formada por el relleno detrás del muro de contención deberá ser lo suficientemente grande como para extenderse más allá del límite delimitado por la cuña de falla de la teoría de la presión del terreno de Coulomb (caso activo). Es decir, el material seleccionado para rellenar los muros debe extenderse más allá de la línea que forma un ángulo de 45 - ‹p/2 con la horizontal.

9.3 Consideraciones sobre el deslizamiento de la roca

La estabilidad de los muros frente al deslizamiento debe satisfacer un factor de seguridad no inferior a 1,5. El deslizamiento debe resistirse mediante el corte entre el suelo y la base del muro.

Los parámetros de resistencia al corte utilizados para estimar el factor de seguridad dependerán de las características del suelo en la base del muro. Consulte la Tabla 2 para conocer los parámetros de los suelos de cimentación.

Es importante señalar que todas las superficies de la base deben estar rugosas y secas antes de colocar el hormigón. Si es necesario, se puede aumentar la resistencia al deslizamiento mediante una llave de hormigón que sobresalga en el suelo debajo de la base. Esta llave aumentará la resistencia pasiva contra el deslizamiento.

9.4 Consideraciones sobre el vuelco de un

Por motivos de estabilidad, la base del muro debe dimensionarse de tal manera que la resultante de todas las fuerzas que actúan sobre el muro de soporte debe intersecar la base en su tercio medio. Esto solo es válido para muros en voladizo puros.

El material utilizado para el relleno de los muros de contención deberá ser del tipo A-2-4 o superior (tal y como se muestra en la Tabla 3). Este material tiene una alta resistencia al cizallamiento y un buen drenaje. El uso de rellenos blandos detrás de los muros produce altas presiones horizontales. No recomendamos el uso de este tipo de material como relleno para los muros de contención.

Se debe tener mucho cuidado para evitar una compactación excesiva detrás del muro de contención, ya que, de lo contrario, el muro podría desplazarse o sufrir una tensión excesiva. El diseñador también deberá verificar el diseño frente a cargas dinámicas, como las provocadas por terremotos. Las presiones de apoyo admisibles recomendadas pueden aumentarse en un 33 % durante la evaluación de estos eventos.

Para diseñar los muros de contención sometidos a cargas sísmicas, se añadirán las fuerzas adicionales resultantes de la aceleración del terreno a las presiones obtenidas para la condición estática. El coeficiente de presión del terreno para el aumento dinámico de la fuerza lateral puede aproximarse al 75 % de kh, siendo kh la aceleración horizontal esperada en g. Es decir, para un muro determinado sometido a una presión «estática» activa (Pa) igual a **0,**5 - y - H - ² Ka, el efecto combinado de la fuerza estática y dinámica (Pae) sería (0,5-y H^2 Ka) + (0,5-y H^2 75 % kh).

10.0 RECOMENDACIONES SOBRE MOVIMIENTO DE TIERRAS

10.1 General

Como se mencionó anteriormente en este informe, la topografía sugiere un programa de nivelación que requiere operaciones de relleno y corte. En los siguientes párrafos se explican las obras que serían necesarias para lograr la nivelación final de las estructuras.

10.2 Operaciones de desbroce

El primer paso a seguir corresponde a las operaciones de desbroce y desmonte. Se sabe que algunas áreas del proyecto deben ser despejadas de vegetación y material del suelo superficial. Estos trabajos se realizarán de manera minuciosa y consciente. Solo después de completar los trabajos de desbroce se permitirán las operaciones de corte y relleno.

Una vez que todos los materiales nocivos se hayan eliminado a satisfacción del ingeniero de suelos observador (a tiempo completo), se podrán realizar las operaciones de corte. Después del corte, la superficie expuesta se compactará con un rodillo vibratorio de 15 toneladas. La necesidad de trabajos adicionales de remoción/reemplazo se determinará en el campo basándose en los resultados de la compactación y los datos de los pozos de prueba. Lo más probable es que se requieran operaciones de remoción/recompactación en las áreas de las perforaciones n.º 17, 18, 19, 25, 26, 35, 45, K, L, M y N. Recomendamos realizar un programa de pozos de prueba en estas áreas para definir mejor la extensión aérea y la profundidad de la remoción.

10.3 Operaciones de corte

La topografía escarpada del terreno probablemente requerirá que los edificios se construyan simultáneamente sobre relleno y corte. Siempre que se prevea que la huella de una estructura se construya simultáneamente sobre corte y relleno, será necesario profundizar las operaciones de corte para reducir la diferencia en el espesor del relleno bajo dicho edificio. El objetivo es minimizar la aparición de grietas y daños en las losas de piso moldeadas sobre el terreno debido a las diferentes superficies de rendimiento que subyacen a la huella de un edificio determinado.

Por ejemplo, si se planea construir un edificio concreto sobre 2 metros de corte y 5 metros de relleno, las operaciones de corte deberán profundizarse un (1) metro más para limitar la diferencia de espesor entre el corte y el relleno a 2 metros.

Tenga en cuenta que el proceso de socavación consiste en cortar tierra adicional y luego utilizarla como relleno en la misma excavación. De este modo, las características de rendimiento de todo el terraplén permanecen relativamente uniformes, lo que minimiza la aparición de asentamientos diferenciales. Un terraplén uniforme no debe tener más de dos (2) metros de diferencia entre la zona de relleno más gruesa y la zona de corte más profunda.

En algunos casos, las condiciones del suelo pueden hacer que la operación de corte adicional resulte muy costosa y requiera mucho tiempo (cuando se encuentra roca). Como alternativa, el contratista puede considerar la posibilidad de aplicar una sobrecarga sobre la zona de relleno, con el fin de prevenir cualquier posible asentamiento diferencial antes de verter la losa del piso. La carga que se modelará mediante la sobrecarga debe ser igual a la impartida por la carga muerta y viva de la losa del piso. La sobrecarga debe construirse con material de relleno y mantenerse durante al menos dos (2) meses antes del vertido del concreto.

10.4 Requisitos de relleno

El relleno (o relleno de retroceso) utilizado para alcanzar la pendiente final debajo de la construcción de estructuras deberá tener características similares a las de un suelo A-2-4 o superior, según el sistema de clasificación de suelos de la AASHTO. Para el relleno de taludes pronunciados, se necesitará material A-2-4 o superior. La implementación de este tipo de relleno es de suma importancia en el proyecto, ya que sus buenas características de resistencia son necesarias para el buen comportamiento y la estabilidad de los taludes de relleno altos y las estructuras de contención.

Se ha comprobado que la mayoría de los suelos nativos de las tierras altas son adecuados para su uso como material de relleno. La clasificación de estos suelos es igual o superior al tipo A-2-4, según las muestras analizadas.

El relleno debe colocarse en capas únicas que no superen los 30 cm de espesor. Cada capa se compactará de manera que el peso unitario seco del material sea igual o superior al 95 % de su peso unitario seco máximo, obtenido en el laboratorio mediante una prueba de compactación Proctor modificada. Será responsabilidad del ingeniero residente dar instrucciones al ingeniero de suelos contratado por el propietario en calidad de consultor para determinar la humedad óptima y la densidad seca correspondiente del relleno que se utilizará en este proyecto.

Sobre el material de relleno, el contratista deberá emplear un rodillo vibratorio de acero liso de 15 toneladas para obtener el porcentaje de compactación requerido. No colocará ningún relleno adicional hasta que se haya comprobado que la capa compactada anterior cumple los criterios de compactación antes mencionados.

En cuanto a las operaciones de compactación, cada pasada sucesiva debe superponerse a la pasada adyacente anterior en un diez (10) por ciento. Las pasadas del rodillo realizadas sobre material en condiciones inadecuadas no se tendrán en cuenta a la hora de evaluar el cumplimiento de nuestras recomendaciones. En caso de que el contratista no consiga la energía de compactación requerida, deberá adquirir el tipo de equipo adecuado para cumplir con estos criterios de compactación.

11.0 CONSIDERACIONES ESPECIALES SOBRE MOVIMIENTO DE TIERRAS

Antes de la construcción de los terraplenes fi11, todas las superficies inclinadas que se vayan a rellenar deben escalonarse para fijar el relleno. Bajo ninguna circunstancia se debe colocar el relleno sobre una superficie inclinada sin antes escalonar la superficie del terreno. La siguiente tabla contiene directrices para determinar la geometría y el tamaño de los escalones necesarios.

TABLA 4

Relación de pendiente del terreno existente Suelo	**Espaciado vertical máximo** de los escalones	**Ancho mínimo de** bancales superficiales
5H:1V	0,5 m	2 m
4H:1V	lmts	2 mts
3H:1V	lmts	3 mts
2H:1V	2 mts	3 mts
1H:IV y más empinado	2 m	3 m

Estos requisitos pueden variar ligeramente según el ingeniero de suelos que realice la observación, dependiendo de las condiciones reales del terreno.

Las experiencias previas con proyectos similares han demostrado que cuando el espesor de la capa fi11 (nueva o debida a una excavación excesiva) supera los 3 metros, puede sufrir hundimientos o cambios de volumen, incluso en las condiciones más controladas. Este comportamiento está asociado al reajuste de las partículas del suelo bajo el peso del propio terraplén de relleno. Por lo tanto, en las zonas en las que la capa de relleno supera esta altura, la construcción o las estructuras se retrasarán hasta que el terraplén de relleno se estabilice bajo su propio peso.

Para determinar el tiempo necesario para la estabilización (reajuste del terraplén), se debe supervisar cuidadosamente el periodo de estabilización. El programa de supervisión debe consistir en la lectura de plataformas de asentamiento distribuidas por toda la zona rellenada, especialmente en los sectores con mayor profundidad de relleno. Las lecturas de asentamiento se pueden obtener cada dos semanas.

A partir de la información obtenida de las lecturas periódicas en las plataformas de asentamiento, se obtendrá un gráfico de tiempo-asentamiento. Esta información se utilizará para determinar el tiempo real del periodo de estabilización del relleno.

Se colocarán al menos dos (2) placas de asentamiento por cada superficie construida, cuando el relleno supere los 3 metros de espesor.

Cabe señalar que los asentamientos que se prevén en el relleno A-2-4 o superior pueden ser relativamente pequeños. Por lo tanto, el uso de instrumentos de alta precisión y bien calibrados debe ser un requisito estándar para este proyecto.

11.1 Relleno permanente y taludes de corte

Los movimientos de tierra en el emplazamiento requerirán la realización de taludes de corte y la construcción de taludes de relleno. Los taludes de corte podrán seguir una geometría de 1,5H:1,0V, si son superiores a 3 metros, o IH:1V, si el corte es inferior a 3 metros. Se incorporarán bancales de dos (2) metros de ancho en los taludes de corte cada 6 metros de elevación. Los taludes de relleno no reforzados o los taludes de corte realizados en suelos menos competentes deberán tener una geometría de 2,0H:1,0V. De lo contrario, será necesario reforzarlos internamente. Los análisis de estabilidad de taludes se realizarán en los informes geotécnicos finales. Se presentarán recomendaciones específicas sobre la geometría de los taludes una vez que se conozcan las cotas finales.

Se recomienda el uso de relleno selecto (A-2-4 o superior) para la construcción de taludes reforzados debido a sus buenas propiedades de resistencia y drenaje. Los requisitos de escalonamiento, drenaje y control de la erosión que se indican en este informe también deberán formar parte de las especificaciones para los taludes estabilizados mecánicamente.

Las pendientes reforzadas, si fuera necesario, se diseñarán con un factor de seguridad de estabilidad interna de 1,5 (estático) y 1,1 (sísmico). El factor de seguridad para la estabilidad global también deberá cumplir estos requisitos. El diseño final de las pendientes reforzadas deberá enviárnoslo para que verifiquemos los parámetros del suelo utilizados.

11.2 Taludes de acabado

La operación de relleno se continuará en capas compactadas de doce (12) pulgadas hasta que el relleno haya alcanzado la elevación de las taludes acabados.

11.3 Aguas de escorrentía

No se permitirá que las aguas de escorrentía se drenen por la superficie de los cortes expuestos. Para evitar que la escorrentía se derrame por la superficie de los cortes, se instalarán canales de drenaje longitudinales de concreto en los bancos de los taludes de corte. Los canales de drenaje se dotarán de las pendientes adecuadas para evacuar correctamente las aguas de escorrentía superficial a través de los canales y hacia salidas debidamente diseñadas. Cuando no se requieran bancales para el talud, se construirá un canal de hormigón inmediatamente adyacente a la parte superior del talud y otro en la base del talud.

En cuanto a las laderas expuestas, se evaluarán varias medidas adicionales con el fin de minimizar aún más la erosión.

11.4 Control de la erosión

Las aguas superficiales favorecen la migración de partículas de la masa del suelo. La erosión, en una etapa avanzada, puede provocar problemas de estabilidad, como fallos locales en taludes y cimientos. Para minimizar la acción erosiva producida por estas condiciones, existen algunos dispositivos de protección viables y rentables que pueden tenerse en cuenta.

Por consiguiente, se protegerá la superficie de todas las pendientes, por ejemplo, mediante mantas de control de la erosión, geoceldas tridimensionales o fomentando el crecimiento de vegetación altamente resistente a la erosión, como pastos de raíces robustas.

Las mantas consisten en un tejido de malla abierta combinado con paja, mantillo, trozos de madera o fibra de coco. Estas mantas son muy útiles para controlar la erosión del suelo, ya que reducen la velocidad de escorrentía y favorecen la germinación de las semillas y el crecimiento vegetativo sobre los suelos protegidos.

Independientemente de la protección que finalmente se seleccione para este proyecto, se aplicará tan pronto como se terminen los taludes de corte y relleno. Sin embargo, en las zonas en las que prevalezcan condiciones de caudal elevado y/o constante, será necesario considerar medidas correctivas más contundentes. En consecuencia, las disposiciones relativas a los faldones y los cortes (secciones finales empotradas) deben constituir disposiciones de diseño normales para evitar el socavamiento en esta zona.

12.0 DIRECTRICES SOBRE EL DRENAJE DE LOS MUROS DE CONTENCIÓN

Recomendamos que todo el drenaje superficial en la pendiente de la cresta existente se desvíe lejos del área de relleno de la pared. También se recomienda instalar orificios de drenaje debidamente protegidos contra obstrucciones en la pared, espaciados seis (6) pulgadas verticalmente desde la parte inferior a seis (6) pies del centro. Además, recomendamos construir un drenaje colector a lo largo de toda la longitud de los cimientos del muro. Este drenaje debe tener una tubería de drenaje perforada de 6 pulgadas de diámetro en la parte inferior con descarga en un lugar adecuado fuera de los cimientos del muro. El diseño real del muro no entra dentro de nuestro ámbito de trabajo y debe ser realizado por el ingeniero estructural del proyecto.

13.0 RECOMENDACIONES GENERALES PARA MUROS DE HORMIGÓN ARMADO

El uso de rellenos blandos, como limos arenosos y arcillas, produce altas presiones en el muro y presenta problemas de asentamiento perjudiciales. No se recomienda utilizar estos materiales como rellenos.

La estabilidad del muro en voladizo debe comprobarse en función

de:

- **La capacidad de carga de los cimientos del muro**
- **El deslizamiento a lo largo de la base**
- **Volcado del muro**

Para diseñar los cimientos de los muros de contención, se utilizará la capacidad de carga admisible del suelo recomendada anteriormente en este informe.

La estabilidad del muro frente al deslizamiento debe cumplir un factor de seguridad no inferior a 1,5. El deslizamiento debe resistirse mediante el esfuerzo cortante entre el suelo y la base del muro, y mediante las presiones pasivas del suelo frente al muro o los elementos de la estructura propuesta para sujetar el muro. Los parámetros de resistencia al esfuerzo cortante utilizados para estimar el factor de seguridad dependerán de las características del suelo en la base del muro. Los muros de contención de más de 2 metros de altura se evaluarán en cuanto a su estabilidad global.

Es importante señalar que todas las superficies de las bases deben estar rugosas y secas antes de colocar el hormigón. Si es necesario, se puede aumentar la resistencia al deslizamiento mediante una llave de hormigón que sobresalga en el suelo por debajo de la base. Esta llave aumentará la resistencia pasiva contra el deslizamiento. Por motivos de vuelco, la base del muro debe dimensionarse de tal manera que la resultante de todas las fuerzas que actúan sobre el muro de soporte debe intersectar la base en su tercio medio. tercio.

Se debe tener mucho cuidado para evitar una compactación excesiva detrás de los muros de contención, ya que, de lo contrario, los muros podrían desplazarse o sufrir una tensión excesiva. El diseñador también deberá verificar el diseño frente a cargas dinámicas, como las provocadas por terremotos. Las presiones de apoyo admisibles recomendadas pueden aumentarse en un 33 % durante la evaluación de este evento.

13.1 Sistema de soporte temporal

Dadas las condiciones del suelo en el emplazamiento, se puede aplicar una pendiente de 0,5:1 (H:V) para taludes provisionales sin soporte.

Siempre que un corte temporal tenga una pendiente superior a 0,5:1, será necesario construir una estructura de contención temporal. Esto se puede lograr mediante un sistema temporal de contención de tierra, como pilotes soldado en voladizo con revestimiento de madera. Los pilotes soldado en la zona alta se perforarán en lugar de hincarse debido a las condiciones de suelo duro que se esperan.

14.0 RECOMENDACIONES SÍSMICAS

Según el PRBC (2018) actual, el proyecto se ubica sobre suelos de clase C. La siguiente tabla describe los criterios, según el PRBC, para categorizar los perfiles del suelo con el fin de modelar la respuesta sísmica de las estructuras. Consulte la tabla siguiente:

Tipo de perfil del suelo	Nombre del perfil del suelo/Descripción genérica	Propiedades medias del suelo para los primeros 100 pies (30 480 mm) del perfil del suelo		
		Velocidad de onda de corte, Vs pies/segundo (m/s)	Prueba de penetración estándar, N (o NCH para capas de suelo sin cohesión)	Resistencia al corte sin drenaje, Su psf (kPa)
SA	Roca dura	>5000 (1500)		
SB	Roca	2500 a 5000 (760 a 1500)		
SC	Suelo muy denso y roca blanda	1200 a 2500 (360 a 760)	>50	>2000 (I 00)
SD	Perfil de suelo rígido	600 a 1200	15 a 50	1000 a 2000 (50 a 100)
SE	Perfil de suelo blando	<600 (l 80)	<l5	<1,000 (50)
SE[1]	Soft Soil Profile	<600 (180)	<15	<1,000 (50)
SF	Soil Requiring Site-Specific Evaluation. See Section 20.3.1.			

[1] Perfil de suelo blando que contiene más de 10 pies (3048 mm) de arcilla blanda definida como arcilla con un índice de plasticidad PI > 20, un contenido de humedad Wm ≥ 40 por ciento y una resistencia al corte sin drenaje Su < 500 psf (24 kPa). El índice de plasticidad PI y el contenido de humedad Wmc se determinarán de acuerdo con las normas nacionales aprobadas.

15.0 COMENTARIOS

Las conclusiones preliminares y las recomendaciones preliminares anteriores se basan en pruebas representativas que consideramos adecuadas. Se llevará a cabo una exploración final en la que se realizarán perforaciones adicionales para delimitar mejor las condiciones del subsuelo mencionadas en este informe, con el fin de abordar mejor las cuestiones relacionadas con los cimientos y la estabilidad de los taludes del proyecto.

Las recomendaciones preliminares emitidas en este informe solo se utilizarán para diseños conceptuales y presupuestos preliminares, pero nunca para consideraciones de diseño final ni para presupuestos detallados.

Los procedimientos estándar seguidos durante la perforación de los sondeos de prueba se describen detalladamente en el apéndice de este informe.

Este informe se ha elaborado teniendo en cuenta los factores de diseño que conocemos en la actualidad. Se informará a los diseñadores del proyecto de cualquier aspecto que pueda haberse pasado por alto, que requiera aclaración o que pueda necesitar recomendaciones adicionales a las aquí expuestas.

Atentamente,

IVAN JACKSON MADURO, P.E., M.S.C.E.,
Socio

mgn

N.º de referencia 5355.rep

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PRUEBAS DE CLASIFICACIÓN

PLACA 1

COORDENADAS DE

PERFORACIÓN REGISTROS

DE PERFORACIÓN

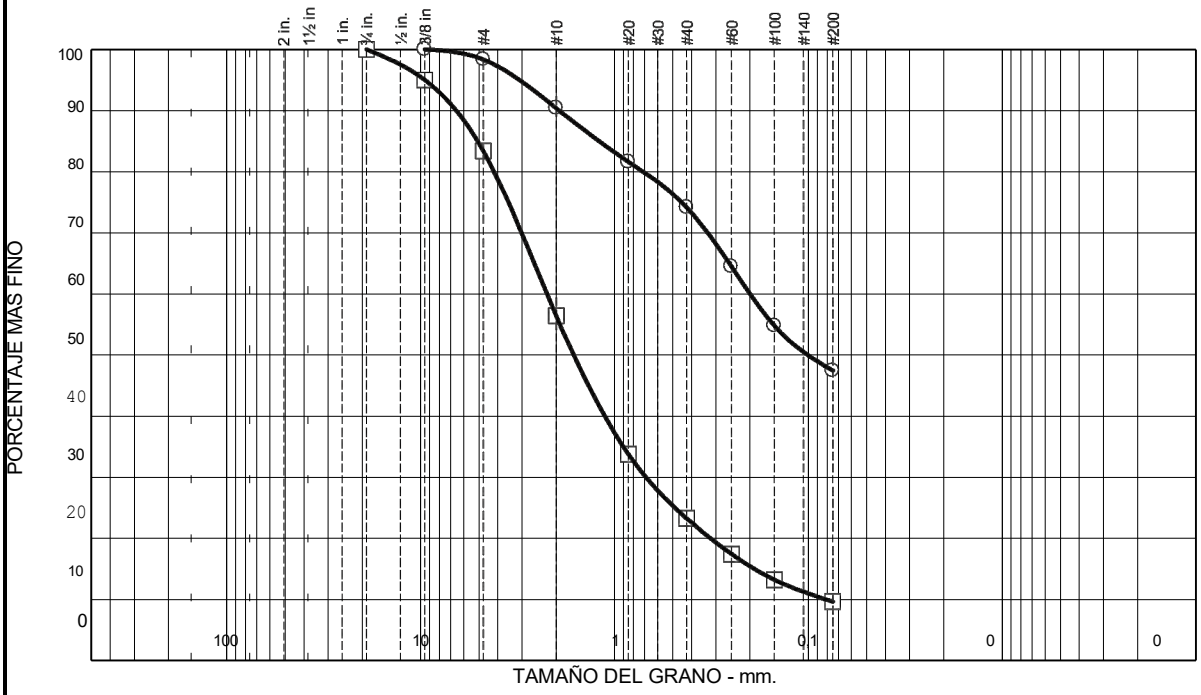
APÉNDICES DE

PERFORACIÓN

PRUEBAS DE CLASIFICACIÓN

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Correo electrónico:

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0	1,7	7,9	16,2	26,7	47,5	
□	0	0	16,6	26,9	33,1	1,6	9,8	

	LL	PM	D8s	Dso	Dso	D30	D15	D10	Cc	u
0	24	15	1,2030	0,2000	0,1004					
	NO	NP	5,0829	2,2305	1,6226	0,6860	0,1881	0,0791	2,67	28,19

Descripción del material	USCS	AASHTO
O arena arcillosa	SC	A-4(1)
O Arena bien graduada con limo y grava	SW-SM	A-l-b

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.Y Profundidad: 4'-'§.S' Número de muestra: 3

0 Fuente de la muestra: Bo.Y Profundidad: 9'-10.ñ' Número de muestra: S

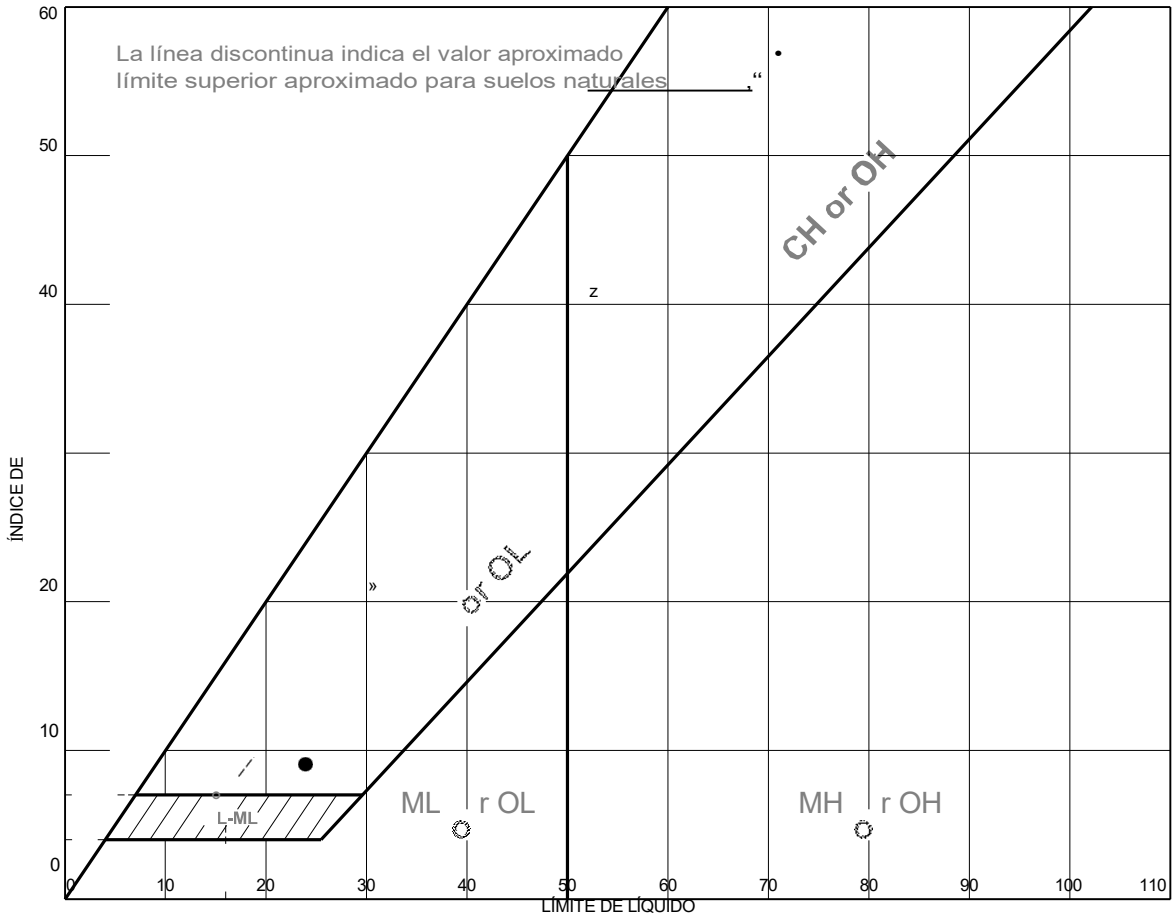
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBAS DE LÍMITES DE LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
●	arena arcillosa	24	1fi	9	74,2	47,5	SC
M	arena bien clasificada con limo y grava	NV	NP	NP	23,4	9,8	SW-SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.Y Profundidad: 4'-S.ñ' Número de muestra:
ñ Fuente de la muestra: Bo.Y Profundidad: 9'-10.ñ' Número de muestra:
S

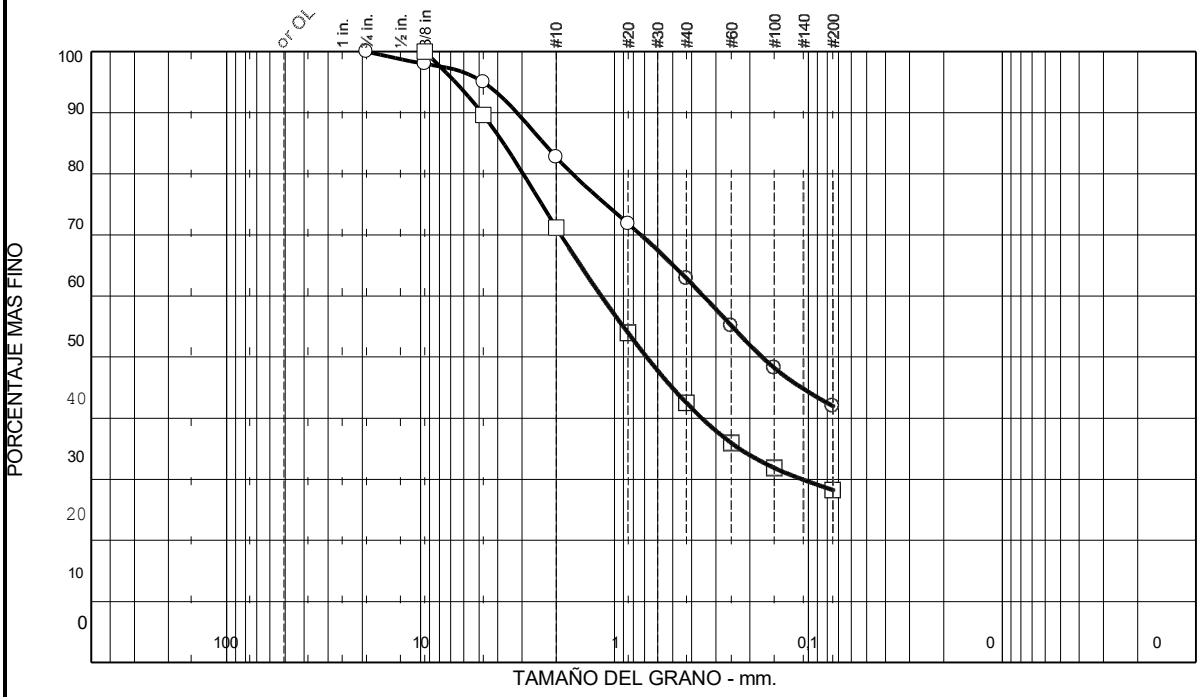
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	**Fino**	Limo	Arcilla
O	0	0	5	12,3	19,9	20,8	42,0	
□	0	0	10,4	18,4	28,7	14,2	28	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	Cc	u
)	33	16	2,3197	0,3487	0,1736					
	28	15	3,7404	1,1692	0,6814	0,1081				

Descripción del material	USCS	AASHTO
O arena arcillosa O arena arcillosa	SC SC	A-6(3) A-2-6(0)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.U Profundidad: 4'-'§.S' Número de muestra: 3

0 Fuente de la muestra: Bo.LI Profundidad: 9'-10.ñ' Número de muestra: S

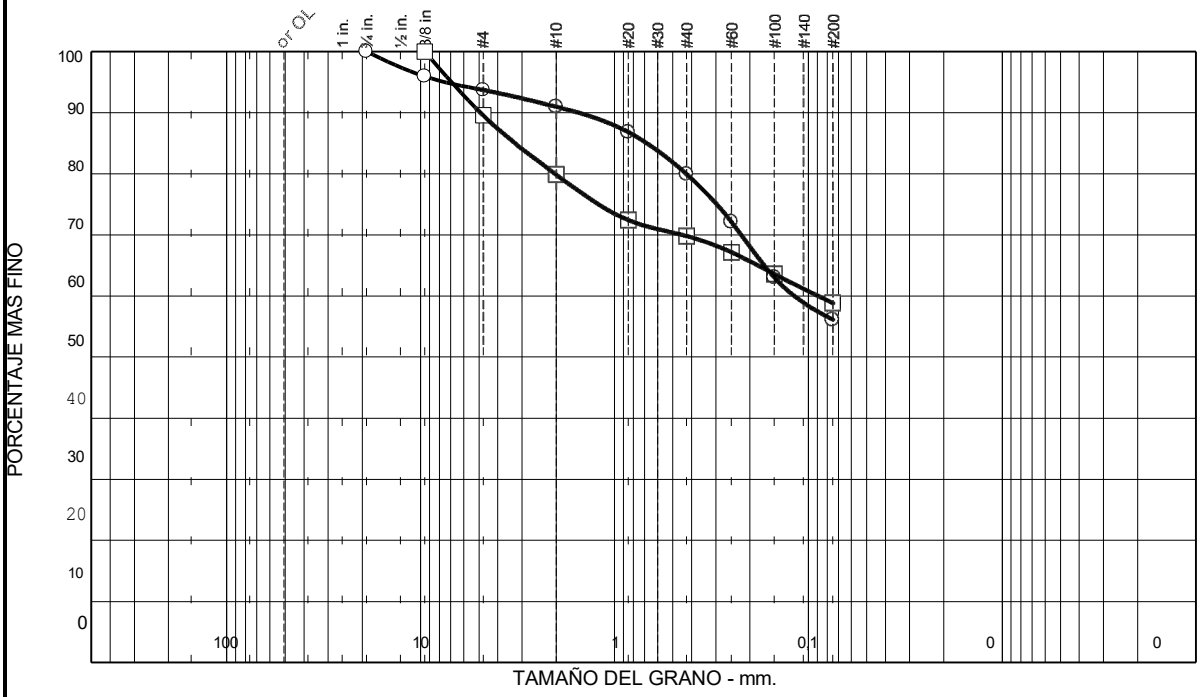
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	**Fino**	Limo	Arcilla
O	0	0	6,3	2.7	11,0	23,8	56,2	
□	0	0	10,4	9,7	10,0	10,9	59	

	LL	PL	D8s	Dso	D50	D30	D15	D10	Cc	u
)	31	19	0,6783	0,1170						
	29	15	3,2546	0,0876						

Descripción del material	USCS	AASHTO
Arcilla arenosa O	CL	A-6(4)
Arcilla arenosa O	CL	A-6(5)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.W Profundidad: 4'-S.5' Número de muestra: 3

) Fuente de la muestra: Bo.W Profundidad: 9'-10.ñ' Número de muestra: S

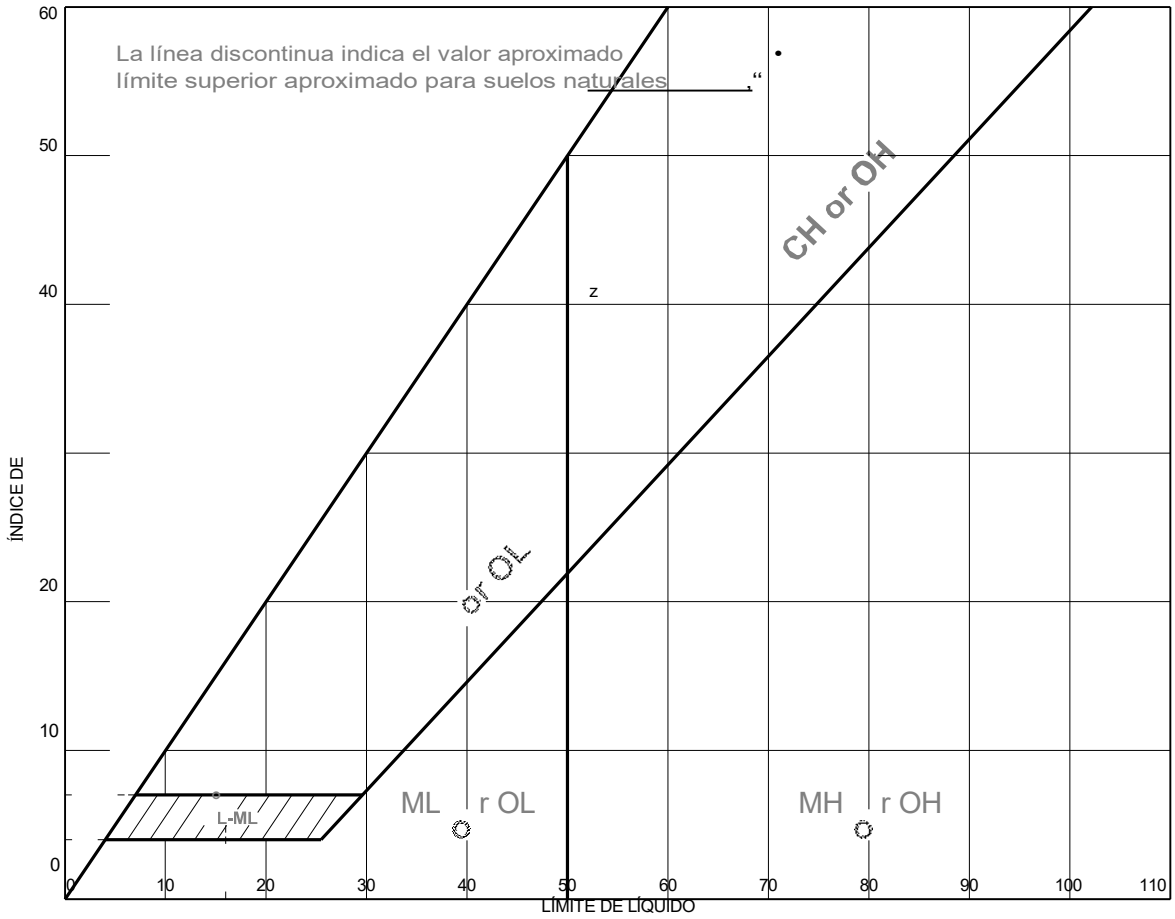
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
●	arena arcillosa	33	16	17	62,8	42	SC
■	arena arcillosa	26	15	13	42	25,3	SC

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.U Profundidad: 4'-S.ñ' Número de muestra:
ñ Fuente de la muestra: Bo.U Profundidad: 9'-10.ñ' Número de muestra:
S

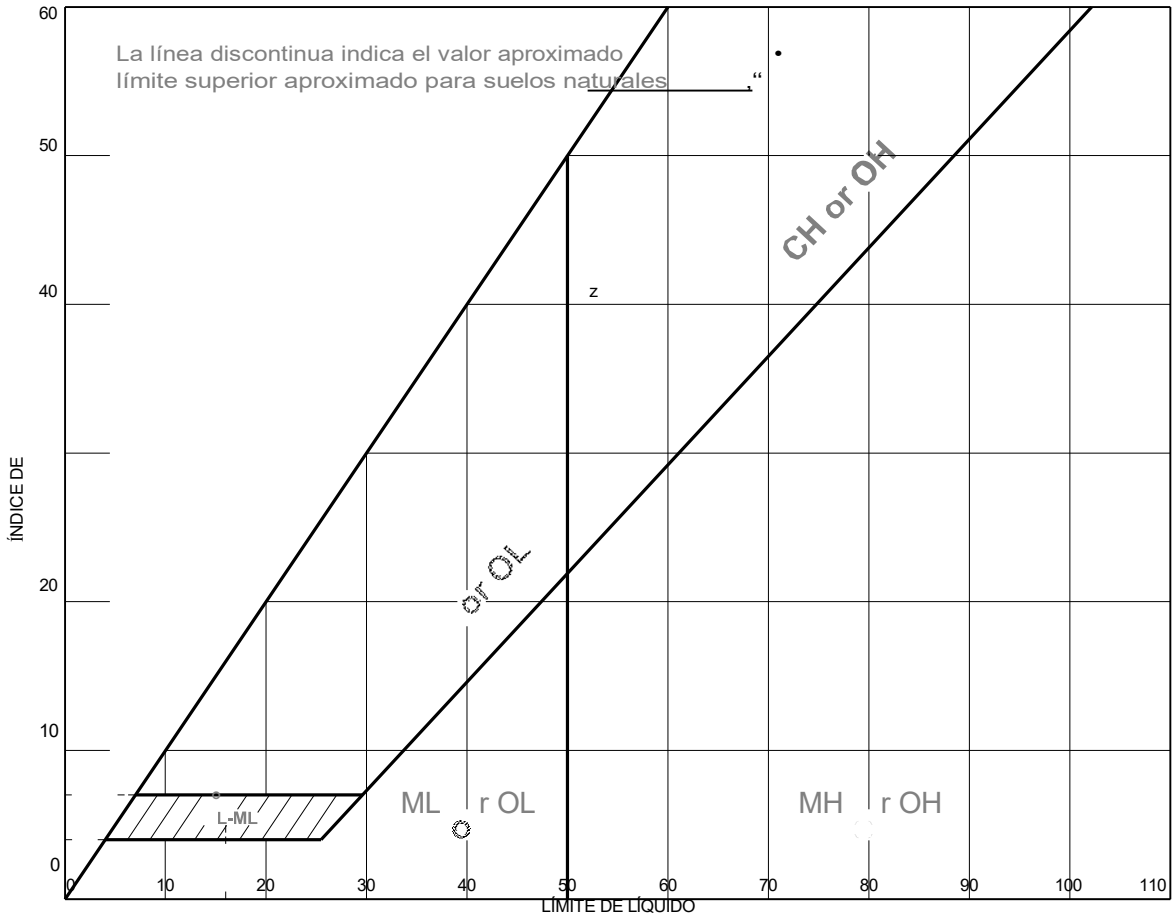
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
●	arcilla arenosa pobre	31	19	12	80,0	56,2	CL
■	arcilla arenosa pobre	20	15	14	69,9	59	CL

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.W Profundidad: 4'-ñ.ñ' Número de muestra: ?
Fuente de la muestra: Bo.W Profundidad: 9'-10.ñ' Número de muestra:
ñ

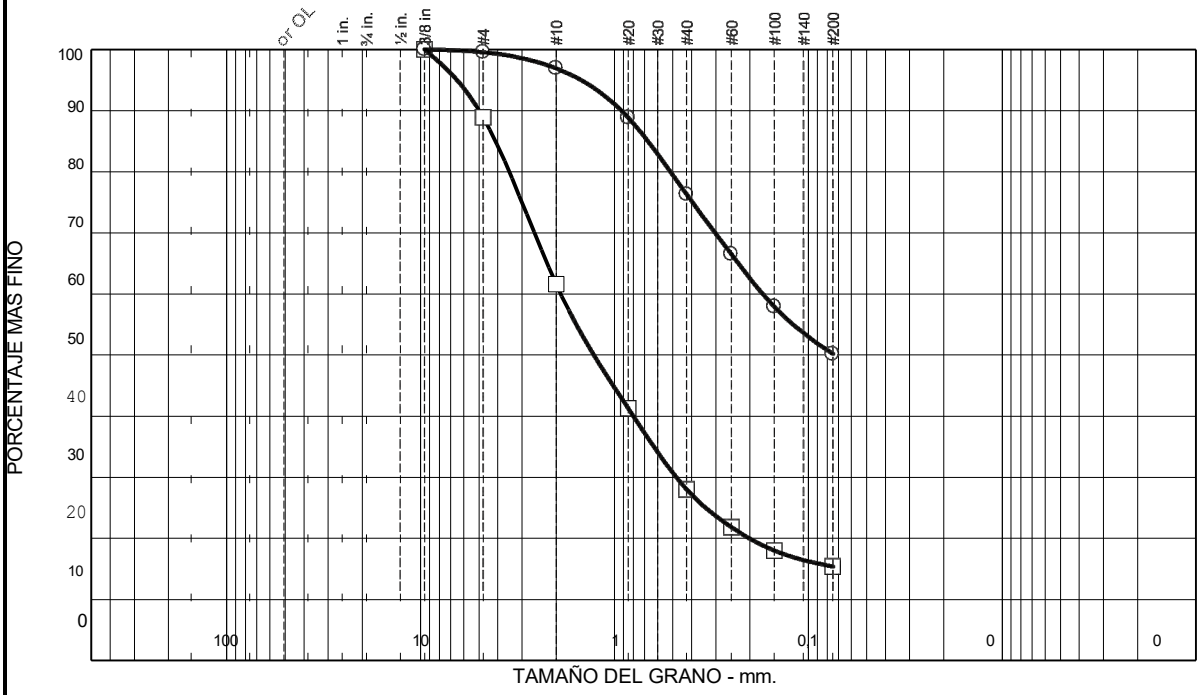
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	Limo	Arcilla
O	0	0	0.?	2,6	20,6	26,1	50,2	
□	0	0	11,1	27,3	33,5	12,6	15,5	

	LL	PL	D8s	Dso	D50	D30	D15	D10	Cc	u
)	26	20	0,6728	0,1719						
	34	17	4,10fi0	1,8920	1,2762	0,4777				

Descripción del material	USCS	AASHTO
O arcilla limosa arenosa O arena arcillosa	CL-ML SC	A-4(1) A-2-6(0)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.S Profundidad: 4'-S.3' Número de muestra: 3

0 Fuente de la muestra: Bo.S Profundidad: 9'-10.S' Número de muestra: ñ

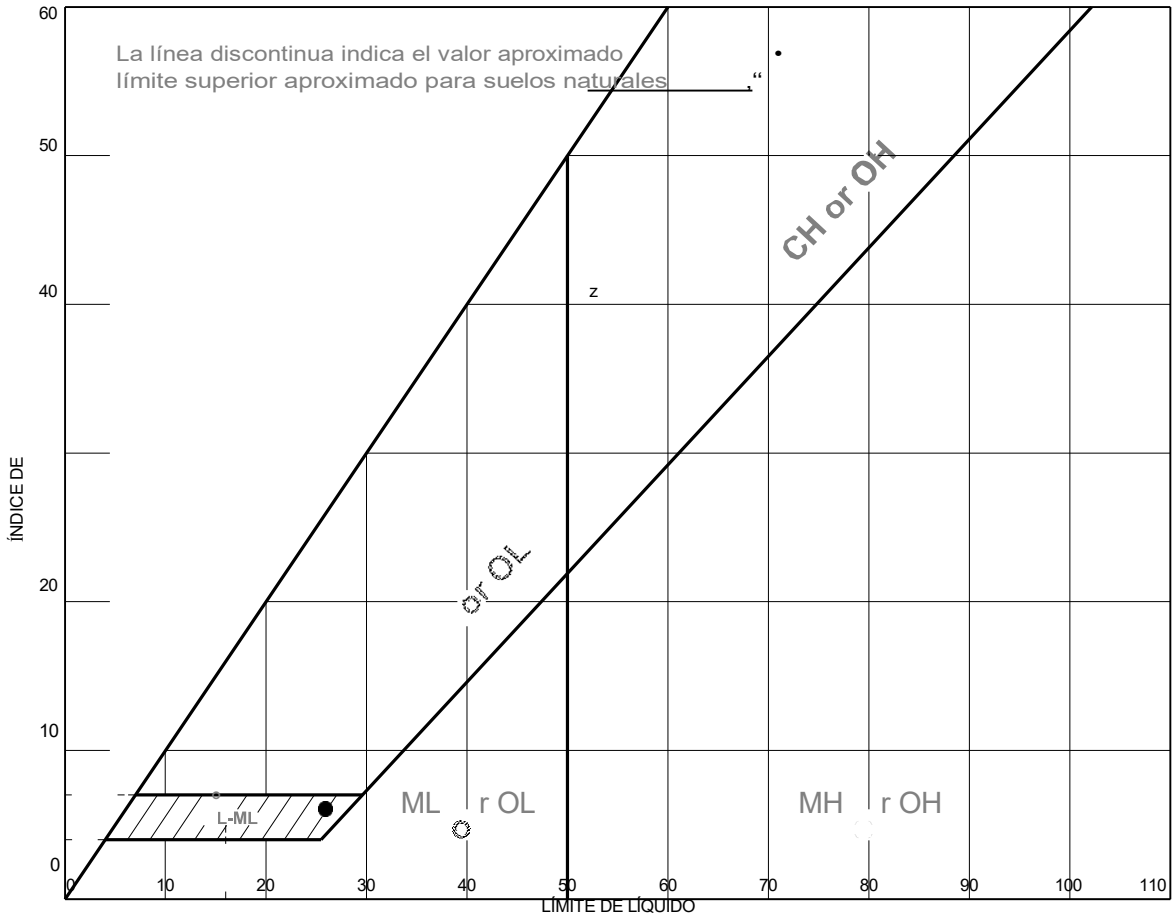
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
●	arcilla limosa arenosa	26	20	6	76,3	50,2	CL-ML
●	arena arcillosa	34	17	17	28,1	15,5	SC

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.S Profundidad: 4'-fi.S Número de muestra: ?
Fuente de la muestra: Bo.S Profundidad: 9'-10.ñ' Número de muestra:
ñ

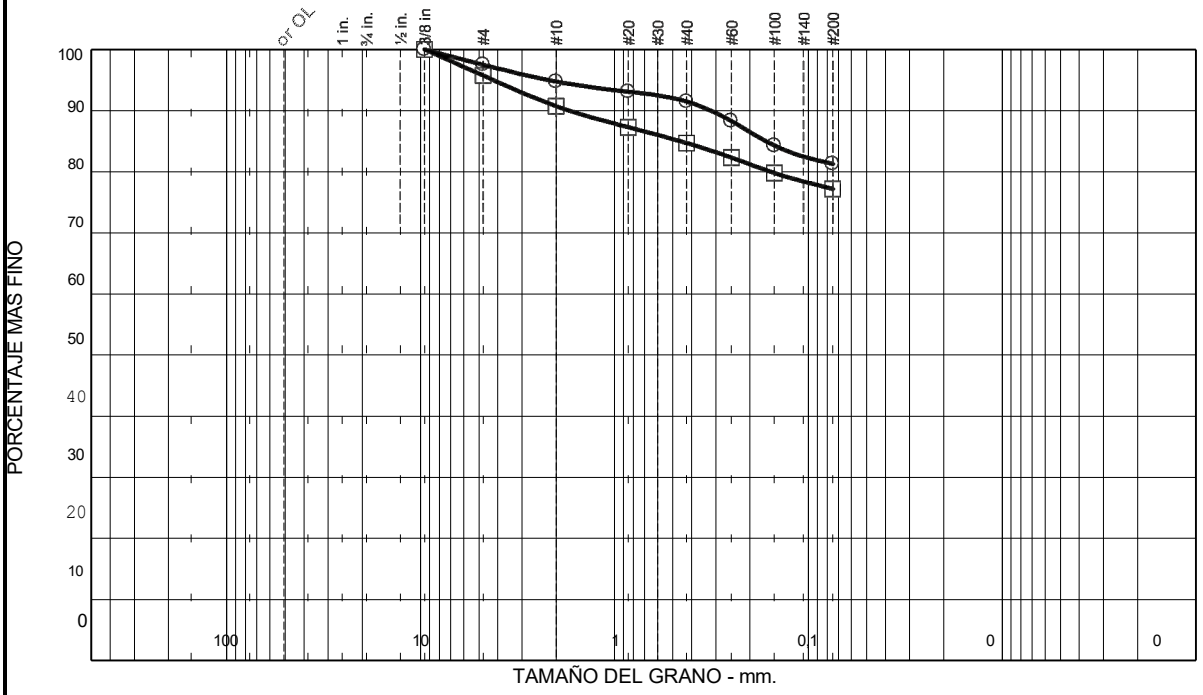
SUELOS, INC.

San Juan, Puerto Rico

Observaciones:

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	Limo	Arcilla
O	0	0	2,5	2,8	3,2	10,2	81,3	
□	0	0	4,3	5,0	6	7	77,2	

	LL	PL	D8s	D60	D50	D30	D15	D10	Cc	u
)	84	36	0,1654							
	51	23	0,4574							

Descripción del material	USCS	AASHTO
Arcilla grasa con arena Arcilla grasa con arena	CH CH	A-7-S(44) A-7-6(22)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

Fuente de la muestra: Bo.0 Profundidad: 4'-'§.S' Número de muestra: 3

0 Fuente de la muestra: Bo.0 Profundidad: 9'-10.ñ' Número de muestra: S

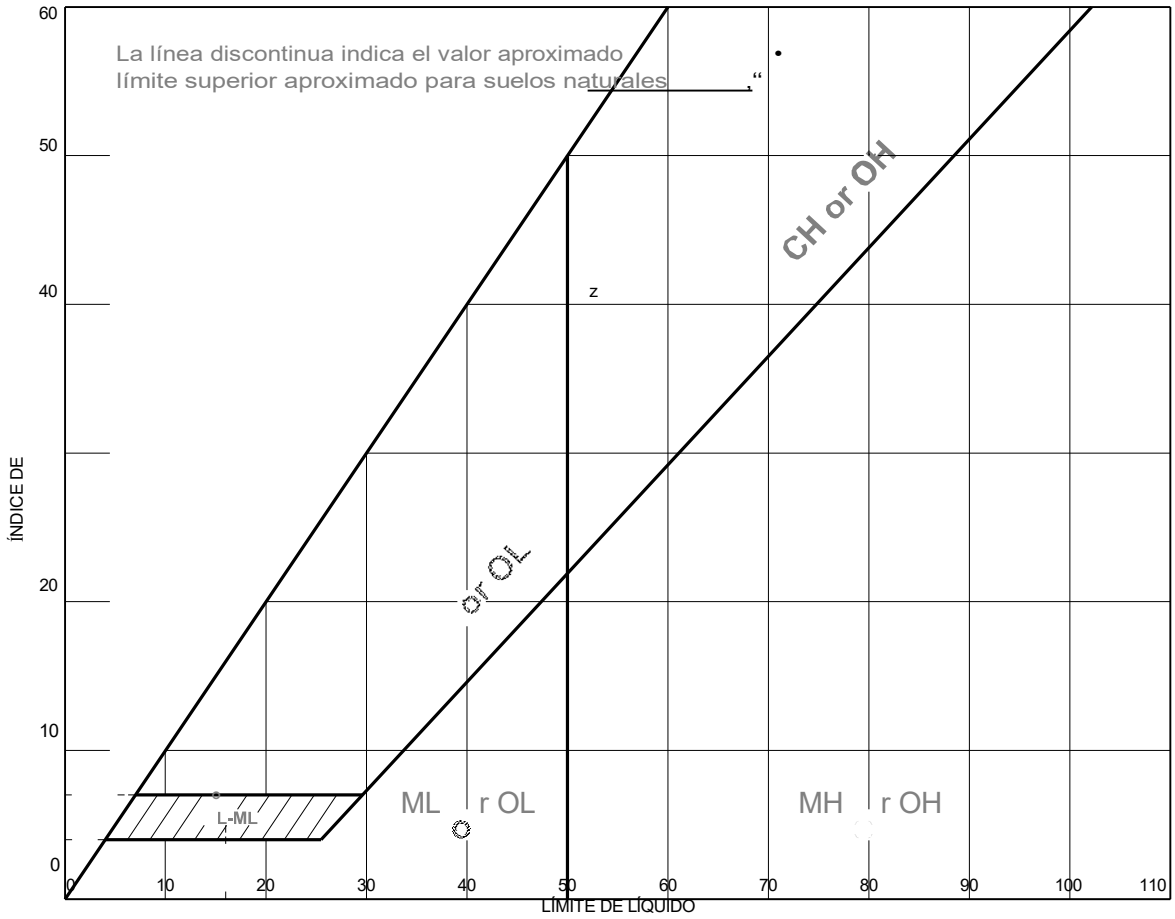
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
D	arena bien clasificada con limo y grava	NV	NP	NP	15,8	6,4	SW-SM
M	arena bien clasificada con limo y grava				14,0	6.0	SW-SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.Q Profundidad: 4'-S.ñ' Número de muestra:
ñ Fuente de la muestra: Bo.Q Profundidad: 9'-10.ñ' Número de muestra:
S

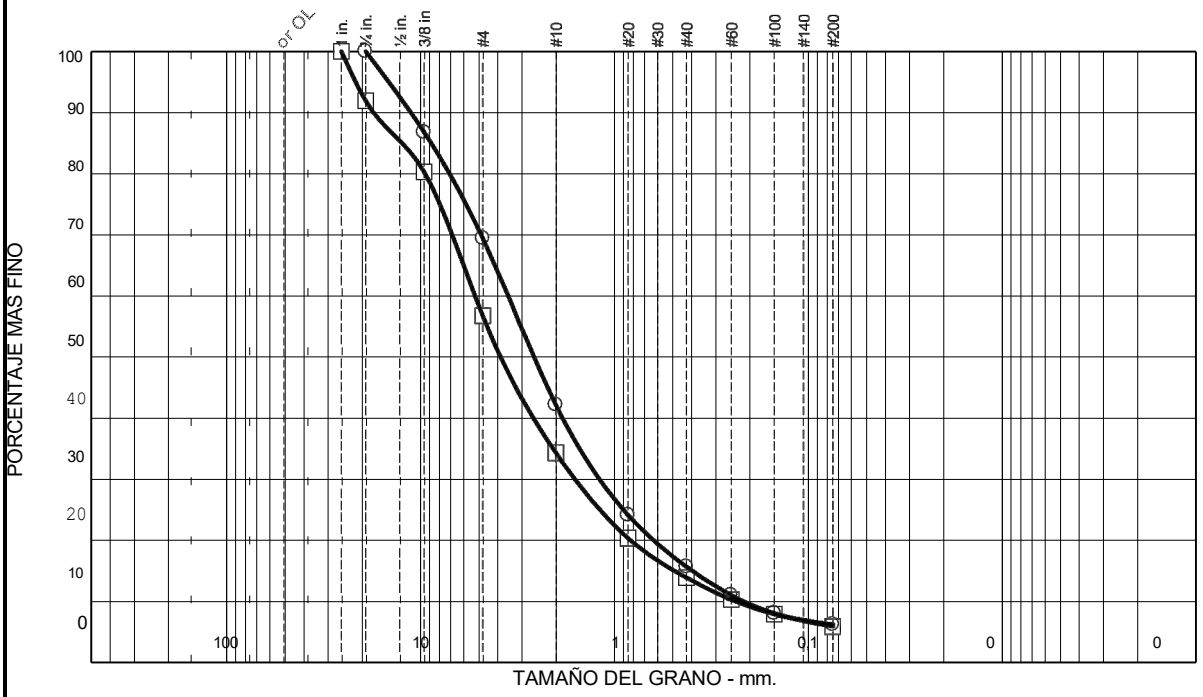
SUELOS, INC.

San Juan, Puerto Rico

Observaciones:

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0.0	0,0	30,5	27,3	26,4	9,4	6,4	
□	0,0	8,1	35,1	22,4	20,4	8,0	6,0	

	LL	PL	D8s	D60	D50	D30	D15	D10	C	C_u
O	NV	NP	8,7582	3,5155	2,5852	1,1888	0,3921	0,2119	1,90	16,59
	NV	NP	12,3640	5,2021	3,8387	1,5878	0,4830	0,2322	2,09	22,40

Descripción del material	USCS	AASHTO
O Arena bien graduada con limo y grava O	SW-SM	A-I-a
Arena bien graduada con limo y grava	SW-SM	A-I-a

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

Fuente de la muestra: Bo.Q Profundidad: 4'-'§.S' Número de muestra: 3

0 Fuente de la muestra: Bo.Q Profundidad: 9'-10.ñ' Número de muestra: S

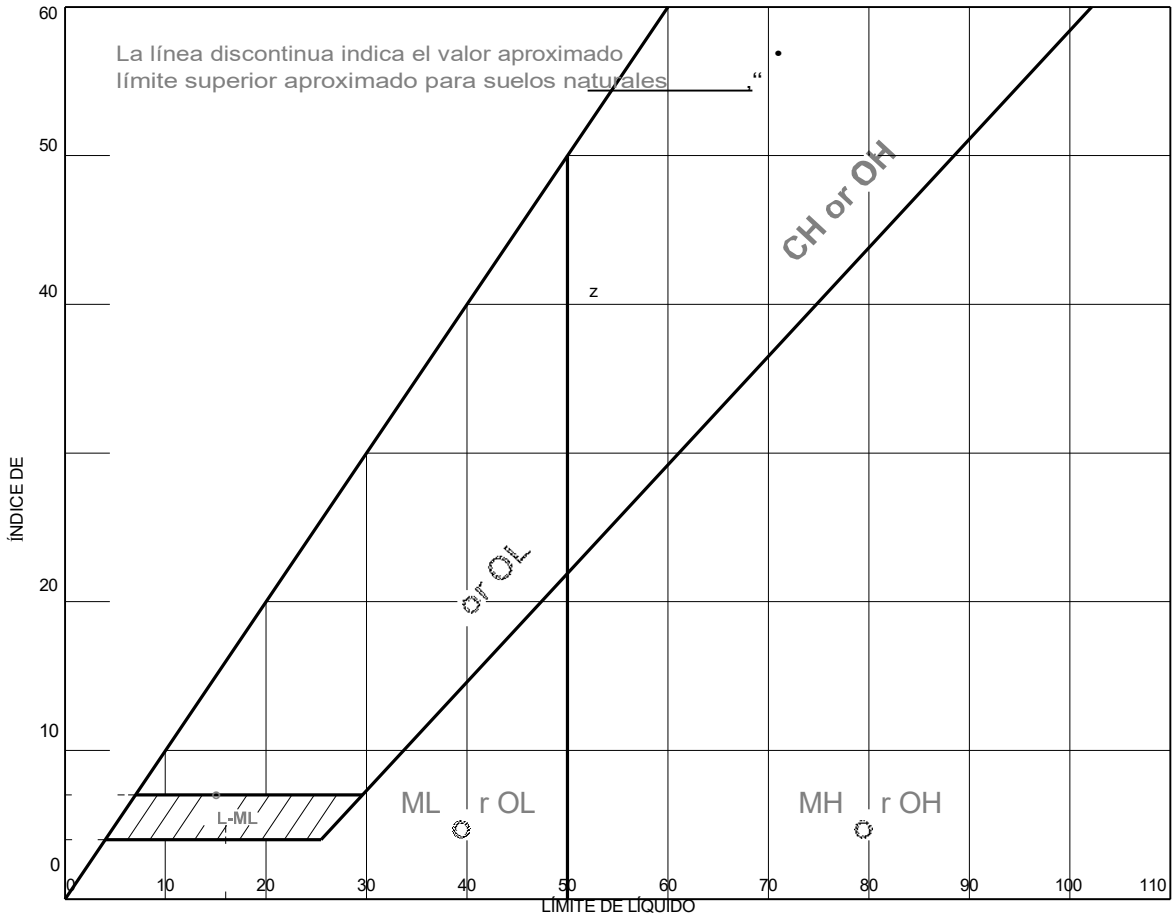
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
●	arcilla grasa con arena	84	36	48	91,5	81,3	CH
●	arcilla grasa con arena	51	23	25	84,7	77,2	CH

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.O Profundidad: 4'-S.ñ' Número de muestra:
ñ Fuente de la muestra: Bo.0 Profundidad: 9'-10.ñ' Número de muestra:
S

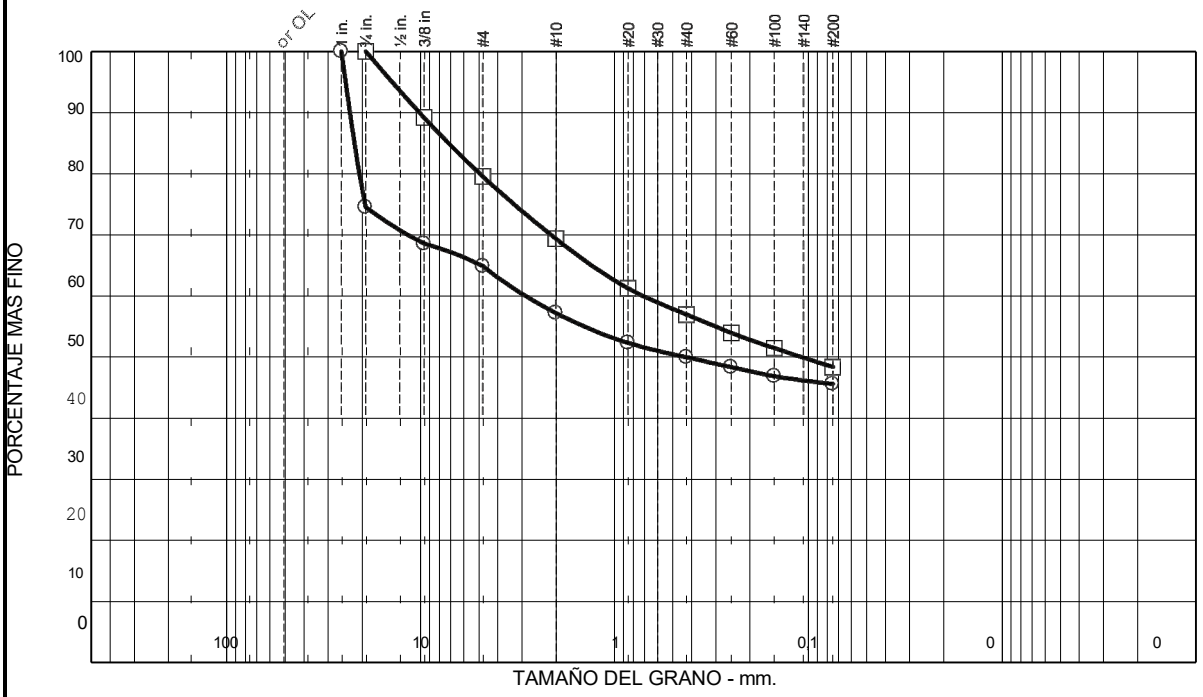
SUELOS, INC.

San Juan, Puerto Rico

Observaciones:

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	Limo	Arcilla
O	0,0	25,4	9.7	7.6	7.3	4	45,7	
□	0	0	20,4	10,2	12,4	8,6	48,4	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	Cc	u
O	NV	NP	21.7786	2,8464	0.4212					
	45	14	7,1245	0,7052	0,1070					

Descripción del material	USCS	AASHTO
O Grava limosa con arena O	GM	A-4(0)
Arena arcillosa con grava	SC	A-7-6(10)

Proyecto n.º S3Sñ Cliente: AD@V

Proyecto: DESARROLLO ESENCIA, CABO ROJO

Fuente de la muestra: Bo.M Profundidad: 2'-3.5' Número de muestra: 2

0 Fuente de la muestra: Bo.M Profundidad: 6'-7.ñ' Número de muestra: 4

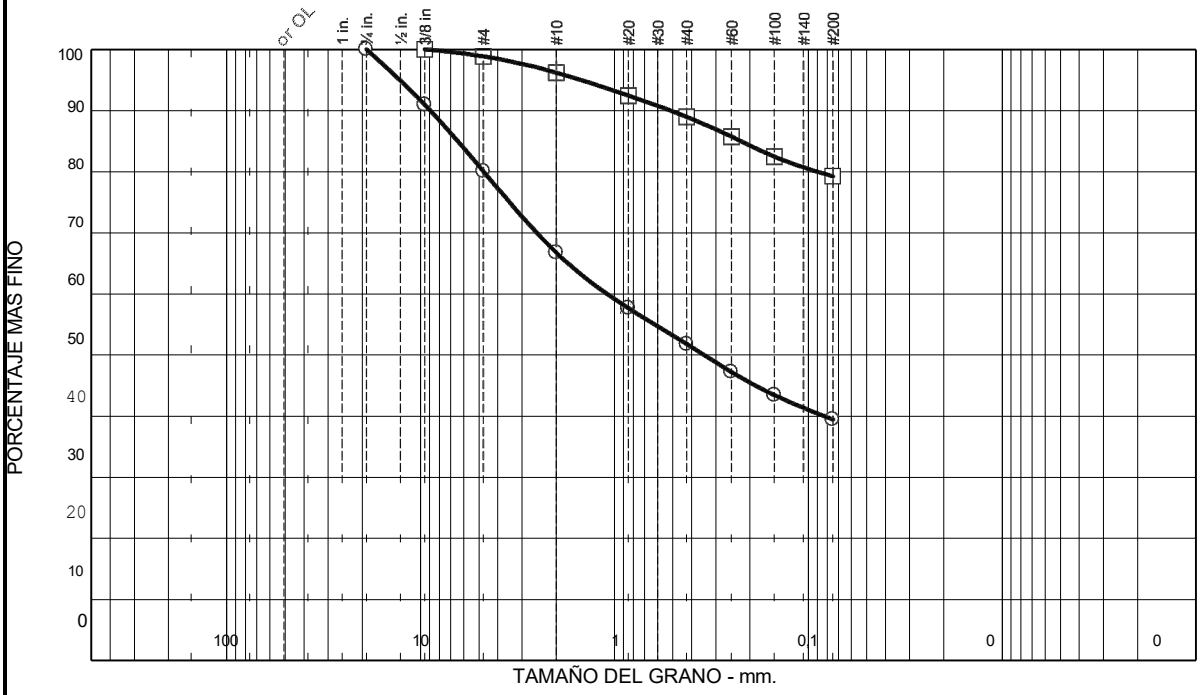
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe sobre la distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0	19,9	13,4	14,9	12,3	39,5	
□	0	0	1,2	2,6	7,3	9,7	79,2	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	Cc	u
)	54	22	6,4443	1,0944	0,3458					
	81	21	0,2240							

Descripción del material	USCS	AASHTO
O arena arcillosa con grava	SC	A-7-6(7)
O arcilla grasa con arena	CH	A-7-6(50)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

Fuente de la muestra: Bo.K Profundidad: 2'-3.5' Número de muestra: 2

) Fuente de la muestra: Bo.K Profundidad: 6'-7.ñ' Número de muestra: 4

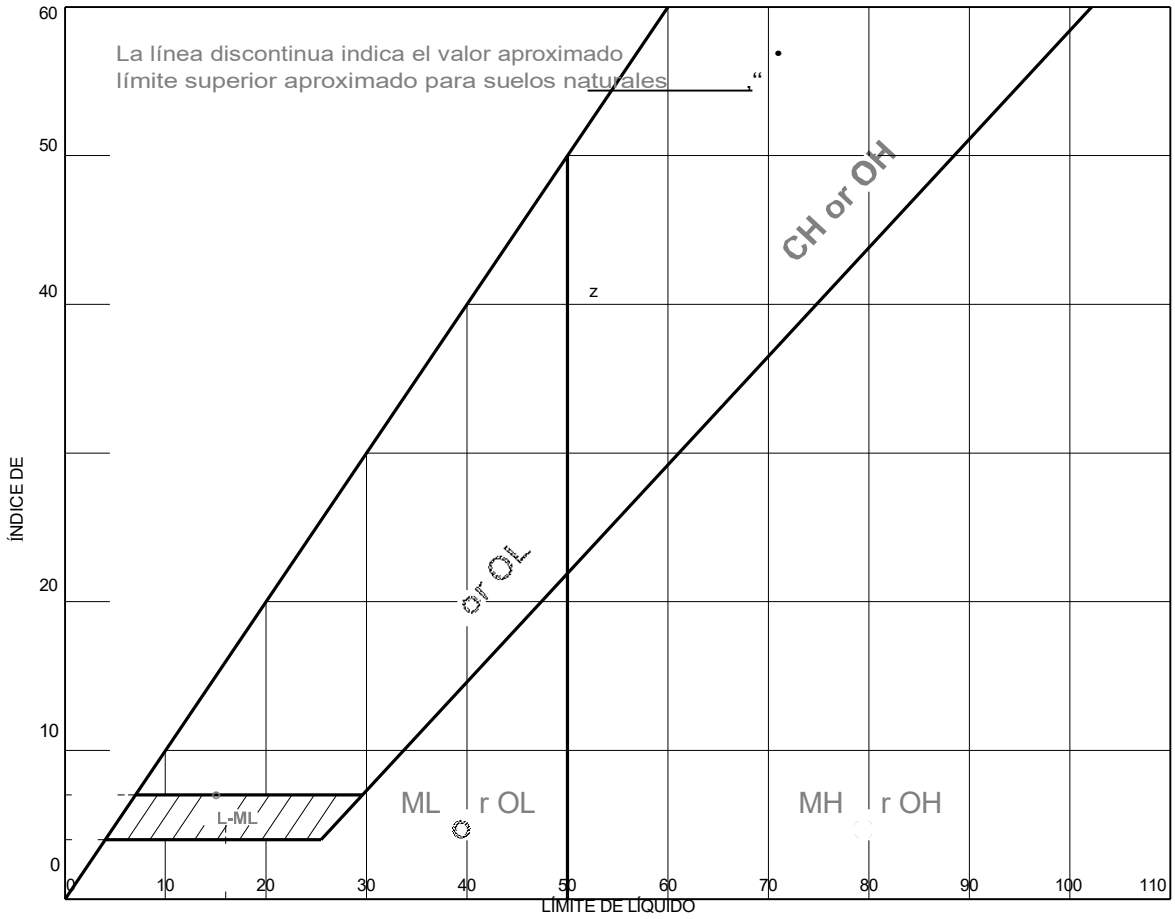
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	grava limosa con arena	NV	NP	NP	50,0	45,7	GM
●	arena arcillosa con grava	45	14	31	57,0	45,4	SC

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.M Profundidad: 2'-?.S' Número de muestra:
2 Fuente de la muestra: Bo.M Profundidad: 6'-7.S' Número de muestra:
4

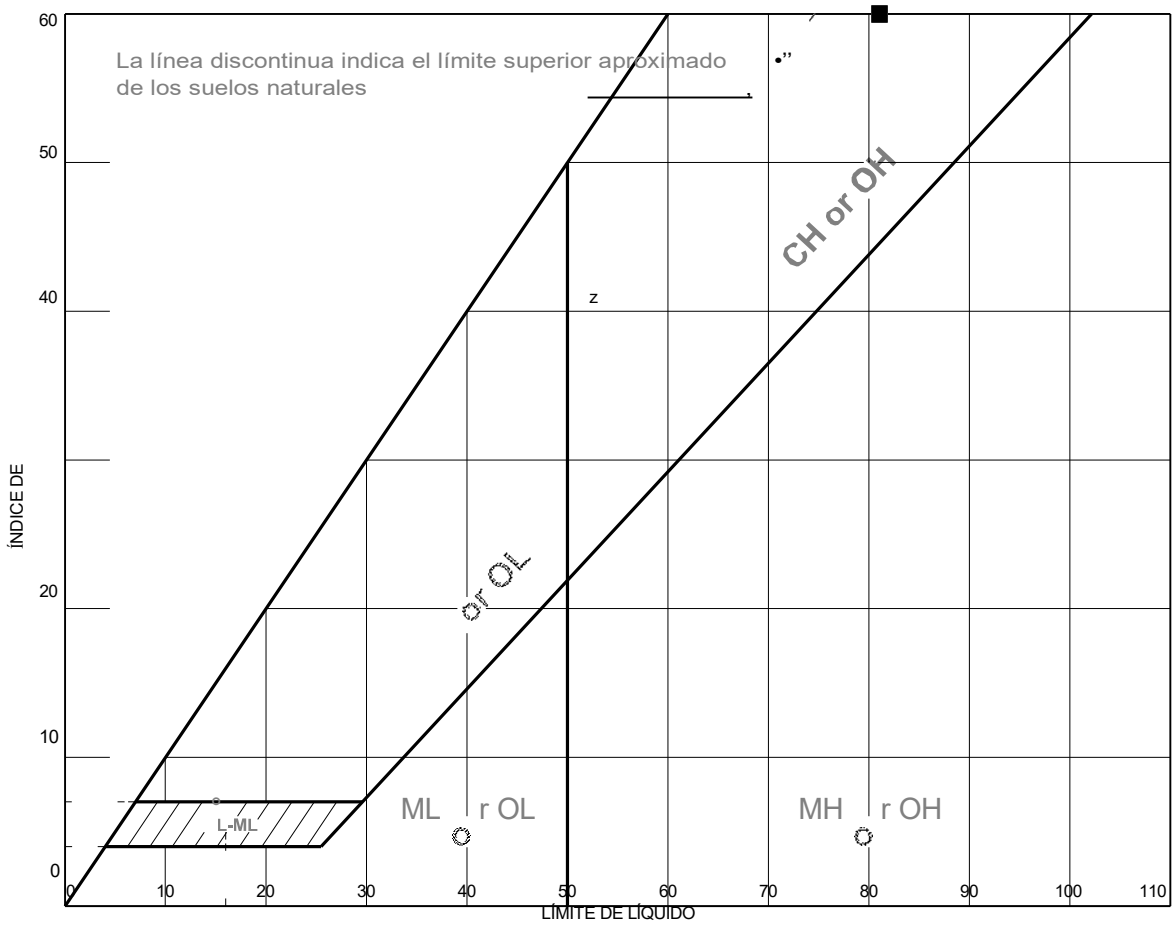
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	arena arcillosa con grava	ñ4	22	ñ2	ñL8	ñ9.ñ	SC
●	arcilla grasa con arena	81	21	60	88,9	79,2	CH

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.K Profundidad: 2'-ñ.ñ' Número de muestra:
2 Fuente de la muestra: Bo.K Profundidad: 6'-7.ñ' Número de muestra:
4

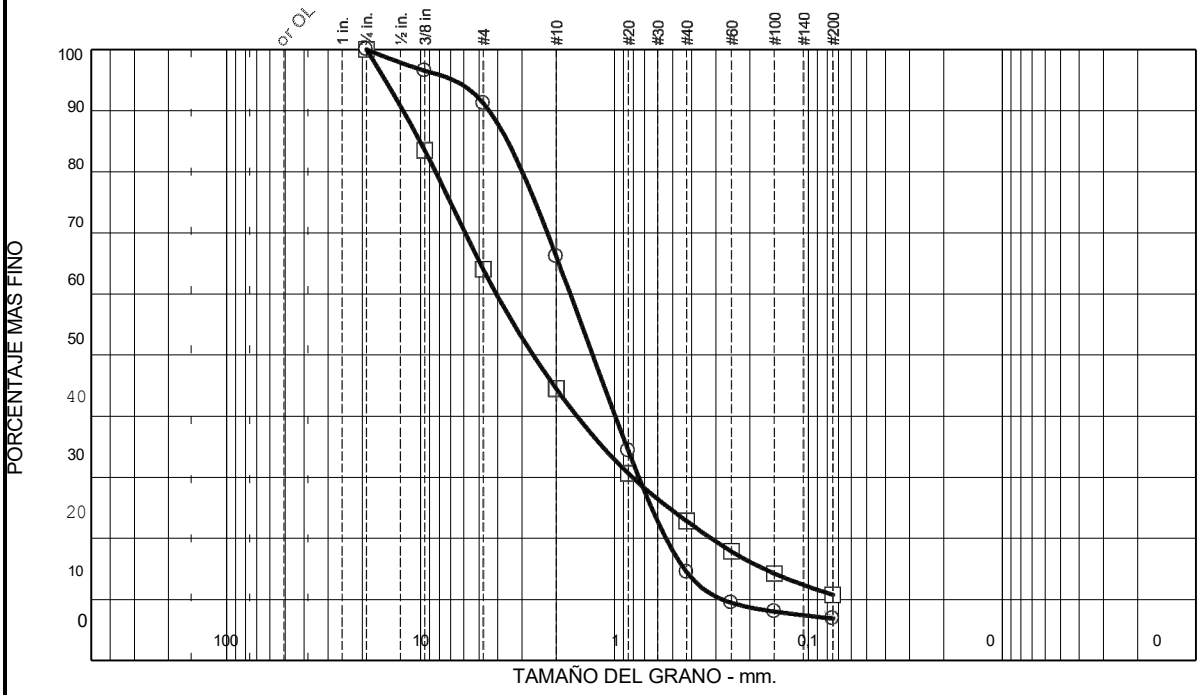
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe sobre la distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0	8,8	25	ñL6	7,6	7,0	
□	0	0	36,0	19,4	21,7	12	10,9	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	C	u
O	NV	NP	3,5675	1,6922	1,2968	0,7487	0,4349	0,2733	1,21	6,19
	NV	NP	10,0876	4,0615	2,6254	0,8057	0,1669			

Descripción del material	USCS	AASHTO
Arena bien clasificada con limo	SW-SM	A-I-b
Arena mal clasificada con limo y grava	SP-SM	A-I-a

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

Fuente de la muestra: Bo.E Profundidad: 2'-3.5' Número de muestra: 2

0 Fuente de la muestra: Bo.E Profundidad: 6'-7.S' Número de muestra: 4

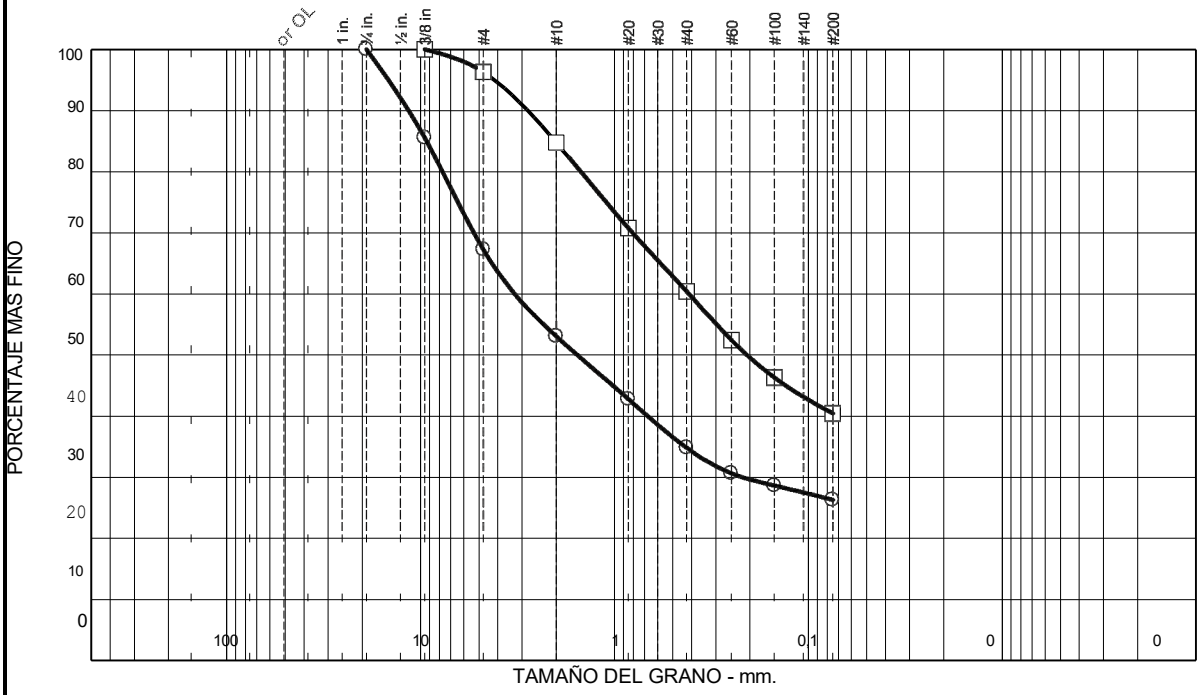
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% de finos	
		Grueso	Fino	Grueso	Medio	Fino	Limo	Arcilla
O	0	0	32,7	14,2	18,3	8,5	26	
□	0	0	3,7	11,5	24,4	20	40,4	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	Cc	u
)	28	23	9,3214	3,2758	1,5561	0,2187				
	72	28	2,0265	0,4139	0,2077					

Descripción del material	USCS	AASHTO
O Arena limosa con grava	SM	A-2-4(0)
O Arena arcillosa	SC	A-7-6(10)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.I Profundidad: 2'-3.5 Número de muestra: 2

) Fuente de la muestra: Bo.I Profundidad: 6'-7.ñ' Número de muestra: 4

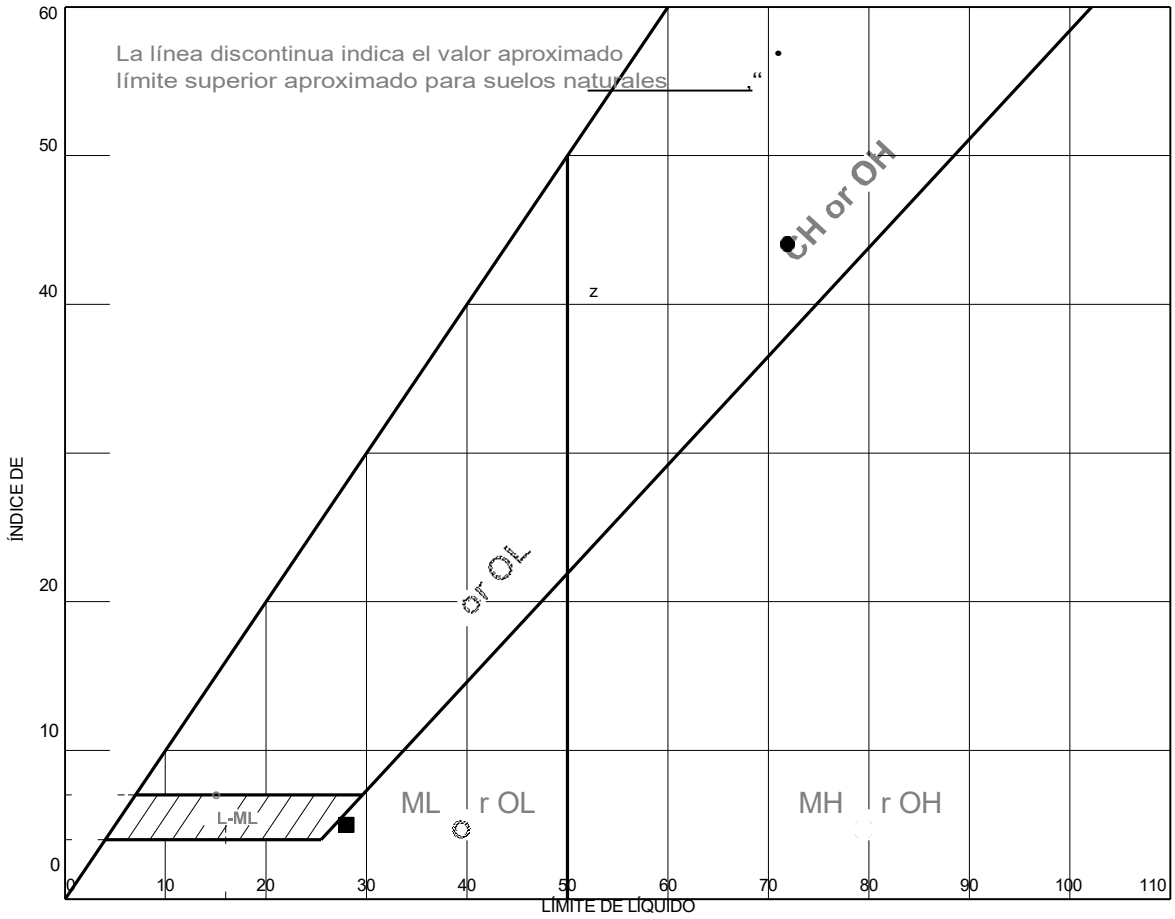
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	arena arcillosa	72	28	44	60,4	40,4	SC
●	arena limosa con grava	25	23	5	34,5	26	SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.I Profundidad: 6'-7.ñ' Número de muestra:
4 Fuente de la muestra: Bo.I Profundidad: 2'-ñ.S Número de muestra:
2

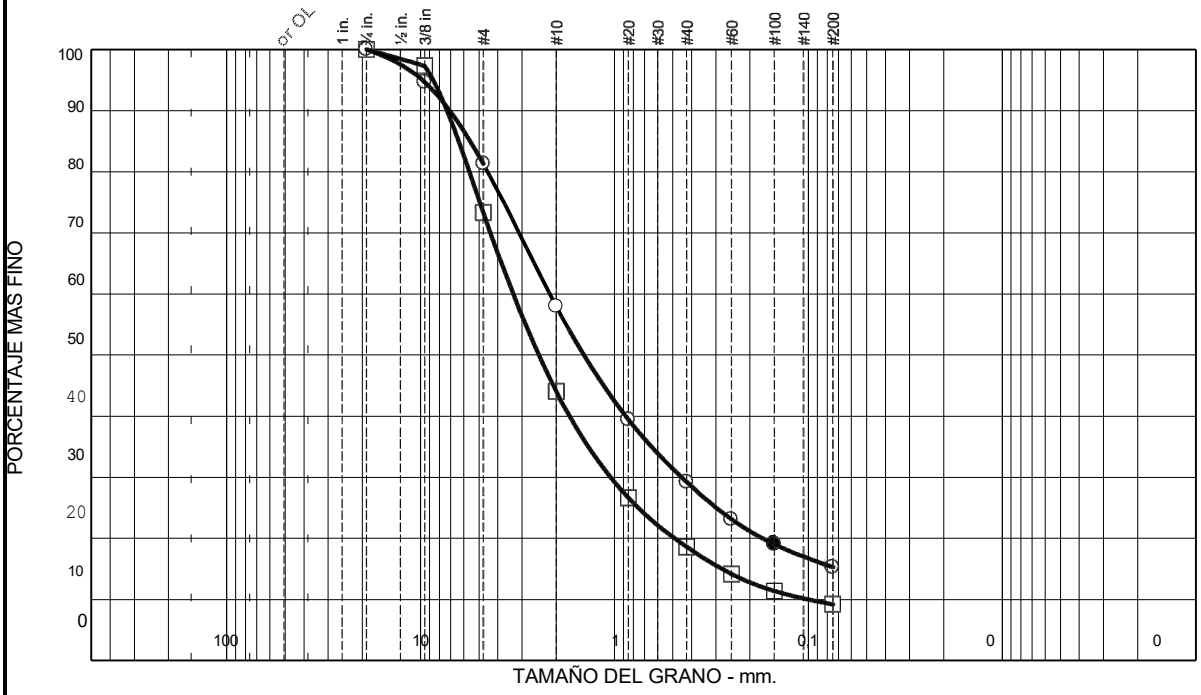
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0	18,7	2,?	28,7	1,9	15,4	
□	0	0,0	26,6	29	2,4	9,4	9,3	

	LL	PL	D8s	Dso	Dso	D30	D15	D10	Cc	u
O	NV	NP	5,5544	2,1589	1,4373	0,4485				
	NV	NP	6,3663	3,3273	2,4546	1,0460	0,2761	0,0968	3,40	34,38

Descripción del material	USCS	AASHTO
O Arena limosa con grava	SM	A-I-b
O Arena mal clasificada con limo y grava	SP-SM	A-I-a

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.G Profundidad: 2'-3.5' Número de muestra: 2

0 Fuente de la muestra: Bo.G Profundidad: 6'-7.ñ' Número de muestra: 4

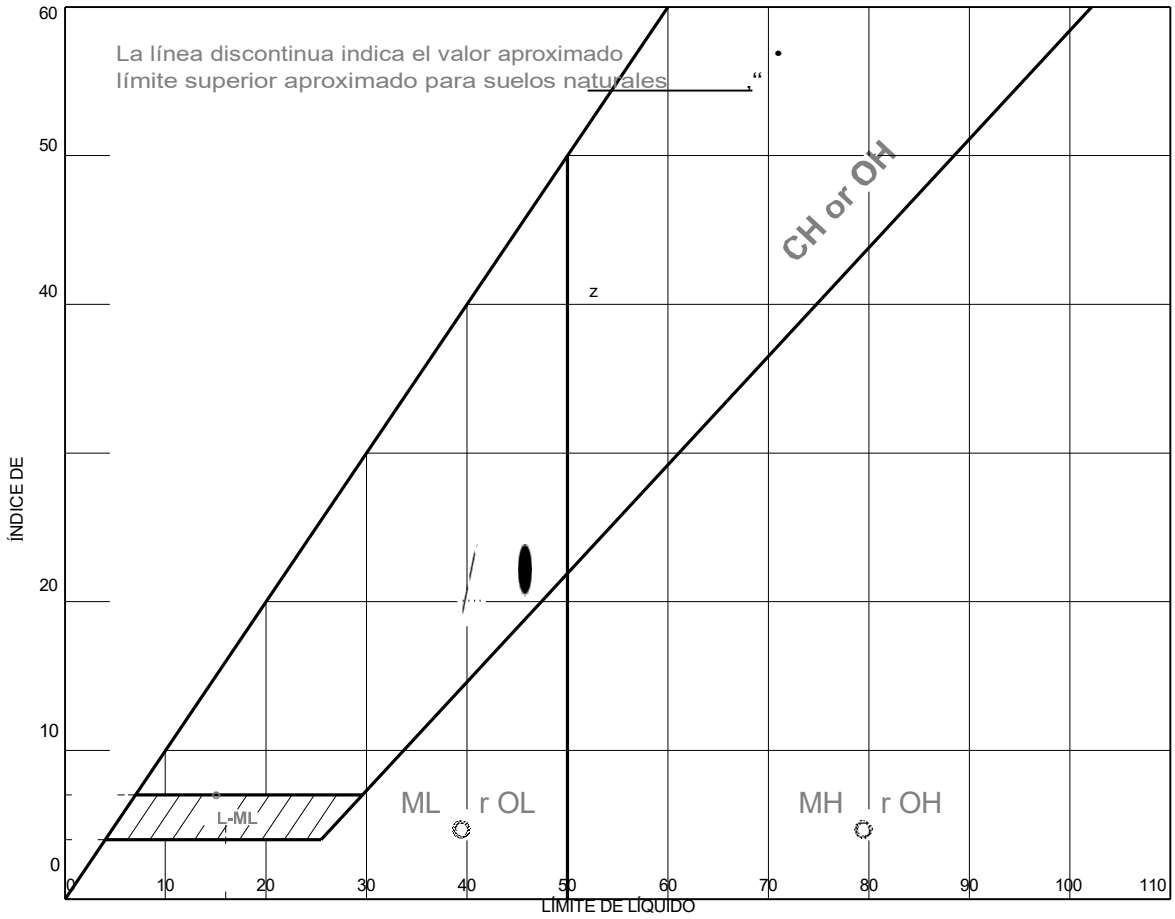
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	arena limosa con grava	NV	NP	NP	29,3	15,4	SM
M	arena mal clasificada con limo y grava				18,7	9,3	SP-SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.G Profundidad: 2'-ñ.ñ' Número de muestra:
2 Fuente de la muestra: Bo.G Profundidad: 6'-7.ñ' Número de muestra:
4

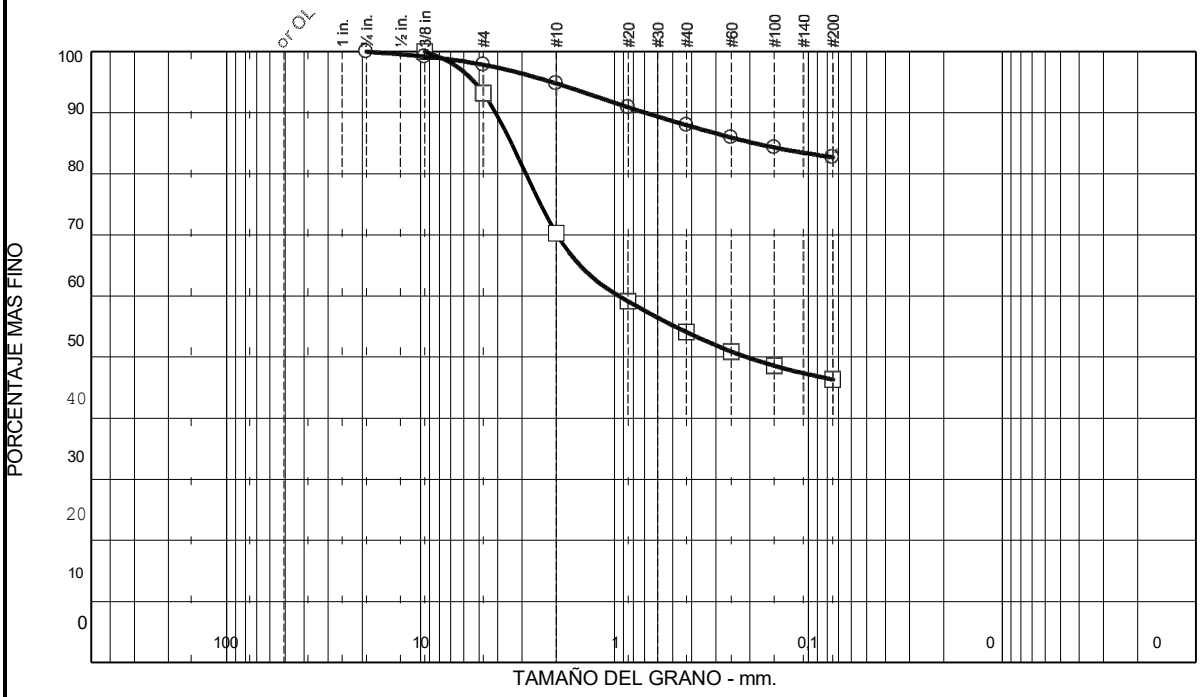
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0	2,1	?.1	6,8	5,2	82,8	
□	0	0	6,8	22,9	16,2	7,7	46,4	

	LL	PL	D8s	D60	D50	D30	D15	D10	Cc	u
0	40	16	0,1831							
	NV	NP	3,4042	0,9496	0,2073					

Descripción del material	USCS	AASHTO
O arcilla magra con arena O arena limosa	CL SM	A-6(19) A-4(0)

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.C Profundidad: 2'-3.5' Número de muestra: 2

0 Fuente de la muestra: Bo.C Profundidad: 6'-7.ñ' Número de muestra: 4

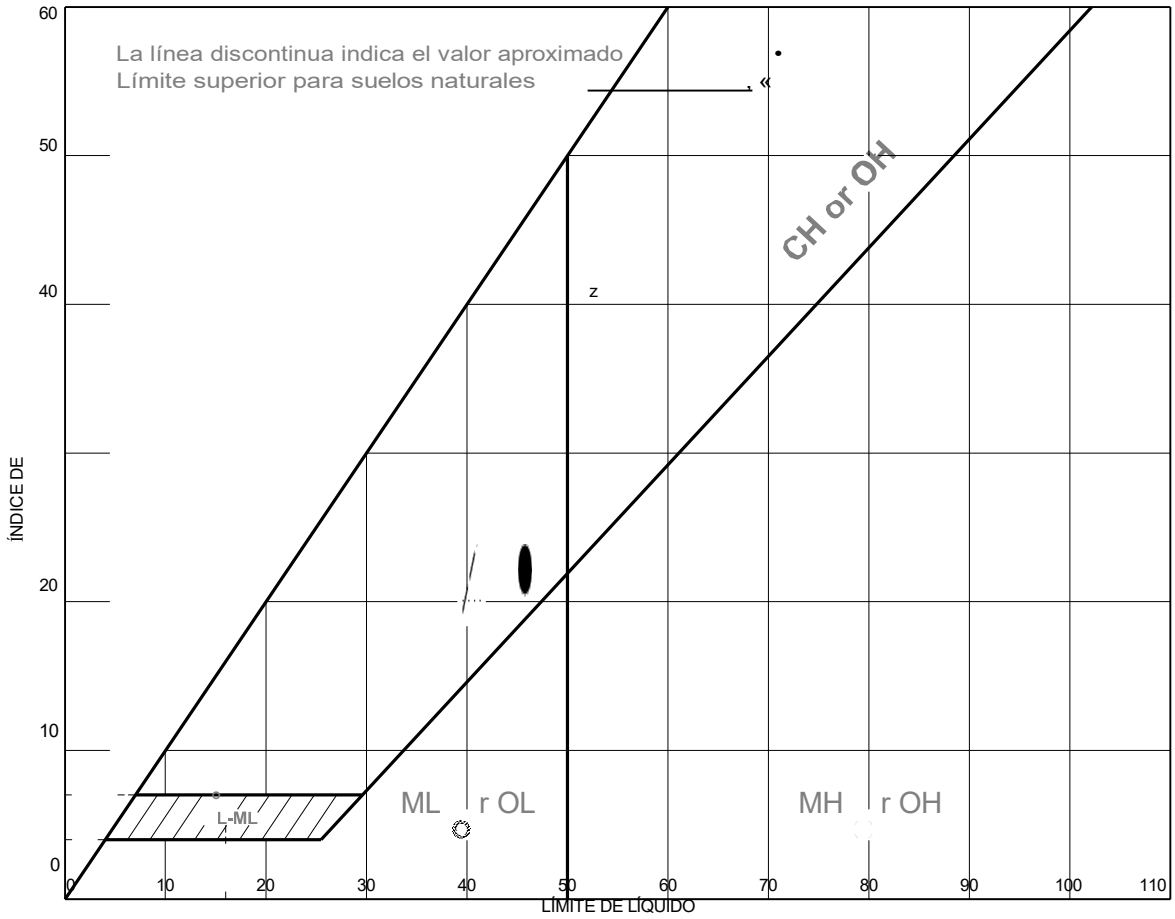
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
D	Grava bien clasificada con limo y arena	NV	NP	NP	12,6	6	GW-GM
●	grava limosa con arena				23,7	19	GM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.A Profundidad: 2'-ñ.ñ' Número de muestra:
2 Fuente de la muestra: Bo.A Profundidad: 6'-7.ñ' Número de muestra:
4

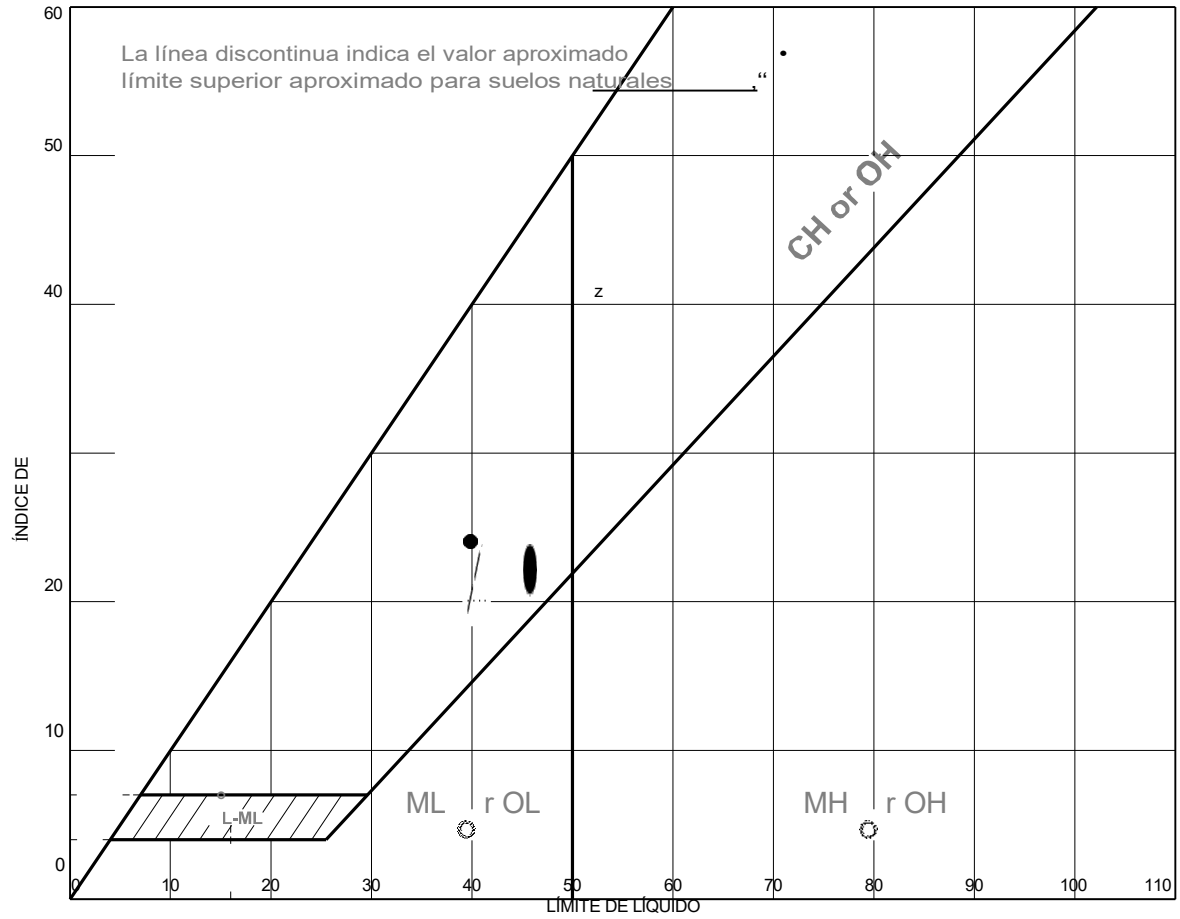
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	arcilla magra con arena	40	16	24	88,0	82,8	CL
●	arena limosa				54,1	46,4	SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.C Profundidad: 2'-ñ.ñ' Número de muestra:
2 Fuente de la muestra: Bo.C Profundidad: 6'-7.ñ' Número de muestra: 4

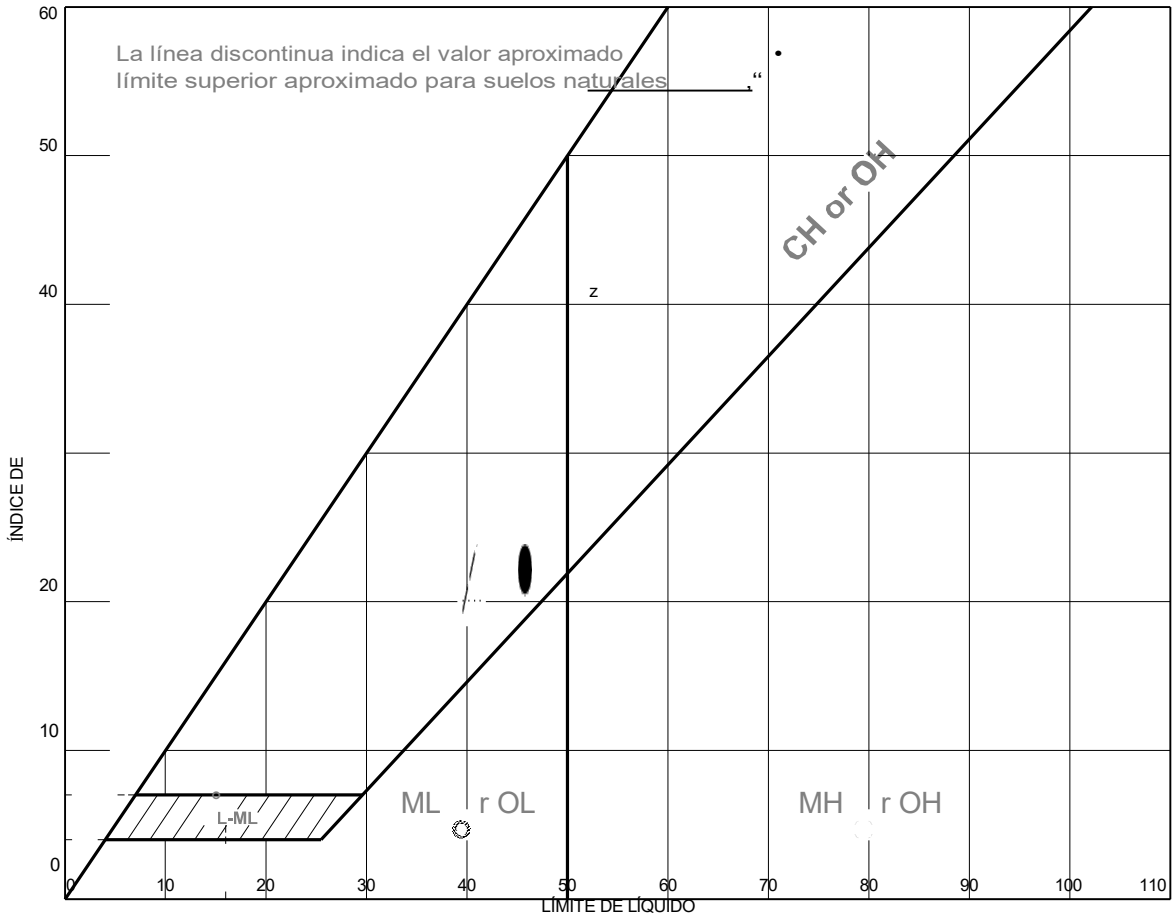
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

INFORME DE PRUEBA DE LÍMITES LÍQUIDOS Y PLÁSTICOS



	DESCRIPCIÓN DEL MATERIAL	LL	PL	PI	%<#40	%<#200	USCS
○	arena bien clasificada con limo	NV	NP	NP	14,6	7.0	SW-SM
M	arena mal clasificada con limo y grava				22,0	10,9	SP-SM

N.º de proyecto SPSS Cliente: ADAv Proyecto:
DESARROLLO ESENCIA, CABO RO/O

Fuente de la muestra: Bo.E Profundidad: 2'-ñ.S' Número de muestra:
2 Fuente de la muestra: Bo.E Profundidad: 6'-7.5' Número de muestra:
4

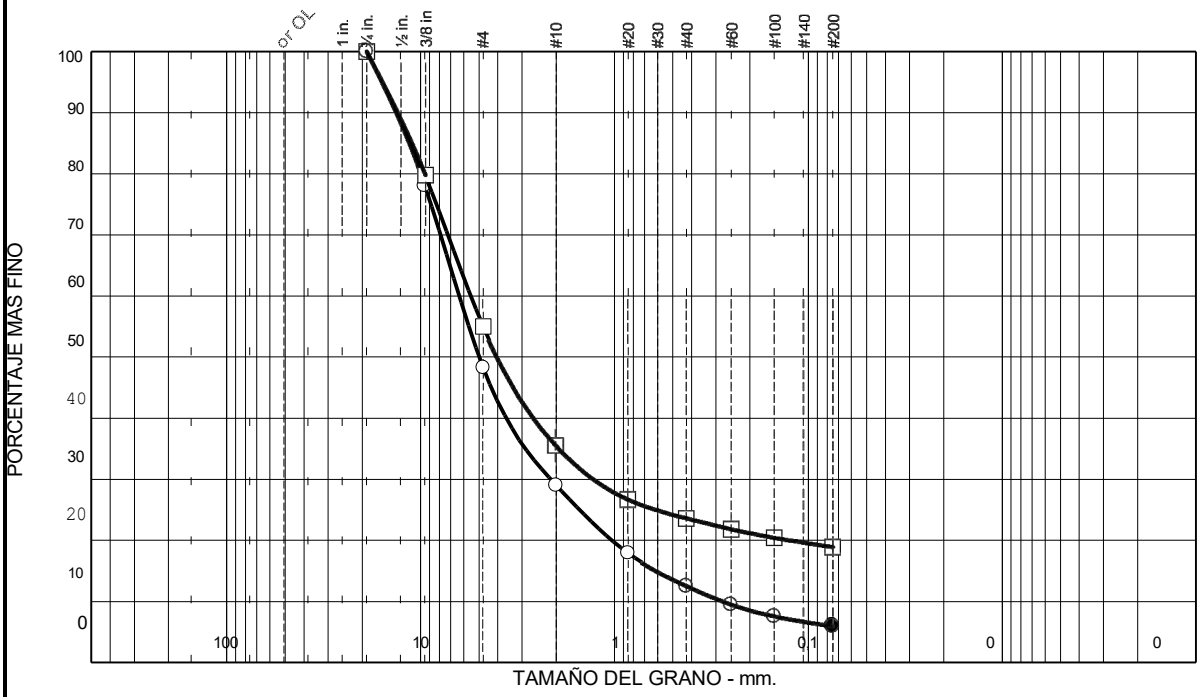
Observaciones:

SUELOS, INC.

San Juan, Puerto Rico

Figura

Informe de distribución del tamaño de las partículas



	% +3"	% Grava		% Arena			% Finos	
		Grueso	Fino	Grueso	Medio	Fino	**Limo**	Arcilla
O	0	0,0	?L8	19,2	16,4	6.6	6.0	
□	0	0.0	45,0	19,4	1L9	4,7	19	

	LL	PL	D8s	D60	D50	D30	D15	D10	C	C_u
O	NV	NP	11.5059	6,3209	4.9806	2.1363	0,6067	0,2721	2,65	23,23
	NV	NP	11,1491	5,5089	4,0184	1,2769				

Descripción del material	USCS	AASHTO
O Grava bien clasificada con limo y arena O	GW-GM	A-I-a
Grava limosa con arena	GM	A-I-b

Proyecto n.º S3Sñ Cliente: AD@V Proyecto:
DESARROLLO ESENCIA, CABO ROJO

O Fuente de la muestra: Bo.A Profundidad: 2'-3.5' Número de muestra: 2

0 Fuente de la muestra: Bo.A Profundidad: 6'-7.ñ' Número de muestra: 4

Observaciones:

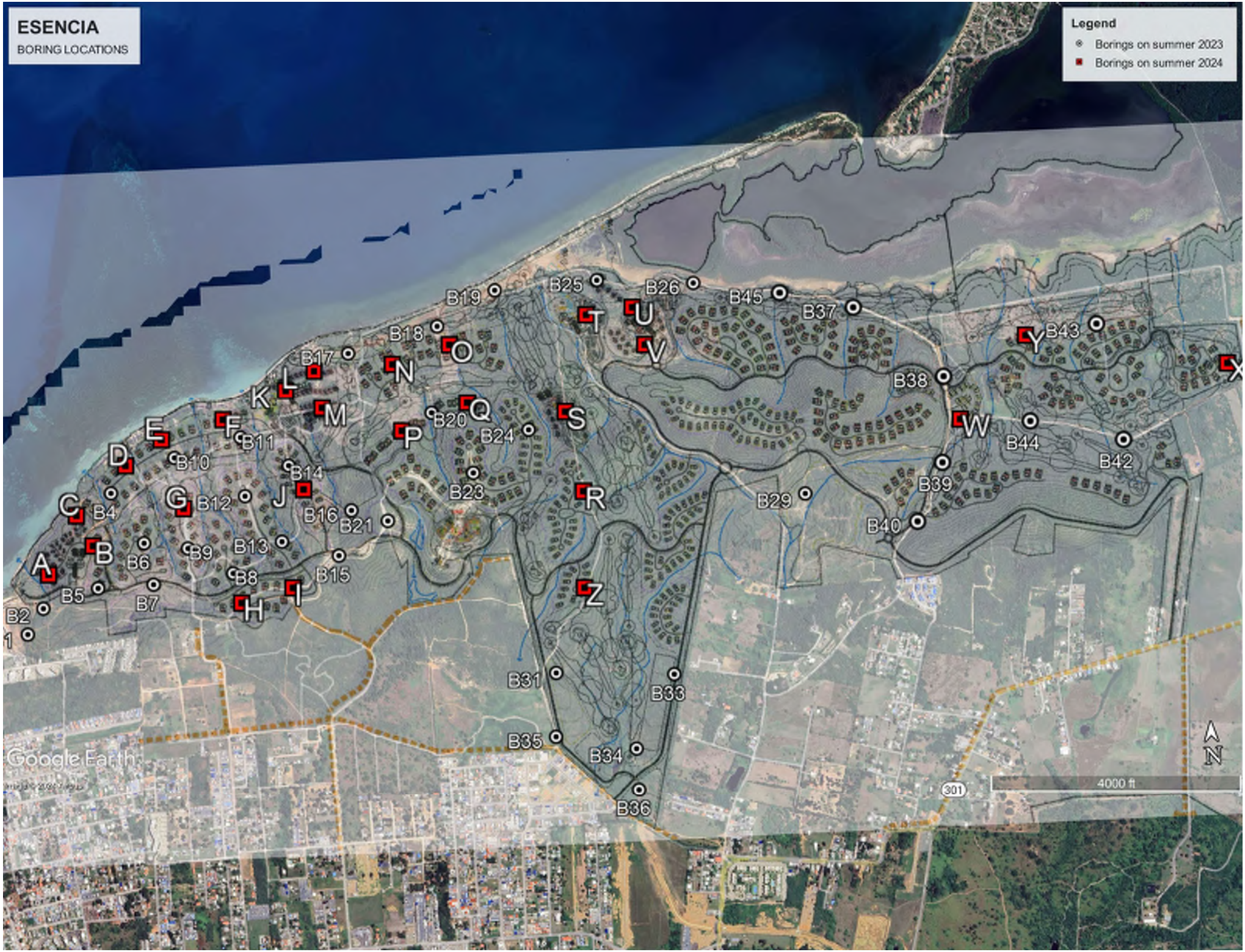
SUELOS, INC.

San Juan, Puerto Rico

Figura

LÁMINA 1

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Correo electrónico:


ESENCIA
BORING LOCATIONS
Legend
Borings on summer 2023
Borings on summer 2024
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301

COORDENADAS DE

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Correo electrónico:

COORDENADAS DE LA PERFORACIÓN

A

Latitud• . 17,993512°

Longitud • -67.210254°

E

Latitude: 17.994468°

Longitude: -67.208455°

B

Latitud: t7.995630°

Longitud: -d7.209116°

D

Latitud: 17.997]87° Longitud: -67.20719R°

Latitud: 17.998287°

Longitud: -67.205774°

F

Latitud: 1.7.998921° Longitud: -g7,2O3jqj'

Latitud: iT.s9571l•

Longitud: -6y.2049gn•

H

Latitud: 17. 992163°

Longitud: -O7%X19°

Latitud: t7.9926.34°

Longitud: -67. z0o8o8°

J

Latitud: 7.996211°

Longitud: IT. 200288 °

Latitud: 17.999902°

Longitud: -67.2oo8G1°

L

Latitud: \8.000s76°

Longitud: '-6y, 1ggy13°

M

Latitud: 17.999 S!°

Longitud: -67.199eso°

N

Latitud: 18.000690°

Longitud: -67. T9865.l°

Latitud: 1s.0o131s°

Longitud: '-67.19ee15°

P

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Longitud: -67.196359°

Latitud: i7,999123°

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R

Latitud: | .99s671°

'°"étuJe: -é7. 109B5°

.Altitud: t7,9986 lZ°

Longitude: -67.190045°

T

Latitud: la.002180°

.Lo"éKde: ‹-d7.189078°

U

'°atitud! l8.O02B0°

Longitud: -67.187257°

V

Latitud: be.000969° Longitud: -67,186639°

W

Latitud: 17.997673° Longitud: -67.1747B1°

Latitud: | 17.999001°

Longitud: '—67.16R1 TB°

Latitud: t8.00067R° Longitud: '-67,172079°

Z

Latitud. ' 17,992j46°

Longitudes -67,1e9s t s°

REGISTROS DE

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Correo electrónico:

REGISTROS DE PERFORACIÓN

La descripción del perfil del subsuelo y los resultados de las pruebas de campo y de laboratorio, tal y como se adjuntan, se refieren a las condiciones realmente encontradas en la ubicación de las perforaciones y a las profundidades indicadas. Los trazados de perfiles entre perforaciones, cuando se proporcionan, representan una interpolación razonable de las características del subsuelo y no deben considerarse indicativos de las condiciones intermedias reales.

NOTAS:

N	-	Número de golpes necesarios para introducir la cuchara de muestreo una distancia de 12 pulgadas con un martillo de 140 libras cayendo desde una altura de 30 pulgadas.
NO	-	Sin agua.
WH	-	Peso del martillo.
WR	-	Peso de las varillas.
W	-	Contenido natural de humedad en % del peso seco. Resistencia
qu	-	a la compresión sin confinamiento en toneladas/pie cuadrado.
*	-	Valor del penetrómetro.

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBTERRÁNEA

PERFORACIÓN N.º A A
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

PROYECTO ESENCIA DE • r A ROJO N.º DE CÓDIGO

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

FECHA 06/0 6/24
ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30 . 5 MÁQUINA PERFORADORA CNE-45 PERFORADOR: Cf . CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR).	n	=	Wp		qu
		19 25 50/3" 50/2	50/3" 56 50/2" 11		1 2		Arena limosa roja y seca con algo de pedernal fragmentos, raíces -gris, fragmentos de sílex angulares, triturados por samp lin p rocess			3				
5		50* 5"	50 5" * ◎		°	/////	Arena limosa fina y gruesa con fragmentos angulares fragmentos de sílex, seca			7				
		50/3"	50/3" 17		4		-igual que el anterior;			5				
10		23 43 49	92	67	5		Arcilla limosa dura roja grisácea con algo de arena Fragmentos angulares de sílex			12				
15		56/5"	56/5" 28		6		**Crushed,** fragmentos angulares de sílex con arena restos de arcilla, seca			8				
20		17 25 34	59	61	7		Bandeja dura de arcilla limosa con algo de arena, poca grava angular, seca			13			4,5+*	
25		20 **27** **21**	48	67	8		-igual que arriba;			14				**3.7**
30		30 27 **28**	55	43	9		-igual que arriba:			15				

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º A B
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE
FECHA 06/05/24

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30,5
PERFORADORA: CNE-45
PERFORADOR: Cf. CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		8	30	61	1					10		4,0*
		14 16 11	23	82	2		Arcilloso duro y fuerte, marrón, con trazas de grava angular pequeña.			6		4.0^
		33 36	55/5"	50	3		Arena gris, fina-gruesa con pequeños fragmentos					
5		ss/s°					de roca volcánica erosionada			4		
		35 50/7"	50/7"	33	4		-igual que arriba;			5		
		50/4"	50/4"	22	5		-color marrón grisáceo			14		
10												
		52/3"	52/3"	17	6		-igual que arriba;					
15										1		
		50/3"	50/3"	17	7		-igual que arriba:					
20										1		
		50/3"	50/3"	22	8		Arena gris, fina y gruesa, con pequeños fragmentos de roca volcánica erosionada					
25										2		
		50/3"	50/3"	17	9		-igual que arriba:					
30										1		

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN c
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/05/24

PROYECTO ESENCIA DE • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/A M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30 . 5 MÁQUINA PERFORADORA CNE-45 PERFORADOR: Cf . CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		8	22	72	1		Arcilla limosa roja muy dura y rígida con restos de arena, seca			21		4,5+•
		13 19 54/3" 26	54 3"	67	2		, con poca arena			15		4,5+*
		54/3"	54/3"	i7	3		Fragmentos de roca angulares gruesos y pequeños triturados con algo de arena, color gris-marrón grisáceo			2		
5		50/2"	50/2"	11	4		-igual que arriba;			2		
		sa/s	sz/s'	zz	s		-igual que arriba:			4		
10												
		20 50/4" 36	50/4"	50	6		Arena limosa muy densa y fuerte, de color marrón, con algunos guijarros subangulares erosionados, débilmente cementados			5		
15												
		52/3"	52/3"	17	7		Fragmentos de sílex angulares desgastados triturados con algo de arena			2		
20												
		50/3"	50/3"	17	8		-igual que arriba;			2		
25												
		50/2"	50/2"	9	9		-igual que arriba:			1		
30												

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN ____
HOJA 1 DE 1 UBICACIÓN ____
NORTE ____
ESTE ____
FECHA 06/05/24

PROYECTO ESENCIA DEC • *rA* ROJO CÓDIGO N.º ____

ENVASE:
MARTILLO: PESO ____ CAÍDA ____
TIPO ____ TAMAÑO ____

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO ____ TAMAÑO ____

PROFUNDIDAD DEL AGUA: 9 ' M. DESPUÉS DE LA FINALIZACIÓN
____ M. ____ HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO ____
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR)	n	Wp	qu
							Arena limosa de densidad media, color marrón oscuro			19		
		4 8	17	61	1		Trazas de grava subredondeada, trazas de raíces			16		
		6	16	61	2							
5		5 5	11	67	3		-igual que arriba;			28		
		6 7 6	13	61	4		Arcilla limosa rígida, de color gris, con algo de arena			31		
10		10 6 9	15	39	5		Densidad media, calcárea de grano fino arena, poca grava gruesa subredondeada			43		
15		6 8 11	19	67	6		-con algo de limo			32		
20		8 15 13	28	67	7		Muy rígido, limo gris claro con algo de arena fina			68		3,5
25		10 12 13	25	67	8					53		3,0
30		15					-igual que arriba; arenoso			42		4,1
		15 17	32	61	9		-igual que arriba; arcilla arenosa dura					

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º A E
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE
FECHA 06/04/24

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIE) RA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
			24	67	1		Capa superior del suelo: arena limosa de color marrón oscuro con raíces					
		53/6"	53/6"	50						20		
		30			2		poca grava subangular					
		53/6"					Arena de grano fino-medio, poco limo y pocos			7		
		54/5"	54/5"	28			fragmentos de roca basáltica angulares					
5					3		-igual que arriba;			12		
		50/4"	50/4"	22								
					4		-igual que arriba;			10		
		52/4"	52/4"	22								
10					5		-igual que el anterior;			6		
		50/3"	50/3"	17								
15					6		-igual que arriba;			7		
		52/3"	52/3"	17								
20					7		-igual que arriba:			5		
		50/3"	50/3"	17								
25					8		Arena de grano fino-medio, poco limo, escasos			3		
							fragmentos de roca basáltica angulares					
		50/3"	50/3"	17								
30					9		-igual que arriba:			2		

(*qu) - RESISTENCIA A LA COMPRESIÓN NO CONFINADA, VALORES OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN y
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/04/24

PROYECTO ESENCIA DE • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
HAMMER: W T DROP
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: 14 ' M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
MÁQUINA PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	W	W_p	I_p	q_u*
		5 5	10	72	1		arcilla limosa de color marrón oscuro con			36				4,0*
		5 6 7	13	67	2		**Stiff,** poco arena			25				
		9 12 14	26	67	3		Limo arenoso muy compacto, de color marrón rojizo, con algunas bolsas de arcilla			17				4,0*
5		11 16 19	35	72	4		Arcilla limosa muy compacta *de color* amarillento azulado con algo de arena Arena limosa de grano fino-medio, moteada de negro, con trazas de grava subredondeada			19				
		14 19 23	42	67	5		-igual que **above;**			14				
10														
15		18 27 31	58	61	6		-igual que **above;**			18				
		11 14 16	30	72	7	H	Arcilla limosa marrón amarillenta dura con restos de arena, moteada de negro			35				
20														
25		12 15 16	31	61	8	V	Muy rígida, limosa arenosa de color amarillo a marrón amarillento			33				
		14 15 18	33	67	9		-igual que arriba: arcilla arenosa			30				
30														

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO, VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN: s
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/05/24

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL SUELO
PROFUNDIDAD DEL AGUJERO 29 PERFORADORA: CNE-45
PERFORADOR: Cf. CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n		Wp		qu
		11	73	61	1					14				
		4 50/5"	50/5"	44	2		Oliva, arena fina-gruesa gris con algo de fragmentos angulares de basalto			11				
5		42 50/3"	50/3"	39	3		-igual que arriba;			7				
		55/4"	55/4"	22	4		-igual que arriba;			5				
10		50/3"	50/3"	17	5		-igual que arriba;			3				
15		52/3"	52/3"	17	6		-igual que arriba;			5				
20		50/2"	50/2"	11	7		-igual que arriba:			5				
25		50/3"	50/3"	11	8		Oliva, arena fina-gruesa gris con algunos fragmentos angulares de basalto			4				
30		50/2"	50/2"	9	9		-igual que arriba:			5				

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

FICHA N.º
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

FECHA 06/0 6/24
ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30 . 5 MÁQUINA PERFORADORA CNE-45 PERFORADOR: Cf . CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR).	n		Wp		qu
		13 20	49	67			Suelo residual: arena limosa de color gris con algunos fragmentos de grava subangulares			16				
			4	5						12				
		19 15												
		52/4"	52/4"	22	3		Fragmentos de roca volcánica gris desgastada, muestreados con algo de arena limosa triturada por proceso de muestreo			12				
5		50/4"	50/4"	22	4		-igual que el anterior;			12				
		50/3"	50/3"	17	5		-igual que arriba:			10				
10		«»												
		56/5"	56/5"	22	6		-igual que arriba;			11				
15														
		54/4"	54/4"	17	7		-igual que arriba:			11				
20		"												
		50/4"	50/4"	19	8		Fragmentos de roca volcánica gris desgastada. muestreados con algo de arena limosa Triturados durante el proceso de muestreo			8				
25														
		50/3"	5 0/3"	9	9		-igual que arriba:			9				
30														

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA, VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN z
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/06/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL SUELO
PROFUNDIDAD DEL AGUJERO: 30,5 MÁQUINA PERFORADORA: CNE-45 PERFORADOR: Cf. CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n		Wp		qu
		8	41	67	1		Denso gris claro calcáreo limoso			6				
		20 21 28 19 29	48	56	2		arena con algunos bolsillos de arcilla Sr. caliza fragmentos			3				
		30	73	61	3		-igual que el anterior;			6				
5		46 25 30 31	61	56	4		-igual que arriba;			10				
		20 41 29	70	61	5		Limo arenoso duro y calcáreo con algo de fragmentos de piedra caliza erosionada			10				
10														
15		28 26 38	66	56	6		Arena marrón fuerte, muy densa, fina y gruesa con limo, débilmente cementada			5				
20		31 35 40	75	56	7		-igual que arriba:			14				
25		25 30 32	62	61	8		Dura o muy densa, arena y limo			13				
30		20 42 40	82	9	9		Limo arenoso duro, marrón claro			10				

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN: ¿r
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/04/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
HAMMER: W T DROP
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIE)	% DE [illegible]	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR)	n		Wp		qu
		7	77	67	1		Fragmentos de roca volcánica gris oscuro Oliver			13				
		49 28 50/3"	50/3"	33	2		con algo de arena limosa (residual)			6				
5		55/3"	55/3"	17	3		Fragmentos de roca volcánica erosionada, triturados durante el proceso de muestreo			4				
		50/3"	50/3"	17	4		-igual que arriba;			4				
10		52/4"	52/4"	22	5		-igual que arriba:			5				
15		54/4"	54/4"	22	6		-igual que arriba;			4				
20		50/3"	50/3"	17	7		-igual que arriba:			4				
25		50/3"	50/3"	17	8		-igual que arriba;			3				
30		50/ 4"	5 0/ 4"	9	9		-igual que arriba:			4				

*qu- RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN: x
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/04/24

PROYECTO ESENCIA DEC • *r TO* ROJO CÓDIGO N.º

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		3 6 7	13	61	1		Capa superior del suelo: arcilla arenosa de color marrón oscuro con raíces poca grava			13		2.0^
		5 8 12	20	61		...	Limoso arena con grava pequeña, gruesa, subangular y subredondeada			10		
5		2 2 2	4	50	3		Limo arcilloso gris claro medio, poca arena			58		S•
		2	2	67	4		-igual que arriba;			58		,5*
10		1 1 2	3	72	5		-color gris oscuro			65		,5*
15		6 13	21	67	6		Arcilla limosa marrón muy dura y resistente con algo de arena, trazas *de* grava subredondeada			28		3,0*
20		8 1 4	32	61	7		-igual que arriba:			16		3,0*
25		13 15 15	30	72	8		-igual que arriba; dura			15		a.s
30		17 18 18	35	9	9		-igual que arriba: arenoso, sin grava			17		4.0

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º I•
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/03/24

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: 4 ' M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% RF	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR).	n	W	W_p	I_p	q_u*
		6								17				
		5 7 6 7	12 14	67 56	1 2		Relleno: limo marrón *oscuro*, arenoso y amarillento con trazas de grava			32				
5		2 2 2	4 2	67 61	3 4		Suave-medio gris-marrón grisáceo, limo elástico, restos de arena, húmedo -igual que arriba;			56 63				.2 S .25
10		1 1	2	61	5		Turba			157				
15		31 13 27	40	56	6		Fragmentos de caliza amarilla calcárea con un poco de arena limosa, húmeda			15				
20		11 15	36	33	7		-igual que **above;**			20				
25		12 18 18	36	61	8		-igual que **above;**			17				
30		18 20 22	42	79	9		-igual que **above;**			13				

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN M
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/03/24

PROYECTO ESENCIA DE • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/A M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30
. 5 MÁQUINA PERFORADORA CNE-45 PERFORADOR: Cf . CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		5	14	67	1		Rígida, arcilla limosa de color marrón oscuro			30		4,5+*
		28 6 4 50/2	50/2"	28	2		con algo de arena fina, trazas de grava subredondeada Grava angular pequeña y suelta con poca arena					
5		6 5 7	13	56	3		Arcilla arenosa muy compacta, de color marrón grisáceo, con algunos fragmentos de caliza subangulares			14		4,5*
		6 8	16	56	4		-igual que arriba;			13		
10		8 5	11	56	5		-igual que arriba:			5		
15		18 32	75	61	6		Ve arena limosa muy densa, de grano medio gris, débilmente cementada, de color gris vivo a gris oscuro color			17		
20		29 55 '5"	55/5"	61	7		-igual que arriba:			13		
25		50/4"	50/4"	61	8		-igual que arriba;			12		
30		50/3"	50/3"	61	9		-igual que arriba:			8		

*qu- RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN x
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 31/05/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: 4 ' M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 29 PERFORADORA: CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	W	W_p	I_p	q_u*
							Arcilla limosa de color marrón oscuro a marrón grisáceo							1,5*
		2	2	67	2					51				,5*
		2 1 1	2	61	3		Suave, limosa, restos orgánicos por encima;			87				
5		1 1	2	61	4		turba							
		2	10	67	5					40				1,0*
10		6 4					Arcilla limosa marrón-grisácea fuerte con trazas de arena y grava pequeña r Húmeda							
		8 10	21	67	6					26				2,0
15		11					Arcilla muy rígida, de color marrón amarillento-rojo amarillento, con algo de grava subredondeada y trazas de arena							
		9 13	29	67	7					26				2,75*
20		16					-igual que arriba:							
		12 15 15	30	8	8					23				3,0
25							Arcilla muy rígida, de color marrón amarillento-rojo amarillento, con algo de grava subredondeada y trazas de arena							
		16								21				3.
30		13 17	33	9	9		-igual que arriba; sin grava							

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN o
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA , 31/05/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL SUELO
PROFUNDIDAD DEL AGUJERO: 30,5 MÁQUINA PERFORADORA: CNE-45 PERFORADOR: Cf. CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIE) RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	W	W_p	I_p	q_u*
							Arcilla limosa densa de color marrón oscuro con			24				4,0*
		5 6 6 6	12	67	1		trazas de arena, raíces argilosa limosa dura, marrón amarillento con							3,25
		6 9	18	61	2		restos de arena			29				
5		9 7 4	11	56	3	S	-igual que el anterior;			34				
		6 10 13	23	67	4		Arcilla marrón amarillenta muy dura y rígida con pequeños restos angulares y subredondeados y restos de arena			25				4,5+*
10		14 8 22	36	61	5		-igual que arriba;			21				4,25*
15		13 9 16	29	61	6		Arcilla arenosa marrón muy dura y resistente con algo de grava angular y subangular			18				4,5+*
20		10 15	33	61	7		-sin grava			22				4,5*
25		12 15 16	31	69	8		Arcilla arenosa marrón muy dura y resistente con algo de grava angular y subangular			20				4.0
30		17 20 16	37	61	9		-igual que la anterior; dura			14				4.5

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN e
HOJA 1 DE 1 U B I C A C I Ó N
NORTE
ESTE

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

FECHA 06/03/24
ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30,5
PERFORADORA: CNE-45
PERFORADOR: Cf. CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR),	n		Wp		qu
		8 345 55/5" 55/5"	55/5"	28	2		Arena limosa de color marrón oscuro, algunas rocas angulares fragmentos ... •Grayr * lCanic fragmentos de roca, muestreados con j'j'}, arena (triturada durante el proceso de muestreo)			7		7		
5		52/4"	52/4"	33	3	″″″	-igual que arriba;			3				
		50/4"	50/4"	22	4		-igual que arriba;			3				
10		54/3"	54/3"	17	5		-igual que arriba;			3				
15		55/3"	55/3"	17	6		-igual que arriba;							
20		50/3"	50/3"	17	7		-igual que arriba:							
25		50/3"	50/3"	i7	8	••••	•Gris, fragmentos de roca volcánica, muestreados con arena (triturada durante el proceso de muestreo)			2				
30		50/2"	50/2"	17	9		-igual que arriba;			3				

*qu- RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN Q
HOJA 1 DE 1 U B I C A C I Ó N
NORTE
ESTE

FECHA 31/05/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30,5
MÁQUINA PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		13	28	61			Gris a gris oliva, arena fina-gruesa con algunos fragmentos angulares de roca volcánica			8		
		13 15 11 11	23	61	2					7		
5		59/6"	59/6"	33	3		fragmentos de roca volcánica con algunas arena fina y gruesa, triturados al muestrearlos			11		
		54/5"	54/5"	28	4		proceso, color gris oliva grisáceo (saprolítico) -igual que el anterior:			6		
10		40 507'4"	50/4"	33	5		-igual que el anterior:			7		
15		57/6"	57/6"	33	6		-igual que arriba;			8		
20		30 52 4"	52/4"	44	7		-igual que arriba:			9		
25		50/3"	50/3"	71			Fragmentos de roca volcánica meteorizada con algo arena fina-gruesa, triturados por el proceso de muestreo, de color gris-gris oliva (saprolítico).			9		
30		50/4"	5 0/4"	9	9		-igual que arriba;			9		

*qu- RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

POZO N.º R HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/07/24

PROYECTO ESENCIA DEC • rA ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30,5
PERFORADORA: CNE-45
PERFORADOR: Cf. CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% RF	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		8	24	67	1		Limno arenoso duro de color marrón amarillento			16		
		10 14 13	32	67	2		con algo de grava subangular Moderadamente cementado			8		
		15 21	39	61	3					13		
5		18	46	61	4		-igual que el anterior; -restos de raíces			11		
		17 20 17	37	67	5					17		
10							-igual que arriba;					
		16 23 26	49	56	6		-igual que arriba;			13		
15												
		22 29 36	65	56	7		-igual que arriba:			12		
20												
		30 25	57	67	8		igual que arriba; duro			10		4.5
25												
		30 35	67	56	9		-igual que arriba; duro			12		4.5
30												

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE.
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

PROYECTO ESENCIA DEC • r TO ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

FECHA 30/05/24
ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30,5 MÁQUINA PERFORADORA CNE-45 PERFORADOR: Cf . CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	22	16	9
		6 6	13	50	1		Arena limosa marrón fuerte con trazas de grava pequeña			17			
		7 7 11 11	22	50	2		Arcilla arenosa marrón grisácea muy rígida y fuerte con algo de limo			22			4,5+*
5		12 14 14	28	56	3		Arena limosa gris claro de densidad media con algo de grava friable erosionada, restos de raíces			10			
		13 16	34	44	4		seco -igual que arriba;			8			
10		57/6"	57/6"	33	5		Arena limosa gris claro con algunos fragmentos angulares. fragmentos de roca erosionada (residuales)			12			
15		55/4"	55/4"	22	6		-igual que arriba;			10			
20		52/4"	52/4"	22	7		-igual que arriba:			7			
25		50/3"	50/3"	17	8		Arena limosa gris claro con algunos fragmentos angulares fragmentos de roca erosionada, seca (saprolítica)			6			
30		50/3"	50/3"	17	9		-igual que arriba:			5			

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN r
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 30/05/24

PROYECTO ESENCIA DEC • *r TO* ROJO CÓDIGO N.º

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: 14 ' M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30 . 5
PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR)	n	Wp	qu
		18	41	39	1		Arena marrón fuerte, fina y gruesa, con algo de grava angular, seca			10		
		26 15 11	**23**	**33**	**2**					**8**		
		8	20	56	3		Arcilla limosa marrón muy dura y resistente con algunos restos de grava pequeños, medianos, redondeados y subangulares			23		4,5+*
5		10 10										
		9 10 12	22	56	4		trazas de arena -igual que arriba;			16		4.5
		9	28	67	5					17		3,0
10		16 **12**					Ve arcilla arenosa marrón fuerte y bastante rígida, húmeda					
		10 13	29	67	6					16		3,0
15		**16**					-igual que arriba;					
		9 15	26	67	7					18		3,0*
20							-húmeda					
		10 15	31	67	8					17		3.2
25							Ve ry rígida, marrón fuerte, arcilla arenosa, húmeda					
		15 16	32	67	9					13		3.7
30		**16**					-igual que arriba:					

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º U
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 30/05/24

PROYECTO ESENCIA DEC • *rA* ROJO N.º DE CÓDIGO

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30 . 5 PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	RQD. (RMR)	n		Wp		qu
		7	14	56	1		Rígido-muy rígido marrón amarillento limoso			20				
		8 13 15	28	50	2		arena con algo de grava subangular			18				
5		26 42	80	44	3		Arena limosa gris claro con algo de grava angular fragmentos de roca descompuesta friable			8				
		38 34 50/4"	50/4"	39	4		-igual que arriba;			9				
10		55/4"	55/4"	28	5		-igual que arriba:			7				
15		52/4"	52/4"	22	5		-igual que arriba;			8				
20		50/2"	50/2"	11	7		-igual que arriba:							
25		50/3"	50/3"	17	8		Arena limosa gris claro con algunos fragmentos angulares, fragmentos de roca desgastada y friable			6				
30		50/3"	50/3"	17	9		-igual que arriba;			6				

(*qu) - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN: v
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 30/05/24

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
HAMMER: W T DROP
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 30 . 5 PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIE)	% DE [illegible]	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n		Wp		qu
		7	25	67	1		Arena limosa densa, de color marrón grisáceo claro, con algunos fragmentos de roca friable, calcárea			11				
		11 14 24 38	54	67	2					13				
s		28 50/3"	50/3	39	3		Residual: roca desgastada de color gris claro y oliva fragmentos friables			13				
		54/4"	54/4"	22	4		-igual que arriba;			10				
10		38 507'2"	50/2"	44	5		-igual que arriba:			12				
15		52/3"	52/3"	17	6		-igual que arriba;			13				
20		50/2"	50/2"	11	7		Fragmentos de arenisca erosionada, grisáceos marrón			6				
25		50/3"	50/3"	17	8		-igual que arriba;			6				
30		50/2"	50/2"	11	9		-igual que arriba:			5				

*qu- RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN w
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 30/05/24

PROYECTO ESENCIA DEC • r TO ROJO N.º DE CÓDIGO

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL POZO 30,5
MÁQUINA PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTRA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n		Wp		qu
		6	16	61	1					5				
		8 8 11 16					Densidad media Arena limosa fina-gruesa con pocos fragmentos de piedra caliza, blanca, calcárea			5				
s		29 53/6"	53/6"	56	3		Marrón grisáceo, calcáreo, débilmente cementado, limo arenoso			9				
		58/5"	58/5"	28	4		-igual que arriba;			8				
10		ss/s	ss/s'	aa	s		-igual que el anterior:			8				
15		54/5"	54/5"	28	6		Fragmentos de limolita grisáceo-marrón erosionados con algo de arena limosa (residual)			9				
20		50/4"	50/4"	22	7		-igual que arriba:							
25		50/3"	50/3"	22	8		Siltita grisácea desgastada con algo de arena limosa			7				
30		50/2"	50/2"	17	9		-igual que arriba:			7				

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE ELASTICIDAD
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO

1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN x
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 05/2 9/24

PROYECTO ESENCIA DEC • r A ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M. DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

ELEVACIÓN DEL SUELO
PROFUNDIDAD DEL AGUJERO: 30,5 MÁQUINA PERFORADORA: CNE-45 PERFORADOR: Cf. CA6DERON MÉTODO DE PERFORACIÓN: AVGER

PROFUNDIDAD	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% DE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		7 7	14	67	1		Rígido-muy rígido, limo arenoso marrón fuerte			17		
		7 12 9	27	67	2		Trazas de grava subredondeada-subangular, seca			13		
5		9 10	19	67	3		Muy rígido-duro, marrón amarillento, arenoso arcilla con poca grava redondeada-subangular			19		
		10 12 15	27	61	4		-igual que arriba;			22		
10		56/3"	56/3"	17	5		Fragmentos de arenisca/silstone marrón fuerte, desgastados triturados por el proceso de muestreo			6		
15		54/3"	54/3"	17	6		-igual que arriba;			6		
20		54/3"	54/3"	17	7		-igual que arriba:			8		
25		50/3"	50/3"	17	8		Fragmentos de arenisca/silstone de color marrón intenso, desgastados por el proceso de muestreo			7		
30		50/3"	50/3"	11	9		-igual que arriba:			8		

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA 1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

PERFORACIÓN N.º Y
HOJA 1 DE 1
U B I C ACIÓN
NORTE
ESTE

PROYECTO ESENCIA DEC • *r A* ROJO CÓDIGO N.º

REVESTIMIENTO:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

FECHA 05/2 9/24
ELEVACIÓN DEL TERRENO
PROFUNDIDAD DEL AGUJERO 3 O ,5 PERFORADORA CNE-45
PERFORADOR: Cf . CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

PROFUNDID	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIED RA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR).	n	≡	Wp		qu
		4 6	4	"			Arcilla limosa rígida de color marrón oscuro con arena trace9r raíces			21				4,5+*
		78 8 15	28	67	2					20				4,5+*
s		42 50/3	50/3"	50	3		Arena limosa muy densa, de color gris oliva, grava fina-gruesa con algunos fragmentos de roca angulares erosionados, seca (residual).			13				
		52/4"	52/4"	22	4		-igual que arriba;			6				
10		54/3"	54/3'	17	5		-igual que arriba:			6				
15		50/3"	50/3"	17	6		-igual que arriba;			7				
20		56/4"	56/4"	33	7		-igual que arriba:			3				
25		50/4"	50/4"	22	8		-igual que arriba;			4				
30		50/3"	50/3"	17	9		-igual que arriba:			3				

*qu - RESISTENCIA A LA COMPRESIÓN SIN CONFINAMIENTO; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN SIN CONFINAMIENTO
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

SUELOS, INC.

REGISTRO DE EXPLORACIÓN SUBSUPERFICIAL

N.º DE PERFORACIÓN: z
HOJA 1 DE 1 UBICACIÓN
NORTE
ESTE

FECHA 06/06/24

PROYECTO ESENCIA DEC • *r TO* ROJO CÓDIGO N.º

ELEVACIÓN DEL SUELO
PROFUNDIDAD DEL AGUJERO: 3 0 ,5 PERFORADORA: CNE-45
PERFORADOR: Cf. CA6DERON
MÉTODO DE PERFORACIÓN: AVGER

ENVASE:
MARTILLO: PESO CAÍDA
TIPO TAMAÑO

MUESTREADOR:
MARTILLO: WT 140# CAÍDA 30"
TIPO TAMAÑO

PROFUNDIDAD DEL AGUA: N/O M . DESPUÉS DE LA FINALIZACIÓN
M. HORAS DESPUÉS DE LA FINALIZACIÓN

PROFUNDIDAD	MUESTREA	GOLPES/6"	VALOR SPTN (GOLPES/PIEDRA)	% RE	N.º DE	SÍMBOLO	DESCRIPCIÓN DEL MATERIAL1	USCS. DESIGNACIÓN	R.Q.D. (RMR)	n	Wp	qu
		8	39	67	1		Fragmentos de caliza angulares y subangulares			11		
		20 19 7 9 5	12	56	2		con algo de arena limosa marrón intensa Yell*O o* limo arenoso calcáreo con algunos fragmentos angulares de piedra caliza			9		
5		18 30 36	66	61	3		-igual que el anterior;			17		
		21 48	81	56	4		Fragmentos de arenisca calcárea con algo de arena limosa, de color amarillo			5		
10		ss/2'	ss/2'	22	s		-igual que arriba;			2		
15		50/2"	50/2"	11	6		-igual que arriba;			2		
20		50/1"	5 0/1"	0	7		-sin recuperación					
25		50/3"	50/3"	i+ 8			Fragmentos de arenisca calcárea de color amarillo pálido			2		
30		50/2"	50/2"	0	9		-sin recuperación					

*qu - RESISTENCIA A LA COMPRESIÓN NO CONFINADA; VALORES INFORMADOS OBTENIDOS DE:
A. PENETRÓMETRO DE BOLSILLO
B. PRUEBA DE RESORTE
C. PRUEBA DE COMPRESIÓN NO CONFINADA
1 - INCLUYE CLASIFICACIÓN AASHTO

Rev. 20 de mayo de 1999

APÉNDICE DE

Suelos, PSC
Calle Chile 258, San Juan, P.R. 00917-2103
Tel. (787) 753-0147. Correo electrónico:

APÉNDICE N.º 1

General

Este informe incluye una descripción del proyecto tal y como se ha dado a conocer a **SUELOS, PSC,** y detalles del proyecto con recomendaciones pertinentes para el diseño de cimientos y otras estructuras relacionadas con el terreno. Debe tenerse en cuenta que las recomendaciones de diseño son relativas a los aspectos del proyecto discutidos y están sujetas a las limitaciones impuestas por todas las consideraciones prácticas en la determinación de las condiciones del subsuelo.

Los datos de campo y de laboratorio que se muestran en los registros de perforación representan las condiciones del subsuelo encontradas en el pozo propiamente dicho. El análisis y las conclusiones aquí presentados y discutidos se basan en dichos resultados y en una interpolación razonable de las características del subsuelo. Cuando se incluyen secciones transversales con una representación esquemática de la estratificación del subsuelo interpretada entre perforaciones, no deben considerarse como representativas de las condiciones intermedias reales, sino que se proporcionan únicamente con fines de comparación general.

Se deberá facilitar una copia de este informe a los diseñadores del proyecto para su información y orientación, así como al contratista y al ingeniero residente, con el fin de garantizar la máxima protección en caso de posibles variaciones inesperadas. Cualquier variación de este tipo, así como cualquier cambio o modificación del alcance del proyecto descrito tras la presentación de este informe, se notificará por escrito a estos consultores con el fin de evaluarlos y decidir sobre la necesidad de alterar o modificar las recomendaciones formuladas.

APÉNDICE N.º 2

Trabajo de campo y de laboratorio

La exploración de campo fue realizada por **SUELOS, PSC., un** laboratorio privado al servicio de estos consultores. El trabajo de campo consistió en una observación visual de la zona y de las estructuras existentes en el emplazamiento, si las hubiera, y en la realización de perforaciones de prueba según lo indicado.

Las perforaciones de prueba se realizaron de acuerdo con el «Método estándar de prueba de penetración y muestreo de suelos con cuchara dividida», tal y como se propone en las Normas de la Sociedad Americana para Ensayos y Materiales, designación ASTM D-1586, última revisión.

El agujero de prueba se perfora con barrenas manuales y mecánicas o introduciendo en el suelo un tubo con un diámetro interior de 2,5 pulgadas, que se limpia internamente cada vez que se toma una muestra de suelo por debajo de su alcance. Durante el muestreo, se realiza la prueba de penetración estándar y se registran los valores «N». Este es el número de golpes necesarios para introducir el muestreador de cuchara partida 12 pulgadas en el suelo utilizando un martillo de 140 libras con una caída libre de 30 pulgadas.

El valor indica la consistencia de los suelos cohesivos y la densidad relativa de los suelos granulares, tal y como se muestra en la siguiente tabla:

SUELOS COHESIVOS

Valores «N»	**Consistencia**	**Resistencia a la compresión no confinada** (TSF)
menos de 2	muy blando	menos de 0,25
2 - 4	suave	0,25 - 0,50
4 - 8	medio	0,50 - 1,00
8 - 15	rígido	1,00 - 2,00
15 - 30	muy rígido	2,00 - 4,00
más de 30	duro	más de 4,00

SUELOS GRANULARES

Valores «N»	Densidad relativa
0 - 5	muy suelta
5 - 10	suelto
10 - 30	medio
30 - 50	denso
más de 50	muy denso

La profundidad de la superficie del agua que se muestra en los registros indica el nivel freático encontrado antes de utilizar cualquier revestimiento y agua, o bien 24 horas después de completar las perforaciones de prueba y retirar el revestimiento, si lo hubiera. A menos que se indique lo contrario, la información proporcionada no es adecuada para el estudio de excavaciones profundas y solo debe utilizarse como un nivel aproximado en el estudio de una cimentación normal del proyecto. Los niveles freáticos o subterráneos pueden variar con las variaciones estacionales de las lluvias, por lo que puede aparecer agua donde no se muestra, y el lector de este informe debe ser consciente de este hecho. En el caso de excavaciones en las que los niveles de agua subterránea son de suma importancia, se deben realizar estudios especiales que consistan en observaciones a largo plazo con dispositivos tipo wellpoint instalados. Cuando se contemplen excavaciones profundas, como en estaciones de bombeo, se debe realizar un estudio de los acuíferos artesianos o subartesianos mediante perforaciones de prueba profundas y pruebas de bombeo.

PERFORACIÓN CON BROCA DE DIAMANTE

Siempre que sea necesario perforar roca, se hace siguiendo el método de «Perforación con broca diamantada para investigación del terreno» propuesto por las normas de la Sociedad Americana para Ensayos y Materiales, designación ASTM D-2113-L.R. En general, se introduce en la roca un tubo doble con broca diamantada que se hace girar bajo presión. La roca perforada entra en el tubo utilizando agua circulante como agente refrigerante. A intervalos de 2 a 5 pies, se levanta el tubo y se extrae el núcleo. Se anota la longitud de cada perforación, así como la longitud del núcleo recuperado.

TRABAJO DE LABORATORIO

Contenido de agua

Se determinó el contenido natural de humedad de todas las muestras, excepto aquellas con un alto porcentaje de grava o arena gruesa.

Las pruebas se realizaron siguiendo las normas de la Sociedad Americana para Ensayos y Materiales (ASTM), designación D-2216, última revisión. El contenido de agua o humedad de una masa de suelo determinada es, por definición, la relación entre el peso del agua y el peso del suelo seco al horno, expresada en porcentaje.

Pruebas de **compresión no confinada**

Todas las muestras adecuadas de suelo cohesivo recuperadas con el muestreador de cuchara dividida se sometieron a pruebas de compresión no confinada. La relación entre la carga máxima necesaria para la rotura y el área transversal corregida de la muestra, expresada en toneladas por pie cuadrado, se define como la resistencia a la compresión no confinada.

Examen y descripción

Las muestras de suelo se clasifican según sus componentes, utilizando la siguiente terminología para indicar el porcentaje aproximado en peso de cada componente.

Término descriptivo	Porcentaje en peso
Traza	1 - 10
Poco a algo	10
Arenoso, limoso arcilloso	20
y	35 - 50

Las muestras examinadas se clasifican en uno de los siguientes grupos principales: cantos rodados, grava, arena, arcilla y limo. En el caso de la turba, se utiliza la presencia de materia vegetal descompuesta y parcialmente descompuesta para su identificación. La diferenciación entre arcilla y limo se basa en la presencia o ausencia de plasticidad, dilatancia y resistencia en seco, más que en el tamaño de los granos. La descripción del suelo incluye: color, olor, minerales, presencia de materias extrañas, historia geológica, etc. Estas descripciones, así como los resultados de las pruebas de laboratorio, se utilizan para agrupar muestras similares en una unidad estratigráfica, tal y como se muestra en los registros finales de perforación. Por lo tanto, los datos de los registros de exploración del subsuelo representan las condiciones del subsuelo únicamente en las ubicaciones precisas de los pozos de sondeo.

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 3c

NOVIEMBRE 2025

ADDENDUM TO
GEOTECHNICAL REPORT FOR ESENCIA
CABO ROJO, PUERTO RICO

1.0 INTRODUCTION

This addendum to our geotechnical report dated June 17, 2024 (job #5355) covers additional and complementary geotechnical, geological and seismic information in connection with Esencia, a tourist/residential development in Cabo Rojo, Puerto Rico.

The addendum is intended to cover the following topics:

1. Construction recommendations in karst terrain.
2. Discussion of possible seismic hazards in the project.
3. Definition of areas which are not suitable for construction due to the proximity of sinkholes, caverns or other conditions associated with the karst geology.

The subject project, shown in **Figure 1**, will be subdivided into residential lots, hotels, apartment buildings, sport complexes and related amenities. The size of the lots vary based on the intended use while the specific structures to be built in each lot vary depending on the projects needs. In addition to lot segregation, internal roads and other infrastructure requirements will be built. These include storm water sewer systems, sanitary sewer systems, water supply lines, electrical connections and other ancillary elements.

At the time being, we have completed 62 geotechnical borings distributed throughout the property. Approximately 1,300 ln.ft of surface tomography survey have been performed around areas having known cave/sinkhole openings and areas that are geologically prone to sinkhole activity. Following our recommendations for implementing setbacks from known and suspicious sinkhole activity, the designers and planners have incorporated the necessary provisions for this environmental planning stage.

In regard to construction procedures in karst terrain, foundation and construction recommendations are presented in Section 3, taking into consideration the findings of the exploration program. Based on our recommendations for foundation design and construction, provisions shall be made for future design and construction of the project. The addendum ends with Section 4, which is dedicated to the discussion of possible seismic hazard at the project site.

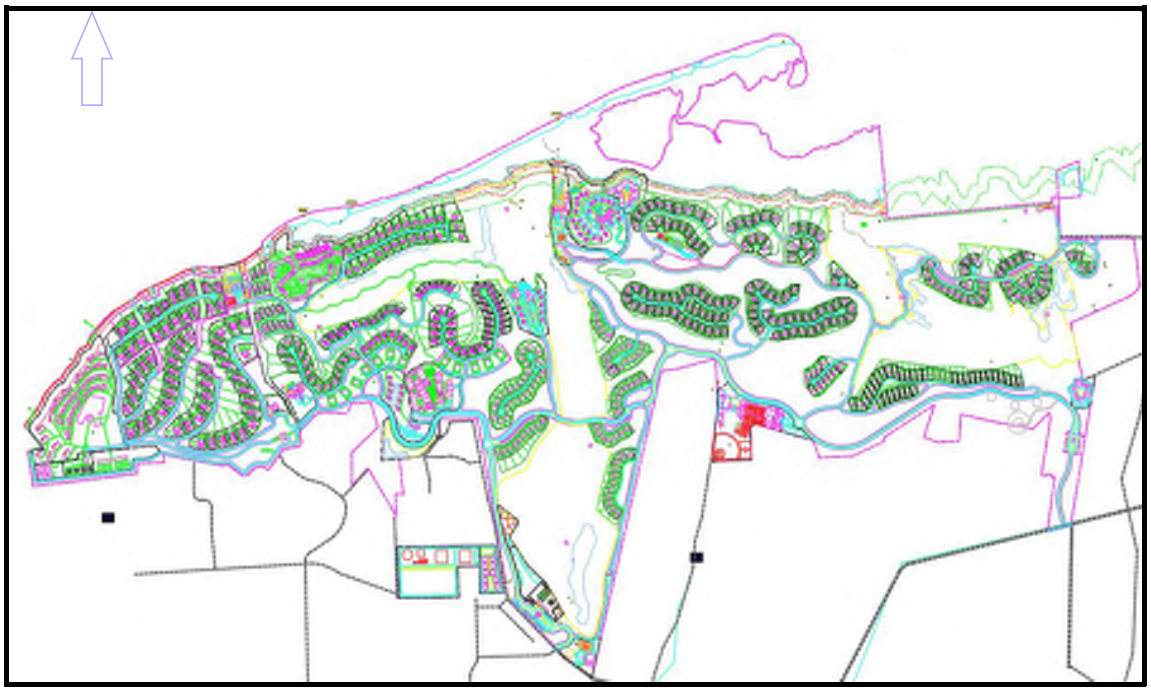

Figure 1. Esencia Site plan.

2.0 GEOLOGIC AND GEOPHYSICAL ASSESSMENT

The project site has been mapped as part of the Cabo Rojo-Parguera Geologic Quadrangle, and the Puerto Real Geologic Quadrangle (**Figure 2**). Coastal areas that bound the project are fringed by mangrove swamps, beach deposits, intertidal deposits, and locally by sea cliffs. Inland areas are underlain by serpentinite, amphibolite, chert, and basalt of the Late Jurassic to Early Cretaceous age, limestone and volcanic rocks of Late Cretaceous age, and limestone and gravel of middle Tertiary age. The central part of the area has been intruded by stocks and dikes, some of Late Cretaceous age; others may be as old as Early Cretaceous. Extensive deposits of quartz sand in the western part of the area may have been derived from quartz-rich intrusive rocks possibly Tertiary age. The rocks are folded and offset by high-angle faults (Volckman, 1984).

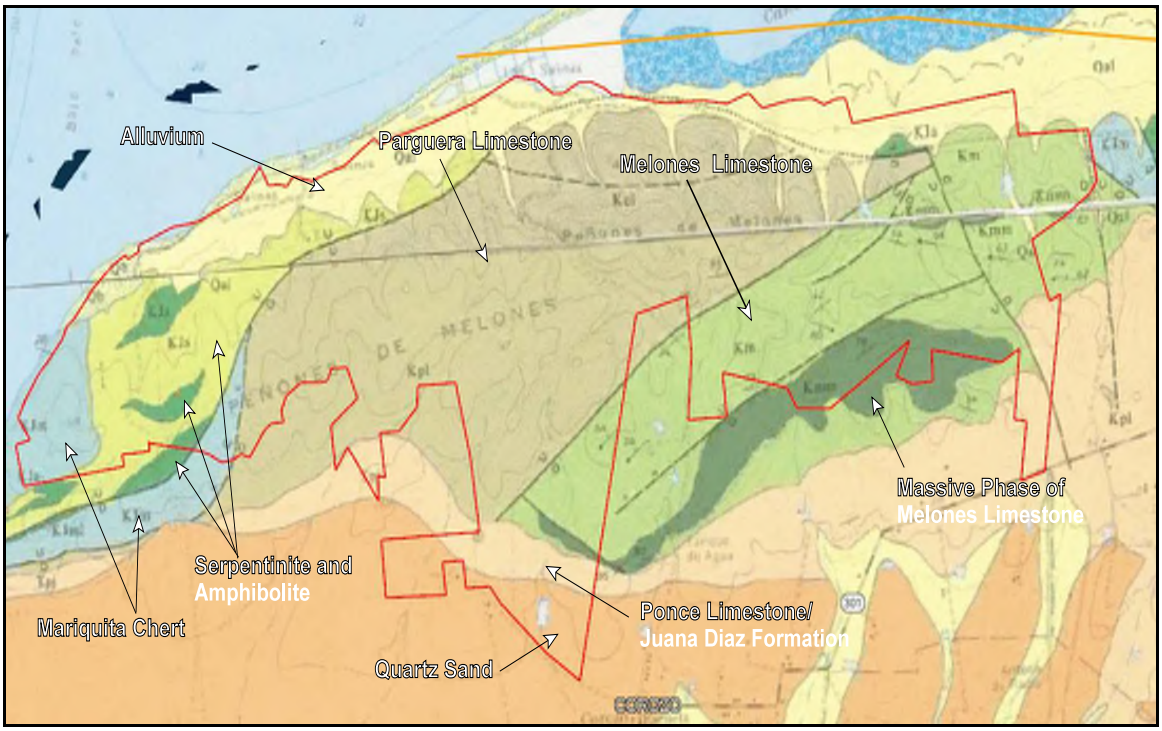

Figure 2. Geologic setting.

The investigations were able to find the different geomaterials described by Volckman (1984). These include Mariquita Chert (Kjm), Serpentinite and Amphibolite (Kjs,a), Alluvium (Qal), Parguera Limestone (Kpl), Melones Limestone (Km), Ponce Limestone/Juana Diaz Formation (*Undivided*, Tpj), and Quartz sand (Tqs).

2.1 Karst Hazard Assessment

The project site is underlain by Cretaceous carbonate rocks, specifically the Parguera Limestone, Melones Limestone and Ponce Limestone/Juana Diaz. The Parguera and Melones are composed of relatively pure, thick-bedded to massive limestone with well-developed jointing and bedding planes. The Ponce/Juana Diaz consists of yellowish-white calcirudite and calcarenite, interbedded sand and coarse grained. Of these 3 formations, the Ponce Limestone/Juana Diaz is the younger formation and the one with least probability of developing karst landforms.

Between the Parguera Limestone and the Melones Limestone, is the massive phase of Melones the one that shows karren features (Volckmann, 1984) and, in our opinion, the most sinkhole-prone formation. The massive phase is identified in dark green in Figure 2 and delimited

by a solid yellow line in **Figure 3**. This geologic unit is characterized by outcrops of limestone that show solutional forms and patterns, such as shallow channels, grooves, and fissures. Its propensity for sinkhole activity was made evident by the presence of a large sinkhole and cave opening at the southeastern side of the property. **Besides these karstic features in the Melones limestone, no other significant anomaly was found during the exploratory program. As a consequence of the finding, the designers amended the plan and re-routed the closest components of the project to allow the safety corridors recommended in this area.**

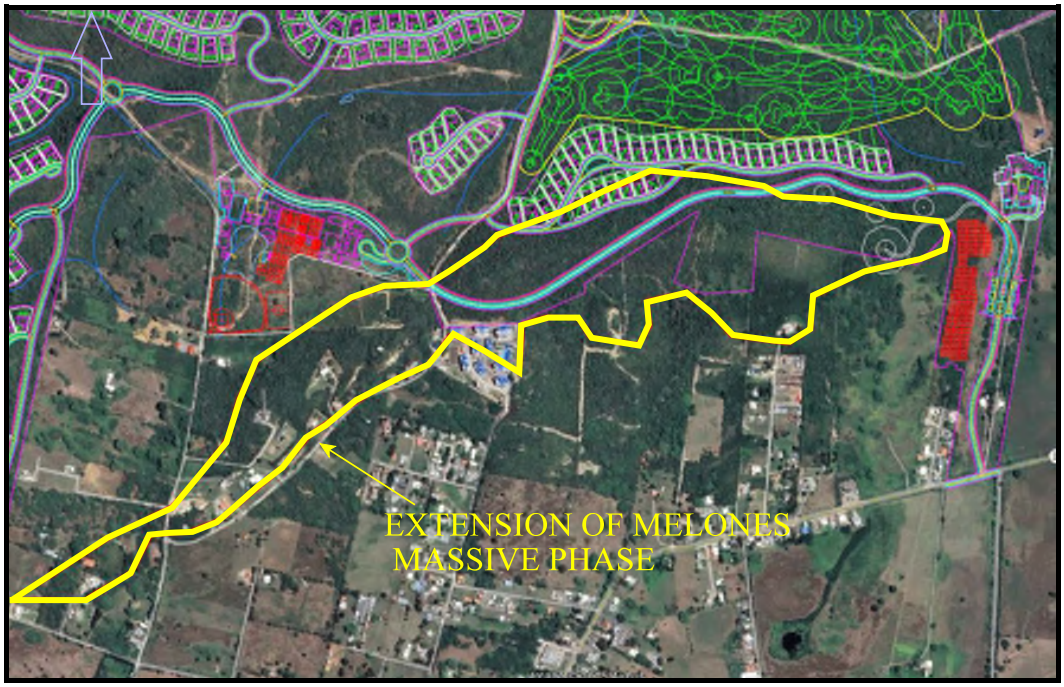

Figure 3. Southeastern side of Esencia showing the limits of Melones massive phase in thick yellow line.

2.2 Geophysical Screening

As mentioned earlier, the massive phase of Melones has great potential for solutional voids and cover-collapse features. Groundwater dissolution over geologic time may produce subsurface cavities and abrupt changes in overburden thickness.

In order to investigate with more detail the possible extension of cavities within the caves's immediate proximity, we performed a geophysical screen consisting of two-dimensional, refraction seismic tomography in areas extending 90 to 200 meters towards the north of the cave opening.

The investigated areas are located to the north of a cave opening. The goal of this screening was to investigate the possible extension of sinkhole or sinkhole phenomena within the cave's proximity, with a special focus towards areas to be developed. The location of the seismic refraction lines are presented in **Figure 4**.

Figure 4. Seismic refraction lines #2, #3 and #4 found evidence of possible sinkhole related phenomena. Solid red line contour delimits the extension of the Melones Limestone in its massive phase (unit *Kmm*).

The geophysical survey did not find evidence of sinkhole-related features along seismic lines #1, #5, #6 and #7. However, the survey showed the probable presence of sinkholes or related phenomena in seismic lines #2, #3 and #4. These lines are located to the north side of a cave entrance and to the north of a large sinkhole depression.

The findings of the geophysical survey, allowed us to delimit areas with high probability of future sinkhole development. For land development purposes, the green line in **Figure 5** delimits the area that, in our opinion, should be held as a no-construction zone due to probable sinkhole activity. This Figure also shows the adjusted version of the project design in response to these recommendations. This green line is located approximately 85 meters North from the identified cave opening.

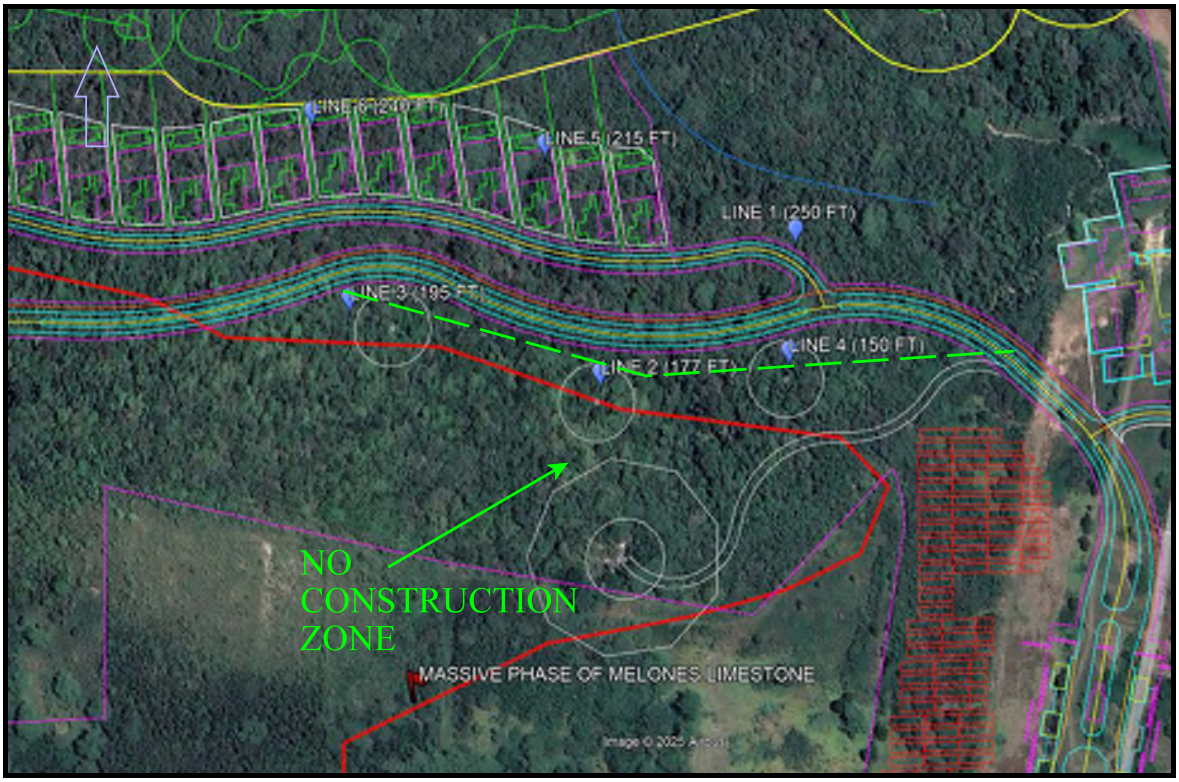

Figure 5. Recommended setback to the north of cave and sinkhole, resulting from results of geophysical investigation in this area overlapped with the project's proposed design.

2.3 Recommendations for Future Studies

Because the massive phase of Melones flanks the south property line, it is possible that other hidden similar features may be present further to the west of the existing cave where this limestone formation overlaps with additional project development areas, as shown in Figure 6. Documenting the presence or absence of karst features will allow informed decisions on foundation type, grade slab support, and drainage design and reduce the risk of post-construction sinkhole collapse or differential settlement.

For future project phases, prior to the commencement of construction, we recommend to perform additional geophysical studies wherever elements of the project overlap the massive phase of the Melones limestone. A typical approach to exploration in these areas would be by rolling out the presence of sinkhole related anomalies in areas of interest. The geophysical program shall be designed specifically to target construction areas in question. The results of these studies would be

used for specific design considerations and solutions, prior to commencement of the project. **Figure 6** shows the areas that will require additional geophysical studies prior to commencement of the project.

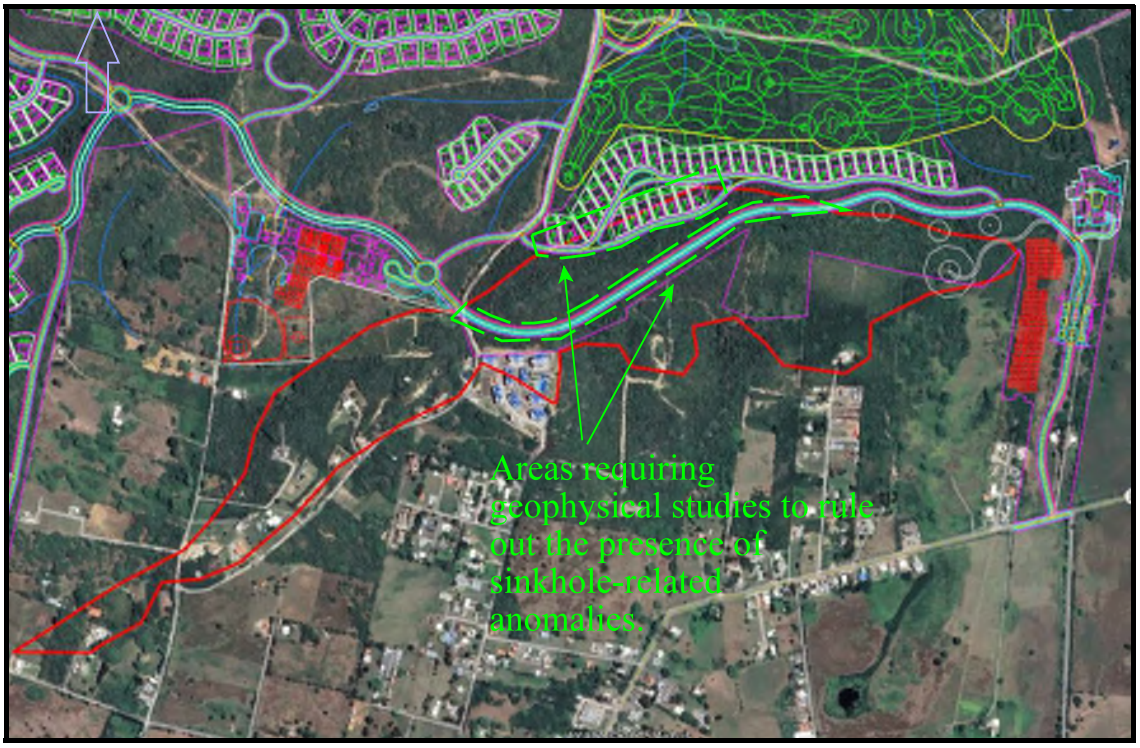

Figure 6. Southeastern side of Esencia showing the limits of Melones massive phase in red line.

3.0 CONSTRUCTION CONSIDERATIONS IN KARST-PRONE LIMESTONE

3.1 Foundations

In order to minimize the factors that may initiate failure or to control the possible damages, which might result from subsidence or collapse of the overburden above an unforeseen cavity, the following foundation methods should be considered:

- The use of conventional shallow foundations (spread or strip foundations) and/or mat foundations designed to bridge problematic areas.
- A proof-rolling program with the use of a smooth wheeled vibratory roller shall be performed within all footprints of the proposed buildings. The proof rolling (with a 20-ton vibratory capacity roller) shall be performed under the supervision of a full time geotechnical engineer and a soils technician.
- A mechanical sounding program shall be implemented following the geotechnical engineer recommendations. The sounding program will serve to establish the existence or not of soft soils or possibly void areas not detected previously. As soon as the cuts are completed and after the proof rolling process is performed, a complementary sounding program shall be performed prior to construction. The soundings shall be performed at least one per footing (depending on their size) at their center and at least to a depth of three (3) times the width of footing. The sounding shall be gravity grouted after completed. For areas where mat foundations are proposed, soundings spaced at 30 feet in a square pattern center to center and about 25 feet deep shall be implemented (secondary and tertiary sounding may follow for confirmation, if ground treatment is found necessary after first tests). The procedure followed during a sounding program and the interpretation of the soundings is a very delicate matter. The sounding program shall be performed by Suelos, PSC (Geotechnical Engineer of Record). The selected contractor shall be the entity responsible for locating the footing centers at the field after the excavations are performed.
- The geotechnical engineer shall recommend any additional measures that may be needed around sinkholes found in the future as per applicable guides.
- Any other alternative measures and technologies that the professional geotechnical engineer considers adequate for the intended purposes and consistent with applicable regulations and standard of practice.

3.2 Design Parameters

The proposed structures can be designed using either spread or continuous footings or mat foundations, the latter being preferred by these consultants on account of the site geology. Spread or continuous foundations can be used provided they are designed for an allowable bearing pressure no to exceed 3,000 pounds per square foot at a foundation depth of 3 feet, measured from proposed rough grade. In the event the foundation lies over structural fill the allowable bearing pressure to be used is 2,000 psf at a depth of foundation of 3 feet below final grade. The foundations have been considered to be laid over stiff to very stiff silty clays, or over properly proofed rolled weathered limestone. In any case, the foundation base soils shall be thoroughly inspected by the project geotechnical engineer for his approval and written release prior to concrete cast.

The allowable bearing pressures can be increased by 30 percent to account for transient loading such as wind and seismic loads. Although at first sight the mat foundation alternative may result more expensive than the spread/strip footings, in the long run it may save time, efforts and money in the sense that the mat is more "forgiving" or less sensitive to small cavities that may be found during sounding program or construction.

3.3 Earthworks

The construction of earth embankments, cuts and the proper drainage of limestone terrains constitutes one of the most important foundation potential problems, therefore special considerations shall be taken during the construction of this project to accommodate these three items. The results of the subsurface exploration indicate that except where cavities may be present, the in-place soil materials are capable of supporting the loads to be transmitted by artificial fills of small magnitude, 2 to 4 meters, and by the proposed structures (exception is made at areas above or near sinkholes).

During construction, any loose surficial area not disclosed in the borings and the topsoil shall be adequately stripped prior to the filling and or casting of any foundation. The area underlaid by the massive phase of Melones has very particular subsoil characteristics leading to different foundation recommendations. In this area, voids, clay filled voids, and soft clay filled voids are probable. Other areas of the project show low probability of voids on clay filled void content.

3.4 Methodology

Although the borehole exploration did not readily reveal a widespread presence of loose soils or compressible soils, we can not discard the possible presence of loose or soft surficial soils at the site as well as additional cavities to the ones already discovered. Prior to the performance of any earthwork, the site shall be stripped and prepared. The existing topsoil shall be removed. The removal of the topsoil shall be performed under the direct supervision of a geotechnical engineer or his representative. The aerial extent and depth of removal shall be established by the soil inspector at the field. Once the above work has been done, the filling operations shall not start until the complete buildable footprint areas are proof rolled tested. Proof rolling means compacting the exposed surface with a heavy smooth wheel vibratory (20-ton) roller under the supervision of a soil technician properly trained. The following procedure is herewith recommended:

a. Strip the top soil.
b. Cut where necessary or level terrain if fill is to be placed.
c. Proof roll with heavy smooth vibratory large (20 tons) vibrating smooth wheel roller the complete building foot print (or the newly exposed cut area).
d. Perform the Dynamic Sounding Study following geotechnical engineer recommendations.
e. Perform ground treatment, if and where necessary.
f. Place fill compacted 90% to 95% of its maximum dry density as obtained by a Modified Proctor Test, depending on area to be filled.
g. Place moisture barrier membrane to separate floor slab from the foundation soils.
h. Cast foundations.

3.5 Filling and Stabilization

The nature of the in-situ soil shall require that surficial drainage be provided at all times. The material to be used as fill shall classify as A-2-4 or better material, following the AASHTO Classification System. The filling operations shall be conducted under very controlled conditions, and under the supervision of a Soils Engineer. Under controlled conditions, an earthfill construction is performed by placing the fill in layers not exceeding 8 to 12 inches in thickness and imparted with a minimum degree of compaction of 90% to 95% of the fill material's maximum dry density, as

obtained from the Modified Proctor Test. The 95% compaction criteria shall be used structural loads areas. However, previous experience indicate that when fill thickness are to exceed 3 meters, even under the best controlled conditions, it always undergoes subsidence or volume changes for a certain period of time on account of readjustments of the soil particles under the weight of the fill embankment itself. Use appropriate methods to control embankments higher than 3 meters as directed by the geotechnical engineer. Settlement monitoring and control measures should be implemented according to the geotechnical engineer recommendations.

Under no circumstance shall the fill be placed over a sloping ground surface without first preparing the ground by uniformization of fills, and or stepped-like benching of the surface over which the fills will lie.

3.6 Structures at Cut & Fill

No structure is to lie partly on cut and partly on fill without the acceptance of the geotechnical engineer. Any sector exhibiting this topographic condition will require that an over excavation at the cut area is made such that 6 ft maximum fill thickness difference is maintained. At all events shall the structure be cast at least over 12 inches of select material A-2-4 or better. At any cut area, where plastic soils are exposed, the uppermost 12 inches shall be over excavated and substituted with the previously recommended select fill A-2-4 or better.

The presence of crystalline or recrystalized limestone within these areas will result in different rippability characteristics for earthwork operations within cut area. No grading plan of the areas has been provided as of the preparation of this report, however, as a general guideline we understand that the rippability characteristics of the limestone can be managed with conventional earthwork equipment (ie; Caterpillar D-9, or D-10) with ripper.

3.7 Dewatering

Although no groundwater was observed during the drilling phase of this exploration in the highland, construction and excavations on limestone terrains should be performed in such a way that no run-off water be allowed to pond at any excavation at anytime. Any water entering the foundation excavations must be expeditiously pumped directly from sumps located at their sides. The presence

of run-off accumulating at the lowland sector will also put a burden in the general earthwork operations at this area. Temporary ditches channels and dikes may be necessary so as to contain water during earthwork. Medium size pumps may also be required.

3.8 Drainage Considerations

In order to minimize the factors that may initiate failure, or to control the possible damages which might result from subsidence or collapse of the overburden above a possible sinkhole, the following is recommended:

a. Surface waters must be carried sufficiently away (via paved drainage ways) from the structures so that raveling induced by downward drainage is minimized.

b. All downspouts and splash blocks should be placed so that roof run-off is carried away from the structures. These waters should be collected by paved drainage ways and disposed into proper outfalls.

c. All surface connections to the structure's utilities shall be of the flexible type in order to avoid breakage resulting from the occurrence of minor differential settlements.

d. No injection or production well shall be installed within 500 feet of residential areas, unless a proper geotechnical and hydrogeological exploration is made by experts in this field.

3.9 Slopes & Berms

As it has been mentioned before, at the time being the site's final grading requirements are not available yet. If the site grading is to involve cuts and large fills in order to attain the finished grades, special considerations shall be taken regarding the protection of such slopes. As a general guideline, all earthfill and cutslopes of 10 feet or less in height shall not be steeper than 2:1 (horizontal: vertical). Fill slopes not exceeding 5 feet in height may be provided with a 1.5:1 ratio. Fill slopes higher than 10 feet in height shall be designed with a 2:1 (H:V) slope ratio. Cut slopes in limestone can be designed with a 1.5: 1 (H : V) ratio, while highly weathered limestone will have to be field checked for an evaluation and determination. However, a 2:1 (H : V) ratio shall be assigned for design considerations. Wherever horizontal space requirements for high earthfill embankments cannot be met (as per the above slope ratio requirements), specific solutions may be determined on a casa-by-case basis by the geotechnical engineer.

3.10 Foundation Base Inspection

All foundations bases shall be observed prior to rebar installation and concrete casting. The exposed limestone at foundation base shall be inspected to detect the presence of fractures or cavities. In the event fractures or cavities after exposed at any given foundation, these shall be cleaned with pressurized air and sealed with cement grout. The purpose is to prepare a smooth base for foundations. The criteria or method will be established in the field. The possibility of unearthing cavities or swallow holes is to be expected whenever cuts are made in the limestone massive phase of Melones. Unearthing cavities or swallow holes (near vertical or inclined chimney holes several inches to several feet in diameter) will require treating them on a case-by-case basis. Depending on the size different alternatives are normally chosen. In the event the size of the swallow hole is only several inches in diameter, typically these can be treated by sealing them with lean grout. In the event these are greater than one foot or so, then these are typically treated by filling them with a filter medium, with or without grout, after it is inspected and observed whether the swallow show signs of passage of water. Again, the treatment is to be decided on a case-by-case basis. Perhaps a construction contingency should be assigned to the possible occurrence of these cavities or swallow holes. There is no method to predict the amount or magnitude of the appearance of these sinkhole related features.

4.0 SEISMIC HAZARDS

Puerto Rico is located in a tectonically active region situated on a microplate between the Puerto Rico subduction zone and the Muertos Trough. Although geodetic data indicate that strain rates across the microplate are low (<1-3 mm/yr, Jansma et al., 2000; Jansma and Mattioli, 2005), the region has experienced several moderate to large earthquakes, including the 1670 A.D. magnitude (M) 6.5–7 (Pacheco and Sykes, 1992; McCann et al., 2010),1918 M 7.1–7.3 Mona Passage (Reid and Taber, 1919; Brink et al., 2023), and most recently, the 2019 Southwest Puerto Rico seismic sequence.

In order to discuss the seismic hazards in relation to Esencia, we relied on the Neotectonic Mapping of Puerto Rico (cdoi:10.26443/seismica.v3i1.1102). The NMP is relevant to Esencia

because it presents evidence for Quaternary fault activity on seven onshore faults, including the South Lajas and Punta Montalva faults, located in the vicinity of the project.

4.1 Quartenary vs. Holocene Faults

A Quaternary active fault is a geological fault that has shown evidence of movement (rupture or displacement) during the Quaternary Period, the most recent geologic time period, which covers the last 2.6 million years up to the present. It includes the Pleistocene (ice ages) and Holocene (the last ~11,700 years, our current epoch.

In tectonic and seismic hazard terms, an active fault is one that has moved recently enough that it may move again and generate earthquakes. Many engineering codes or seismic hazard studies define an active fault as one that shows movement during the Holocene (past 11–15 thousand years). This is the most widely used time window for seismic design and hazard assessment.

4.2 Engineering and Planning

There are building codes and hazard maps that draw setback zones or fault-rupture hazard zones where a fault is Holocene active. However, the Puerto Rico Building Code (PRBC 2018) references ASCE 7-16/22 for loads and doesn't create a separate "fault-rupture zoning" program like, for example, California's Alquist-Priolo. Practically, this means there is not a code-mandated statewide setback tied to "Holocene-active"; instead, the designer and/or the authority having jurisdiction should rely on USGS/peer-reviewed mapping such as the NMP.

Table 1 summarizes the classification, age of fault activity, and categorical slip rate bins for onshore faults which are regionally important to Esencia. **Figure 7** shows the location of some of these faults. It can be observed from **Figure 7** that the South Lajas Fault is the onshore trace closer to Esencia. It is worth mentioning that the mapped trace of this fault runs to the North side of Esencia, outside property limits.

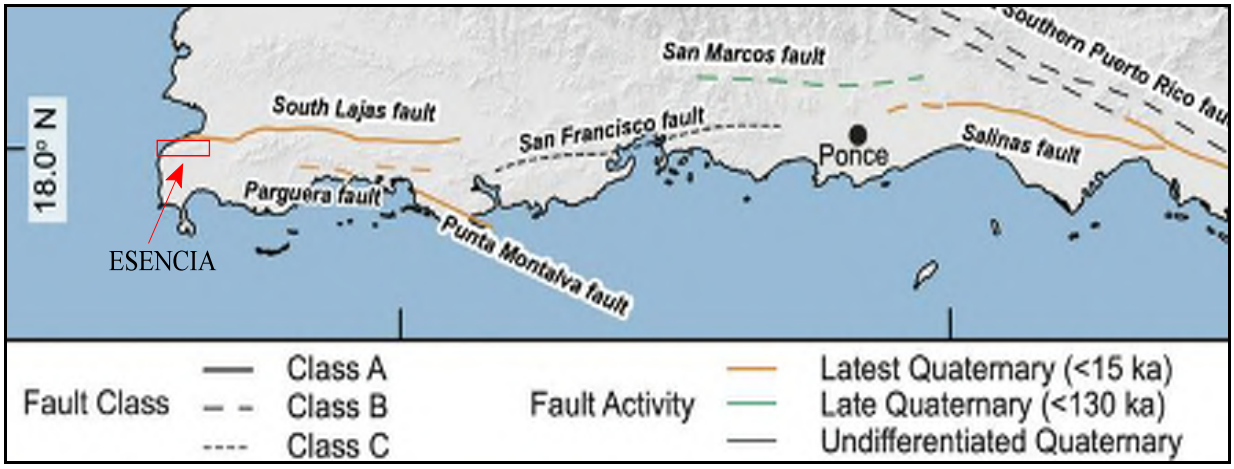

Figure 7.Simplified Quaternary fault map of onshore Puerto Rico, depicting simplified traces of fault-related features (Jessica A. Thompson Jobe et al., Neotectonic Mapping of Puerto Rico, 2024)

Fault Name	Class	Age of Fault Activity	Categorical Slip Rate Bin (mm/yr)
South Lajas	A	Latest Quaternary (<15 ka)	0-0.5
Salinas	A	Latest Quaternary (<15 ka)	0-0.5
Great Southern Puerto Rico – southeast extent	A	Latest Quaternary (<15 ka)	0-0.5
Punta Montalva	A	Latest Quaternary (<15 ka)	0-0.5
Cerro Goden	A	Latest Quaternary (<15 ka)	0-0.5

4.3 Conclusions

Quaternary traces are mapped in the wider area around Esencia. The NMP has documented the distance, relative age, and geomorphic expression of the various faults that are regionally important to Esencia. The closer trace corresponds to the South Lajas Fault located to the north side of Esencia. None of these traces traverse the actual property limits of Esencia.

In any case, there is not a code-mandated setback tied to active faults in the PRBC (2018). The PRBC 2018 references ASCE 7-16 for seismic loading regardless of fault age classification. That said, seismic loads for final design shall come from the USGS/ASCE hazard model regardless of fault proximity.

5.0 CLOSING COMMENTS

The above discussions and recommendations are being based on representative tests which we consider appropriate. As each component of the wider project is developed, specific geotechnical studies and recommendations shall be performed on a case-by-cases basis to establish more narrow parameters prior to starting construction of each component.

This report has been prepared taking into consideration the design factors presently known to us. The project designers shall be alerted to any item that might have been overlooked, that could require clarification or that may need additional or changed recommendations to those discussed herein.

Respectfully submitted,

IVAN JACKSON MADURO, P.E., M.S.C.E.,
Partner

mgn

Reference No. 5355-Add

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 3c
Traducción de Cortesía
NOVIEMBRE 2025

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ANEXO AL INFORME GEOTÉCNICO
DE ESENCIA
CABO ROJO, PUERTO RICO

1.0 INTRODUCCIÓN

Esta adenda a nuestro informe geotécnico con fecha del 17 de junio de 2024 (trabajo n.º 5355) incluye información geotécnica, geológica y sísmica adicional y complementaria en relación con Esencia, un desarrollo turístico/residencial en Cabo Rojo, Puerto Rico.

El apéndice tiene por objeto cubrir los siguientes temas:

1. Recomendaciones de construcción en terrenos kársticos.
2. Análisis de los posibles riesgos sísmicos del proyecto.
3. Definición de las áreas que no son aptas para la construcción debido a la proximidad de sumideros, cavernas u otras condiciones asociadas con la geología kárstica.

El proyecto en cuestión, que se muestra en **la figura 1**, se subdividirá en lotes residenciales, hoteles, edificios de apartamentos, complejos deportivos e instalaciones relacionadas. El tamaño de los lotes varía en función del uso previsto, mientras que las estructuras específicas que se construirán en cada lote varían en función de las necesidades del proyecto. Además de la segregación de los lotes, se construirán carreteras internas y otras infraestructuras necesarias. Entre ellas se incluyen sistemas de alcantarillado pluvial, sistemas de alcantarillado sanitario, líneas de suministro de agua, conexiones eléctricas y otros elementos auxiliares.

Por el momento, hemos completado 62 perforaciones geotécnicas distribuidas por toda la propiedad. Se han realizado aproximadamente 1,300 pies lineales de estudios de tomografía superficial alrededor de las zonas en las que se conocen aberturas de cuevas/sumideros y de las zonas que son geológicamente propensas a la actividad de sumideros. Siguiendo nuestras recomendaciones para implementar retranqueos de la actividad conocida y sospechosa de sumideros, los diseñadores y planificadores han incorporado las disposiciones necesarias para esta etapa de planificación ambiental.

En lo que respecta a los procedimientos de construcción en terrenos kársticos, en la sección 3 se presentan recomendaciones sobre cimentación y construcción, teniendo en cuenta los resultados del programa de exploración. Sobre la base de nuestras recomendaciones para el diseño y la construcción de cimientos, se tomarán las medidas necesarias para el futuro diseño y construcción del proyecto. El apéndice concluye con la sección 4, dedicada al análisis de los posibles riesgos sísmicos en el emplazamiento del proyecto.

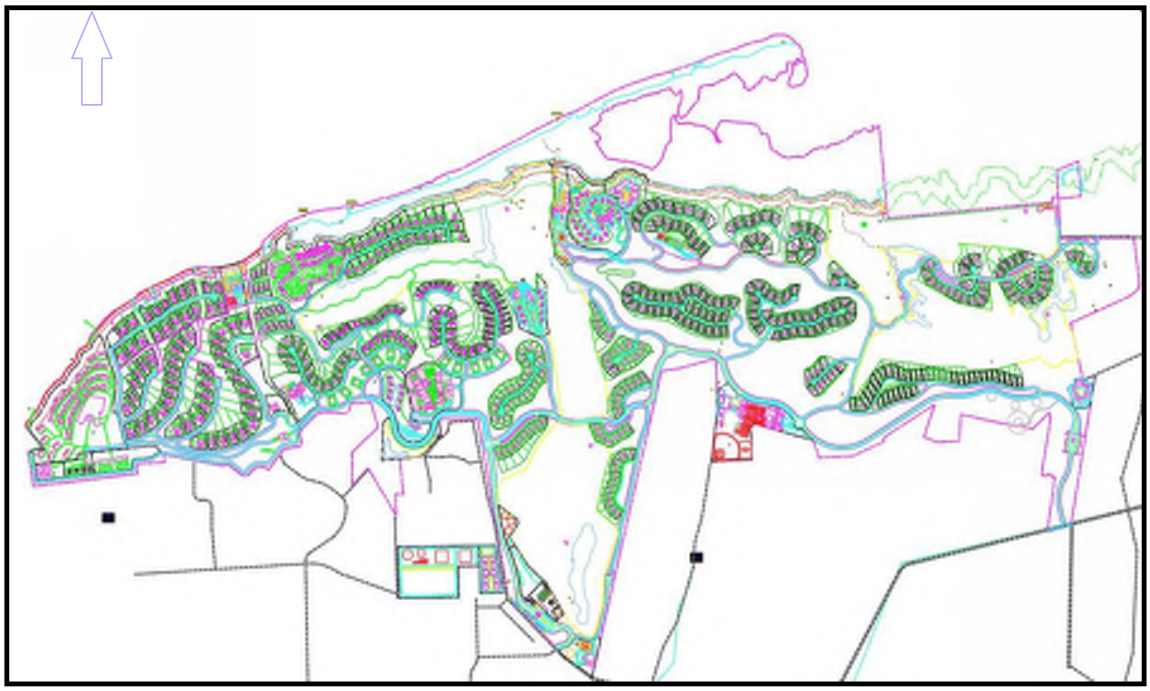

Figura 1. Plano del emplazamiento de Esencia.

2.0 EVALUACIÓN GEOLÓGICA Y GEOFÍSICA

El emplazamiento del proyecto se ha cartografiado como parte del cuadrángulo geológico Cabo Rojo-Parguera y del cuadrángulo geológico Puerto Real (**Figura 2**). Las zonas costeras que delimitan el proyecto están bordeadas por manglares, depósitos de playa, depósitos intermareales y, en algunas zonas, acantilados marinos. Las zonas interiores tienen un subsuelo de serpentinita, anfibolita, sílex y basalto del Jurásico tardío al Cretácico temprano, caliza y rocas volcánicas del Cretácico tardío, y caliza y grava del Terciario medio. La parte central de la zona ha sido invadida por macizos y diques, algunos del Cretácico tardío y otros que pueden ser tan antiguos como el Cretácico temprano. Los extensos depósitos de arena de cuarzo en la parte occidental de la zona pueden provenir de rocas intrusivas ricas en cuarzo, posiblemente del Terciario. Las rocas están plegadas y desplazadas por fallas de alto ángulo (Volckman, 1984).

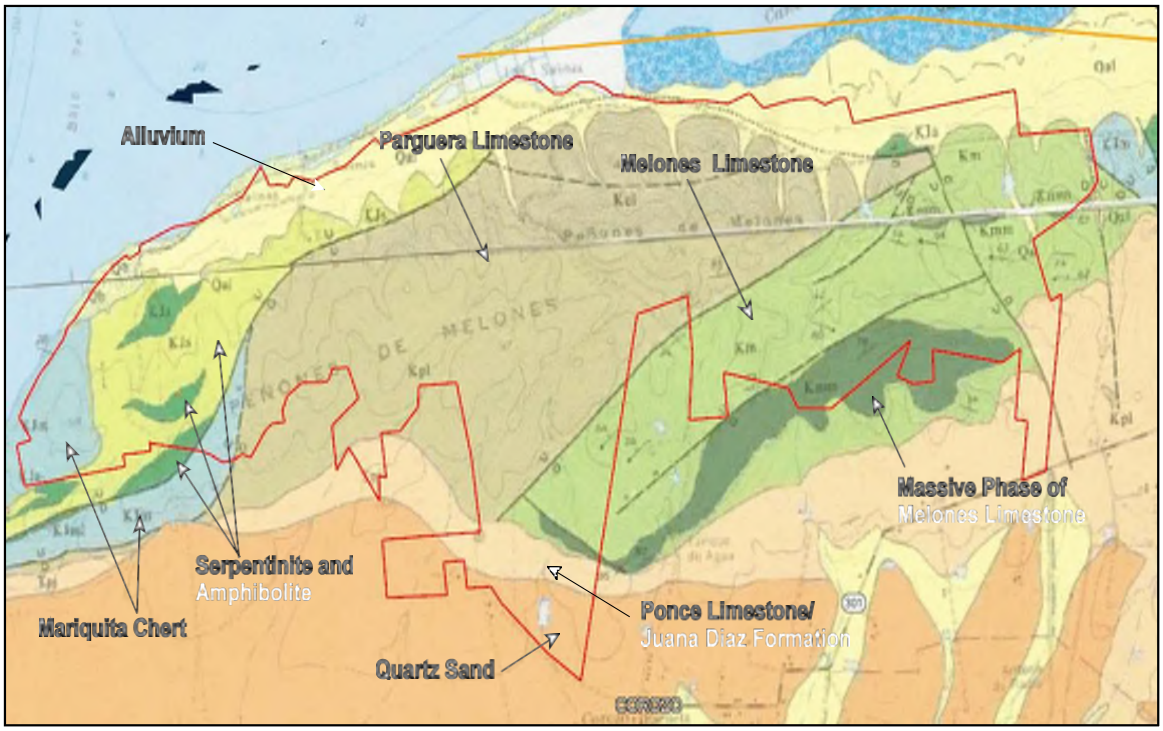

Figura 2. Entorno geológico.

Las investigaciones permitieron encontrar los diferentes geomateriales descritos por Volckman (1984). Entre ellos se incluyen el chert de Mariquita (Kjm), la serpentinita y la anfibolita (Kjs,a), el aluvión (Qal), la caliza de Parguera (Kpl), la caliza de Melones (Km), la caliza de Ponce/formación Juana Díaz (*sin dividir,* Tpj) y la arena de cuarzo (Tqs).

2.1 Evaluación del riesgo kárstico

El emplazamiento del proyecto se asienta sobre rocas carbonatadas del Cretácico, concretamente la caliza de Parguera, la caliza de Melones y la caliza de Ponce/Juana Díaz. Las calizas de Parguera y Melones están compuestas por capas relativamente puras, de espesor variable, con juntas y planos de estratificación bien desarrollados. La formación Ponce/Juana Díaz está compuesta por calcirudita y calcarenita de color blanco amarillento, con intercalaciones de arena y grano grueso. De estas tres formaciones, la caliza Ponce/Juana Díaz es la más reciente y la que tiene menos probabilidades de desarrollar formas kársticas.

Entre la caliza de Parguera y la caliza de Melones, es la fase maciza de Melones la que presenta características kársticas (Volckmann, 1984) y, en nuestra opinión, la formación más propensa a los sumideros. La fase maciza se identifica en verde oscuro en la figura 2 y se delimita

por una línea amarilla continua en **la Figura 3**. Esta unidad geológica se caracteriza por afloramientos de piedra caliza que muestran formas y patrones de disolución, como canales poco profundos, surcos y fisuras. Su propensión a la formación de sumideros quedó patente por la presencia de un gran sumidero y una abertura de cueva en el lado sureste de la propiedad. **Aparte de estas características kársticas en la piedra caliza de Melones, no se encontró ninguna otra anomalía significativa durante el programa de exploración. Como consecuencia del hallazgo, los diseñadores modificaron el plan y cambiaron el trazado de los componentes más cercanos del proyecto para permitir los corredores de seguridad recomendados en esta zona.**

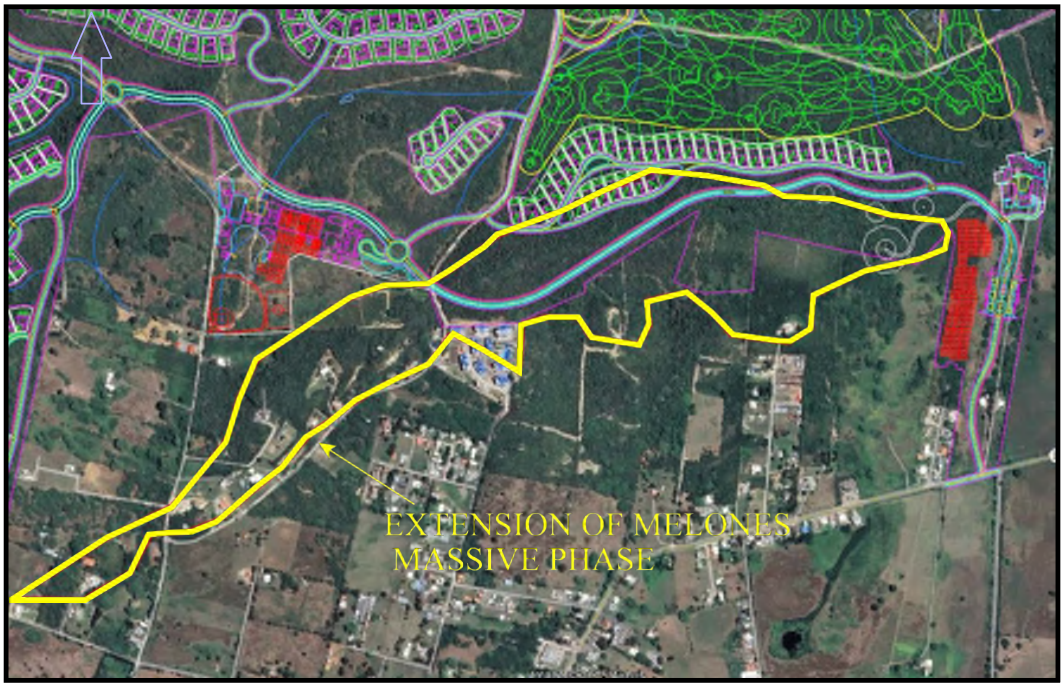

Figura 3. Lado sureste de Esencia, donde se muestran los límites de la fase masiva de Melones con una línea amarilla gruesa.

2.2 Cribado geofísico

Como se mencionó anteriormente, la fase masiva de Melones tiene un gran potencial para la formación de cavidades por disolución y colapsos de la cubierta. La disolución del agua subterránea a lo largo del tiempo geológico puede producir cavidades subterráneas y cambios abruptos en el espesor de la sobrecarga.

Con el fin de investigar con más detalle la posible extensión de las cavidades en las inmediaciones de la cueva, realizamos un estudio geofísico que consistió en una tomografía sísmica de refracción bidimensional en áreas que se extienden entre 90 y 200 metros hacia el norte de la entrada de la cueva.

Las áreas investigadas se encuentran al norte de la entrada de una cueva. El objetivo de este estudio era investigar la posible extensión de sumideros o fenómenos relacionados con sumideros en las proximidades de la cueva, prestando especial atención a las áreas que se van a urbanizar. La ubicación de las líneas de refracción sísmica se muestra en **la figura 4**.

Figura 4. Las líneas de refracción sísmica n.º 2, n.º 3 y n.º 4 encontraron indicios de posibles fenómenos relacionados con sumideros. La línea roja continua delimita la extensión de la caliza Melones en su fase masiva (unidad *Kmm*).

El estudio geofísico no encontró indicios de características relacionadas con sumideros a lo largo de las líneas sísmicas n.º 1, n.º 5, n.º 6 y n.º 7. Sin embargo, el estudio mostró la probable presencia de sumideros o fenómenos relacionados en las líneas sísmicas n.º 2, n.º 3 y n.º 4. Estas líneas se encuentran al norte de la entrada de una cueva y al norte de una gran depresión de sumidero.

Los resultados del estudio geofísico nos permitieron delimitar las áreas con alta probabilidad de desarrollo futuro de sumideros. A efectos de desarrollo del terreno, la línea verde de **la figura 5** delimita el área que, en nuestra opinión, debería mantenerse como zona sin construcción debido a la probable actividad de sumideros. Esta figura también muestra la versión ajustada del diseño del proyecto en respuesta a estas recomendaciones. Esta línea verde se encuentra aproximadamente a 85 metros al norte de la abertura de la cueva identificada.

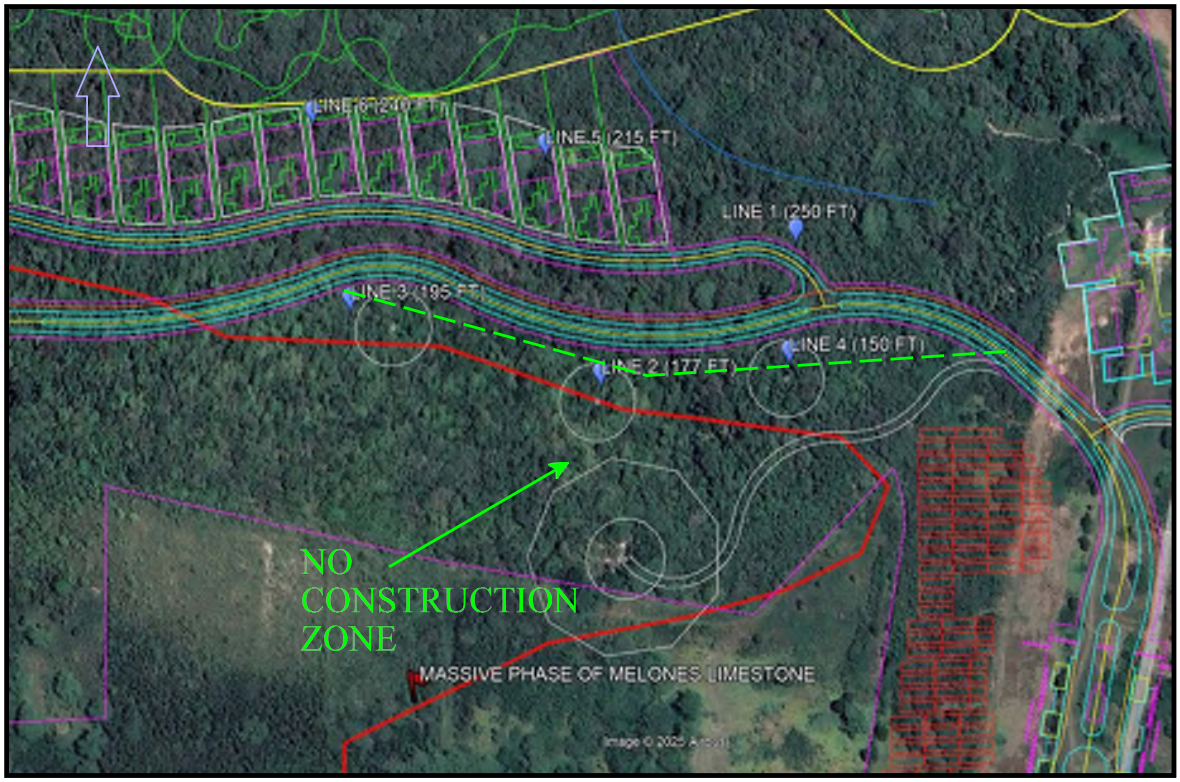

Figura 5. Retranqueo recomendado al norte de la cueva y el sumidero, resultado de los resultados de la investigación geofísica en esta zona superpuesta con el diseño propuesto para el proyecto.

2.3 Recomendaciones para estudios futuros

Dado que la fase masiva de Melones flanquea el límite sur de la propiedad, es posible que existan otras características similares ocultas más al oeste de la cueva existente, donde esta formación caliza se superpone con áreas adicionales de desarrollo del proyecto, como se muestra en la Figura 6. Documentar la presencia o ausencia de características kársticas permitirá tomar decisiones informadas sobre el tipo de cimentación, el soporte de la losa de nivelación y el diseño del drenaje, y reducirá el riesgo de colapso por hundimiento o asentamiento diferencial después de la construcción.

Para las fases futuras del proyecto, antes de comenzar la construcción, recomendamos realizar estudios geofísicos adicionales en todos los lugares en los que los elementos del proyecto se superpongan a la fase masiva de la caliza de Melones. Un enfoque típico para la exploración en estas áreas sería detectar la presencia de anomalías relacionadas con sumideros en las áreas de interés. El programa geofísico se diseñará específicamente para centrarse en las áreas de construcción en cuestión. Los resultados de estos estudios serían

utilizados para consideraciones y soluciones de diseño específicas, antes del inicio del proyecto. **La figura 6** muestra las áreas que requerirán estudios geofísicos adicionales antes del inicio del proyecto.

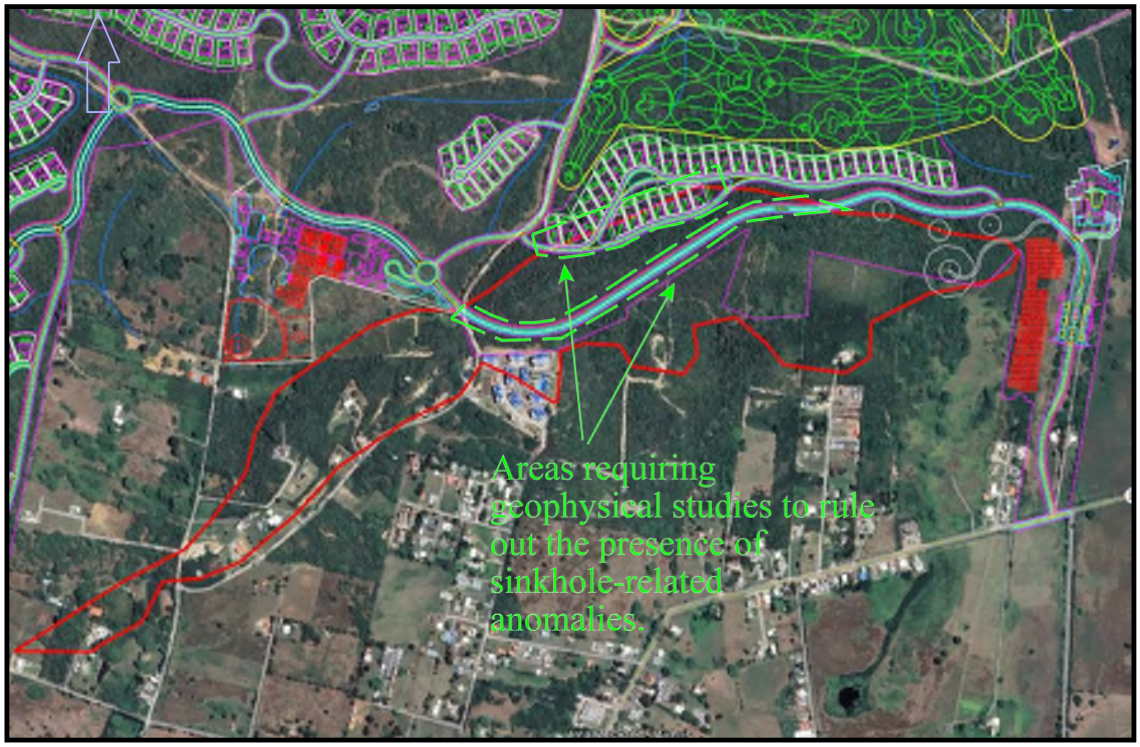

Figura 6. Lado sureste de Esencia, donde se muestran los límites de la fase masiva de Melones con una línea roja.

3.0 CONSIDERACIONES DE CONSTRUCCIÓN EN CEMENTOS CALIZOS PROPENSOS AL KARST

3.1 Cimentaciones

Con el fin de minimizar los factores que pueden provocar fallos o controlar los posibles daños que podrían derivarse del hundimiento o colapso de la sobrecarga sobre una cavidad imprevista, se deben considerar los siguientes métodos de cimentación:

- El uso de cimentaciones superficiales convencionales (cimentaciones continuas o en franja) y/o cimentaciones en losa diseñadas para salvar las zonas problemáticas.
- Se llevará a cabo un programa de pruebas de rodadura con el uso de un rodillo vibratorio de ruedas lisas en toda la superficie de los edificios propuestos. Las pruebas de rodadura (con un rodillo vibratorio de 20 toneladas de capacidad) se realizarán bajo la supervisión de un ingeniero geotécnico a tiempo completo y un técnico de suelos.
- Se implementará un programa de sondeos mecánicos siguiendo las recomendaciones del ingeniero geotécnico. El programa de sondeos servirá para determinar la existencia o no de suelos blandos o posibles áreas vacías no detectadas previamente. Tan pronto como se completen los cortes y después de realizar el proceso de rodaje de prueba, se llevará a cabo un programa de sondeos complementario antes de la construcción. Los sondeos se realizarán al menos uno por cada zapatilla (dependiendo de su tamaño) en su centro y al menos a una profundidad de tres (3) veces el ancho de la zapatilla. El sondeo se rellenará con lechada por gravedad una vez completado. En las zonas en las que se proponen cimentaciones continuas, se realizarán sondeos espaciados a 30 pies en un patrón cuadrado de centro a centro y a una profundidad de unos 25 pies (se podrán realizar sondeos secundarios y terciarios para confirmación, si se considera necesario tratar el terreno después de las primeras pruebas). El procedimiento seguido durante un programa de sondeos y la interpretación de los mismos es un asunto muy delicado. El programa de sondeos se llevará a cabo por Suelos, PSC (ingeniero geotécnico de registro). El contratista seleccionado será la entidad responsable de localizar los centros de los cimientos en el terreno después de que se hayan realizado las excavaciones.
- El ingeniero geotécnico recomendará cualquier medida adicional que pueda ser necesaria en torno a los sumideros que se encuentren en el futuro, de acuerdo con las guías aplicables.
- Cualquier otra medida y tecnología alternativa que el ingeniero geotécnico profesional considere adecuada para los fines previstos y coherente con la normativa y las normas de práctica aplicables.

3.2 Parámetros de diseño

Las estructuras propuestas pueden diseñarse utilizando zapatas continuas o extendidas, o bien cimentaciones de losa, siendo estas últimas las preferidas por estos consultores debido a la geología del terreno. Se pueden utilizar cimentaciones continuas o extendidas siempre que estén diseñadas para una presión de apoyo admisible que no supere las 3,000 libras por pie cuadrado a una profundidad de cimentación de 3 pies, medida desde el nivel aproximado propuesto. En caso de que los cimientos se asienten sobre relleno estructural, la presión admisible que se utilizará es de 2000 psf a una profundidad de los cimientos de 3 pies por debajo del nivel final. Se ha considerado que los cimientos se asienten sobre arcillas limosas rígidas o muy rígidas, o sobre piedra caliza laminada y meteorizada debidamente impermeabilizada. En cualquier caso, los suelos de la base de los cimientos serán inspeccionados minuciosamente por el ingeniero geotécnico del proyecto para su aprobación y autorización por escrito antes del vertido del hormigón.

Las presiones admisibles sobre los cimientos pueden aumentarse en un 30 % para tener en cuenta cargas transitorias, como las cargas eólicas y sísmicas. Aunque a primera vista la alternativa de los cimientos continuos puede resultar más costosa que los cimientos individuales o en banda, a largo plazo puede ahorrar tiempo, esfuerzos y dinero, en el sentido de que los cimientos continuos son más «tolerantes» o menos sensibles a las pequeñas cavidades que pueden encontrarse durante el programa de sondeo o la construcción.

3.3 Movimientos de tierra

La construcción de terraplenes, cortes y el drenaje adecuado de terrenos calizos constituye uno de los problemas potenciales más importantes para los cimientos, por lo que se deberán tomar medidas especiales durante la construcción de este proyecto para dar cabida a estos tres elementos. Los resultados de la exploración del subsuelo indican que, salvo en los casos en que puedan existir cavidades, los materiales del suelo in situ son capaces de soportar las cargas que transmitirán los rellenos artificiales de pequeña magnitud, de 2 a 4 metros, y las estructuras propuestas (se hace una excepción en las zonas situadas encima o cerca de sumideros).

Durante la construcción, cualquier área superficial suelta que no se haya revelado en las perforaciones y la capa superior del suelo se retirará adecuadamente antes del relleno o el vertido de cualquier cimentación. El área subyacente a la fase masiva de Melones tiene características de subsuelo muy particulares que dan lugar a diferentes recomendaciones de cimentación. En esta área, es probable que haya huecos, huecos rellenos de arcilla y huecos rellenos de arcilla blanda. Otras áreas del proyecto muestran una baja probabilidad de huecos con contenido de huecos rellenos de arcilla.

3.4 Metodología

Aunque la exploración del pozo no reveló fácilmente una presencia generalizada de suelos sueltos o compresibles, no podemos descartar la posible presencia de suelos superficiales sueltos o blandos en el sitio, así como cavidades adicionales a las ya descubiertas. Antes de realizar cualquier trabajo de excavación, se desmontará y preparará el sitio. Se retirará la capa superior del suelo existente. La retirada de la capa superior del suelo se llevará a cabo bajo la supervisión directa de un ingeniero geotécnico o su representante. La extensión aérea y la profundidad de la retirada serán establecidas por el inspector de suelos en el terreno. Una vez realizados los trabajos anteriores, las operaciones de relleno no comenzarán hasta que se haya comprobado la compactación de todas las áreas edificables. La prueba de rodadura consiste en compactar la superficie expuesta con un rodillo vibratorio pesado de rueda lisa (20 toneladas) bajo la supervisión de un técnico de suelos debidamente capacitado. Se recomienda el siguiente procedimiento:

a. Retire la capa superior del suelo.
b. Corte donde sea necesario o nivele el terreno si se va a colocar relleno.
c. Compruebe el rodillo con un rodillo vibratorio pesado y liso de gran tamaño (20 toneladas) en toda la superficie del edificio (o en la zona recién cortada).
d. Realice la sondeo estudio estudio siguiente recomendaciones .
e. Realizar el tratamiento del terreno, si es necesario y donde sea necesario.
f. Colocar relleno compactado entre el 90 % y el 95 % de su densidad seca máxima, según se obtenga en una prueba Proctor modificada, dependiendo del área a rellenar.
g. Colocar una membrana de barrera contra la humedad para separar la losa del piso de los suelos de cimentación.
h. Hacer los cimientos.

3.5 Relleno y estabilización

La naturaleza del suelo in situ requerirá que se proporcione drenaje superficial en todo momento. El material que se utilizará como relleno deberá clasificarse como A-2-4 o superior, según el sistema de clasificación AASHTO. Las operaciones de relleno se llevarán a cabo en condiciones muy controladas y bajo la supervisión de un ingeniero de suelos. En condiciones controladas, la construcción del relleno de tierra se realiza colocando el relleno en capas que no superen los 20 a 30 cm de espesor y con un grado mínimo de compactación del 90 % al 95 % de la densidad seca máxima del material de relleno, según

obtenidos de la prueba Proctor modificada. Se utilizarán los criterios de compactación del 95 % en las zonas sometidas a cargas estructurales. Sin embargo, la experiencia previa indica que cuando el espesor del relleno supera los 3 metros, incluso en las condiciones más controladas, siempre se producen asentamientos o cambios de volumen durante un cierto periodo de tiempo debido a los reajustes de las partículas del suelo bajo el peso del propio terraplén de relleno. Utilizar métodos adecuados para controlar los terraplenes de más de 3 metros, según las instrucciones del ingeniero geotécnico. Las medidas de control y supervisión del asentamiento deben aplicarse de acuerdo con las recomendaciones del ingeniero geotécnico.

Bajo ninguna circunstancia se colocará el relleno sobre una superficie inclinada sin preparar primero el terreno mediante la uniformización de los rellenos o la creación de bancales escalonados en la superficie sobre la que se colocarán los rellenos.

3.6 Estructuras en corte y relleno

Ninguna estructura podrá apoyarse parcialmente sobre un corte y parcialmente sobre un relleno sin la aprobación del ingeniero geotécnico. Cualquier sector que presente esta condición topográfica requerirá que se realice una sobreexcavación en la zona de corte, de manera que se mantenga una diferencia máxima de 6 pies en el espesor del relleno. En todos los casos, la estructura se colocará sobre al menos 12 pulgadas de material seleccionado A-2-4 o superior. En cualquier zona de corte en la que queden expuestos suelos plásticos, se excavarán los 30 cm superiores y se sustituirán por el relleno seleccionado A-2-4 o superior recomendado anteriormente.

La presencia de piedra caliza cristalina o recristalizada en estas áreas dará lugar a diferentes características de rascabilidad para las operaciones de movimiento de tierras dentro del área de corte. No se ha proporcionado ningún plano de nivelación de las áreas en el momento de la preparación de este informe; sin embargo, como pauta general, entendemos que las características de rascabilidad de la piedra caliza pueden gestionarse con equipo convencional de movimiento de tierras (es decir, Caterpillar D-9 o D-10) con rascador.

3.7 Drenaje

Aunque no se observó agua subterránea durante la fase de perforación de esta exploración en las tierras altas, la construcción y las excavaciones en terrenos calizos deben realizarse de tal manera que no se permita que el agua de escorrentía se acumule en ninguna excavación en ningún momento. Cualquier agua que entre en las excavaciones de los cimientos debe ser bombeada rápidamente directamente desde los sumideros situados a sus lados. La presencia

de escorrentía acumulada en el sector de las tierras bajas también supondrá una carga para las operaciones generales de movimiento de tierras en esta zona. Puede ser necesario construir zanjas, canales y diques temporales para contener el agua durante los movimientos de tierra. También pueden ser necesarias bombas de tamaño mediano.

3.8 Consideraciones sobre el drenaje

Con el fin de minimizar los factores que pueden provocar fallos, o controlar los posibles daños que podrían derivarse del hundimiento o colapso de la capa superior sobre un posible sumidero, se recomienda lo siguiente:

a. Las aguas superficiales deben alejarse lo suficiente (mediante vías de drenaje pavimentadas) de las estructuras para minimizar el desgaste provocado por el drenaje descendente.

b. Todos los bajantes y bloques de salpicadura deben colocarse de manera que el agua de lluvia que se escurre del techo se aleje de las estructuras. Estas aguas deben recogerse mediante vías de drenaje pavimentadas y desecharse en desagües adecuados.

c. Todas las conexiones superficiales a los servicios públicos de la estructura deben ser de tipo flexible para evitar roturas como consecuencia de pequeños asentamientos diferenciales.

d. No se instalará ningún pozo de inyección o producción a menos de 500 pies de las zonas residenciales, a menos que se realice una exploración geotécnica e hidrogeológica adecuada por parte de expertos en la materia.

3.9 Pendiente y bermas

Como se ha mencionado anteriormente, por el momento aún no se conocen los requisitos finales de nivelación del terreno. Si la nivelación del terreno implica cortes y grandes rellenos para alcanzar los niveles finales, se deberán tomar medidas especiales para proteger dichos taludes. Como pauta general, todos los taludes de relleno y corte de 10 pies o menos de altura no deberán tener una pendiente superior a 2:1 (horizontal: vertical). Los taludes de relleno que no superen los 5 pies de altura pueden tener una relación de 1,5:1. Los taludes de relleno de más de 10 pies de altura se diseñarán con una relación de pendiente de 2:1 (H:V). Los taludes de corte en piedra caliza pueden diseñarse con una relación de 1,5:1 (H:V), mientras que la piedra caliza muy erosionada deberá someterse a una evaluación y determinación in situ. Sin embargo, se asignará una relación de 2:1 (H:V) para consideraciones de diseño. Cuando no se puedan cumplir los requisitos de espacio horizontal para terraplenes altos de relleno de tierra (según los requisitos de relación de pendiente anteriores), el ingeniero geotécnico podrá determinar soluciones específicas caso por caso.

3.10 Inspección de la base de los cimientos

Se deberán observar todas las bases de los cimientos antes de instalar las barras de refuerzo y verter el hormigón. Se deberá inspeccionar la piedra caliza expuesta en la base de los cimientos para detectar la presencia de fracturas o cavidades. En caso de que se detecten fracturas o cavidades en cualquier cimiento, estas se limpiarán con aire a presión y se sellarán con lechada de cemento. El objetivo es preparar una base lisa para los cimientos. Los criterios o el método se establecerán sobre el terreno. Es de esperar que se descubran cavidades o sumideros cada vez que se realicen cortes en la fase masiva de piedra caliza de Melones. El descubrimiento de cavidades o sumideros (agujeros casi verticales o inclinados de varios centímetros a varios pies de diámetro) requerirá tratarlos caso por caso. Dependiendo del tamaño, normalmente se eligen diferentes alternativas. En caso de que el tamaño del sumidero sea de solo varios centímetros de diámetro, normalmente se pueden tratar sellándolos con lechada magra. En caso de que sean mayores de unos 30 cm, normalmente se tratan rellenándolos con un medio filtrante, con o sin lechada, después de inspeccionarlos y observar si el sumidero muestra signos de paso de agua. Una vez más, el tratamiento se decidirá caso por caso. Quizás se debería asignar una contingencia de construcción a la posible aparición de estas cavidades o sumideros. No existe ningún método para predecir la cantidad o la magnitud de la aparición de estas características relacionadas con los sumideros.

4.0 RIESGOS SÍSMICOS

Puerto Rico se encuentra en una región tectónicamente activa, situada en una microplaca entre la zona de subducción de Puerto Rico y la fosa de Muertos. Aunque los datos geodésicos indican que las tasas de deformación a lo largo de la microplaca son bajas (<1-3 mm/año, Jansma et al., 2000; Jansma y Mattioli, 2005), la región ha experimentado varios terremotos de intensidad moderada a alta, entre ellos el de 1670 d. C. con una magnitud (M) de 6,5-7 (Pacheco y Sykes, 1992; McCann et al., 2010), el de 1918 con una magnitud de 7,1-7,3 en el paso de Mona (Reid y Taber, 1919; Brink et al., 2023) y, más recientemente, la secuencia sísmica del suroeste de Puerto Rico de 2019.

Para analizar los riesgos sísmicos en relación con Esencia, nos basamos en el Mapa Neotectónico de Puerto Rico (cdoi:10.26443/seismica.v3i1.1102). El NMP es relevante para Esencia

porque presenta evidencia de actividad sísmica cuaternaria en siete fallas terrestres, incluidas las fallas South Lajas y Punta Montalva, ubicadas en las inmediaciones del proyecto.

4.1 Fallas del Cuaternario frente a fallas del Holoceno

Una falla activa del Cuaternario es una falla geológica que ha mostrado evidencia de movimiento (ruptura o desplazamiento) durante el período Cuaternario, el período geológico más reciente, que abarca los últimos 2.6 millones de años hasta el presente. Incluye el Pleistoceno (edades de hielo) y el Holoceno (los últimos ~11,700 años, nuestra época actual).

En términos de riesgo tectónico y sísmico, una falla activa es aquella que se ha movido recientemente y que podría volver a moverse y generar terremotos. Muchos códigos de ingeniería o estudios de riesgo sísmico definen una falla activa como aquella que muestra movimiento durante el Holoceno (los últimos 11 000-15 000 años). Este es el intervalo de tiempo más utilizado para el diseño sísmico y la evaluación de riesgos.

4.2 Ingeniería y planificación

Existen códigos de construcción y mapas de riesgos que trazan zonas de retranqueo o zonas de riesgo de ruptura de fallas donde una falla está activa en el Holoceno. Sin embargo, el Código de Construcción de Puerto Rico (PRBC 2018) hace referencia a la norma ASCE 7-16/22 para las cargas y no crea un programa separado de «zonificación de ruptura de fallas» como, por ejemplo, el Alquist-Priolo de California. En la práctica, esto significa que no existe un retranqueo obligatorio en todo el estado vinculado a la «actividad holocena»; en su lugar, el diseñador y/o la autoridad competente deben basarse en mapas revisados por pares y por el USGS, como el NMP.

La tabla 1 resume la clasificación, la antigüedad de la actividad sísmica y las categorías de velocidad de deslizamiento de las fallas terrestres que son importantes a nivel regional para Esencia. **La figura 7** muestra la ubicación de algunas de estas fallas. En **la figura 7** se puede observar que la falla South Lajas es la traza terrestre más cercana a Esencia. Cabe mencionar que la traza cartografiada de esta falla se extiende hacia el lado norte de Esencia, fuera de los límites de la propiedad.

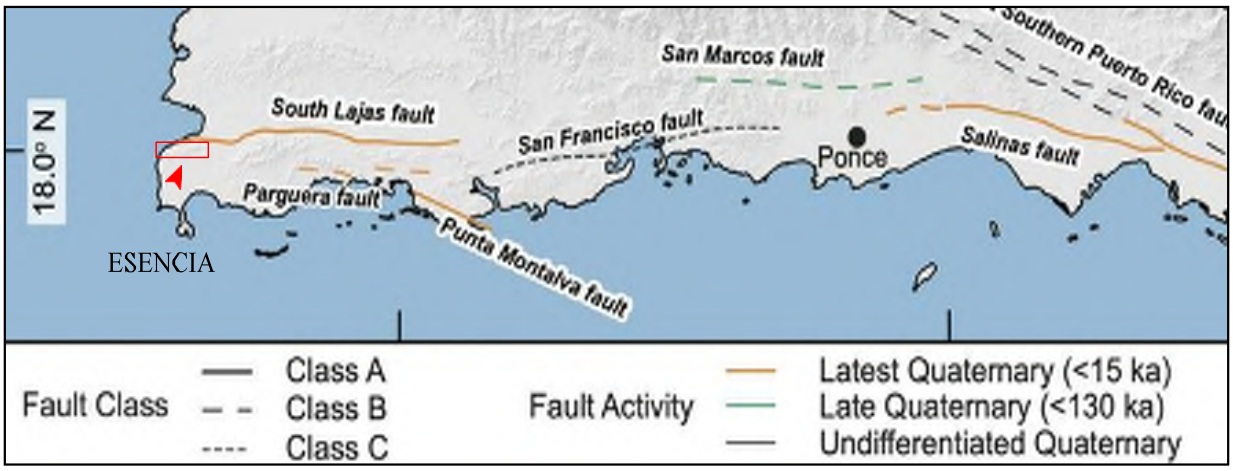

Figura 7. Mapa simplificado de fallas del Cuaternario en tierra firme de Puerto Rico, que muestra trazas simplificadas de características relacionadas con las fallas (Jessica A. Thompson Jobe et al., Neotectonic Mapping of Puerto Rico, 2024).

Fault Name	Class	Age of Fault Activity	Categorical Slip Rate Bin (mm/yr)
South Lajas	A	Latest Quaternary (<15 ka)	0-0.5
Salinas	A	Latest Quaternary (<15 ka)	0-0.5
Great Southern Puerto Rico – southeast extent	A	Latest Quaternary (<15 ka)	0-0.5
Punta Montalva	A	Latest Quaternary (<15 ka)	0-0.5
Cerro Goden	A	Latest Quaternary (<15 ka)	0-0.5

4.3 Conclusiones

Las trazas cuaternarias se cartografían en el área más amplia alrededor de Esencia. El NMP ha documentado la distancia, la edad relativa y la expresión geomórfica de las diversas fallas que son regionalmente importantes para Esencia. La traza más cercana corresponde a la falla South Lajas, ubicada al norte de Esencia. Ninguna de estas trazas atraviesa los límites reales de la propiedad de Esencia.

En cualquier caso, no existe un retranqueo obligatorio por ley vinculado a las fallas activas en el PRBC (2018). El PRBC 2018 hace referencia a la norma ASCE 7-16 para la carga sísmica, independientemente de la clasificación de la edad de la falla. Dicho esto, las cargas sísmicas para el diseño final deben provenir del modelo de riesgo del USGS/ASCE, independientemente de la proximidad de la falla.

5.0 COMENTARIOS FINALES

Las discusiones y recomendaciones anteriores se basan en pruebas representativas que consideramos apropiadas. A medida que se desarrolle cada componente del proyecto más amplio, se realizarán estudios geotécnicos específicos y se formularán recomendaciones caso por caso para establecer parámetros más precisos antes de iniciar la construcción de cada componente.

Este informe se ha elaborado teniendo en cuenta los factores de diseño que conocemos en la actualidad. Se alertará a los diseñadores del proyecto de cualquier aspecto que pueda haberse pasado por alto, que requiera aclaración o que pueda necesitar recomendaciones adicionales o modificaciones a las aquí expuestas.

Atentamente,

IVAN JACKSON MADURO, ingeniero profesional, máster en ingeniería civil,
Socio

mgn

N.º de referencia 5355-Add

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 3d

NOVIEMBRE 2025

INTERNAL PROGRESS REPORT
ARCHAEOLOGICAL MONITORY

PROJECT: **Cabo Rojo Development,**
Site Assesment & Master Plan Concept,
Cabo Rojo, Puerto Rico

SUBMITTED BY:

Arqueo Consulting Group

Federico Freytes Rodríguez, Senior Archaeologist,
Standards of Interior Qualified

SUBMITTED TO:

SUBMITTED TO:
Ricardo Álvarez Díaz,
Alvares Díaz & Villalón,
June 16, 2023

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Arqueo Consulting Group,
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I. INTRODUCTION

We have been required to complete an archaeological monitory, corresponding to the development of the project Cabo Rojo Development, Site Assessment & Master Plan Concept, located in the municipality of Cabo Rojo, Puerto Rico. This is a project that includes several types of development in an area that extends over approximately 1,284 “cuerdas” (roughly 1,247 acres approximately). Our services were requested via email by Sofía Zaragoza, Project Manager for Alvarez-Díaz & Villalón. The monitory is intended for the excavation of the geological borings, in order for said borings not to impact any possible cultural resource that might exists in the area

This internal report complies with all federal and state applicable laws, regulations, and guidelines. The present archaeological monitory complies with all federal and state applicable laws, regulations and guidelines, and it is consistent with the Standards and Guidelines for Evaluation and Archeological Documentation, the Standards and Guidelines for Archaeology and Historic Preservation, and the Standards and Guidelines for Architectural and Engineering Documentation of the U.S. Secretary of the Interior, and the National Park Service Bulletins How to Apply the National Register Criteria for Evaluation (Secretary of the Interior 1990), and Guidelines for Evaluating and Registering Archeological Properties (Little et. al 2000).

In general, an archaeological monitory is required to protect cultural resources that are inferred could be located in the subsoil that will be removed or impacted by construction works. In this particular case, the monitory field work will be conducted on site when the geological team is digging borings on the sub soil. For every geological boring there has to be an archaeological monitor to certify that no cultural resources are impacted.

Fieldwork requires the presence of a qualified archaeologist when subsoil removal is performed in designated areas, including any excavation regarding the geological borings. The final result is set out in a Final Report, after the end of the fieldwork, laboratory and data analysis. This Final Report will include the outcome of all the excavations in the field, and the analysis of recovered

material, if any, and any comments and recommendations as needed, if any. The fieldwork to be carried out has, as its main purpose, to locate all archaeological remnants that may exist within the project area that could be impacted, affected, or destroyed by the proposed development.

• Final monitoring report. This report shall include all of the results for the completed geological excavations and archaeological monitory works

• Curated artifacts, if any, should be submitted to the PRDOH representative with the final monitoring report.

II. FIELD AND LABORATORY GENERAL METHODOLOGY

The general field method for an archaeological monitory consists of:

1. Coordination of all excavation activities with archaeology personnel in the field.
2. Authorization to temporarily stop excavation operations if any meritorious cultural resources are found, in which the course to be followed will be determined, according to the parameters delimitated by the applicable laws.
3. Elaboration of drawings at scale (stratigraphic, plants and profiles) in the field.
4. Photographic and video record survey of the excavation process and retrieval of finds.
5. Collection of representative samples of archaeological material.
6. Protection and on-site safeguarding of recovered material.
7. Notification to regulatory agencies of the discovery of archaeological materials potentially nominable to the National Register of Historic Places.
8. Present alternatives for the evaluation and mitigation, or rescue of archaeological resources.

The laboratory phase consists of the following services:

1. Washing, packaging, and labeling of archaeological artifacts.
2. Cataloguing the recovered artifacts.
3. Scale drawings of selected samples.
4. Detailed photographs of selected samples.
5. Mapping of the excavation (location of identified cultural resources,

coordinates, and plan sketches).

6. Analysis by category of recovered material (ceramic, building materials, bones, lithic, and others).

7. Additional historical documentation and archival work.

8. Drafting and production of the Final Report.

III. MONITORY PROGRESS REPORT

ARQUEO Consulting Group

Monitory: Cabo Rojo Development

Borings performed by Suelos PSC

Eng. Ivan Jackson

Environmental Consulting performed by Ambienta Inc.

Jesus Babilonia

Archaeological monitory of soil test borings took place from Monday, June 5 to Monday, June 12. Present on the field for Arqueo Consulting Group was archaeologist Anthony Smith Rodriguez. The soil test borings were performed by Suelos PSC, by a team under the purview of Engineer Ivan Jackson. Also present was environmental consultant Jesus Babilonia, in representation of Ambienta Inc.

Soil test borings had begun several weeks before the initiation of the archaeological monitory. The information of the previous tests will be contained in the Boring Log to be published by Suelos PSC after all soil analysis are completed. The Locations of all borings realized under the monitory were documented by GPS coordinates, and plotted in the correspondent parcel on the local municipal property tax map(CRIM).

The borings were excavated using a 6” diameter drill bit, to a maximum depth of 30'. Some borings did not reach the maximum depth due to the presence of solid rock layers. Soil samples were collected every 5'. The soil profile of the monitored borings was fairly uniform throughout the area under

investigation, varying mostly in relation to the elevation of the boring, and its position on a hilltop, slope or flat area. The material extracted was examined in order to ascertain the presence or absence of archaeologically relevant material. None of the monitored borings resulted positive for material of archaeological interest.

In order to maintain a uniform description of all soil descriptions, strata and depths, we will wait for the publication of the Boring Logs by Suelos, PSC, to edit the final information regarding soil stratigraphy. Table 1 presents the information documented at each boring site during the monitory. The number of each boring is presented on the table in the order in which it was excavated, as the sequence in the field did not follow the logical numerical order. The borings that took place under the archaeological monitory are plotted in the following plan (14 borings in total):

BORING #	LOCATION	DESCRIPTION	RESULTS
21	17.995060, -67.197096 PARCEL# 402-009-327-86	WIDTH: 6” FINAL DEPTH: 12' SURFACE APEARANCE: Compact chalky, rocky limestone. SETTING: Barren hilltop, apparently cleared and graded by means of heavy machinery. Grassy ground-cover on the periphery and a young Guayacán tree towards the south. SOIL DESCRIPTION: Chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
15	17.9936365, -67.1987329 PARCEL# 402-019-327-38	WIDTH: 6” FINAL DEPTH: 22' SURFACE APEARANCE: Compact chalky, rocky limestone. SETTING: Cleared and graded dirt road. Located on a hillside where the terrain slopes down from North to South. Uphill terrain is cleared of vegetation and shows signs of erosion. Downhill terrain is covered in dense dry-forest vegetation. SOIL DESCRIPTION: Chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
35	17.9865209, -67.1911202 PARCEL# 402-000-005-54	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING: Cleared and graded dirt road located in a flat area. Surrounding terrain is highly impacted by heavy machinery. Mounds of soil, refuse and organic matter are present throughout the area. SOIL DESCRIPTION: First stratum consists of a strong brown sandy silt. Munsell Color: 7.5YR 5/6. Second stratum consists of a yellowish brown granular clay. Munsell Color: 10YR 5/8.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material

BORING #	LOCATION	DESCRIPTION	RESULTS
31	17.9896119, -67.1911373 PARCEL# 402-000-005-28	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING: Cleared and graded dirt road located in a flat area. Surrounding terrain is covered in grass and low shrubs. SOIL DESCRIPTION: First stratum consists of a strong brown sandy silt. Munsell Color: 7.5YR 5/6. Second stratum consists of chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
34	17.986049, -67.187722 PARCEL# 402-000-005-29	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, reddish brown sandy silt. SETTING: Cleared and graded dirt road located in a flat area. Surrounding terrain is covered in grass and low shrubs. SOIL DESCRIPTION: First stratum consists of a strong brown sandy clay. Munsell Color: 7.5YR 5/6. Second stratum consists of chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
36	17.9842976, -67.1878817 PARCEL# 402-000-005-29	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING: Cleared and graded dirt road located in a flat area. Surrounding terrain is covered in grass and low shrubs. Mounds of degraded construction refuse are present throughout the area including wood, concrete, tile and metal. SOIL DESCRIPTION: First stratum consists of a yellowish brown sandy clay. Munsell Color: 10YR 5/8. Second stratum consists of a strong brown compact sandy clay. Munsell Color: 7.5YR 5/6.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material

BORING #	LOCATION	DESCRIPTION	RESULTS
29	17.9944222, -67.1821180 EAST OF PARCEL# 403-000-001-74	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact chalky, rocky limestone. SETTING: Cleared but irregular dirt road with signs of having once been paved. Concrete fragments, rebar and stone pavers are present in various areas of the roadway. Surrounding area is hilly and in use as livestock grazing plots. The terrain is very rocky with low ground cover and some large trees. Abandoned farm equipment and infrastructure are present in the surrounding parcels. SOIL DESCRIPTION: First stratum consists of a chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2. Second stratum consists of a yellowish brown sandy silt. Munsell Color: 10YR 5/8	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
33	17.9897238, -67.1857561 PARCEL# 402-000-005-29	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING:Cleared and graded plot located in a flat area. Surrounding terrain is highly impacted by heavy machinery. Mounds of soil and organic matter are present throughout the area. The surrounding area is covered in dense dry-forest vegetation. The gound is littered with nodules of chert, quartzite and limestone of various sizes. SOIL DESCRIPTION: First stratum consists of a strong brown sandy silt. Munsell Color: 7.5YR 5/6. followed by a chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2	Negative No materials of archaeological interest are identified at the boring point or in the extracted material

BORING #	LOCATION	DESCRIPTION	RESULTS
40	17.9939825, -67.1766580 PARCEL# 403-000-002-02	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact chalky, rocky limestone. SETTING: Cleared but irregular dirt road. The terrain is hilly, very rocky with low ground cover and some large trees. SOIL DESCRIPTION: First stratum consists of a chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2, followed by a chalky pulverized silt with small irregular gravel. Munsell Color: Dark Gray 10YR 4/1	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
39	17.9958709, -67.1758091 PARCEL# 403-000-002-02	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact chalky, rocky limestone. SETTING: Cleared but irregular dirt road. The terrain is hilly, very rocky with dense ground cover and some large trees. SOIL DESCRIPTION: First stratum consists of a chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2, followed by a strong brown sandy silt. Munsell Color: 7.5YR 5/6.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
38	17.9989636, -67.1753260 PARCEL# 403-000-002-02	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING:Cleared but irregular dirt road. The terrain is hilly, very rocky with dense dry-forest shrubs and some large trees. SOIL DESCRIPTION: Strong brown gravely sandy silt. Munsell Color: 7.5YR 5/6.	Negative No materials of archaeological interest are identified at the boring point or in the extracted material

BORING #	LOCATION	DESCRIPTION	RESULTS
24	18.0004977, -67.1902602 PARCEL# 402-000-005-28	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Compact, gravely reddish brown sandy silt. SETTING: Located on a cleared and graded dirt path, at the foot of a hill that rises towards the south, and at the beginning of a lightly sloping plain towards the north SOIL DESCRIPTION: First stratum consists of a strong brown sandy silt. Munsell Color: 7.5YR 5/6. followed by a chalky pulverized limestone with small irregular gravel. Munsell Color: Light Gray 10YR 7/2	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
20	17.9996587, -67.1953306 PARCEL# 379-099-327-81	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Serpentinite rock present on surface SETTING: Located on a dirt path, at the foot of a hill that rises towards the south, and at the beginning of a lightly sloping plain towards the north. Serpentinite rock outcroppings are exposed on bare profiles towards the east, and a natural drainage channel is located towards the west. SOIL DESCRIPTION: blueish gray serpentine rock gravel present throughout the full boring. Munsell Color: GLEY2 6/5PB	Negative No materials of archaeological interest are identified at the boring point or in the extracted material
23	17.9986294, -67.1993415 PARCEL# 379-099-327-79	WIDTH: 6” FINAL DEPTH: 30' SURFACE APEARANCE: Serpentinite rock present on surface SETTING: Located on a flat grassy base of a hill that rises towards the south. The area is surrounded by dense shrubbery and some large trees. The terrain slopes lightly to the north towards the low wetlands on the coast of the bay of Boqueron. There is a dirt road to the north which runs E-W. On this road. SOIL DESCRIPTION: pulverized blueish gray serpentine rock with gravel present throughout the full boring. Munsell Color: GLEY2 6/5PB	Negative No materials of archaeological interest are identified at the boring point or in the extracted material

PHOTO 1: Boring #21.

PHOTO 2: Boring #15.

Arqueo Consulting Group,
Arql. Federico Freytes, 939-289-9242,
Email: rikifreytes@yahoo.com

PHOTO 3: Boring #35.

PHOTO 4: Boring #31.

PHOTO 4: Boring #34.

PHOTO 5: Boring #36.

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PHOTO 6: Boring #29.

PHOTO 7: Boring #33.

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Arql. Federico Freytes, 939-289-9242,
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PHOTO 8: Boring #40.

PHOTO 9: Boring #39.

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PHOTO 10: Boring #38.

PHOTO 11: Boring #24.

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PHOTO 12: Boring #20.

PHOTO 13: Boring #23.

IV. Conclusions

Archaeological monitory was conducted in 14 of the 38 geotechnical borings completed for the project area. The rest of the boring areas are going to be visited during the Stage IA reconnaissance, in order to ensure that no cultural resource was disturbed during geotechnical boring excavations.

Several cultural resources were identified during the geotechnical boring excavations, including several prehistoric conch middens, two historic wells and a wind water well. Said findings will be presented at large in the Stage IA reconnaissance report. As per the gathered data up to the moment of the present report, no cultural resources were affected during the geotechnical boring excavation stage of the project area.

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 3d
Traducción de Cortesía
NOVIEMBRE 2025

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INFORME INTERNO DE PROGRESO MONITOREO ARQUEOLÓGICO

PROYECTO: **Desarrollo de Cabo Rojo, evaluación del sitio y concepto del plan maestro, Cabo Rojo, Puerto Rico**

PRESENTADO POR:

Arqueo Consulting Group

Federico Freytes Rodríguez, arqueólogo sénior, cualificado según las normas del Ministerio del Interior

PRESENTADO A:

PRESENTADO A:

Ricardo Álvarez Díaz,

Álvares Díaz y Villalón,

16 de junio de 2023

Calle 2 #21, Puerto Real, Cabo Rojo Puerto Rico, 00693
TELÉFONOS: 939-289-9242, 939-645-7109

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Arqueo Consulting Group,

Arql. Federico Freytes, 939-289-9242, correo electrónico: rikifreytes@yahoo.com

I. INTRODUCCIÓN

Se nos ha solicitado la realización de un monitoreo arqueológico, correspondiente al desarrollo del proyecto Cabo Rojo Development, Site Assessment & Master Plan Concept, ubicado en el municipio de Cabo Rojo, Puerto Rico. Se trata de un proyecto que incluye varios tipos de desarrollo en un área que se extiende sobre aproximadamente 1,284 “cuerdas” (aproximadamente 1,247 acres). Nuestros servicios fueron solicitados por correo electrónico por Sofía Zaragoza, directora de proyectos de Álvarez-Díaz & Villalón. El monitoreo está destinado a la excavación de perforaciones geológicas, con el fin de que dichas perforaciones no afecten a ningún posible recurso cultural que pueda existir en la zona.

Este informe interno cumple con todas las leyes, reglamentos y directrices federales y estatales aplicables. La presente supervisión arqueológica cumple con todas las leyes, reglamentos y directrices federales y estatales aplicables, y es coherente con las Normas y Directrices para la Evaluación y Documentación Arqueológica, las Normas y Directrices para la Arqueología y la Preservación Histórica, y las Normas y Directrices para la Documentación Arquitectónica y de Ingeniería del Secretario del Interior de los Estados Unidos, y los Boletines del Servicio de Parques Nacionales Cómo aplicar los criterios del Registro Nacional para la Evaluación (Secretario del Interior 1990) y las Directrices para la Evaluación y el Registro de Propiedades Arqueológicas (Little et. al 2000).

En general, se requiere un monitoreo arqueológico para proteger los recursos culturales que se infiere que podrían estar ubicados en el subsuelo que será removido o afectado por las obras de construcción. En este caso particular, el trabajo de campo de monitoreo se llevará a cabo en el sitio cuando el equipo geológico esté realizando perforaciones en el subsuelo. Para cada perforación geológica debe haber un monitor arqueológico que certifique que no se ven afectados los recursos culturales.

El trabajo de campo requiere la presencia de un arqueólogo cualificado cuando se realiza la remoción del subsuelo en áreas designadas, incluyendo cualquier excavación relacionada con las perforaciones geológicas. El resultado final se recoge en un informe final, tras la finalización del trabajo de campo, el análisis de laboratorio y el análisis de datos. Este informe final incluirá el resultado de todas las excavaciones realizadas en el campo y el análisis del material recuperado, de haber alguno,

y cualquier comentario y recomendación que sea necesario, si lo hubiera. El trabajo de campo que se llevará a cabo tiene como objetivo principal localizar todos los restos arqueológicos que puedan existir dentro del área del proyecto y que podrían verse afectados, perjudicados o destruidos por el desarrollo propuesto.

• Informe final de monitoreo. Este informe incluirá todos los resultados de las excavaciones geológicas y los trabajos de monitoreo arqueológico completados

• Los artefactos conservados, si los hubiera, deberán presentarse al representante del PRDOH junto con el informe final de supervisión.

II. METODOLOGÍA GENERAL DE CAMPO Y DE LABORATORIO

El método general de campo para un monitoreo arqueológico consiste en:

1. Coordinación de todas las actividades de excavación con el personal arqueológico en el campo.
2. Autorización para detener temporalmente las operaciones de excavación si se encuentran recursos culturales meritorios, en cuyo caso se determinará el curso a seguir, de acuerdo con los parámetros delimitados por las leyes aplicables.
3. Elaboración de planos a escala (estratigráficos, planos y perfiles) en el campo.
4. Registro fotográfico y en video del proceso de excavación y recuperación de hallazgos.
5. Recolección de muestras representativas de material arqueológico.
6. Protección y salvaguarda in situ del material recuperado.
7. Notificación a las agencias reguladoras del descubrimiento de materiales arqueológicos que puedan ser nominables al Registro Nacional de Lugares Históricos.
8. Presentar alternativas para la evaluación y mitigación, o rescate de los recursos arqueológicos.

La fase de laboratorio consiste en los siguientes servicios:

1. Lavado, empaquetado y etiquetado de artefactos arqueológicos.
2. Catalogación de los artefactos recuperados.
3. Dibujos a escala de muestras seleccionadas.
4. Fotografías detalladas de muestras seleccionadas.
5. Cartografía de la excavación (ubicación de identificado culturales , coordenadas y bocetos del plano).

6. Análisis por categoría del material recuperado (cerámica, materiales de construcción, huesos, líticos y otros).
7. Documentación histórica adicional y trabajo de archivo.
8. Redacción y producción del informe final.

III. INFORME DE PROGRESO MONITORIZADO

ARQUEO Consulting Group
Monitoreo: Cabo Rojo Development
Perforaciones realizadas por Suelos PSC
Ing. Iván Jackson
Consultoría ambiental realizada por Ambienta Inc.
Jesús Babilonia

La supervisión arqueológica de las perforaciones de prueba del suelo se llevó a cabo desde el lunes 5 de junio hasta el lunes 12 de junio. El arqueólogo Anthony Smith Rodríguez estuvo presente en el campo en representación de Arqueo Consulting Group. Las perforaciones de prueba del suelo fueron realizadas por Suelos PSC, por un equipo bajo la supervisión del ingeniero Iván Jackson. También estuvo presente el consultor ambiental Jesús Babilonia, en representación de Ambienta Inc.

Las perforaciones de prueba del suelo habían comenzado varias semanas antes del inicio de la supervisión arqueológica. La información de las pruebas anteriores se incluirá en el registro de perforaciones que publicará Suelos PSC una vez que se hayan completado todos los análisis del suelo. Las ubicaciones de todas las perforaciones realizadas bajo la supervisión se documentaron mediante coordenadas GPS y se trazaron en la parcela correspondiente en el mapa catastral municipal local (CRIM).

Las perforaciones se realizaron con una broca de 6 pulgadas de diámetro, hasta una profundidad máxima de 30 pies. Algunas perforaciones no alcanzaron la profundidad máxima debido a la presencia de capas de roca sólida. Se tomaron muestras de suelo cada 5 pies. El perfil del suelo de las perforaciones monitoreadas fue bastante uniforme en toda la zona de

investigación, variando principalmente en función de la elevación de la perforación y su posición en la cima de una colina, en una pendiente o en una zona llana. El material extraído se examinó para determinar la presencia o ausencia de material arqueológicamente relevante. Ninguna de las perforaciones supervisadas dio positivo en cuanto a material de interés arqueológico.

Con el fin de mantener una descripción uniforme de todas las descripciones del suelo, estratos y profundidades, esperaremos a la publicación de los registros de perforación de Suelos, PSC, para editar la información final relativa a la estratigrafía del suelo. La tabla 1 presenta la información documentada en cada sitio de perforación durante la supervisión. El número de cada perforación se presenta en la tabla en el orden en que se excavó, ya que la secuencia en el campo no siguió el orden numérico lógico. Las perforaciones que se realizaron bajo la supervisión arqueológica se trazan en el siguiente plano (14 perforaciones en total):

N.º DE PERFORACIÓN	UBICACIÓN	DESCRIPCIÓN	RESULTADOS
21	17.995060, -67.197096 N.º DE PARCELA 402-009-327-86	ANCHO: 6" PROFUNDIDAD FINAL: 12' ASPECTO DE LA SUPERFICIE: Compacta, calcárea, rocosa piedra caliza. ENTORNO: Cima de una colina árida, aparentemente despejada y nivelada por mediante maquinaria pesada. Cubierta vegetal en el y un árbol joven de guayacán hacia el sur. DESCRIPCIÓN DEL SUELO: Caliza pulverizada calcárea con Grava pequeña irregular. Color Munsell: Gris claro 10YR 7/2	Negativo Sin materiales de Arqueológico de interés identificados en el perforación o en la periferia excavada material
15	17.9936365, -67.1987329 N.º DE PARCELA 402-019-327-38	ANCHO: 6" PROFUNDIDAD FINAL: 22' ASPECTO DE LA SUPERFICIE: Compacta, calcárea, rocosa piedra caliza. ENTORNO: Camino de tierra despejado y nivelado. Situado en un ladera donde el terreno desciende de norte a sur. El terreno ascendente está despejado de vegetación y muestra signos de . El terreno cuesta abajo está cubierto de una densa vegetación de bosque seco . DESCRIPCIÓN DEL SUELO: Caliza pulverizada calcárea con pequeña grava irregular. Color Munsell: Gris claro 10YR 7/2	Negativo Sin materiales de Arqueológico de interés identificados en el punto de perforación o En el erosión
35	17.9865209, -67.1911202 N.º DE PARCELA 402-000-005-54	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, de color marrón rojizo arenoso limoso arenoso. ENTORNO: Camino de tierra despejado y nivelado situado en un punto de perforación llano . El terreno circundante está muy afectado por la . Se observan montículos de tierra, desechos y materia orgánica presentes en toda la zona. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en un limo arenoso marrón fuerte sable marrón. Color Munsell: 7.5YR 5/6. El segundo estrato está formado por arcilla granular de color marrón amarillento. Color Munsell: 10YR 5/8.	Negativo Sin materiales de Arqueológico de interés son identificados en el punto de perforación o en la extracción material

BORING #	UBICACIÓN	DESCRIPCIÓN	RESULTADOS
31	17.9896119, -67.1911373 N.º DE PARCELA 402-000-005-28	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, de color marrón rojizo arenoso limoso arenoso. ENTORNO: Camino de tierra despejado y nivelado situado en un punto de perforación llano . El terreno circundante está cubierto de hierba y arbustos bajos. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en un limo arenoso marrón fuerte limos arenosos de color marrón. Color Munsell: 7.5YR 5/6. El segundo estrato está formado por caliza pulverizada calcárea con pequeña grava irregular. Color Munsell: Gris claro 10YR 7/2.	Negativo Sin materiales de Arqueológico de interés son identificados en el punto de perforación o en el material extraído material
34	17.986049, -67.187722 N.º DE PARCELA 402-000-005-29	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, arenosa de color marrón rojizo limo. ENTORNO: Camino de tierra despejado y nivelado situado en un punto de perforación llano . El terreno circundante está cubierto de hierba y arbustos bajos. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en una arcilla arenosa de color marrón. Color Munsell: 7.5YR 5/6. El segundo estrato está formado por caliza pulverizada calcárea con pequeña grava irregular. Color Munsell: Gris claro 10YR 7/2.	Negativo Sin materiales de arqueológico de interés identificados en el punto de perforación o en el material extraído material
36	17.9842976, -67.1878817 N.º DE PARCELA 402-000-005-29	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, de color marrón rojizo arenoso limoso arenoso. ENTORNO: Camino de tierra despejado y nivelado, situado en un punto llano . El terreno circundante está cubierto de hierba y arbustos bajos. Hay montones de residuos de construcción degradados en toda la zona, incluyendo madera, hormigón, baldosas y metal. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en una arcilla arenosa amarillenta arcilla arenosa de color marrón amarillento. Color Munsell: 10YR 5/8. El segundo estrato está formado por una arcilla arenosa compacta de color marrón intenso.	Negativo Sin materiales de Arqueológico interés son identificados en el punto de perforación o En los montículos de residuos de construcción degradados extraídos material

		Color Munsell: 7.5YR 5/6.	

N.º DE PERFORACIÓN	UBICACIÓN	DESCRIPCIÓN	RESULTADOS
29	17.9944222, -67.1821180 AL ESTE DE N.º DE PAQUETE 403-000-001- 74	ANCHO: 6” PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, calcárea, rocosa caliza. ENTORNO: Camino de tierra despejado pero irregular con signos de que alguna vez estuvo pavimentado. Fragmentos de concreto, barras de refuerzo y en varias zonas de la carretera. Los terrenos circundantes son montañosos y se utilizan como parcelas de pastoreo de ganado . El terreno es muy rocoso, con poca cobertura vegetal y algunos árboles grandes. En las parcelas circundantes hay maquinaria agrícola abandonada e en las parcelas circundantes. DESCRIPCIÓN DEL SUELO: El primer estrato está formado por pulverizada con grava pequeña irregular. Color Munsell Color Munsell: Gris claro 10YR 7/2. El segundo estrato consiste en un limo arenoso de color marrón amarillento. Color Munsell: 10YR 5/8	Negativo Sin materiales de Arqueológico interés son identificado en el punto de perforación o en los adoquines extraídos material
33	17.9897238, -67.1857561 N.º DE PARCELA 402-000-005- 29	ANCHO: 6” PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, grava rojiza Limo arenoso marrón. UBICACIÓN: Parcela despejada y nivelada situada en una zona llana. El terreno circundante está muy afectado por la maquinaria pesada. Hay montículos de tierra y materia orgánica por todas partes La zona circundante está cubierta por una densa vegetación de bosque seco . El suelo está cubierto de nódulos de sílex, cuarcita y caliza de diversos tamaños. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en un fuerte limos arenosos de color marrón. Color Munsell: 7.5YR 5/6. Le sigue un Caliza pulverizada calcárea con grava pequeña irregular. Color Munsell: Gris claro 10YR 7/2	Negativo Sin materiales de Arqueológico de interés son identificados en el punto de perforación o en el material

N.º DE PERFORACIÓN	UBICACIÓN	DESCRIPCIÓN	RESULTADOS
40	17.9939825, -67.1766580 N.º DE PARCELA 403-000-002-02	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, calcárea, rocosa piedra caliza. ENTORNO: Camino de tierra despejado pero irregular. El terreno es montañoso, muy rocoso, con poca cobertura vegetal y algunos grandes árboles. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en una pulverizada con grava pequeña irregular. Munsell Color: Gris claro 10YR 7/2, seguido de limo pulverizado calcáreo con pequeños trozos irregulares . Color Munsell: Gris oscuro 10YR 4/1	Negativo Sin materiales de Arqueológico de interés son identificados en el poco accidentado o en los material
39	17.9958709, -67.1758091 N.º DE PARCELA 403-000-002-02	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, calcárea, rocosa piedra caliza. ENTORNO: Camino de tierra despejado pero irregular. El terreno es montañoso, muy rocoso, con una densa cubierta vegetal y algunos grandes árboles. DESCRIPCIÓN DEL SUELO: El primer estrato consiste en una pulverizada con grava pequeña irregular. Munsell Color: Gris claro 10YR 7/2, seguido de un limo arenoso marrón intenso. Color Munsell: 7.5YR 5/6.	Negativo Sin materiales de Arqueológico de interés son identificados en el poco accidentado o en los material
38	17.9989636, -67.1753260 N.º DE PARCELA 403-000-002-02	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, de color marrón rojizo arenoso limoso arenoso. ENTORNO: Camino de tierra despejado pero irregular. El terreno es montañoso, muy rocoso, con densos arbustos de bosque seco y algunos árboles grandes. DESCRIPCIÓN DEL SUELO: Limoso, arenoso y pedregoso, de color marrón intenso. Color Munsell: 7.5YR 5/6.	Negativo Sin materiales de Arqueológico de interés son identificados en el poco accidentado o en los material

N.º DE PERFORACIÓN	UBICACIÓN	DESCRIPCIÓN	RESULTADOS
24	18.0004977, -67.1902602 N.º DE PARCELA 402-000-005-28	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Compacta, de color marrón rojizo arenoso. limoso arenoso. UBICACIÓN: Situado en un camino de tierra despejado y nivelado, en el pie de una colina que se eleva hacia el sur, y en el comienzo de una llanura ligeramente inclinada hacia el norte DESCRIPCIÓN DEL SUELO: El primer estrato consiste en un limo arenoso marrón fuerte limos arenoso marrón. Color Munsell: 7.5YR 5/6. seguido de una caliza pulverizada con grava pequeña irregular. Color Munsell: Gris claro 10YR 7/2	Negativo Sin materiales de arqueológico de interés son identificados en el punto de perforación o en el material
20	17.9996587, -67.1953306 PARCELA N.º 379-099-327-81	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Roca serpentinita presente en superficie UBICACIÓN: Situado en un camino de tierra, al pie de una colina que se eleva hacia el sur, y al comienzo de una ligera llanura ligeramente inclinada hacia el norte. Roca serpentina afloramientos de material de roca serpentinita están expuestos en perfiles desnudos hacia el este, y un canal de drenaje natural se encuentra hacia el oeste. DESCRIPCIÓN DEL SUELO: grava de roca serpentina de color gris azulado presente en toda la perforación. Color Munsell: GLEY2 6/5PB	Negativo Sin materiales de parcela arqueológica de interés arqueológico son identificados en el punto aburrido o en la material
23	17.9986294, -67.1993415 PARCELA N.º 379-099-327-79	ANCHO: 6" PROFUNDIDAD FINAL: 30' ASPECTO DE LA SUPERFICIE: Roca serpentinita presente en superficie UBICACIÓN: Situado en la base llana y cubierta de hierba de una colina que se eleva hacia el sur. La zona está rodeada de una densa arbustos y algunos árboles grandes. El terreno se inclina ligeramente hacia norte hacia los humedales bajos de la costa de la bahía de Boquerón. Hay un camino de tierra hacia el norte que discurre de este a este-oeste. En este camino. DESCRIPCIÓN DEL SUELO: roca serpentina pulverizada de color gris azulado con presencia de grava en toda la perforación. Munsell Color: GLEY2 6/5PB	Negativo Sin materiales de parcela arqueológica de interés arqueológico son identificados en el punto aburrido o en la zona extraída material

FOTO 1: Perforación n.º 21.

FOTO 2: Perforación n.º 15.

Arqueo Consulting Group,

Arql. Federico Freytes, 939-289-9242, correo electrónico: rikifreytes@yahoo.com

FOTO 3: Perforación n.º 35.

FOTO 4: Perforación n.º 31.

FOTO 4: Perforación n.º 34.

FOTO 5: Perforación n.º 36.

FOTO 6: Perforación n.º 29.

FOTO 7: Perforación n.º 33.

FOTO 8: Perforación n.º 40.

FOTO 9: Perforación n.º 39.

FOTO 10: Perforación n.º 38.

FOTO 11: Perforación n.º 24.

FOTO 12: Perforación n.º 20.

FOTO 13: Perforación n.º 23.

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IV. Conclusiones

Se llevó a cabo un monitoreo arqueológico en 14 de las 38 perforaciones geotécnicas realizadas en el área del proyecto. El resto de las áreas de perforación se visitarán durante la etapa IA de reconocimiento, con el fin de garantizar que no se haya alterado ningún recurso cultural durante las excavaciones de perforación geotécnica.

Durante las excavaciones de perforación geotécnica se identificaron varios recursos culturales, entre ellos varios concheros prehistóricos, dos pozos históricos y un pozo de agua eólico. Dichos hallazgos se presentarán en detalle en el informe de reconocimiento de la etapa IA. Según los datos recopilados hasta el momento de la elaboración del presente informe, no se afectó ningún recurso cultural durante la etapa de excavación de perforación geotécnica del área del proyecto.

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 4

NOVIEMBRE 2025

WETLAND JURISDICTIONAL DETERMINATION AND DELINEATION STUDY

ESENCIA

CABO ROJO, PUERTO RICO

PREPARED FOR:

CABO ROJO LAND ACQUISITION LLC

PREPARED BY:

AMBIENTA INC.
Environmental Consultants

JANUARY 2025

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EXECUTIVE SUMMARY

Cabo Rojo Land Acquisition LLC (hereinafter the "Proponent") proposes a touristic-residential development in the Municipality of Cabo Rojo (hereinafter "Esencia" or the "Project"), to be developed within 81 lots with a total area of 1,549 “cuerdas” (6,088,514 square meters). The topography of the land shows elevation changes ranging from a minimum of 1 meter to a maximum of 107 meters above mean sea level and, for the most part, they are outside the floodplain level established by the 2018 ABFE maps. The development lands are classified as DTS, R-G, DS, and UR; classified as SUNP, SRC, SREP; and are part of the Special Overlay Zone of Touristic Interest of Cabo Rojo.

The Property borders to the North with the Caribbean Sea and the Boquerón Channel (Laguna Rincón), and to the South, East, and West with single-family and multi-family residential developments, undeveloped areas, and State Road PR-301. The Project will have three access points, with the main two through State Road PR-301 and a secondary one through Monte Carlo Road.

AMBIENTA INC. was contracted to conduct a wetland jurisdictional determination study within the Project site (the Study Area). This document represents the *Wetland Jurisdictional Determination and Delineation Study* (JD) for the Esencia Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas inside the Project limits included under the jurisdiction of Section 404 of the Clean Water Act (CWA) and/or under Section 10 of the Rivers and Harbor Act (RHA) regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools and field data collected by wetland specialists, environmental scientists, biologists, environmental technicians and land surveyors. The field reconnaissance and assessment were conducted through the months of May to October 2023 and April to May 2024.

Based on historic aerial photograph interpretation, portions of the Study Area were occupied by houses and farms, various areas were used for agricultural purposes, probably for fruit trees, minor crops, cattle, and salt production. Also, evidence of extraction of earth crust components was observed in some areas, where quarry activities took place.

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Some areas were observed with recent impacts associated with parcel developments, probably for single unit housing construction and for the place of mobile campers, where soil grading was evident, and in some, fencing was present. At present, there are areas that are still been used for cattle grazing, which appear to be informal and unplanned use.

Other current informal uses of the land include recreational activities such as beach bathing, fishing, hiking, mountain biking, bird watching, camping, and unplanned all-terrain vehicles off-roading. The steepest areas and hills appear to be in disuse for several decades. Past and present uses of the land and other anthropogenic factors have influenced the actual condition of the Study Area.

The National Wetlands Inventory (NWI) Maps from the US Fish and Wildlife Service (USFWS) show wetlands within the northern zone of the Study Area. According to the Federal Geographic Data Committee (FGDC, 2013) and based on the Cowardin (1979) classifications these wetland areas are classified as: E1UBL (Estuarine, subtidal, unconsolidated bottom, subtidal), E2FO3N (Estuarine, intertidal, forested, broad-leaved evergreen, Regularly Flooded) and E2US2/3P (Estuarine, intertidal, unconsolidated shore, sand/mud, irregularly flooded).

The US Geological Survey (USGS) topographic quadrangle and the National Wetlands Inventory (NWI) Map indicate the presence of some watercourses within the Study Area. These watercourses appear to be ephemeral rather than intermittent, as they were never observed with water flow, not even during the rainy season and likely collect water only during heavy rain events. Some watercourses exhibit a defined bank from the hills to the coastline, while others have a defined bank only in the hills, with no defined bank within the coastal plain, where the flow may become laminal over the terrain before reaching wetland areas. Additionally, both references show some ephemeral watercourses intercepted by man-made ponds previously used for agricultural purposes; during the site assessment, some of these ponds were observed to be dry, while others contained water. The USGS topographic quadrangle also shows a former salt production area, or "Salinas," in the central northern portion of the Study Area, where salt production and extraction were historically conducted.

The jurisdictional wetland delineation was performed using the three wetland criteria at sampling points within potential wetland areas, professional judgment, vegetative cover observed at the site, GPS measurements and land surveying equipment.

The dominant vegetative communities within the Study Area consist of shrub and scrub areas, forested areas, scattered trees in open areas and unmanaged grasslands. Wetlands and uplands areas

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were observed. Uplands areas, close to wetlands, are mostly dominated by the species: *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL), and *Pithecellobium dulce* (UPL), while wetlands areas adjacent to upland areas are mostly dominated by the species: *Avicennia germinans* (OBL), *Batis maritima* (FACW), *Conocarpus erectus* (FACW) and *Laguncularia racemosa* (OBL). All species classifications are based on the 2020 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS). In addition, there are also red mangrove forests, coastal lagoons and seasonal open water areas, mud flats and salt flats.

The Wetland Jurisdictional Determination and Delineation Study conducted by **AMBIENTA INC.** shows that within the Project's limits there are wetlands that are under the jurisdiction of Section 404 of the CWA and Section 10 of the RHA.

The wetlands within the Study Area consist of unvegetated mud/salt flats, vegetated mud/salt flats, mangrove forests, and coastal lagoons. The mud flat areas and some salt flat area are frequently used for ATV and 4x4 off-roading, which may be considered an illegal activity. The salt flats have been somewhat degraded due to excessive sedimentation caused by these off-roading activities and other historic sediment inputs from the site. The mangrove forest was severely impacted by Hurricane María in 2017; currently, some areas are observed to be in a recovery process, while others show no signs of recovery.

During the past four (4) years, several changes have occurred regarding the federal definition of "Waters of the United States" (WOTUS) under the CWA, including a release of a new rule and revised definition of WOTUS published in the *Federal Register* was on January 18, 2023. On May 25, 2023, the Supreme Court of the United States issued a decision in *Sackett v. Environmental Protection Agency* (EPA) (case No. 21-454), ruling and narrowing the EPA's jurisdiction over wetlands under the CWA. In the *Sackett* case, the court probes into the CWA's jurisdictional standard for identifying adjacent wetlands as WOTUS in the situation of a challenge to the EPA's compliance order for the unauthorized discharge of fill material into WOTUS.

Most recently, on August 29, 2023, the U.S. Environmental Protection Agency (EPA) and Department of the Army (the agencies) issued a conforming final rule (*2023 WOTUS Conforming Rule*) to amend the *2023 WOTUS Revised Definition* (January 18, 2023). This final rule conforms the definition of WOTUS to the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. EPA*. Sections of the January 2023 Rule are invalid under the Supreme Court's interpretation of the CWA in the *Sackett* decision. Therefore, the agencies have amended key aspects of the regulatory text to conform to the Court's decision.

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Under the *Sackett* standard, "to assert jurisdiction over an adjacent wetland, a party must establish first, that the adjacent water body constitutes WOTUS (*i.e.*, a relatively permanent water connected to traditional interstate navigable waters); and second, that the wetland has a continuous surface connection with that water, making it difficult to determine where the 'water' ends, and the 'wetland' begins". Based on the *Sackett* test, "wetlands that are separate from traditional navigable waters cannot be considered part of those waters, even if they are located nearby". *Sackett v. EPA* case represents the latest in a series of legal disputes regarding the interpretation of WOTUS. Although the Court did not address the validity of the Rule in *Sackett*, the Court's holding rejects the use of the "significant nexus" standard on which the Agencies' interpretation of WOTUS is based.

The *2023 WOTUS Conforming Rule*, included in the (Federal Register) *40 CFR 120.2(a)(3) and 33 CFR 328.3(a)(3)* removed the significant nexus standard from the tributaries provision, and the *40 CFR 120.2(a)(4) and 33 CFR 328.3(a)(4)* removed the significant nexus standard from the adjacent wetlands provision. The *2023 WOTUS Conforming Rule* eliminated the "significant nexus" requirement, based on this, the evaluated non-navigable tributaries that are not relatively permanent waters (NRPW) and which consist of ephemeral watercourses, streams, ditches, swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) would be considered non-jurisdictional. Based on field observations, some ephemeral features within the Study Area where managed in the past by the creation of ditches and water retentions areas, while others are caused by erosion or were manmade to manage run-off and based on the *2023 WOTUS Conforming Rule* could be considered non-jurisdictional.

Impacts to wetlands can be avoided through comprehensive planning. Wetlands provide functions and possess attributes that may well enhance the Project's landscape, among other services. If there is the possibility of impacting aquatic resources under the jurisdiction of Section 404 of the CWA and/or Section 10 of the RHA during the construction phase of the Project, a formal permitting process may need to be initiated with the USACE's Caribbean District Regulatory Section. It is the policy of the USACE, and the EPA, through a Memorandum of Understanding, that a sequence of steps must be considered during the design of any project impacting jurisdictional wetlands. First, an attempt to develop a design that avoids the impact on the wetland area should be made. If impacts to wetland areas are unavoidable, an attempt to minimize them to a practicable extent should be made, followed by the mitigation actions for the wetlands that are going to be inevitably impacted.

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INTRODUCTION

Cabo Rojo Land Acquisition LLC (hereinafter the "Proponent") proposes a touristic-residential development in the Municipality of Cabo Rojo (hereinafter "Esencia" or the "Project"), to be developed within 81 lots with a total area of 1,549 “cuerdas” (6,088,514 square meters). The topography of the land shows elevation changes ranging from a minimum of 1 meter to a maximum of 107 meters above mean sea level (amsl) and, for the most part, they are outside the floodplain level established by the 2018 ABFE maps. The development lands are classified as DTS, R-G, DS, and UR; classified as SUNP, SRC, SREP; and are part of the Special Overlay Zone of Touristic Interest of Cabo Rojo. **Figure 1** includes the Project location over the USGS Topographic Quadrangle.

Based on the provided information, the conceptual plan of Esencia proposes hotel, recreational, tourist-residential uses, and conservation areas consistent with the existing uses in the sector. The Project also includes four public vehicular access points to the beach with sanitary facilities, support for public recreational activities such as hiking, bird watching, and mountain biking.

AMBIENTA INC. was contracted to conduct a wetland jurisdictional determination within the parcels to be occupied by the Project (the Study Area). This document represents the *Wetland Jurisdictional Determination and Delineation Study* (JD) for the Esencia Project.

The methodology used for this study followed the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean Supplement, 2011). First, a preliminary screening process of existing literature and geographic information layers was performed to determine the potential jurisdictional wetlands at the Project site. Later, to specifically identify the potential wetland areas inside the Project limits included under the jurisdiction of Section 404 of the Clean Water Act or under the jurisdiction of Section 10 of the Rivers and Harbors Act regulated by the U.S. Army Corps of Engineers (USACE), a detailed screening analysis was performed using Geographic Information System (GIS) tools, global positioning system (GPS) equipment and data collected at the field by wetland specialists, environmental scientists, biologists and environmental technicians. The field reconnaissance and the assessment were conducted during the months of June and November 2023.

This report is organized in four (4) sections: 1) site description, 2) methodology and technical approach, 3) results and discussion, and 4) conclusions and recommendations. The results and conclusions of this Study are supported by the Wetland Determination Data Forms and the Photographic Documentation presented in the appendices of this report.

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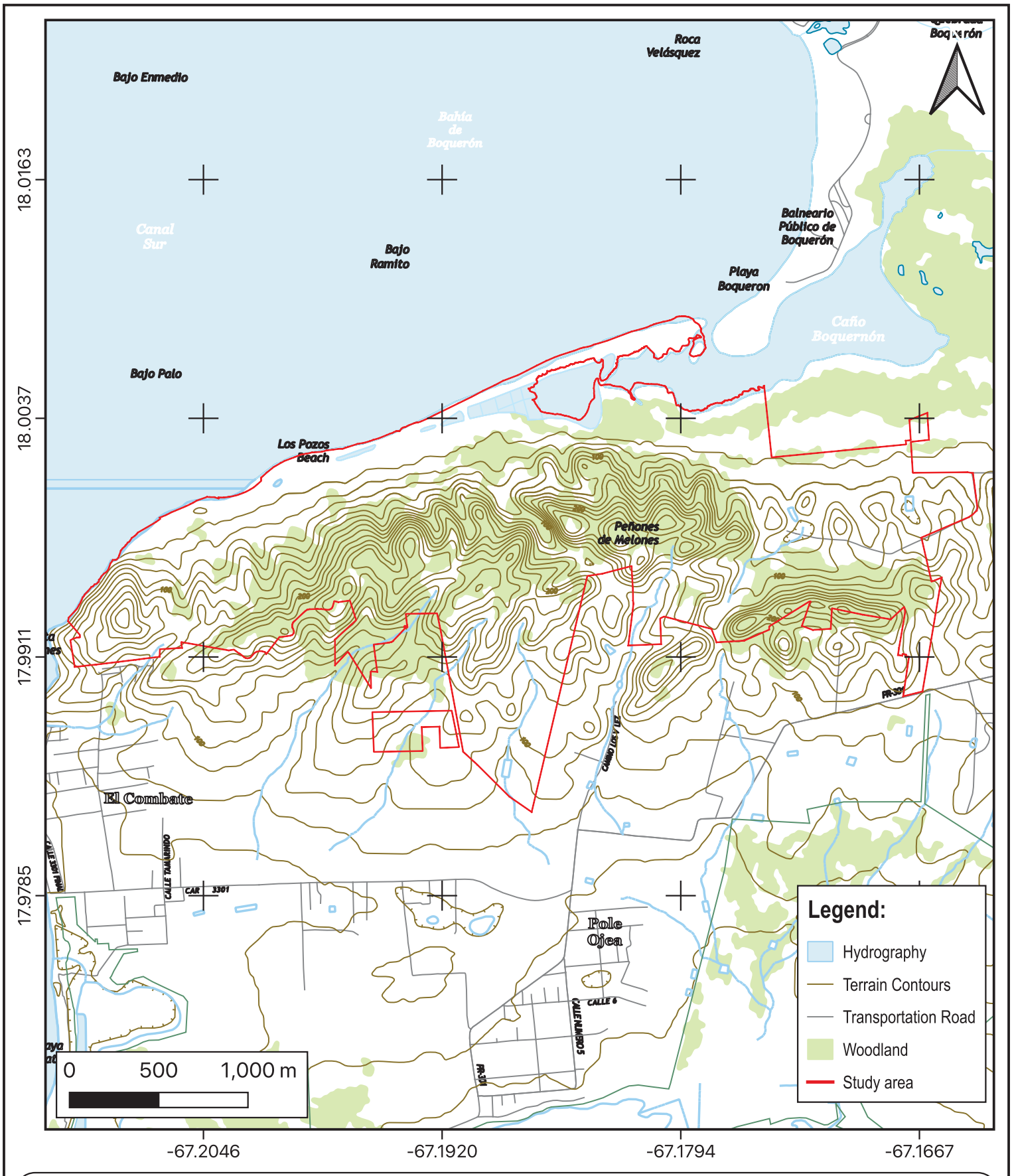

Figure 1: USGS Topographic Quadrangle Location Map
Esencia Project
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

SITE DESCRIPTION

A comprehensive site description is crucial for accurately assessing the attributes of the Study Area and, most importantly, for confirming the presence of jurisdictional wetlands within its boundaries. This information, in conjunction with a detailed field investigation and analysis that considers the three jurisdictional wetland criteria (presence of hydrophytic vegetation, wetland hydrology, and hydric soils), is fundamental for determining jurisdictional wetlands.

Location and Topography: The Study Area comprises 81 lots with a total area of 1,549 "cuerdas" (6,088,514 square meters). It is located at state road PR-301, in the Boquerón Ward of the Municipality of Cabo Rojo, Puerto Rico. Its topography is variable with an elevation between 1 and 107 meters amsl. **Figure 1** (see previous page) shows the USGS Topographic Quadrangle with the location map of the Study Area.

Vegetative Communities: The dominant vegetative communities within the Study Area include shrub and scrub zones, forested areas, scattered trees in open spaces, and unmanaged grasslands. Both wetland and upland areas were observed. Upland areas near wetlands are predominantly dominated by *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL), and *Pithecellobium dulce* (UPL). In contrast, wetland areas adjacent to uplands are primarily characterized by *Avicennia germinans* (OBL), *Batis maritima* (FACW), *Conocarpus erectus* (FACW), and *Laguncularia racemosa* (OBL). The classification of these species follows the 2020 National Wetland Plant List for the Caribbean (Region CB) issued by the U.S. Fish and Wildlife Service (USFWS). Additionally, the Study Area features other aquatic resources, including red mangrove forests, coastal lagoons, seasonal open water areas, vegetated mud/salt flats, and unvegetated mud/salt flats.

Soils: Based on the Web Soil Survey from the U.S. Department of Agriculture Soil Conservation Service (SCS), the Study Area contains twenty-two (22) soil series. **Figure 2** includes the NRCS Soil Map. These soil series are described by the SCS as follows:

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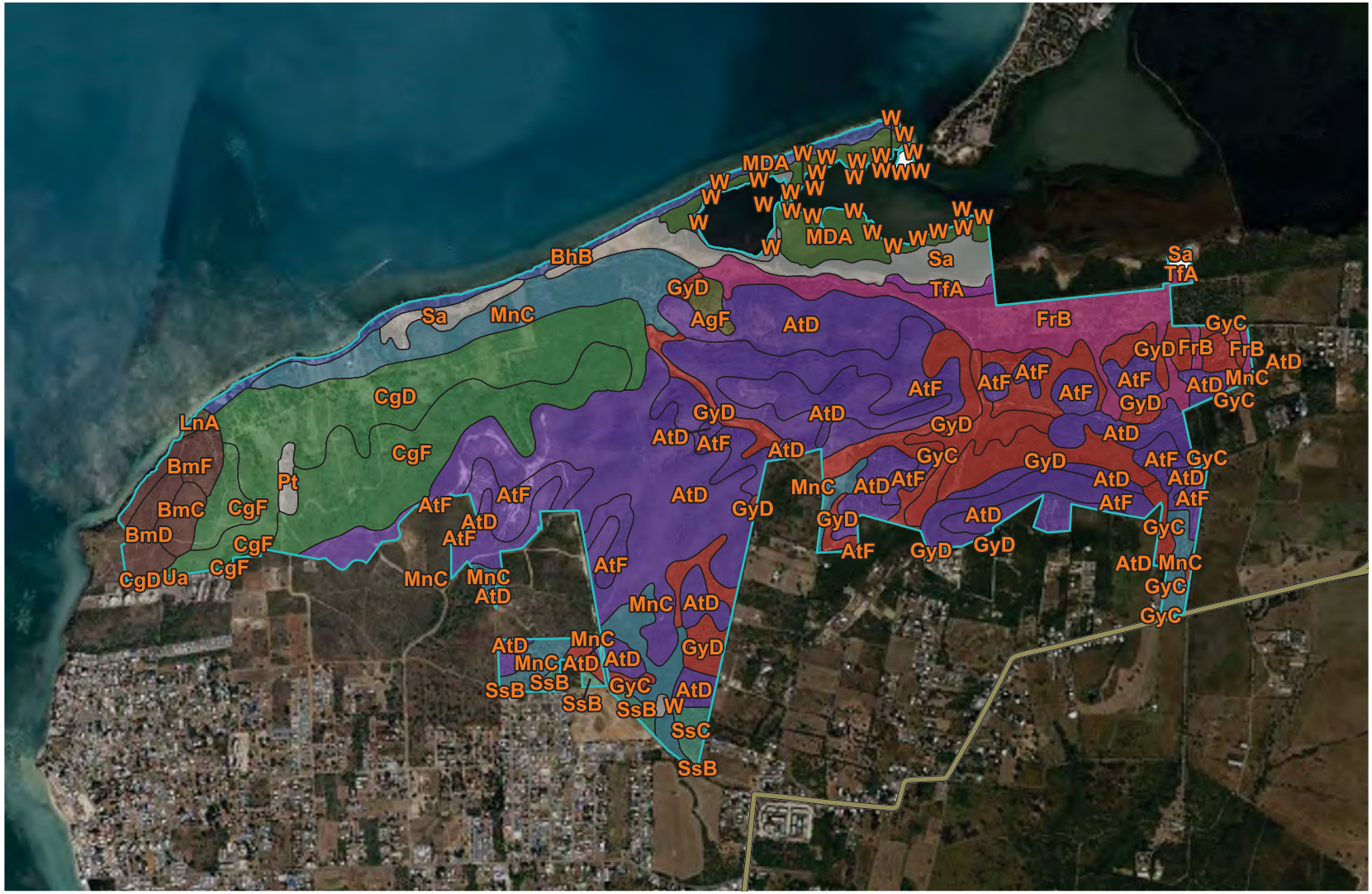
Figure 2: Soil Survey Map
Esencia Project
Cabo Rojo, Puerto Rico



- **Aguilita silty clay loam (AgF), 20 to 60 percent slopes:** Very steep soil found on hills and slopes. It has good drainage and moderate permeability. With a low or moderate water capacity and moderate fertility. High runoff and erosion is a risk. It has been used mostly for pasture and natural habitat.

- **Altamira gravelly clay (AtD), 2 to 20 percent slopes:** Steep soils found in limestone hills. Its runoff is medium. It has good drainage and moderate permeability. The risk of erosion is severe. It has severe limitations for agriculture due to its inclination and low water capacity. It is mostly found with shrubs and naturalizad pastureland.

- **Altamira gravelly clay (AtD), 20 to 60 percent slopes:** Steep soil found in limestone hills. Its runoff is rapid. It has good drainage and moderate permeability. The risk of erosion is moderate to severe. It has severe limitations for agriculture due to its inclination and low water capacity. It is mostly found in pastureland and natural habitats.

- **Bahia Salinas sand (BhB), 0 to 5 percent slopes:** This soil is found in the coastal plains and beaches. With excessive drainage and negligible runoff. It has a very fast permeability, very low water capacity and low natural fertility. It is mostly found in natural habitats.

- **Bermeja-Cerro Mariquita complex (BmC), 5 to 12 percent slopes:** This steep ground is found in the hills and ridges. With good drainage and medium runoff. It has moderate permeability and very little water capacity. It is mostly found with grasses and bushes.

- **Bermeja-Cerro Mariquita complex (BmD), 12 to 20 percent slopes:** This steep soil is found in the mountains and slopes. With good drainage and medium runoff. It has moderate permeability and very little water capacity. It is mostly found with grasses and bushes.

- **Bermeja-Cerro Mariquita complex (BmF), 20 to 60 percent slopes:** This steep soil is found on the slopes of mountains and hills. With good drainage and rapid runoff. It has moderate permeability and very little water capacity. It is mostly found in natural habitats**.**

- **Casabe clay (CgD), 5 to 20 percent slopes:** This steep soil is found on the slopes of mountains and hills. With moderate permeability and rapid runoff. With very low water capacity and moderate fertility. Mostly used for urban development.

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- **Casabe clay (CgF), 20 to 60 percent slopes:** This steep soil is found on the slopes of mountains and hills. With good permeability and rapid runoff. With low water capacity and moderate fertility. It is mostly found in natural habitats**.**

- **Fraternidad clay (FrB) 2 to 5 percent slopes:** This soil is found in the basins. With slow permeability and medium runoff. It has high water capacity and high fertility. It is mostly in pastureland.

- **Guayacán clay (GyB), 0 to 5 percent slopes:** Soil found in the alluvial fans. With good drainage and medium runoff. It has a moderately slow permeability, very low water capacity and high natural fertility. It has been used for pasture for many years.

- **Guayacán clay (GyC), 5 to 12 percent slopes:** Soil found low hills and alluvial fans. With good drainage and rapid runoff. It has a moderate permeability, very low water capacity and high natural fertility. It has been used for pasture for many years.

- **Guayacán clay (GyD), 12 to 20 percent slopes:** Soil found in the low hills. With good drainage and rapid runoff. It has a moderately slow permeability, very low water capacity and high natural fertility. It has been used for pasture for many years.

- **Llanos Costa loam (LnA), 0 to 2 percent slopes:** This soil is found in the alluvial fans. With slow runoff, good drainage and moderate permeability. It has a low water capacity and moderate natural fertility. It is mostly used for pasture.

- **Manglillo, Boqueron, and Serrano soils (MDA), very frequently flooded:** Almost level soil in the coastal plains. With very slow runoff, poor drainage and fast permeability. This soil is in natural habitats.

- **Melone clay (MnC), 2 to 12 percent slopes:** This soil is found on coastal plains. With medium runoff, good drainage, and slow permeability. It has a very low water capacity and high natural fertility. Mostly it is in pasture and natural habitats.

- **Pits and Quarries (Pt):** This map unit is a miscellaneous land type consisting of pits and quarries and areas of soil that have been highly disturbed by mechanical means. It commonly includes areas of rock outcrops. Areas of this map unit are mined for clay minerals and stone. These areas have had soil overburden removed and piled to the side. Most areas are idle.

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- **Salt flats, ponded (Sa):** This map unit is a miscellaneous land type consisting of areas from which salt has been extracted. It commonly includes areas of tidal flats. Areas of this map unit are mined for salt production. These areas have had soil overburden removed and piled to the side. Most areas are idle.

- **Sosa Sandy loam (SsB), 2 to 5 percent slopes:** This soil is found in the coastal plains and terraces. With medium runoff, good drainage, and moderately slow permeability. It has a low water capacity and natural fertility. Mostly these soils are used for urban development**.**

- **Sosa Sandy loam (SsC), 5 to 12 percent slopes:** This soil is found in the coastal plains and terraces. With medium runoff, good drainage, and slow permeability. It has a low water capacity and natural fertility. Mostly these soils are used for urban development.

- **Teresa clay (TfA), ponded:** This soil is found in coastal and alluvial plains. The series is of very slow runoff, poor drainage, and very slow permeability. It has a high-water capacity and low natural fertility. It is mostly found in natural habitats.

- **Water (W):** This map unit is a miscellaneous area that consists of water bodies equal or greater than 40 acres in size. It commonly includes areas of reservoirs, artificial lakes, rivers and coastal lagoons. Areas of this map unit are managed by the Puerto Rico Department of Environmental and Natural Resources.

Aquatic Resources: The National Wetlands Inventory (NWI) Map from the USFWS shows wetlands in the northern zone of the Study Area. According to the Federal Geographic Data Committee (FGDC, 2013) and Cowardin Classification System (1979), the wetlands classifications are as follows: E1UBL (estuarine, subtidal, unconsolidated bottom, subtidal), E2FO3N (estuarine, intertidal, forested, broad-leaved evergreen, Regularly Flooded) and E2US2/3P (estuarine, intertidal, unconsolidated shore, sand/mud, irregularly flooded). **Figure 3** shows the NWI Map. Some of these wetlands are associated to the "Caño Boquerón" bay area and others seasonally abut to the sea through the sand dune.

An estuarine system typically consists of deepwater tidal habitats and adjacent tidal wetlands that are usually semienclosed by land but have open, partly obstructed, or sporadic access to the open ocean, and in which ocean water is at least occasionally diluted by freshwater runoff from the land. The salinity may be periodically increased above that of the open ocean by evaporation. No freshwater (palustrine or riverine) wetland conditions were observed during the field evaluation.

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U.S. Fish and Wildlife Service
National Wetlands Inventory

Figure 3: USFWS NWI Map
Esencia Project
Cabo Rojo, Puerto Rico

May 5, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

Study Area

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

The US Geological Survey (USGS) topographic quadrangle and the National Wetlands Inventory (NWI) Map indicate the presence of several watercourses within the Study Area. Based on field observations, these watercourses appear to be ephemeral rather than intermittent, as no water flow was observed at any time, even during the rainy season. These ephemeral watercourses likely only collect and convey water during heavy rainfall events.

Certain watercourses exhibit a defined bank extending from the hills to the coastline, while others have a clear bank structure only in the hill regions and lose definition within the coastal plain. In these flatter coastal areas, water flow may transition into laminar sheet flow across the terrain before eventually reaching wetland zones.

Additionally, some of the ephemeral watercourses shown on the USGS topographic quadrangle and NWI Map are intercepted by man-made ponds, historically constructed for agricultural purposes. Observations revealed that some of these ponds were dry, while others still contained water, depending on their location and hydrologic inputs.

In the northern-central portion of the Study Area, the USGS topographic quadrangle also highlights a former salt production site, or "Salinas," where salt mining activities were conducted during the past century. This area contains remnants of salt flats, ponds, and associated infrastructure tied to historic salt harvesting practices.

The aquatic resources within the Study Area consist of unvegetated and vegetated mud/salt flats, mangrove forests, coastal lagoons, and other seasonal open water features. The mud and salt flats, in particular, are subject to significant human disturbances. Off-roading activities, such as the use of all-terrain vehicles (ATVs) and 4x4 vehicles, are frequently observed in these areas, which may constitute illegal activity. These disturbances have contributed to degradation, including excessive sedimentation in parts of the mud and salt flats, likely compounded by historic sediment inputs from surrounding land uses.

The mangrove forests in the area have also been severely impacted by natural events, particularly Hurricane María in 2017. While some portions of the mangrove forest are showing signs of natural recovery, others remain in a degraded state with no visible indications of regrowth or restoration. The cumulative impacts of historic land use, off-roading, and extreme weather events highlight the need for active management and conservation efforts to restore and protect these valuable aquatic resources.

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TECHNICAL APPROACH AND METHODOLOGY

A four-phase approach was used for the Wetland Jurisdictional Determination and Delineation Study (JD) performed for the Project. The technical approach followed the determination method described in the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Caribbean Islands Region* (Caribbean supplement, 2011).

During Phase 1 of the Study, a screening level analysis was performed to identify those areas within the Project regarded as potential jurisdictional wetlands under Section 404 of the Clean Water Act and Section 10 of the Rivers and Harbors Act. The screening level analysis was performed using a Geographic Information System (GIS) loaded with the following data:

- Topography.
- Soil Survey.
- National Wetland Inventory (NWI) Map.
- Flood Zones and Hydrography.
- Aerial Photographs.

Also, land survey topography and LIDAR topography were used during this Phase 1. The results from this phase of the investigation provided specific and important information for the design of the field reconnaissance and data collection effort.

Phase 2 of the Study consisted of a series of preliminary site visits, including the inspection of the previously identified potential wetland areas. These visits helped validate data that was gathered during the previous phase, while also contributing to a better understanding of the environmental conditions in the Study Area and to develop a fieldwork plan.

Phase 3 of the Study included field visits to delineate all jurisdictional wetlands within the Study Area. This included a description of hydrology, soil, and dominant vegetation at representative sampling locations. During this phase photographic documentation of evaluated areas was taken for future reference and analysis. **Appendix A** includes photographic documentation of the Study Area.

Final wetland delineation was performed using a combination of the three wetland criteria within the present vegetative communities, professional judgment, vegetative cover observed at the site and land survey measurements.

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Each sampling location description is included in an individual Wetland Determination Data Form. **Appendix B** includes the transcripts of the Wetland Determination Data Forms from the Caribbean Supplement of the Wetland Delineation Manual.

The following tasks were carried out during this phase:

- Establishment of sampling transects.
- Visual inspection of the site and identification of landscape features.
- Identification of plant communities.
- Selection of a representative area within each plant community to establish a sampling point and dig a soil pit.
- Identification of dominant plant species from the various strata around the soil pit.
- Classification of plant species using the *2020 Revision to the National List of Plants Species that Occur in Wetlands: Caribbean (Region C)*.
- Description of hydrology within and around the soil pit.
- Soil characterization using the Munsell Soil Color Chart.
- Fill in gathered data for each sampling point on the Wetland Determination Data Form from the Caribbean Supplement of the Wetland Delineation Manual; National Wetland Inventory (NWI) Map.
- Photographic documentation of the Site, soil pit and surrounding vegetation.
- Field delineation of wetland areas using aerial photographs, and field marks collected with land survey equipment.

For the purposes of this Study, one hundred and thirteen (113) sampling points were established along the Study Area. If wetlands were present, its limits were recorded with GPS. All areas were accessed and inspected in detail by walking and using utility terrain vehicles (UTVs).

Phase 4 of the Study comprised the final analysis of data gathered during the inspection and delineation visits, and the drafting of this Wetland Jurisdictional Determination and Delineation Report. Final wetland boundary determination was based on the combination of all the available evidence. The field reconnaissance and the assessment were conducted through the months of May to October 2023 and April to May 2024.

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RESULTS AND CONCLUSION

Based on the interpretation of historical aerial photographs and historical site data, portions of the Study Area were previously occupied by houses and farms. Various areas were used for agricultural purposes, likely involving fruit trees, minor crops, cattle, and salt production. Evidence of earth extraction activities, indicative of former quarry operations, was also observed in some areas.

Recent impacts associated with parcel developments were noted, possibly for single-unit housing construction and mobile camper installations, with soil grading and fencing evident in some locations. Currently, certain areas are still used for cattle grazing, although this use appears to be informal and unplanned.

Other informal current uses of the land include recreational activities such as beach bathing, fishing, hiking, mountain biking, bird watching, camping, and unplanned all-terrain vehicle off-roading. The steepest areas and hills appear to have been disused for several decades.

Both past and present land uses, along with other anthropogenic factors, have influenced the current condition of the Study Area, including the wetland areas.

Uplands areas adjacent to wetlands are mostly dominated by the species: *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL), and *Pithecellobium dulce* (UPL). There are other upland areas that could be classified as unmanaged grassland with scattered scrub-shrub and trees, scrub-shrub land, secondary dry forests and coastal dry forests.

The National Wetlands Inventory (NWI) Map from the USFWS shows wetlands in the northern zone of the Study Area. According to the Federal Geographic Data Committee (FGDC, 2013) and Cowardin Classification System (1979), the wetlands classifications are as follows: E1UBL (estuarine, subtidal, unconsolidated bottom, subtidal), E2FO3N (estuarine, intertidal, forested, broad-leaved evergreen, Regularly Flooded) and E2US2/3P (estuarine, intertidal, unconsolidated shore, sand/mud, irregularly flooded).

The wetlands within the Study Area include unvegetated and vegetated mud/salt flats, mangrove forests, coastal lagoons, and other seasonal open water features. Among these, the mud and salt flats are particularly affected by significant human disturbances. Off-roading activities, such as the use of all-terrain vehicles (ATVs) and 4x4 vehicles, are frequently observed in these areas. These activities, which may be considered illegal, have led to notable degradation of these habitats. Impacts include increased sedimentation in parts of the mud and salt flats, a condition likely exacerbated by historic

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sediment inputs from surrounding land uses. This degradation poses a challenge to the ecological health and resilience of these important aquatic systems.

The mangrove forests within the Study Area have also experienced severe impacts from natural events, most notably Hurricane María in 2017. While certain sections of the mangrove forest are demonstrating signs of natural recovery, others remain in a degraded state, showing little to no evidence of regrowth or restoration. The combined effects of historic land use, off-roading activities, and extreme weather events underscore the urgent need for active management and targeted conservation measures to restore and safeguard these critical aquatic ecosystems.

Wetland areas boundaries are mostly dominated by the species: *Avicennia germinans* (OBL), *Batis maritime* (FACW), *Conocarpus erectus* (FACW) and *Laguncularia racemosa* (OBL). All these species' classification is based on the 2020 National List of Wetlands Plants for the Caribbean (Region CB) from the US Fish and Wildlife Service (USFWS).

The US Geological Survey (USGS) topographic quadrangle and the NWI Map indicate the presence of some watercourses within the Study Area. These watercourses appear to be ephemeral rather than intermittent, as they were not observed with water flow during the rainy season. They seem to collect water only during heavy rain events.

Some watercourses have a defined bank from the hills to the coastline, while others have a defined bank only in the hills, with no defined bank within the coastal plain, where the flow may become laminal over the terrain before reaching wetland areas. Additionally, both the USGS and NWI maps illustrate some ephemeral watercourses intercepted by man-made ponds that were historically used for agricultural purposes; some of these ponds were observed to be dry, while others contained water.

In the northern central portion of the Study Area, the USGS topographic quadrangle also shows a former salt production area, or "Salinas," where salt mining was conducted during the past century.

The jurisdictional wetland delineation was performed using the three wetland criteria at sampling points within potential wetland areas, professional judgment, vegetative cover observed at the site, GPS measurements and land surveying equipment. The wetlands found within the Study Area consist of unvegetated mud/salt flats, vegetated mud/salt flats, mangrove forest and coastal lagoons. **Figure 4** shows the sampling point locations and wetland delineation.

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Figure 4: Wetland Delineation and Sampling Points Locations
Esencia Project
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

The Wetland Jurisdictional Determination and Delineation Study conducted by **AMBIENTA INC.** shows that within the Project's limits there are estuarine wetlands that are under the jurisdiction of Section 404 of the CWA and Section 10 of the RHA. Nevertheless, there are no riverine (streams) or palustrine (freshwater) areas under Section 404 of the CWA and Section 10 of the RHA jurisdiction. This determination is based on the current regulation and in the interpretation of the 2023 "Waters of the United States" (WOTUS) Conforming Rule.

Table 1 summarizes the Jurisdictional Wetland Criteria that each one of the sampling points met and the final decision on whether the area should be considered or not as a jurisdictional wetland. Of a total of one hundred and thirteen (113) sampling points, forty-two (42) are within wetland areas. **Appendix C** contains a detailed view of the sampling point locations and wetland delineation.

TABLE 1: WETLAND CRITERIA STATUS OF THE SAMPLING POINTS.

SP #	Latitude	Longitude	Hydrophytic Vegetation	Hydric Soil	Wetland Hydrology	Wetland Determination
SP01	18.002822	-67.166168	No	Yes	Yes	No
SP02	18.002788	-67.166164	No	No	No	No
SP03	18.002839	-67.16622	No	No	No	No
SP04	18.002672	-67.166185	No	No	No	No
SP05	18.002597	-67.168267	No	No	No	No
SP06	18.002427	-67.16901	No	Yes	Yes	No
SP07	18.002312	-67.170612	No	No	No	No
SP08	18.001955	-67.171906	Yes	No	Yes	No
SP09	18.002095	-67.171842	No	Yes	Yes	No
SP10	18.001965	-67.172893	Yes	Yes	Yes	Yes
SP11	18.002001	-67.173002	No	No	No	No
SP12	18.001759	-67.172966	Yes	No	Yes	No
SP13	18.002281	-67.173443	Yes	Yes	Yes	Yes
SP14	18.002259	-67.175445	No	No	No	No
SP15	18.001670	-67.177073	No	No	Yes	No
SP16	18.002717	-67.176766	Yes	Yes	Yes	Yes
SP17	18.002697	-67.176805	No	No	No	No
SP18	18.002440	-67.177788	Yes	Yes	Yes	Yes
SP19	18.002419	-67.177813	No	No	Yes	No
SP20	18.002754	-67.178992	Yes	Yes	Yes	Yes
SP21	18.002682	-67.179065	No	No	No	No
SP22	18.002384	-67.179497	No	No	Yes	No
SP23	18.002596	-67.180229	Yes	Yes	Yes	Yes
SP24	18.002541	-67.180224	No	No	No	No
SP25	18.002964	-67.18156	Yes	Yes	Yes	Yes
SP26	18.002922	-67.181587	No	No	Yes	No
SP27	18.002794	-67.182475	Yes	Yes	Yes	Yes
SP28	18.002758	-67.182439	No	No	Yes	No
SP29	18.002751	-67.182481	No	No	No	No
SP30	18.003203	-67.184825	Yes	Yes	Yes	Yes

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SP #	Latitude	Longitude	Hydrophytic Vegetation	Hydric Soil	Wetland Hydrology	Wetland Determination
SP31	18.003146	-67.184883	No	No	No	No
SP32	18.002217	-67.18733	Yes	Yes	Yes	Yes
SP33	18.003172	-67.187323	No	No	No	No
SP34	18.003871	-67.188628	Yes	Yes	Yes	Yes
SP35	18.003673	-67.188527	No	No	No	No
SP36	18.008225	-67.178448	Yes	Yes	Yes	Yes
SP37	18.008566	-67.180623	No	Yes	Yes	No
SP38	18.008262	-67.180542	Yes	Yes	Yes	Yes
SP39	18.007934	-67.182495	No	Yes	Yes	No
SP40	18.007775	-67.182504	Yes	Yes	Yes	Yes
SP41	18.003900	-67.189588	Yes	Yes	Yes	Yes
SP42	18.003853	-67.189612	No	No	Yes	No
SP43	18.003793	-67.190648	Yes	Yes	Yes	Yes
SP44	18.003773	-67.190732	No	No	Yes	No
SP45	18.003042	-67.191584	No	Yes	Yes	No
SP46	18.002786	-67.191553	No	Yes	Yes	No
SP47	18.003264	-67.191904	Yes	Yes	Yes	Yes
SP48	18.003169	-67.191873	No	No	No	No
SP49	18.002788	-67.194334	Yes	Yes	Yes	Yes
SP50	18.002887	-67.194347	Yes	Yes	Yes	Yes
SP51	18.002935	-67.194292	No	Yes	No	No
SP52	18.002522	-67.194585	Yes	No	No	No
SP53	18.002118	-67.194506	No	No	No	No
SP54	18.007466	-67.183832	Yes	Yes	Yes	Yes
SP55	18.007587	-67.183788	Yes	Yes	Yes	Yes
SP56	18.006823	-67.185884	Yes	Yes	Yes	Yes
SP57	18.006924	-67.185884	No	No	No	No
SP58	18.004738	-67.19005	Yes	Yes	Yes	Yes
SP59	18.004875	-67.19008	No	No	Yes	No
SP60	18.002783	-67.194609	No	No	No	No
SP60B	18.002786	-67.194691	Yes	Yes	Yes	Yes
SP61	18.001649	-67.196333	Yes	Yes	Yes	Yes
SP62	18.001555	-67.196273	No	No	No	No
SP63	18.000826	-67.19825	Yes	Yes	Yes	No
SP64	18.000720	-67.198181	No	No	No	No
SP65	18.000911	-67.198629	Yes	Yes	Yes	Yes
SP66	18.000806	-67.198599	No	No	No	No
SP67	18.000734	-67.200827	No	No	No	No
SP68	18.000914	-67.200754	No	Yes	Yes	No
SP69	18.000516	-67.200528	Yes	Yes	Yes	Yes
SP70	18.000665	-67.201168	No	No	No	No
SP71	18.000309	-67.200896	No	Yes	No	No
SP72	18.000311	-67.201506	Yes	Yes	Yes	Yes
SP73	17.999976	-67.201476	No	No	No	No
SP74	17.999558	-67.203018	No	Yes	Yes	No
SP75	17.999420	-67.202949	No	No	No	No
SP76	17.998929	-67.205436	No	Yes	Yes	No
SP77	17.998454	-67.20521	No	No	No	No

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SP #	Latitude	Longitude	Hydrophytic Vegetation	Hydric Soil	Wetland Hydrology	Wetland Determination
SP78	17.999437	-67.204453	Yes	Yes	Yes	Yes
SP79	17.999150	-67.204418	No	Yes	Yes	No
SP80	17.999093	-67.204395	No	No	No	No
SP81	17.998470	-67.206254	Yes	Yes	Yes	Yes
SP82	17.997919	-67.206492	No	Yes	Yes	No
SP83	17.998012	-67.206079	No	Yes	No	No
SP84	17.997916	-67.20643	No	Yes	No	No
SP85	17.998167	-67.206571	No	Yes	No	No
SP86	17.997731	-67.206735	No	No	Yes	No
SP87	17.997825	-67.207714	Yes	Yes	No	No
SP88	17.997606	-67.207542	No	No	No	No
SP89	17.996908	-67.208034	No	No	Yes	No
SP90	17.996924	-67.208629	No	No	No	No
SP91	17.997011	-67.208652	Yes	No	No	No
SP92	17.995982	-67.209333	No	No	No	No
SP93	17.994194	-67.210744	No	No	No	No
SP94	17.998075	-67.207153	Yes	Yes	Yes	Yes
SP95	17.998048	-67.207202	No	No	No	No
SP96	18.000050	-67.201458	No	Yes	Yes	No
SP97	18.000967	-67.199908	Yes	Yes	Yes	Yes
SP98	18.005705	-67.188242	Yes	Yes	Yes	Yes
SP99	18.003416	-67.167476	Yes	Yes	Yes	Yes
SP100	18.003374	-67.167523	No	No	No	No
SP101	18.003287	-67.167053	Yes	Yes	Yes	Yes
SP102	18.003269	-67.167046	No	No	No	No
SP103	18.003329	-67.166944	Yes	Yes	Yes	Yes
SP104	18.003349	-67.166952	No	No	No	No
SP105	18.003043	-67.166935	Yes	Yes	Yes	Yes
SP106	18.002961	-67.166949	No	No	No	No
SP107	18.003292	-67.166216	Yes	Yes	Yes	Yes
SP108	18.003325	-67.166255	No	No	No	No
SP109	18.003347	-67.166072	Yes	Yes	Yes	Yes
SP110	18.003370	-67.166085	No	No	No	No
SP111	18.003166	-67.174448	Yes	Yes	Yes	Yes
SP112	18.003170	-67.174437	No	No	No	No

The jurisdictional determination conclusion is based and supported by:

- Professional Judgment.
- Presence of hydrophytic vegetation, wetland hydrology and hydric soils indicators.
- Superficial seasonal hydrological connection with other wetlands and/or U. S. Waters.
- Aerial Photographs, NWI Maps, LIDAR Topography and Photographic documentation.
- Data forms filled out during site reconnaissance.

During the past four (4) years, several changes have occurred regarding the federal definition of "Waters of the United States" (WOTUS) under the CWA; including a release of a new rule and

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revised definition of WOTUS published in the *Federal Register* was on January 18, 2023. On May 25, 2023, the Supreme Court of the United States issued a decision in *Sackett v. Environmental Protection Agency (EPA*) (case No. 21-454), ruling and narrowing the EPA's jurisdiction over wetlands under the CWA.

In the *Sackett* case, the court probes into the CWA's jurisdictional standard for identifying adjacent wetlands as WOTUS in the situation of a challenge to the EPA's compliance order for the unauthorized discharge of fill material into WOTUS.

Most recently, on August 29, 2023, the U.S. Environmental Protection Agency (EPA) and Department of the Army (the agencies) issued a conforming final rule (*2023 WOTUS Conforming Rule*) to amend the *2023 WOTUS Revised Definition* (January 18, 2023). This final rule conforms the definition of WOTUS to the U.S. Supreme Court's May 25, 2023, decision in the case of *Sackett v. EPA.*

Sections of the January 2023 Rule are invalid under the Supreme Court's interpretation of the CWA in the *Sackett* decision. Therefore, the agencies have amended key aspects of the regulatory text to conform to the Court's decision.

Under the *Sackett* standard, "to assert jurisdiction over an adjacent wetland, a party must establish first, that the adjacent water body constitutes WOTUS (*i.e.*, a relatively permanent water connected to traditional interstate navigable waters); and second, that the wetland has a continuous surface connection with that water, making it difficult to determine where the 'water' ends, and the 'wetland' begins".

Based on the *Sackett* test, "wetlands that are separate from traditional navigable waters cannot be considered part of those waters, even if they are located nearby". *Sackett v. EPA* case represents the latest in a series of legal disputes regarding the interpretation of WOTUS. Although the Court did not address the validity of the Rule in *Sackett*, the Court's holding rejects the use of the "significant nexus" standard on which the Agencies' interpretation of WOTUS is based.

The *2023 WOTUS Conforming Rule*, included in the (Federal Register) *40 CFR 120.2(a)(3) and 33 CFR 328.3(a)(3)* removed the significant nexus standard from the tributaries provision, and the *40 CFR 120.2(a)(4) and 33 CFR 328.3(a)(4)* removed the significant nexus standard from the adjacent wetlands provision.

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The *2023 WOTUS Conforming Rule* eliminated the "significant nexus" requirement, based on this, the evaluated non-navigable tributaries that are not relatively permanent waters (NRPW) and which consist of ephemeral streams, ditches, swales or erosional features (e.g., gullies, small washes characterized by low volume, infrequent, or short duration flow) would be considered non-jurisdictional.

Based on field observations, some ephemeral features within the Study Area where managed in the past by the creation of ditches and water retentions areas, while others are caused by erosion or were manmade to manage run-off and based on the *2023 WOTUS Conforming Rule* could be considered non-jurisdictional.

According to the USGS topographic quadrangle, some intermittent watercourses flow through the northern and southern zones of the Project Site. The watercourses in the northern zone discharge towards the sea and the "Caño Boquerón" ("Laguna Rincón"), while those in the southern zone discharge into the interior of the Boquerón ward.

The assessment conducted by AMBIENTA INC. has determined that these watercourses acting as drainage collection areas do not meet the 2023 WOTUS Conforming Rule criteria for classification as intermittent or relatively permanent waters. The assessment found that these areas lack some of the ecological characteristics of a creek, such as continuous or even seasonal flow, and only collect water during heavy rain events. Consequently, they are classified as non-jurisdictional under the Clean Water Act and the current definition of Waters of the United States (WOTUS) as per the 2023 WOTUS Conforming Rule, being identified as ephemeral features.

Impacts to wetlands can be avoided through comprehensive planning. Wetlands provide functions and possess attributes that may well enhance the Project's landscape, among other services. If there is the possibility of impacting aquatic resources under the jurisdiction of Section 404 of the CWA and/or Section 10 of the RHA during the construction phase of the Project, a formal permitting process may need to be initiated with the USACE's Caribbean District Regulatory Section.

It is the policy of the USACE, and the EPA, through a Memorandum of Understanding, that a sequence of steps must be considered during the design of any project impacting jurisdictional wetlands. First, an attempt to develop a design that avoids the impact on the wetland area should be made. If impacts to wetland areas are unavoidable, an attempt to minimize them to a practicable extent should be made, followed by the mitigation actions for the wetlands that are going to be inevitably impacted.

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AMBIENTA INC. TELS. (787) 510-7031 / (787) 732-0907
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APPENDIXES

AMBIENTA INC.
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APPENDIX A:

PHOTOGRAPHIC DOCUMENTATION

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Typical view of area at Sampling Point SP-1.

Soil Sample at SP-1.

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Typical view of area at Sampling Point SP-3.

Soil sample at Sampling Point SP-5.

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Wetland delineation at Sampling Point SP-6.

Typical View of an ephemeral stream.

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Making the sampling pit at Sampling Point SP-09.

Soil evaluation at Sampling Point SP-13.

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TELS. (787) 510-7031 / (787) 732-0907
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Water in sampling pit at Sampling Point SP-16.

Soil evaluation at Sampling Point SP-20.

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Soil sample at Sampling Point SP-26.

Sampling Pit at Sampling Point SP-30.

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Soil evaluation at Sampling Point SP-35.

Wetland delineation at Sampling Point SP-40.

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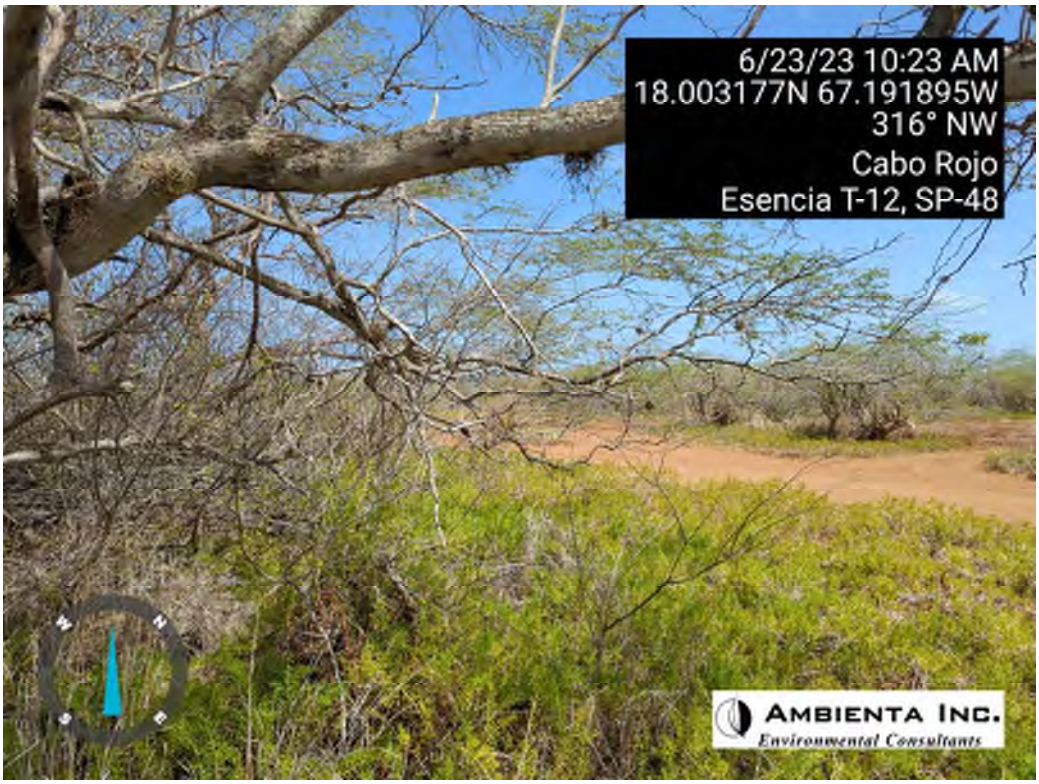

Typical view of area at Sampling Point SP-48.

Water in sampling pit at Sampling Point SP-55.

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Typical view of area at Sampling Point SP-57.

Typical view of area Sampling Point SP-65.

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Soil evaluation at Sampling Point SP-76.

Soil evaluation at Sampling Point SP-78.

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Typical view of area at Sampling Point SP-82.

Soil sample at Sampling Point SP-86.

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Making the sampling pit at Sampling Point SP-92.

Sampling pit at Sampling Point SP-97.

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Assessment area and wetland boundary at Sampling Point SP-99.

Assessment area near wetland boundary at Sampling Point SP-100.

AMBIENTA INC.
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TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 / wsoler@ambientainc.com

Assessment area of wetland swale at Sampling Point SP-105.

Soil evaluation at Sampling Point SP-107.

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APPENDIX B:

TRANSCRIPTS OF SAMPLING POINT DATA FORMS FOR ROUTINE WETLAND DETERMINATION

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
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WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-01

Investigator(s): Walter Soler, Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.002822° | Long: -67.166168° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located within a concave catchment basin area that receives storm waters throw a corrugated pipe (24") from a former paved road; and discharges to a mangrove swamp.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Crysopogon zizanioides	60	Yes	FAC*
2. Megathyrsus maximus	40	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	60	x 3 =	180
FACU species	40	x 4 =	160
UPL species	_____	x 5 =	_____
Column Totals:	100 (A)		340 (B)

Prevalence Index = B/A = 3.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

*Indicator Status based on professional judgement.

SOIL

Sampling Point: SP-01

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Sandy loam	
6-10	10YR 6/6	100					Silty clay	
10-18	10YR 3/4	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☑ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Sampling Point located within a concave catchment basin area that receives storm waters throw a corrugated pipe (24") from a former paved road; and discharges to a mangrove swamp.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-02

Investigator(s): Walter Soler, Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.002785° | Long: -67.166129° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located east of a wetland area, within an area that seems to have fill material (Gabion rocks) as part of a water control Culvert.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2. Thespesia populnea	20	Yes	FAC
3. Quadrella indica	10	No	UPL
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	100	x 4 =	400
UPL species	30	x 5 =	150
Column Totals:	150 (A)		610 (B)

Prevalence Index = B/A = 4.06

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-02

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	100					Silty loam	Gabion formation 100%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-03

Investigator(s): Walter Soler, Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.002839° | Long: -67.166220° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located to the west of a wetland area, observation point inaccessible.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	60	Yes	UPL
2.			
3.			
4.			
5.			
	60	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Bromelia pinguin	100	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	160	x 5 =	800
Column Totals:	160 (A)		800 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-03

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
								N/A

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

Fill material (Gabion rocks) no sampling pit.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia Municipality/Town: Cabo Rojo Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC PR or USVI: PR Sampling Point: SP-04

Investigator(s): Walter Soler, Jesus Babilonia Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): None Slope (%): _____

Lat: 18.002672° Long: -67.166185° Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) NWI classification: none

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located on a former paved road.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-04

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
								N/A

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-05

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002597° | Long: -67.168267° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located within a forested upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	75	Yes	UPL
2. Bourreria succulenta	20	Yes	UPL
3.			
4.			
5.			
	95	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Randia aculeata	5	Yes	UPL
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	75	Yes	UPL
2.			
3.			
4.			
	75	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	100	x 4 =	400
UPL species	175	x 5 =	875
Column Totals:	275	(A)	1,275 (B)

Prevalence Index = B/A = 4.6

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-05

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/1	100					Silty loam	
9-18	10YR 4/2	75	10YR 3/1	15			Silty clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-06

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.002427° | Long: -67.169010° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at catchment basin area at the north of a paved road and is surrounded by Gabion rocks close to Mangrove swamp area.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 0 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	_____ (A)		_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

No vegetation was observed on sampled area.

SOIL

Sampling Point: SP-06

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-9	10YR 3/2	50	10YR 3/4	25			Silty loam	
9-18	10YR 5/4	50	10YR 6/2	20			Silty clay	10YR 5/8 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 2

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-07

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002312° | Long: -67.170612° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located within a forested upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	75	Yes	UPL
2. Bourreria succulenta	20	Yes	UPL
3.			
4.			
5.			
	95	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Randia aculeata	5	Yes	UPL
2. Quadrella indica	15	Yes	UPL
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	75	Yes	UPL
2.			
3.			
4.			
	75	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 190	x 5 = 950
Column Totals: 190 (A)	950 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-07

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 2/1	75	10YR 4/6	25			Silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? **Yes** _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? **Yes** _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-08

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.001955° | Long: -67.171906° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located within a catchment basin area that receive storm waters from hillslopes to the south, sending runoff water throw a corrugated pipe (24") on a former paved road; and discharges to another catchment basin at the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Crysopogon zizanioides	100	Yes	FAC*
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 100	x 3 =	300
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		300 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

*Indicator Status based on professional judgement.

SOIL

Sampling Point: SP-08

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-7	10YR 4/3	100					Silty loam	
7-18	10YR 4/3	50	10YR 2/1	50			Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 15, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-09

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.002095° | Long: -67.171842° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located within a concave catchment basin area that receive storm waters from the south, throw a corrugated pipe (24") on a former paved road; and discharges to mangrove wetland area to the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	85	Yes	FACU
2. Chloris barbata	15	No	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 100	x 4 = 400
UPL species _____	x 5 = _____
Column Totals: 100 (A)	400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-09

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	25	2.5Y 2.5/1	45			Silty clay loam	5YR 5/8 15%
10-18	10YR 4/3	45	10YR 3/2	25	C	M	Silty clay loam	10YR 5/6 15%, 2.5YR 4/6 5%, Gley2 4/5BG 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-10

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.001965° | Long: -67.172893° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a concave catchment basin area that seems to pond storm water and is surrounded by a Gabion rock structure. No visible pipe coming from the south and no discharge observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Cyperus polystachyos	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-10

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/2	60	10YR 6/6	40			Clay loam	
6-10	10YR 5/6	75	7.5YR 5/8	25			Clay loam	
10-18	10YR 5/6	45	2.5Y 5/1	45			Clay loam	2.5YR 3/4 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☑ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Isolate stormwater management structure.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-11

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002001° | Long: -67.173002° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located on a forested upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	35	Yes	UPL
2. Bourreria succulenta	25	Yes	UPL
3.			
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Randia aculeata	35	Yes	UPL
2.			
3.			
4.			
5.			
	35	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	30	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	85	Yes	UPL
2.			
3.			
4.			
	85	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	30	x 4 =	120
UPL species	180	x 5 =	900
Column Totals:	210 (A)		1,020 (B)

Prevalence Index = B/A = 4.8

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-11

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 3/1	100					Silty loam	
12-18	10YR 3/1	50	10YR 5/3	45			Sandy loam	5Y 8/1 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-12

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.001759° | Long: -67.172966° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a shallow catchment basin area that is surrounded by a Gabion rock structure were sediments seems to accumulate. No visible pipe crossing to the south and no discharge observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Crysopogon zizanioides	100	Yes	FAC*
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species 100	x 3 =	300
FACU species _____	x 4 =	_____
UPL species _____	x 5 =	_____
Column Totals: 100 (A)		300 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

*Indicator Status based on professional judgement.

SOIL

Sampling Point: SP-12

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 5/6	60	10YR 5/3	35			Silty loam	10YR 4/6 5%
10-18								Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-13

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002259° | Long: -67.175418° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the edge of mangrove wetland area on the maritime-terrestial zone.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	40	Yes	OBL
2. Prosopis juliflora	35	Yes	UPL
3. Laguncularia racemosa	5	No	OBL
4.			
5.			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Avicennia germinans	50	Yes	OBL
2. Thespesia populnea	45	Yes	FAC
3.			
4.			
5.			
	95	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 75 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species	_____	x 2 =	_____
FAC species	45	x 3 =	135
FACU species	_____	x 4 =	_____
UPL species	35	x 5 =	175
Column Totals:	175 (A)		405 (B)

Prevalence Index = B/A = 2.28

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-13

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4	100					Clay loam	
4-18	10YR 6/2	45	10YR 7/6	15			Clay	Concretions 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 16"

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 4"

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-14

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002225° | Long: -67.175418° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at upland area close to off-road (4x4) trail and close to the marked maritime-terrestial zone.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Ziziphus reticulata	50	Yes	UPL
2.			
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Randia aculeata	25	Yes	UPL
2. Flueggea acidoton	15	Yes	UPL
3.			
4.			
5.			
	40	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	90	x 5 =	450
Column Totals:	190 (A)		850 (B)

Prevalence Index = B/A = 4.47

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-14

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/4	100					Silty Clay loam	
4-18	10YR 5/8	50	10YR 4/4	50			Silty Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 16, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-15

Investigator(s): Jesus Babilonia | Ward/Estate: Boqueón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.001670° | Long: -67.177073° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at an ephemeral stream on a forested upland area. This stream could have been affected by multiple existing off-road (4x4) trail trails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	FAC
2. Bourreria succulenta	30	Yes	UPL
3. Quadrella indica	25	Yes	UPL
4.			
5.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	45	x 3 =	135
FACU species	100	x 4 =	400
UPL species	55	x 5 =	275
Column Totals:	200 (A)		810 (B)

Prevalence Index = B/A = 4.05

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-15

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100					Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-16

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002717° | Long: -67.176766° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the edge of mangrove wetland area within the maritime-terrestrial zone. It seems to be an area that collects and channelizes runoff to the wetlands.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	50	Yes	OBL
2.			
3.			
4.			
5.			
	50 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Avicennia germinans	45	Yes	OBL
2.			
3.			
4.			
5.			
	45 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	95 (A)		95 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

SOIL

Sampling Point: SP-16

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 4/6	50	10YR 4/2	50			Loamy Clay	
15-18	10YR 5/4	75	2.5YR 5/8	20			Loamy Clay	10YR 7/1 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☑ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☑ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes X No _____ Depth (inches): 8

Water Table Present? Yes _____ No X Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 4

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-17

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002697° | Long: -67.176805° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at what seems to be ephemeral stream on upland forested area, close to the maritime-terrestial zone. This area seems to be draining runoff to the wetlands in the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	UPL
2. Pithecellobium dulce	20	Yes	FACU
3.			
4.			
5.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Randia aculeata	5	Yes	UPL
2.			
3.			
4.			
5.			
	5	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	5	Yes	UPL
2.			
3.			
4.			
	5	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species		x 2 =	
FAC species		x 3 =	
FACU species	120	x 4 =	480
UPL species	55	x 5 =	275
Column Totals:	175 (A)		755 (B)

Prevalence Index = B/A = 4.31

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-17

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 4/4	100					Silty clay loam	
2-18	7.5YR 4/6	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at what seems to be ephemeral stream on upland forested area, close to maritime-terrestial zone. This area seems to be draining runoff to the wetlands in the north.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-18

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002440° | Long: -67.177788° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the edge of a mangrove wetland and close to the maritime-terrestrial zone. An area that seems to be draining runoff to the wetlands in the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	95	Yes	OBL
2.			
3.			
4.			
5.			
	95 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	95	x 1 =	95
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	195 (A)		295 (B)

Prevalence Index = B/A = 1.51

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-18

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/2	75	10R 4/8	5	C	M	Loamy clay	10YR 6/8 25%, Gley1 5/N 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 13

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 16

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-19

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002419° | Long: -67.177813° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located between a forested upland and a wetland transitional area, near the maritime-terrestial zone .

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Bourreria succulenta	50	Yes	UPL
2. Prosopis juliflora	45	Yes	UPL
3.			
4.			
5.			
	95	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	95	x 5 =	475
Column Totals:	195 (A)		875 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-19

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Silty clay loam	
2-18	10YR 3/1	50	10YR 5/4	50			Silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-20

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002764° | Long: -67.179027° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland transitional area, in the maritime-terrestrial zone. An area that seems to be draining runoff to the wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	90	Yes	OBL
2.			
3.			
4.			
5.			
	90 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	50	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	50	x 2 =	100
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	140 (A)		190 (B)

Prevalence Index = B/A = 1.35

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-20

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 5/6	70	10YR 6/8	25			Loamy clay	10YR 5/3 10%
8-18	10YR 6/4	50	10YR 6/8	50		M	Loamy clay	2.5YR 4/8 5%, Concretions 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☑ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 2

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Three Rules Capital PR, LLC | PR or USVI: PR | Sampling Point: SP-21

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002682° | Long: -67.179065° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a forested upland, near wetland transitional area on the maritime-terrestrial zone. An area that seems to be draining runoff to the wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	90	Yes	UPL
2.			
3.			
4.			
5.			
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Cryptostegia madagascariensis	25	Yes	FACW
2.			
3.			
4.			
5.			
	25	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	85	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	25	x 2 =	50
FAC species	_____	x 3 =	_____
FACU species	85	x 4 =	340
UPL species	90	x 5 =	450
Column Totals:	200 (A)		840 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-21

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	7.5YR 4/4	100					Silty loam	
10-18	7.5YR 4/4	100					Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-22

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Sloped | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.002384° | Long: -67.179497° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located on a catchment basin that seems to collect and pond runoff from the main road through a draining ditch. No exiting drainage observed.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 10	x 4 = 40
UPL species _____	x 5 = _____
Column Totals: 10 (A)	40 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

This Sampling Point is inside the catchment basin most vegetation is dead.

SOIL

Sampling Point: SP-22

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 5/3	90	2.5Y 7/8	50			Silty loam	5YR 4/6 15%
10-18								Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☑ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at a catchment basin, near a wetland transitional area and the maritime-terrestrial zone.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-23

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat Terrain | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002596° | Long: -67.180229° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a mangrove wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	90	Yes	OBL
2.			
3.			
4.			
5.			
	90 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Sesuvium portulacastrum	80	Yes	FACW
2. Opuntia repens	20	Yes	UPL
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	90	x 1 =	90
FACW species	80	x 2 =	160
FAC species		x 3 =	
FACU species		x 4 =	
UPL species	20	x 5 =	100
Column Totals:	190 (A)		350 (B)

Prevalence Index = B/A = 1.84

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-23

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	2.5Y 5/3	95	10YR 3/1	5			Clay loam	
12-18	10YR 4/1	10	7.5YR 4/4	80				Gley1 5/10Y 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 4 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at a forested mangrove area where waters seems to collect and ponds near a wetland and the maritime-terrestrial zone.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 20, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-24

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002541° | Long: -67.180224° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at a forested upland and wetland transitional area, within the maritime-terrestrial zone.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	70	Yes	UPL
2.			
3.			
4.			
5.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Cynophalla flexuosa	15	Yes	UPL
2.			
3.			
4.			
5.			
	15	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	80	x 4 =	320
UPL species	85	x 5 =	425
Column Totals:	165 (A)		670 (B)

Prevalence Index = B/A = 4.52

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-24

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/8	50	10YR 4/2	50			Loamy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-25

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002964° | Long: -67.181560 | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland transitional area at the maritime-terrestrial zone. This is an ephemeral stream that seems to drain runoff to the wetlands in the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	75	Yes	OBL
2.			
3.			
4.			
5.			
	75 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	75	x 1 =	75
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	75 (A)		75 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-25

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/4	45	5YR 4/6	50			Clay loam	5Y 6/2 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 3 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-26

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002922° | Long: -67.181587° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at a drainage channel with a depth, that seems to drain runoff to the wetlands area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Bourreria succulenta	50	Yes	UPL
2. Prosopis juliflora	45	Yes	UPL
3. Pithecellobium dulce	5	No	FACU
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	30	Yes	UPL
2.			
3.			
4.			
	30	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	5	x 4 =	20
UPL species	125	x 5 =	625
Column Totals:	130 (A)		645 (B)

Prevalence Index = B/A = 4.9

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-26

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/4	100					Silty loam	
6-18	5YR 3/4	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-27

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002817° | Long: -67.182504° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a mangrove wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	65	Yes	OBL
2. Laguncularia racemosa	35	Yes	OBL
3.			
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Avicennia germinans	25	Yes	OBL
2.			
3.			
4.			
5.			
	25	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	125	x 1 =	125
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	125 (A)		125 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-27

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/3	100					Clay loam	
10-18	10YR 4/4	65	2.5YR 5/8	5	D	M		Gley2 4/5PB ?%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☑ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 3 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-28

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002758° | Long: -67.182439° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at the edge of a transitional zone between a wetland area and a upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	75	Yes	UPL
2. Randia aculeata	10	No	UPL
3.			
4.			
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 100	x 4 =	400
UPL species 85	x 5 =	425
Column Totals: 185 (A)		825 (B)

Prevalence Index = B/A = 4.46

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-28

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/3	75	10YR 4/6	25			Silty loam	Rocks at bottom of sampling pit

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-29

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002751° | Long: -67.182481° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at an area of higher elevation (1.5m) compare to Sampling Point 28 near to a off-road (4x4) trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	75	Yes	UPL
2. Randia aculeata	10	No	UPL
3.			
4.			
5.			
	85	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	85	x 5 =	425
Column Totals:	185 (A)		825 (B)

Prevalence Index = B/A = 4.46

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-29

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/3	75	10YR 4/6	25			Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-30

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003203° | Long: -67.184825° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a transitional mangrove wetland floodplain area where surface water and flooding can occur.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	15	Yes	OBL
2.			
3.			
4.			
5.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	100	x 2 =	200
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	115 (A)		215 (B)

Prevalence Index = B/A = 1.87

Hydrophytic Vegetation Indicators:

- [✓] Rapid Test for Hydrophytic Vegetation
- [✓] Dominance Test is >50%
- [✓] Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-30

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	65	Gley1 4/N	25	D	M	Clay loam	2.5YR 4/8 5%, Concretions 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 4 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-31

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.003146° | Long: -67.184883° | Datum: PR Datum

Soil Map Unit Name: Fraternidad clay (FrB) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a berm, which is dividing the off-road (4x4) trail from wetland floodplain area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	40	Yes	UPL
2.			
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Bromelia pinguin	5	Yes	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	5	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species _____	x 1 =	_____
FACW species _____	x 2 =	_____
FAC species _____	x 3 =	_____
FACU species _____	x 4 =	_____
UPL species 45	x 5 =	225
Column Totals: 45 (A)		225 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Mosaic wetland with problematic vegetation within wetland area.

SOIL

Sampling Point: SP-31

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100					Silty loam	
12-18	10YR 6/8	70					Silty clay loam	Inclusion 10YR 5/4 30% Concretions 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-32

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003271° | Long: -67.187280° | Datum: PR Datum

Soil Map Unit Name: Aguilita silty clay loam (AgF) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland floodplain area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	30	Yes	OBL
2.			
3.			
4.			
5.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	130 (A)		230 (B)

Prevalence Index = B/A = 1.77

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-32

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/1	65	10YR 5/4	35			Silty loam	
4-18	10YR 4/2	75	Gley1 4/N	15	D	M	Loamy clay	10YR 4/8 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 2 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-33

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.003172° | Long: -67.187323° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at berm of higher elevation and between a wetland floodplain area and a off-road (4x4) trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	40	Yes	UPL
2.			
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Pithecellobium dulce	25	Yes	FACU
2.			
3.			
4.			
5.			
	25	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	125	x 4 =	500
UPL species	40	x 5 =	200
Column Totals:	165 (A)		700 (B)

Prevalence Index = B/A = 4.24

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Mosaic wetland with problematic vegetation within wetland area.

SOIL

Sampling Point: SP-33

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	80	10YR 7/3	20			Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-34

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.004008° | Long: -67.188627° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located close to a wetland floodplain area where an ephemeral stream seems to drain runoff to the wetlands in the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	50	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 50	x 2 = 100
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 50 (A)	100 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-34

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 6/4	75	10YR 6/2	25	RM	M	Silty clay	2.5YR 4/8 5%
10-18	5YR 5/6	55	2.5Y 7/2	45			Clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 21, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-35

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): flat terrain | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003673° | Long: -67.188527° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a forested upland area where it seems an ephemeral stream that drains to adjacent wetland floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	85	Yes	UPL
2.			
3.			
4.			
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Pithecellobium dulce	20	Yes	FACU
2. Flueggea acidoton	20	Yes	UPL
3. Melicoccus bijugatus	18	Yes	UPL
4.			
5.			
	58	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	120	x 4 =	480
UPL species	123	x 5 =	615
Column Totals:	243 (A)		1095 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-35

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5YR 4/4	50	10YR 4/4	50			Silty loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 22, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-36

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.008225° | Long: -67.178448° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: E2FO3N

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a flat plain between a wetland and the coastal shore area.

VEGETATION – Use scientific names of plants.

	Absolute % Cover	Dominant Species?	Indicator Status
Tree Stratum (Plot size: 30 feet radius)			
1. Rhizophora mangle	15	Yes	OBL
2.			
3.			
4.			
5.			
	15	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Laguncularia racemosa	25	Yes	OBL
2. Conocarpus erectus	25	Yes	FACW
3.			
4.			
5.			
	50	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Fimbristylis cymosa	85	Yes	FACW
2. Spartina patens	5	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	90	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	115	x 2 =	230
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	155 (A)		270 (B)

Prevalence Index = B/A = 1.74

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-36

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 8/1	65	2.5Y 7/1	20	CS	M	Sand	5YR 4/6 10%
8-18	Gley2 6/5PB	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☑ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☑ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 8

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 22, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-37

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 18.008566° | Long: -67.180623° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at a concave depression where water could pond and between the coastal shore and the wetland floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Coccoloba uvifera	10	Yes	FACU
2.			
3.			
4.			
5.			
	10	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Colubrina arborescens	55	Yes	UPL
2. Canelalla winterana	45	Yes	UPL
3.			
4.			
5.			
	100	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Fimbristylis cymosa	25	Yes	FACW
2. Sporolobus virginicus	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 40 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	40	x 2 =	80
FAC species	_____	x 3 =	_____
FACU species	10	x 4 =	40
UPL species	100	x 5 =	500
Column Totals:	150 (A)		620 (B)

Prevalence Index = B/A = 4.13

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-37

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 6/8	100					Silty sand	
2-8	10YR 4/1	100						
8-18	2.5Y 8/1	50	2.5Y 7/1	50				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 5

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 22, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-38

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.008218° | Long: -67.180522° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a dune with higher elevation adjacent to a wetland floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	35	Yes	OBL
2. Conocarpus erectus	15	Yes	FACW
3.			
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	50	Yes	FACW
2. Sesuvium portulacastrum	50	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	115	x 2 =	230
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	150 (A)		265 (B)

Prevalence Index = B/A = 1.8

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-38

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 5/1	75	2.5Y 7/2	25	CS	M	Silty sand	7.5YR 5/8 10%
10-18	10YR 6/2	75	Gley2 6/5PB	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 15

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 22, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-39

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.007984° | Long: -67.182600° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a dune with a higher elevation between the coastal mangrove and the wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jacquinia arborea	90	Yes	UPL
2.			
3.			
4.			
5.			
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Sporobolus virginicus	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 15	x 2 = 30
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 90	x 5 = 450
Column Totals: 105 (A)	480 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-39

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 6/1	100					Silty sand	
2-8	10YR 4/1	100						
8-18	2.5Y 8/1	50	2.5Y 7/1	50				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 22, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-40

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.007765° | Long: -67.182503° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland floodplain area between a mangrove wetland to the south and a off-road (4x4) trail to the north.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	45	Yes	OBL
2.			
3.			
4.			
5.			
	45 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	75	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	75	x 2 =	150
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	120 (A)		195 (B)

Prevalence Index = B/A = 1.6

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-40

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	2.5Y 6/1	50					Silty sand	
8-18	Gley1 5/N		2.5YR 4/5	20	C	M		

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☑ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☑ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 12

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at a wetland floodplain area between a mangrove forest to the south and a off-road (4x4) trail to the north.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-41

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.003928° | Long: -67.189585° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located at a wetland floodplain north of a berm separating wetland from a off-road (4x4) trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Avicennia germinans	100	Yes	OBL
2.			
3.			
4.			
5.			
	100 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	100	x 1 =	100
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	200 (A)		300 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-41

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 5/4	100					Silty loam	
8-18	10YR 6/8	70	Gley2 6/10B	10	D	M	Loamy clay	5YR 5/8 5%, 10YR 6/4 15%,10YR 4/1 25%, Concretions

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-42

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Convex | Slope (%): _____

Lat: 18.003853° | Long: -67.189612° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located on a berm between a wetland area to the north and a off-road (4x4) trail to the south.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	65	Yes	FACU
2. Batis maritima	15	No	FACW
3. Sesuvium portulacastrum	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	85 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species		x 1 =	
FACW species	20	x 2 =	40
FAC species		x 3 =	
FACU species	65	x 4 =	260
UPL species		x 5 =	
Column Totals:	85 (A)		300 (B)

Prevalence Index = B/A = 3.53

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Mosaic wetland with problematic vegetation within wetland area.

SOIL

Sampling Point: SP-42

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	100					Silty loam	
8-18	10YR 5/3	50					Silty loam	10YR 6/8 50%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-43

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003793° | Long: -67.190648° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located on a ephemeral stream in a mangrove wetland floodplain area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	40	Yes	OBL
2.			
3.			
4.			
5.			
	40 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	140 (A)		240 (B)

Prevalence Index = B/A = 1.71

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-43

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/8	60	2.5YR 5/6	40			Sandy clay loam	
6-8	10YR 5/4	65					Sandy loam	10YR 7/1 35%
8-18	7.5YR 4/6	70	Gley1 6/5GY	15				5YR 5/4 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☑ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No 3 Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: No hydrology indicators present. | PR or USVI: PR | Sampling Point: SP-44

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003711° | Long: -67.190716° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located on ephemeral stream between a off-road (4x4) trail and a wetland floodplain area, where it seems this stream possibly drains to.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	30	Yes	UPL
2. Pithecellobium dulce	5	No	FACU
3.			
4.			
5.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	10	No	FACW
2. Megathyrsus maximus	75	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	10	x 2 =	20
FAC species	_____	x 3 =	_____
FACU species	80	x 4 =	320
UPL species	30	x 5 =	150
Column Totals:	120 (A)		490 (B)

Prevalence Index = B/A = 4.08

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-44

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/4	55					Sandy clay loam	10YR 5/6 30%, 10YR 4/3 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-45

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003042° | Long: -67.191584° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling Point located on ephemeral stream at a flat surface area where water seems to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	100	Yes	UPL
2.			
3.			
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	10	x 4 =	40
UPL species	100	x 5 =	500
Column Totals:	110 (A)		540 (B)

Prevalence Index = B/A = 4.9

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

At this Sampling Point upland vegetation is observed growing in area were water seems to pond.

SOIL

Sampling Point: SP-45

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					Clay loam	
5-18	10YR 3/4	65	Gley2 5/5PB	15				10YR 4/6 20%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Redox features found between a soil matrix that don't meet hydric criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-46

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002786° | Long: -67.191553° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located on a ephemeral stream at a flat surface area on a upland forested area, where water could possibly pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	UPL
2. Pithecellobium dulce	45	Yes	FACU
3. Flueggea acidoton	5	No	UPL
4.			
5.			
	95	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	25	Yes	UPL
2.			
3.			
4.			
	25	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	145	x 4 =	580
UPL species	75	x 5 =	375
Column Totals:	220 (A)		955 (B)

Prevalence Index = B/A = 4.34

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-46

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/2	100					Clay loam	
5-18	10YR 3/4	65	Gley2 5/5PB	15				10YR 4/6 20%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Redox features found between a soil matrix that don't meet hydric criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-47

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003264° | Long: -67.191904° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	80	Yes	FACW
2. Sesuvium portulacastrum	20	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-47

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/5	50	Gley1 6/5GY	5			Clay loam	10YR 5/4 35%, 7.5YR 4/6 10%,

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Redox features found between a soil matrix that don't meet hydric criteria.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☑ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☑ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-48

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003143° | Long: -67.191896° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a higher elevation berm between off-road (4x4) trails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2. Pithecellobium dulce	15	Yes	FACU
3.			
4.			
5.			
	35	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	115	x 4 =	460
UPL species	20	x 5 =	100
Column Totals:	135 (A)		560 (B)

Prevalence Index = B/A = 4.15

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-48

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/3	100					Silty loam	
5-18	10YR 4/6	50						10YR 4/4 50%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-49

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002788° | Long: -67.194334° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located in floodplain at the edge of mangrove wetland a off-road (4x4) trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-49

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/3	20	5YR 3/3	35			Loamy clay	10YR 5/3 20%
8-12	10YR 5/8	50	2.5Y 5/6	50			Sandy loam	Bottom of pit rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Mosaic wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-50

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002865° | Long: -67.194345° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located in a floodplain between a sand dune and off-road (4x4) trails at an islet of Mangrove wetlands.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	10	Yes	OBL
2.			
3.			
4.			
5.			
	10 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	10	x 1 =	10
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	110 (A)		210 (B)

Prevalence Index = B/A = 1.9

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-50

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/2	65					Loamy clay	
4-8	7.5YR 4/6	65						
8-18	10YR 6/1	70	Gley2 7/5B	10	CS	M	Sandy loam	5YR 4/4 10%, 10YR 7/2 20%, 10YR 5/3 20%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-51

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002935° | Long: -67.194292° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: E2FO3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located in a forested area between the coastal shore and off-road (4x4) trails, in the maritime-terrestrial zone.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	45	Yes	FAC
2.			
3.			
4.			
5.			
	45 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	75	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	75 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 45	x 3 = 135
FACU species 75	x 4 = 300
UPL species _____	x 5 = _____
Column Totals: 120 (A)	435 (B)

Prevalence Index = B/A = 3.6

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-51

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 6/1	65	5Y 7/1	20			Sand	5Y 8/1 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-52

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002393° | Long: -67.194571° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at the floodplains on a forested area between off-road (4x4) trails. No visible drainage way swale.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2.			
3.			
4.			
5.			
	25 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	60	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	60 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 60	x 2 = 120
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 25	x 5 = 125
Column Totals: 85 (A)	245 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-52

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 3/3	50	7.5YR 4/4	50			Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 23, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-53

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002118° | Long: -67.194506° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at an ephemeral stream with a swale with 0.3m of depth and 0.5m of width.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2. Pithecellobium dulce	20	Yes	FACU
3. Flueggea acidoton	10	Yes	UPL
4.			
5.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	95	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	95	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	115	x 4 =	460
UPL species	30	x 5 =	150
Column Totals:	145 (A)		610 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-53

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-5	10YR 3/3	100					Clay loam	
5-18	10YR 4/6	100						

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at an ephemeral stream with a swale with 0.3m of depth and 0.5m of width. This drainage way swale comes from hillslopes to the south draining to the wetland floodplains. No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-54

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.007466° | Long: -67.183832° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located in a dune near a wetland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Laguncularia racemosa	20	Yes	OBL
2. Rhizophora mangle	20	Yes	OBL
3. Avicennia germinans	20	Yes	OBL
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	75	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	75	x 2 =	150
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	135 (A)		210 (B)

Prevalence Index = B/A = 1.5

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-54

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/3	50	5Y 7/1	40	C	M	Sandy	2.5YR 5/6 10%, Gley1 3/N 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☑ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☑ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 6

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-55

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.007587° | Long: -67.183788° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located in a mangrove wetland between a off-road (4x4) trail and the coastal shore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Laguncularia racemosa	30	Yes	OBL
2. Conocarpus erectus	25	Yes	FACW
3. Avicennia germinans	20	Yes	OBL
4. Thespesia populnea	10	No	FAC
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Sporobolus virginicus	90	Yes	FACW
2. Batis maritima	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	125	x 2 =	250
FAC species	10	x 3 =	30
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	185 (A)		330 (B)

Prevalence Index = B/A = 1.8

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-55

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/3	45	2.5Y 7/1	35	C	M	Sandy	2.5YR 5/8 15%, Gley1 3/N 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☑ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☑ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-56

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.006600° | Long: -67.185848° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the edge of a concave depression beside a off-road (4x4) trail and mangrove wetland.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Conocarpus erectus	85	Yes	FACW
2.			
3.			
4.			
5.			
	85	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Jacquinia arborea	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	85	x 2 =	170
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	20	x 5 =	100
Column Totals:	105 (A)		270 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

- [✓] Rapid Test for Hydrophytic Vegetation
- [ ] Dominance Test is >50%
- [✓] Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-56

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/3	50	2.5Y 7/2	50			Sandy	
6-18	2.5Y 7/1	40	Gley1 6/N	60				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☑ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at the edge of a concave depression beside a off-road (4x4) trail and mangrove wetland. This depression area has surface water and after pit was made no water filled the hole.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-57

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.006637° | Long: -67.185884° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located on a dune between a off-road (4x4) trail and the coastal shore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Eugenia foetida	75	Yes	UPL
2.			
3.			
4.			
5.			
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Jacquinia arborea	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Paspalum dilatatum	15	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 15	x 3 = 45
FACU species _____	x 4 = _____
UPL species 95	x 5 = 475
Column Totals: 110 (A)	520 (B)

Prevalence Index = B/A = 4.72

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-57

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/3	65	2.5Y 7/2	35			Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-58

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.004738° | Long: -67.190050° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland floodplain in a dune between MTV trails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	80	Yes	FACW
2. Sesuvium portulacastrum	15	No	FACW
3. Sporobolus virginicus Batis maritima	5	No	FACW
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species 100	x 2 =	200
FAC species	x 3 =	
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 100 (A)		200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-58

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-13	10YR 5/3	65					Sandy clay loam	10YR 5/6 35%
13-18	2.5Y 7/1	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 14

Saturation Present? (includes capillary fringe) Yes _____ No X Depth (inches): 6

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-59

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.004875° | Long: -67.190080° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at a forested area between a off-road (4x4) trail on floodplain and a seashore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Jacquinia arborea	30	Yes	UPL
2. Pithecellobium dulce	20	Yes	FACU
3. Thespesia populnea	15	Yes	FAC
4. Prosopis juliflora	10	No	UPL
5.			
	75	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Sporobolus virginicus	15	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	15	x 2 =	30
FAC species	15	x 3 =	45
FACU species	20	x 4 =	80
UPL species	40	x 5 =	200
Column Totals:	90 (A)		355 (B)

Prevalence Index = B/A = 3.9

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-59

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100					Sandy loam	
4-8	2.5Y 7/2	70	2.5Y 7/1	25			Silty sand	
8-18	10YR 5/3	100					Sandy clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-60

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002812° | Long: -67.194598° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at a dune between the floodplain and the seashore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	20	Yes	FAC
2. Avicennia germinans	15	Yes	OBL
3.			
4.			
5.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	45	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	15	x 1 =	15
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	45	x 4 =	180
UPL species	_____	x 5 =	_____
Column Totals:	80 (A)		255 (B)

Prevalence Index = B/A = 3.18

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-60

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 5/3	50					Sandy	10YR 4/3 50%
6-18	10YR 3/4	60					Loamy clay	10YR 6/2 40%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-60B

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002790° | Long: -67.194581° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a floodplain.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	30	Yes	FAC
2. Prosopis juliflora	5	No	UPL
3.			
4.			
5.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 30	x 3 = 90
FACU species _____	x 4 = _____
UPL species 5	x 5 = 25
Column Totals: 35 (A)	115 (B)

Prevalence Index = B/A = 3.28

Hydrophytic Vegetation Indicators:

- [✓] Rapid Test for Hydrophytic Vegetation
- [✓] Dominance Test is >50%
- [ ] Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-60B

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	%	Redox Features Color (moist)	%	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/3	100	2.5Y 7/1	60			Sandy clay loam	10YR 5/3 50%
4-10	10YR 4/6	75					Loamy clay	10YR 4/1 25%
10-18	2.5Y 7/1	15	Gley1 6/N	55			Sandy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Mosaic wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at a floodplain where runoffs of an ephemeral stream could possibly drains. (This according to Watercourses Hydrology layer).

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-61

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.001649° | Long: -67.196333° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at a wetland floodplain close to a off-road (4x4) trail.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-61

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	50	5YR 5/6	50			Loamy Clay	
15-18	10YR 5/3	40	Gley2 5/5PB	15	C	M	Loamy Clay	5YR 4/6 15%, 2.5Y 6/3 15%, 2.5Y 3/6 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-62

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): none | Slope (%): _____

Lat: 18.001555° | Long: -67.196273° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at the edge of an upland (with higher elevation) and a wetland transition area at the floodplains.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	UPL
2. Randia aculeata	20	Yes	UPL
3.			
4.			
5.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	95	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	95	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 95	x 4 =	380
UPL species 65	x 5 =	325
Column Totals: 160 (A)		705 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-62

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/4	100					Loam	
12-18	10YR 5/3	85	2.5Y 8/3	15			Silty clay loam	Concretions

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-63

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000826° | Long: -67.198250° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the floodplains.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species 100	x 2 = 200
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	200 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- [✓] Rapid Test for Hydrophytic Vegetation
- [✓] Dominance Test is >50%
- [✓] Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-63

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-15	10YR 4/3	65					Loam	10YR 6/4 25%, 10YR 5/1 10%, Rock crumble on layer
15-18	10YR 5/1	55	2.5Y 5/3	45			Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Mosaic wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No visible drainage ways coming from the hillslope to the south. This Sampling Point located was collected on a principal stream of (St16). This streams seem to be affected by multiples off-road (4x4) trail on the area, from the hills down to the floodplains.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-64

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000720° | Long: -67.198181° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	55	Yes	UPL
2.			
3.			
4.			
5.			
	55	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Cynodon dactylon	80	Yes	FAC
2. Megathyrsus maximus	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	80	x 3 =	240
FACU species	20	x 4 =	80
UPL species	55	x 5 =	275
Column Totals:	155 (A)		595 (B)

Prevalence Index = B/A = 3.83

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-64

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					Silty loam	Rock crumble on layer

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at an area where vegetation don't show visible swale. A visible drainage ways coming from the hillslope to the south is observed and runoff water causes erosion along side of off-road (4x4) trail. This Sampling point was collected on main (principal) stream of (St16). This streams seem to be affected by multiples off-road (4x4) trails on the area, from the hills down to the floodplains.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-65

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000911° | Long: -67.198629° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling Point located at the floodplains, where it seems water tends to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	15	Yes	UPL
2.			
3.			
4.			
5.			
	15 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	100	x 2 =	200
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	15	x 5 =	75
Column Totals:	115 (A)		275 (B)

Prevalence Index = B/A = 2.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-65

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-16	10YR 3/2	100					Loam	Rock crumble on layer
16-18	10YR 5/2	45	Gley2 3/5PB	30	C	M	Clay loam	5YR 4/6 25%, 2.5Y 7/2 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Mosaic wetland.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 26, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-66

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000806° | Long: -67.198599° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at upland grassland area with few trees.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Cynodon dactylon	100	Yes	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	100	x 3 =	300
FACU species	_____	x 4 =	_____
UPL species	20	x 5 =	100
Column Totals:	120	(A)	400 (B)

Prevalence Index = B/A = 3.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-66

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/3	100					Loam	Rock crumble on layer

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-67

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000734° | Long: -67.200827° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located near on off-road (4x4) trail within an upland forested area that tends to get flooded during rain events.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	65	Yes	UPL
2. Pithecellobium dulce	15	No	FACU
3.			
4.			
5.			
	80	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	115	x 4 =	460
UPL species	65	x 5 =	325
Column Totals:	180 (A)		785 (B)

Prevalence Index = B/A = 4.36

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-67

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	65					Sandy loam	Inclusions 10YR5/3 35%
10-18	10YR 4/3	100					Loamy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-68

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000919° | Long: -67.200773° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

SP located on concave microtopography zone exhibiting some wetland/no-wetland mosaic characteristics where rainwater tends to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	65	Yes	FAC
2. Prosopis juliflora	35	Yes	UPL
3.			
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	10	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	10	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	65	x 3 =	195
FACU species	10	x 4 =	40
UPL species	35	x 5 =	175
Column Totals:	110 (A)		410 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-68

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 6/6	40	Gley2 5/10BG	5			Sandy	Inclusions 10YR 4/3 25%, 2.5Y 7/2 15%
6-12	10YR5/3	100					Sandy	
12-18	5Y 7/1	100					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Microtopography and wetland/non-wetland mosaic features observed on a lower isolated point behind sand dune.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling point is located within a forested area behind the beach sand dune, with a concave surface where rain water tend to pond.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-69

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat terrain | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000516° | Long: -67.200528° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P.

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located on concave microtopography zone exhibiting some wetland/no-wetland mosaic characteristics where rainwater tends to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	55	Yes	UPL
2.			
3.			
4.			
5.			
	55	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 55	x 5 = _____
Column Totals: 55 (A)	275 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Area where water tends to pond with forested vegetation.

SOIL

Sampling Point: SP-69

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	100					Silty loam	
4-6	10YR 5/4	100					Silty loam	
6-18	10YR 5/2	99	2.5Y 5/4	1	RM	M	Clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Concave surface. Marginal redox do not meet hydric soil criteria. At greater depth gleyed soil can be observed on crab burrows.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-70

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000665° | Long: -67.201168° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located near seashore at ZMT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2.			
3.			
4.			
5.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	85	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	85	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	85	x 4 =	340
UPL species	25	x 5 =	125
Column Totals:	110 (A)		465 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-70

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 5/3	50					Sandy	10YR 6/3 25%, 10YR 7/3 25%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-71

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000309° | Long: -67.200896° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at an area where water seems to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	70	Yes	UPL
2.			
3.			
4.			
5.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 70	x 5 = 350
Column Totals: 70 (A)	350 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-71

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	60					Silty loam	5YR 3/3 40%
12-18	10YR 5/1	100					Sandy loam	Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-72

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000311° | Long: -67.201506° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC), Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis pallida	30	Yes	FAC
2.			
3.			
4.			
5.			
	30 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	30 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species 30	x 3 =	90
FACU species	x 4 =	
UPL species	x 5 =	
Column Totals: 30 (A)		90 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-72

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 4/3	80					Clay loam	10YR 5/6 20%
10-11	10YR 6/1	100					Sandy clay	
11-18	10YR 5/2	80					Clay	10YR 8/2 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☑ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at an problematic wetland area. This area is between abandoned structures where there is frequently human activity. At this area runoff water comes through a concrete drainage channel before discharging to the coastal shore.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-73

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.999976° | Long: -67.201476° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2. Pithecellobium dulce	20	Yes	FACU
3.			
4.			
5.			
	45	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	25	x 5 =	125
Column Totals:	125 (A)		525 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-73

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 3/3	100					Loam	
11-18	10YR 3/1	100					Loam	Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located were an ephemeral stream catches runoff water. At this area runoff water from multiple drainages (coming from the hills to the south) unite then get through a concrete drainage channel before discharging to the coastal shore. No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-74

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat terrain | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.999558° | Long: -67.203018° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located on a flat surface where water seems to pond, beside a dune on the coastal shore and ZMT. This area is a camping lot.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	10	No	UPL
2. Thespesia populnea	25	Yes	FAC
3.			
4.			
5.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	10	No	FACU
2. Chloris barbata	20	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	25	x 3 =	75
FACU species	30	x 4 =	120
UPL species	10	x 5 =	50
Column Totals:	65 (A)		245 (B)

Prevalence Index = B/A = 3.7

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-74

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/3	60					Sandy loam	10YR 6/4 40%
6-18	10YR 3/2	70	Gley2 5/5PB	20	C	M	Clay loam	2.5YR 4/8 10%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☑ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-75

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.999420° | Long: -67.202949° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located on a slightly sloped area. This area is a camping lot.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	25	Yes	FACU
2. Chloris barbata	75	Yes	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 100	x 4 =	400
UPL species	x 5 =	
Column Totals: 100 (A)		400 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-75

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	100					Silty loam	
10-18	10YR 5/3	65					Sandy loam	10YR 7/3 35%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-76

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.998929° | Long: -67.205436° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located in an area where water seems to pond near coastal dunes and ZMT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	50	Yes	FACU
2. Prosopis juliflora	40	Yes	UPL
3.			
4.			
5.			
	90	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 50	x 4 =	200
UPL species 40	x 5 =	200
Column Totals: 90 (A)		400 (B)

Prevalence Index = B/A = 4.4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-76

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 5/3	80					Silty sand	10YR 7/2 20%
12-18	10YR 6/6	80					Silty sand	2.5Y 7/1 20%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 27, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-77

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.998454° | Long: -67.205210° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located within a forested upland area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	40	Yes	FACU
2. Prosopis juliflora	30	Yes	UPL
3. Terminalia buceras	30	Yes	FACU
4.			
5.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	170	x 4 =	680
UPL species	30	x 5 =	150
Column Totals:	200 (A)		830 (B)

Prevalence Index = B/A = 4.15

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-77

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 3/3	100					Sandy clay loam	
14-18	10YR 4/2	100					Silty sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 28, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-78

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.999437° | Long: -67.204453° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	95	Yes	FAC
2. Laguncularia racemosa	5	No	OBL
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	= Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species 5	x 1 = 5
FACW species _____	x 2 = _____
FAC species 95	x 3 = 285
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: 100 (A)	290 (B)

Prevalence Index = B/A = 2.9

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-78

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 5/3	35					Sandy clay loam	10YR 4/1 65%
10-18	10YR 5/1	65	Gley2 4/10B	5			Loamy clay	10YR 4/3 30%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at the end of ephemeral stream, where it drains in a forested patch area with mangroves which discharges water to the coastal shore and is close to ZMT.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 28, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-79

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 17.999150° | Long: -67.204918° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	20	Yes	FACU
2.			
3.			
4.			
5.			
	20	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	70	x 4 =	280
UPL species	_____	x 5 =	_____
Column Totals:	70 (A)		280 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-79

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 5/3	100					Sandy	Sediments
8-18	10YR 5/2	75	Gley2 5/5PB	5			Sandy clay Loam	7.5YR 5/6 65%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☑ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at ephemeral stream, where a visible swale is observed with a depth of 1.5m and width of 4m. This area is affected by all terrain vehicles (ATV's).

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 28, 2023

Applicant/Owner: Three Rules Capital PR, LLC | PR or USVI: PR | Sampling Point: SP-80

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Slope | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 17.999093° | Long: -67.204395° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at ephemeral stream, where a visible swale. This area is at a forested upland area and is affected by all terrain vehicles (ATV's).

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Pithecellobium dulce	35	Yes	FACU
2.			
3.			
4.			
5.			
	35	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 85	x 4 =	340
UPL species	x 5 =	
Column Totals: 85 (A)		340 (B)

Prevalence Index = B/A = 4.04

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-80

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 4/3	75					Sandy clay Loam	10YR 3/1 25%
12-18	10YR 5/3	35					Loamy sand	2.5Y 7/2 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 28, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-81

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.998470° | Long: -67.206254° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	20	Yes	FAC
2. Laguncularia racemosa	20	Yes	OBL
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	20	x 1 =	20
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	40 (A)		80 (B)

Prevalence Index = B/A = 2

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-81

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-8	10YR 4/1	65					Clay Loam	7.5YR 4/4 30%, 2.5Y 7/2 5%
8-18	10YR 7/2	45	Gley1 4/6	20	CS	M	Silty sand	2.5Y 7/1 30%, 5YR 4/6 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling Point located at the end of ephemeral stream, in a mangrove area, that discharges into the seashore. This drainage way has multiples tributaries ephemeral streams coming from the hillslopes to the south.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 28, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-82

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 17.997835° | Long: -67.206447° | Datum: PR Datum

Soil Map Unit Name: Casabe clay (CgD) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point is located at ephemeral stream that seems to be the main drainage from the hillslopes to the south.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	50	Yes	UPL
2. Pithecellobium dulce	50	Yes	FACU
3.			
4.			
5.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	50	x 4 =	200
UPL species	50	x 5 =	250
Column Totals:	100 (A)		450 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

At this sampling point the drainage way runs between upland forested area, causing it to have upland vegetation growing in wetland conditions.

SOIL

Sampling Point: SP-82

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	65					Sandy clay loam	10YR 5/1 35%
4-8	2.5Y 7/2	50	5Y 5/1	50				
8-18	10YR 5/1	40	Gley1 4/N	60			Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-83

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 17.998012° | Long: -67.206079° | Datum: PR Datum

Soil Map Unit Name: Casabe clay (CgD) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located at ephemeral stream at an upland and wetland transition area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	30	Yes	UPL
2. Pithecellobium dulce	15	No	FACU
3.			
4.			
5.			
	45	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 115	x 4 = 460
UPL species 30	x 5 = 150
Column Totals: 145 (A)	610 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

Upland vegetation growing in wetland conditions.

SOIL

Sampling Point: SP-83

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	55					Loam	7.5YR 3/2 45%
10-18	10YR 5/2	35	Gley1 4/5G	10			Sandy loam	2.5Y 7/2 45%
			Gley1 4/10Y	10				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-84

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.997874° | Long: -67.206404° | Datum: PR Datum

Soil Map Unit Name: Casabe clay (CgD) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located within an ephemeral stream at upland and wetland transition forested area. At this flat plain runoffs waters seems to pond.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	UPL
2. Pithecellobium dulce	25	Yes	FACU
3.			
4.			
5.			
	70	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 125	x 4 = 500
UPL species 45	x 5 = 225
Column Totals: 170 (A)	725 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-85

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	50					Sandy loam	10YR 5/2 50%
6-10	10YR 2/1	100					Silty loam	
10-18	10YR 6/1	20	Gley2 5/5PB	15			Sandy clay loam	2.5Y 7/2 35%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-85

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.998167° | Long: -67.206571° | Datum: PR Datum

Soil Map Unit Name: Casabe clay (CgD) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X	No _____	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling Point located at ephemeral stream north of an upland and wetland transition forested area.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	30	Yes	UPL
2. Thespesia populnea	30	Yes	FAC
3.			
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	75	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	75	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	30	x 3 =	90
FACU species	75	x 4 =	300
UPL species	30	x 5 =	150
Column Totals:	135 (A)		540 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-85

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	70					Loamy sand	10YR 7/2 30%
6-12	10YR 6/2	65					Loamy sand	7.5YR 3/2 35%
12-18	5Y 8/1	65	Gley2 5/5PB	35			Sandy clay	Seashell crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-86

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.997727° | Long: -67.206740° | Datum: PR Datum

Soil Map Unit Name: Casabe clay (CgD) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located at ephemeral stream at a residential lot. This segment of ephemeral stream is affected by off-road (4x4) trail coming downhill from the south.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	30	Yes	UPL
2.			
3.			
4.			
5.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species 30	x 5 = 150
Column Totals: 30 (A)	150 (B)

Prevalence Index = B/A = 5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-86

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-10	10YR 3/2	50					Sandy Loam	7.5YR 3/2 50%
10-18	10YR 5/2	50					Sandy Loam	10YR 4/2 50%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-87

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.997825° | Long: -67.207714° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at the flat seashore plain in forested area with mangroves, at ZMT.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	20	Yes	FAC
2. Conocarpus erectus	20		FACW
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	20		FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	20	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 66.6 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	20	x 2 =	40
FAC species	20	x 3 =	60
FACU species	20	x 4 =	80
UPL species	_____	x 5 =	_____
Column Totals:	60 (A)		180 (B)

Prevalence Index = B/A = 3

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-87

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	55					Sand	10YR 5/2 45%
4-18	2.5Y 7/2	70					Sand	7.5YR 3/2 30%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-88

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.997606° | Long: -67.207542° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling point located at the flat seashore plain with upland vegetation.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	20	Yes	UPL
2.			
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	20	x 5 =	100
Column Totals:	120 (A)		500 (B)

Prevalence Index = B/A = 4.17

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-88

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Loam	Organic material
2-6	10YR 4/2	60					Sand	10YR 6/6 40%
6-18	10YR 7/3	50					Sand	7.5YR 7/3 50

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-89

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.996908° | Long: -67.208034° | Datum: PR Datum

Soil Map Unit Name: Bermeja-Cerro Mariquita complex (BmF) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located at a catchment basin that seems to drain excess water to the flat coastal shore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	80	Yes	FACU
2. Crysopogon zizanioides	20	Yes	FAC*
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 20	x 3 = 60
FACU species 80	x 4 = 320
UPL species _____	x 5 = _____
Column Totals: 100 (A)	380 (B)

Prevalence Index = B/A = 3.8

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

*Indicator Status based on professional judgement.

SOIL

Sampling Point: SP-89

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	7.5YR 5/6	65					Clay loam	7.5YR 3/2 35%
6-18	10YR 7/1	45					Sand	10YR 6/3 35%, 7.5YR 6/8 15%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

In this area multiple catchment basin were constructed with gavion rocks structures to receive runoffs water from the hillslopes to the south. This area is affected by off-road (4x4) trails.

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WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-90

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.996924° | Long: -67.208629° | Datum: PR Datum

Soil Map Unit Name: Lanos Costa loam (LnA) | NWI classification: PFO3A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes X	No _____	

Remarks:

Sampling point located in a flat area where runoffs water passes and sediments deposits have accumulate over the years. This area is affected by off-road (4x4) trails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2.			
3.			
4.			
5.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	100	x 4 =	400
UPL species	25	x 5 =	125
Column Totals:	125 (A)		525 (B)

Prevalence Index = B/A = 4.2

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-90

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5YR 4/6	80					Silty loam	10YR 5/2 20%, Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

Sampling point located in a flat area where runoffs water passes and sediments deposits have accumulate over the years. This area is affected by off-road (4x4) trails.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-91

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.996924° | Long: -67.208629° | Datum: PR Datum

Soil Map Unit Name: Lanos Costa loam (LnA) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X	No _____	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point located at a dune in the seashore. This area seems to be significantly disturbed by erosion and human activities during a long period of time.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	20	Yes	FAC
2. Laguncularia racemosa	5	No	OBL
3.			
4.			
5.			
	25	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	5	x 1 =	5
FACW species	_____	x 2 =	_____
FAC species	20	x 3 =	60
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	25 (A)		65 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-91

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5YR 4/6	80					Silty loam	10YR 7/2 20%, Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

Area affected by erosion from off-road (4x4) trail and original soils seems to be buried deep down.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-92

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.995982° | Long: -67.209333° | Datum: PR Datum

Soil Map Unit Name: Bermeja-Cerro Mariquita complex (BmF) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at a sloped terrain, close to project boundary.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Leucaena leucocephala	20	Yes	FACU
2.			
3.			
4.			
5.			
	20 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 120	x 4 = 480
UPL species _____	x 5 = _____
Column Totals: 120 (A)	480 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-92

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5YR 4/6	70					Sandy loam	10YR 4/3 30%, Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: June 29, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-93

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Hillslope | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.994194° | Long: -67.210744° | Datum: PR Datum

Soil Map Unit Name: Bermeja-Cerro Mariquita complex (BmF) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

Sampling Point located at a sloped terrain close to the Project boundary.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Leucaena leucocephala	40	Yes	FACU
2.			
3.			
4.			
5.			
	40 = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	100	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species 140	x 4 = 560
UPL species _____	x 5 = _____
Column Totals: 140 (A)	560 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-93

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	5YR 4/6	80					Sandy loam	10YR 7/2 20%, Rock crumble

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: July 12, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-94

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): Concave | Slope (%): _____

Lat: 17.998075° | Long: -67.207153° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at an ephemeral stream adjacent to the seashore.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Thespesia populnea	60	Yes	FAC
2. Laguncularia racemosa	30	Yes	OBL
3. Prosopis juliflora	10	No	UPL
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	30	x 1 =	30
FACW species	_____	x 2 =	_____
FAC species	60	x 3 =	180
FACU species	_____	x 4 =	_____
UPL species	10	x 5 =	50
Column Totals:	100 (A)		260 (B)

Prevalence Index = B/A = 2.6

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-94

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-2	10YR 3/1	100					Sand	Organic material
2-7	10YR 6/2	80					Clay muck	5YR 5/8 20%. Mottles (20%)
7-12	10YR 7/1	100					Silty sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 4

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: July 12, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-95

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 17.998048° | Long: -67.207202° | Datum: PR Datum

Soil Map Unit Name: Melones clay (MnC) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

Sampling point is located at the western top bank of ephemeral stream, adjacent to dirt road.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	10	Yes	UPL
2. Thespesia populnea	10	Yes	FAC
3.			
4.			
5.			
	20	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 33.3 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	10	x 3 =	30
FACU species	50	x 4 =	200
UPL species	10	x 5 =	50
Column Totals:	70 (A)		280 (B)

Prevalence Index = B/A = 4

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-95

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-12	10YR 6/6	80					Sand	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia Municipality/Town: Cabo Rojo Sampling Date: July 12, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC PR or USVI: PR Sampling Point: SP-96

Investigator(s): Jesus Babilonia Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat Local relief (concave, convex, none): Concave Slope (%): _____

Lat: _____ Long: _____ Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at ephemeral stream.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	50	Yes	UPL
2. Pithecellobium dulce	50	Yes	FACU
3.			
4.			
5.			
	50	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:	
OBL species	x 1 =	
FACW species	x 2 =	
FAC species	x 3 =	
FACU species 50	x 4 =	200
UPL species 50	x 5 =	250
Column Totals: 100 (A)		450 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

At this area the drainage runs thru an upland forested area, making upland vegetation grow on wetland conditions.

SOIL

Sampling Point: SP-96

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 3/2	65					Sandy clay loam	10YR 5/1 35%
4-8	2.5Y 7/2	50	5Y 5/1	50			Sandy loam	
8-18	10YR 5/1	40	Gley1 4/N	60				

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: July 12, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-97

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.000967° | Long: -67.199908° | Datum: PR Datum

Soil Map Unit Name: Salt flats (Sa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation X, Soil X, or Hydrology X significantly disturbed? Are "Normal Circumstances" present? Yes _____ No X

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

This area is significantly disturbed and affected by erosion and human activities during a long period of time. Area affected by off-road (4x4) trails.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	= Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	= Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

No vegetation at the Sampling Point location.

SOIL

Sampling Point: SP-96

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 3/2	100					Silty clay loam	
6-8	5YR 5/2	10	Gley2 4/10BG	70				
8-12	2.5Y 6/2	20	7.5YR 5/6	45				Gley1 2.5/N 35%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☑ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

Soils significantly disturbed.

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☑ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☑ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: July 13, 2023

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-98

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.005705° | Long: -67.188242° | Datum: PR Datum

Soil Map Unit Name: Bahia Salinas sand (BhB) | NWI classification: None

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point is located within a forested coastal sand dune near shoreline dominated by a mangrove forest. This area seems to be significantly disturbed and affected by erosion and human activities during a long period of time.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Conocarpus erectus	50	Yes	FACW
2. Avicennia germinans	30	Yes	OBL
3. Laguncularia racemosa	20	Yes	OBL
4.			
5.			
	100	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	100	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	150	x 2 =	300
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	200 (A)		350 (B)

Prevalence Index = B/A = 1.75

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-98

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 8/2	80					Sandy	
14-18	2.5Y 7/1	20					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☑ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes X No _____ Depth (inches): 10

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-99

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003416° | Long: -67.167476° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	30	Yes	OBL
2. Laguncularia racemosa	10	Yes	OBL
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1. Laguncularia racemosa	20	Yes	OBL
2. Avicennia germinans	10	Yes	OBL
3.			
4.			
5.			
	30	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	70	x 1 =	70
FACW species		x 2 =	
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	70 (A)		70 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- [✓] Rapid Test for Hydrophytic Vegetation
- [✓] Dominance Test is >50%
- [✓] Prevalence Index is ≤3.0[1]
- [ ] Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-99

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-14	10YR 8/2	80					Sandy	
14-18	2.5Y 7/1	20					Sandy	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☑ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-100

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003374° | Long: -67.167523° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2. Bourreria succulenta	25	Yes	UPL
3. Randia aculeata	15	Yes	UPL
4. Pithecellobium dulce	5	No	FACU
5.			
	70	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2. Paspalum virgatum	50	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	15	Yes	UPL
2.			
3.			
4.			
	15	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	50	x 2 =	100
FAC species	_____	x 3 =	_____
FACU species	55	x 4 =	220
UPL species	80	x 5 =	400
Column Totals:	185 (A)		720 (B)

Prevalence Index = B/A = 3.89

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-100

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4	100					Silty loam	
4-18	7.5YR 4/6	100					Silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-101

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003287° | Long: -67.167053° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at the end of a possible drainage channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	45	Yes	OBL
2. Laguncularia racemosa	15	Yes	OBL
3.			
4.			
5.			
	60	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	40	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	40	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	60	x 1 =	60
FACW species	40	x 2 =	80
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	100 (A)		140 (B)

Prevalence Index = B/A = 1.4

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-101

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	2.5Y 7/1	95					Loam	Concretions 2.5Y 3/1 5%

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 3

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-102

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003269° | Long: -67.167046° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Randia aculeata	45	Yes	UPL
2. Prosopis juliflora	40	Yes	UPL
3. Bourreria succulenta	15	No	UPL
4.			
5.			
	100	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	15	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 6 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 16 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	15	x 4 =	60
UPL species	100	x 5 =	500
Column Totals:	115 (A)		560 (B)

Prevalence Index = B/A = 4.87

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-102

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-3	10YR 4/4	100					Silty loam	
3-18	10YR 7/3	100					Silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-103

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003329° | Long: -67.166944° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located at the East of a possible drainage channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	30	Yes	OBL
2. Laguncularia racemosa	10	Yes	OBL
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	30	Yes	FACW
2. Sesuvium portulacastrum	15	Yes	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	45	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	40	x 1 =	40
FACW species	45	x 2 =	90
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	85 (A)		130 (B)

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-103

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 7/1	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 2

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-104

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003349° | Long: -67.166952° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Randia aculeata	25	Yes	UPL
2. Prosopis juliflora	20	Yes	UPL
3. Bourreria succulenta	5	No	UPL
4.			
5.			
	50	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	50	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1. Jasminum fluminense	20	Yes	UPL
2.			
3.			
4.			
	20	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	50	x 4 =	200
UPL species	50	x 5 =	250
Column Totals:	100 (A)		450 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-104

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	10YR 4/4	100					Silty loam	
4-18	10YR 7/3	100					Silty clay loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-105

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003043° | Long: -67.166935° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)

Total Number of Dominant Species Across All Strata: _____ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = _____

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☑ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-105

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-6	10YR 4/1	80	5Y 8/2	20			Loamy clay	
6-18	10YR 4/1	40	2.5Y 8/3	60			Loamy clay	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☑ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☑ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-106

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.002961° | Long: -67.166949° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	45	Yes	UPL
2. Pithecellobium dulce	10	No	FACU
3. Randia aculeata	10	No	UPL
4.			
5.			
	65	= Total Cover	

Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	

Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	45	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	45	= Total Cover	

Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	55	x 4 =	220
UPL species	55	x 5 =	275
Column Totals:	110 (A)		495 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-106

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-107

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003292° | Long: -67.166216° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** **Yes** X **No** _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	45	Yes	OBL
2.			
3.			
4.			
5.			
	45 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1. Batis maritima	50	Yes	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50 = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	45	x 1 =	45
FACW species	50	x 2 =	100
FAC species		x 3 =	
FACU species		x 4 =	
UPL species		x 5 =	
Column Totals:	95 (A)		145 (B)

Prevalence Index = B/A = 1.53

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? **Yes** X **No** _____

Remarks:

SOIL

Sampling Point: SP-107

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 7/1	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☑ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-108

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003325° | Long: -67.166255° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	25	Yes	UPL
2. Pithecellobium dulce	20	Yes	FACU
3.			
4.			
5.			
	45	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	25	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	25	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	45	x 4 =	180
UPL species	25	x 5 =	125
Column Totals:	70 (A)		305 (B)

Prevalence Index = B/A = 4.36

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-108

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-109

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003347° | Long: -67.166072° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located besides a stream channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	50	Yes	OBL
2.			
3.			
4.			
5.			
	50 = Total Cover		
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____ = Total Cover		
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Total Cover		
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____ = Total Cover		

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	50	x 1 =	50
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	50 (A)		50 (B)

Prevalence Index = B/A = 1

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-109

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5Y 1/5	50	5Y 8/6	50			Loam	
4-18	2.5Y 1/5	30	5Y 8/6	70			Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☑ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 4

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-110

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.00337° | Long: -67.166085° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____ No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____ No X	
Wetland Hydrology Present?	Yes _____ No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Bourreria succulenta	20	Yes	UPL
2. Leucaena leucocephala	15	Yes	FACU
3. Randia aculeata	15	Yes	UPL
4. Prosopis juliflora	15	Yes	UPL
5.			
	65	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Megathyrsus maximus	35	Yes	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	35	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	_____	x 1 =	_____
FACW species	_____	x 2 =	_____
FAC species	_____	x 3 =	_____
FACU species	50	x 4 =	200
UPL species	50	x 5 =	250
Column Totals:	100 (A)		450 (B)

Prevalence Index = B/A = 4.5

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-110

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ **No** X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ **No** X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

No hydrology indicators present.

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-111

Investigator(s): Jesus Babilonia | Ward/Estate: Cabo Rojo

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.003166° | Long: -67.174448° | Datum: PR Datum

Soil Map Unit Name: Teresa clay ponded (Tsa) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes X No _____	**Is the Sampled Area within a Wetland?** Yes X No _____
Hydric Soil Present?	Yes X No _____	
Wetland Hydrology Present?	Yes X No _____	

Remarks:

Sampling point located besides a stream channel.

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Avicennia germinans	35	Yes	OBL
2. Thespesia populnea	5		FAC
3.			
4.			
5.			
	40	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1. Sesuvium portulacastrum	30		FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	30	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

Prevalence Index worksheet:

Total % Cover of:		Multiply by:	
OBL species	35	x 1 =	35
FACW species	30	x 2 =	60
FAC species	5	x 3 =	15
FACU species	_____	x 4 =	_____
UPL species	_____	x 5 =	_____
Column Totals:	70 (A)		110 (B)

Prevalence Index = B/A = 1.57

Hydrophytic Vegetation Indicators:

- ☑ Rapid Test for Hydrophytic Vegetation
- ☑ Dominance Test is >50%
- ☑ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes X No _____

Remarks:

SOIL

Sampling Point: SP-111

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-4	2.5Y 7/4	100					Sandy loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes X No _____

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☑ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☑ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☑ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes X No _____ Depth (inches): 6

Wetland Hydrology Present? Yes X No _____

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

WETLAND DETERMINATION DATA FORM – Caribbean Islands Region

Project/Site: Esencia | Municipality/Town: Cabo Rojo | Sampling Date: April 26, 2024

Applicant/Owner: Cabo Rojo Land Acquisition, LLC | PR or USVI: PR | Sampling Point: SP-112

Investigator(s): Jesus Babilonia | Ward/Estate: Boquerón

Landform (hillslope, terrace, etc.): Flat | Local relief (concave, convex, none): None | Slope (%): _____

Lat: 18.00317° | Long: -67.174437° | Datum: PR Datum

Soil Map Unit Name: Teresa clay (TfA) | NWI classification: E2US2/3P

Are climatic / hydrologic conditions on the site typical for this time of year? Yes X No _____ (If no, explain in Remarks.)

Are Vegetation _____, Soil _____, or Hydrology _____ significantly disturbed? Are "Normal Circumstances" present? Yes X No _____

Are Vegetation _____, Soil _____, or Hydrology _____ naturally problematic? (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.

Hydrophytic Vegetation Present?	Yes _____	No X	**Is the Sampled Area within a Wetland?** Yes _____ No X
Hydric Soil Present?	Yes _____	No X	
Wetland Hydrology Present?	Yes _____	No X	

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: 30 feet radius)	Absolute % Cover	Dominant Species?	Indicator Status
1. Prosopis juliflora	15	Yes	UPL
2. Thespesia populnea	10	Yes	FAC
3. Bourreria succulenta	5	No	UPL
4.			
5.			
	30	= Total Cover	
Sapling/Shrub Stratum (Plot size: 15 feet radius)			
1.			
2.			
3.			
4.			
5.			
	_____	= Total Cover	
Herb Stratum (Plot size: 5 feet radius)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Total Cover	
Woody Vine Stratum (Plot size: 30 feet radius)			
1.			
2.			
3.			
4.			
	_____	= Total Cover	

Dominance Test worksheet:

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50 (A/B)

Prevalence Index worksheet:

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species 10	x 3 = 30
FACU species _____	x 4 = _____
UPL species 20	x 5 = 100
Column Totals: 30 (A)	130 (B)

Prevalence Index = B/A = 4.33

Hydrophytic Vegetation Indicators:

- ☐ Rapid Test for Hydrophytic Vegetation
- ☐ Dominance Test is >50%
- ☐ Prevalence Index is ≤3.0[1]
- ☐ Problematic Hydrophytic Vegetation[1] (Explain)

[1]Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Hydrophytic Vegetation Present? Yes _____ No X

Remarks:

SOIL

Sampling Point: SP-112

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)

Depth (inches)	Matrix Color (moist)	Matrix %	Redox Features Color (moist)	Redox Features %	Type[1]	Loc[2]	Texture	Remarks
0-18	10YR 4/4	100					Loam	

[1]Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated Sand Grains. [2]Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- ☐ Histosol (A1)
- ☐ Histic Epipedon (A2)
- ☐ Black Histic (A3)
- ☐ Hydrogen Sulfide (A4)
- ☐ Organic Bodies (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Muck Presence (A8)
- ☐ Depleted Below Dark Surface (A11)
- ☐ Thick Dark Surface (A12)
- ☐ Sandy Gleyed Matrix (S4)
- ☐ Sandy Redox (S5)
- ☐ Stripped Matrix (S6)
- ☐ Dark Surface (S7)
- ☐ Loamy Gleyed Matrix (F2)
- ☐ Depleted Matrix (F3)
- ☐ Redox Dark Surface (F6)
- ☐ Depleted Dark Surface (F7)
- ☐ Redox Depressions (F8)

Indicators for Problematic Hydric Soils[3]:

- ☐ Stratified Layers (A5)
- ☐ Very Shallow Dark Surface (TF12)
- ☐ Other (Explain in Remarks)

[3]Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

Restrictive Layer (if observed):

Type: _____

Depth (inches): _____

Hydric Soil Present? Yes _____ No X

Remarks:

HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one required; check all that apply)

- ☐ Surface Water (A1)
- ☐ High Water Table (A2)
- ☐ Saturation (A3)
- ☐ Water Marks (B1)
- ☐ Sediment Deposits (B2)
- ☐ Drift Deposits (B3)
- ☐ Algal Mat or Crust (B4)
- ☐ Iron Deposits (B5)
- ☐ Inundation Visible on Aerial Imagery (B7)
- ☐ Water-Stained Leaves (B9)
- ☐ Aquatic Fauna (B13)
- ☐ Hydrogen Sulfide Odor (C1)
- ☐ Oxidized Rhizospheres on Living Roots (C3)
- ☐ Presence of Reduced Iron (C4)
- ☐ Recent Iron Reduction in Tilled Soils (C6)
- ☐ Thin Muck Surface (C7)
- ☐ Fiddler Crab Burrows (C10)
- ☐ Other (Explain in Remarks)

Secondary Indicators (minimum of two required)

- ☐ Surface Soil Cracks (B6)
- ☐ Sparsely Vegetated Concave Surface (B8)
- ☐ Drainage Patterns (B10)
- ☐ Dry-Season Water Table (C2)
- ☐ Saturation Visible on Aerial Imagery (C9)
- ☐ Geomorphic Position (D2)
- ☐ Shallow Aquitard (D3)
- ☐ FAC-Neutral Test (D5)

Field Observations:

Surface Water Present? Yes _____ No _____ Depth (inches): _____

Water Table Present? Yes _____ No _____ Depth (inches): _____

Saturation Present? (includes capillary fringe) Yes _____ No _____ Depth (inches): _____

Wetland Hydrology Present? Yes _____ No X

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

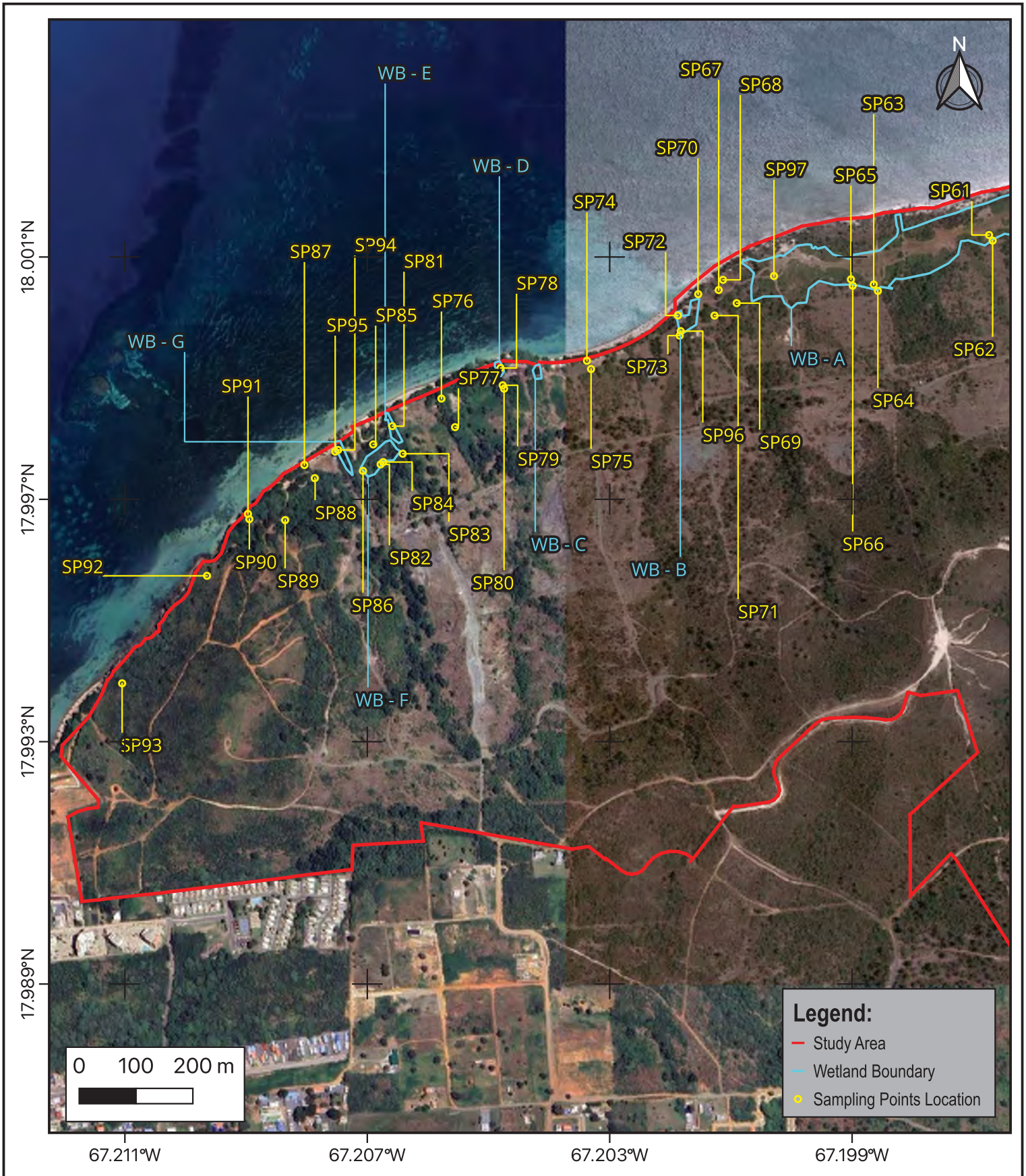
Remarks:

No hydrology indicators present.

APPENDIX C:

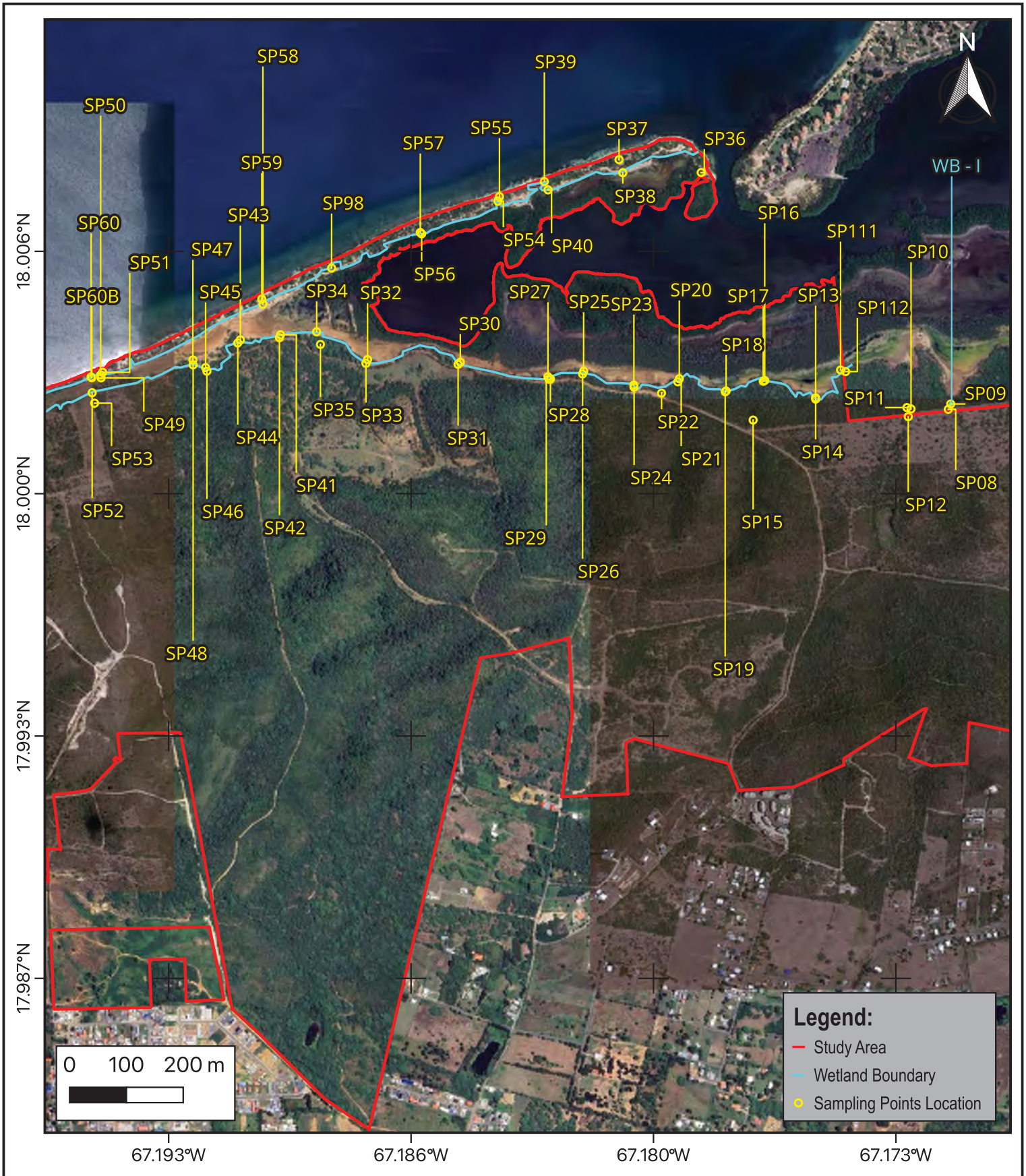
WETLAND DELINEATION AND SAMPLING POINTS LOCATIONS

AMBIENTA INC. TELS. (787) 510-7031 / (787) 732-0907
HC2 BOX 14029 AGUAS BUENAS, PR 00703 FAX (787) 732-0907 / wsoler@ambientainc.com



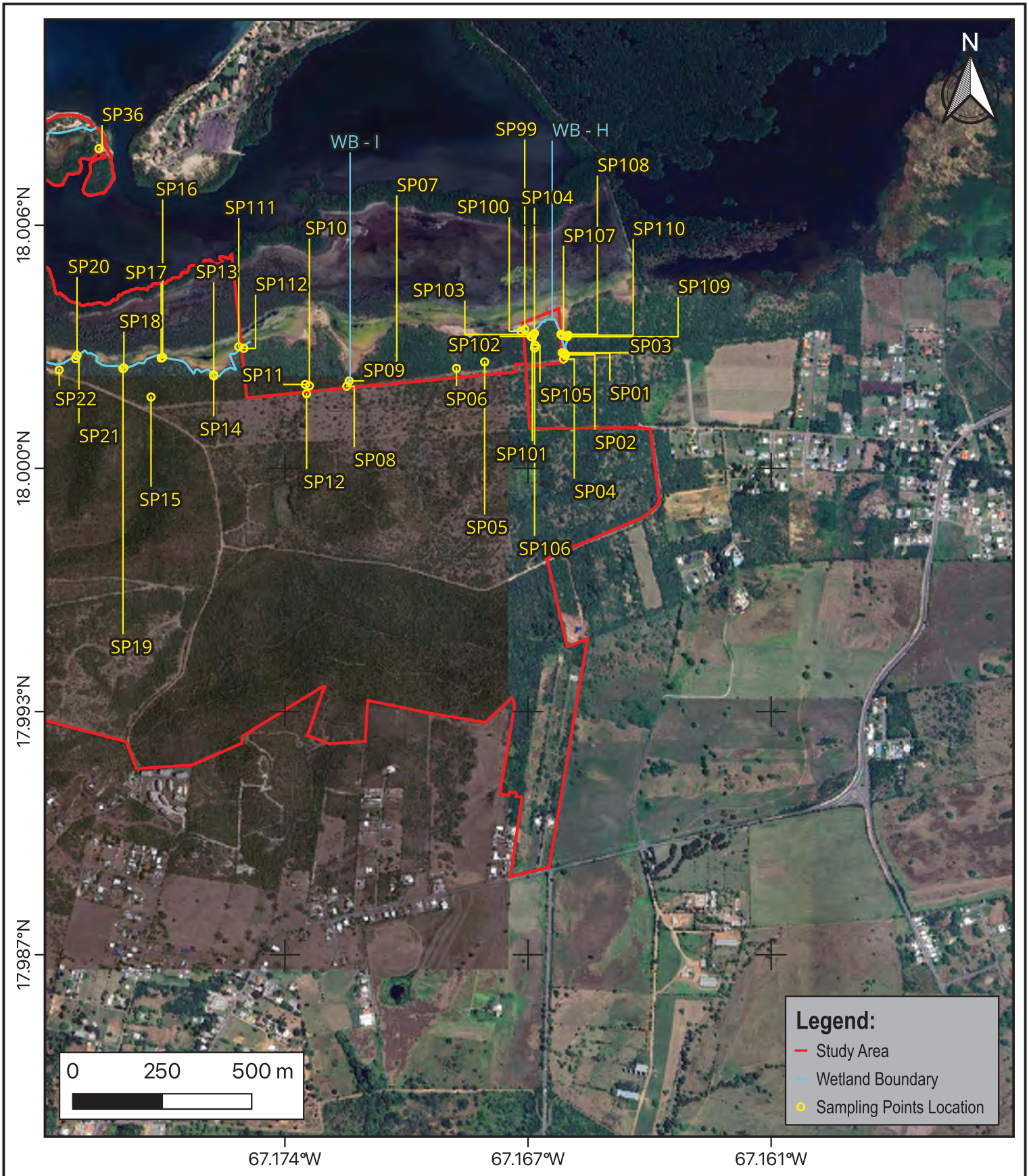
Appendix C-1: Wetland Delineation and Sampling Points Locations
Esencia Project
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants



Appendix C-2: Wetland Delineation and Sampling Points Locations
Esencia Project
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants



Appendix C-3: Wetland Delineation and Sampling Points Locations
Esencia Project
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 4
Traducción de Cortesía
NOVIEMBRE 2025

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DETERMINACIÓN DE LA JURISDICCIÓN DE LOS HUMEDALES Y ESTUDIO DE DELIMITACIÓN

ESENCIA

CABO ROJO, PUERTO RICO

PREPARADO PARA:

CABO ROJO LAND ACQUISITION LLC

PREPARADO POR:

AMBIENTA INC.
Environmental Consultants

ENERO DE 2025

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EJECUTIVO RESUMEN

Cabo Rojo Land Acquisition LLC (en adelante el "Proponente") propone un desarrollo turístico-residencial en el Municipio de Cabo Rojo (en adelante "Esencia" o el "Proyecto"), a desarrollarse dentro de 81 solares con un área total de 1,549 "cuerdas" (6,088,514 metros cuadrados). La topografía de los terrenos muestra cambios de elevación que van desde un mínimo de 1 metro hasta un máximo de 107 metros sobre el nivel medio del mar y, en su mayor parte, están fuera del nivel de llanura de inundación establecido por los mapas ABFE 2018. Los terrenos urbanizables están clasificados como DTS, R-G, DS y UR; clasificados como SUNP, SRC, SREP; y forman parte de la Zona Especial Superpuesta de Interés Turístico de Cabo .

La Propiedad limita al Norte con el Mar Caribe y el Canal Boquerón (Laguna Rincón), y al Sur, Este y Oeste con urbanizaciones residenciales unifamiliares y multifamiliares, áreas no urbanizadas y la Carretera Estatal PR-301. El Proyecto tendrá tres , con los dos principales a través de la Carretera Estatal PR-301 y uno secundario a través de la Carretera Montecarlo.

AMBIENTA INC. fue contratada para realizar un estudio de determinación jurisdiccional de humedales dentro del sitio del Proyecto (el Área de Estudio). Este documento representa la *Determinación Jurisdiccional de Humedales y Estudio de Delineación* (JD) para el Proyecto Esencia.

La metodología utilizada para este estudio siguió el *Suplemento Regional del Manual de Delineación de Humedales del Cuerpo de Ingenieros: Región de las Islas del Caribe* (Suplemento del Caribe, 2011). En primer lugar, se llevó a cabo un proceso de selección preliminar de la literatura existente y las capas de información geográfica para determinar los posibles humedales jurisdiccionales en el sitio del Proyecto. Posteriormente, para identificar específicamente las áreas de humedales potenciales dentro de los límites del Proyecto incluidas bajo la jurisdicción de la Sección 404 de la Ley de Aguas Limpias (CWA) y/o bajo la Sección 10 de la Ley de Ríos y Puertos (RHA) regulada por el Cuerpo de Ingenieros del Ejército de los Estados Unidos (USACE), se realizó un análisis de selección detallado utilizando herramientas del Sistema de Información Geográfica (SIG) y datos de campo recopilados por especialistas en humedales, científicos ambientales, biólogos, técnicos ambientales y topógrafos. El reconocimiento y la evaluación sobre el terreno se llevaron a cabo durante los meses de mayo a octubre de 2023 y de abril a mayo de 2024.

Según la interpretación de fotografías aéreas históricas, partes de la zona de estudio estaban ocupadas por casas y granjas, y varias zonas se utilizaban con fines agrícolas, probablemente para árboles frutales, cultivos menores, ganado y producción de sal. También se observaron indicios de extracción de componentes de la corteza terrestre en algunas zonas, donde se llevaron a cabo actividades de cantería.

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Se observaron algunas zonas con impactos recientes asociados a la urbanización de parcelas, probablemente para la construcción de viviendas unifamiliares y para el emplazamiento de autocaravanas, donde era evidente la nivelación del suelo y, en algunas, había vallas. En la actualidad, hay zonas que se siguen utilizando para el pastoreo de ganado, que parece ser un uso informal y no planificado.

Otros usos informales actuales del terreno incluyen actividades recreativas como baños en la playa, pesca, senderismo, ciclismo de montaña, observación de aves, acampadas y salidas no planificadas en vehículos todo terreno. Las zonas más escarpadas y las colinas parecen estar en desuso desde hace varias décadas. Los usos pasados y presentes del terreno y otros factores antropogénicos han influido en el estado actual de la zona de estudio.

Los mapas del Inventario Nacional de Humedales (NWI) del Servicio de Pesca y Vida Silvestre de los Estados Unidos (USFWS) muestran humedales dentro de la zona norte del Área de Estudio. Según el Comité Federal de Datos Geográficos (FGDC, 2013) y basándose en las clasificaciones de Cowardin (1979), estas zonas húmedas se clasifican como: E1UBL (estuarino, submareal, fondo no consolidado, submareal), E2FO3N (estuarino, intermareal, arbolado, de hoja ancha perenne, inundado regularmente) y E2US2/3P (estuarino, intermareal, orilla no consolidada, arena/lodo, inundado irregularmente).

El cuadrilátero topográfico del Servicio Geológico de Estados Unidos (USGS) y el mapa del Inventario Nacional de Humedales (NWI) indican la presencia de algunos cursos de agua en la zona de estudio. Estos cursos de agua parecen ser efímeros más que intermitentes, ya que nunca se observaron con flujo de agua, ni siquiera durante la estación lluviosa y es probable que recojan agua sólo durante los episodios de lluvias intensas. Algunos cursos de agua exhiben una ribera definida desde las colinas hasta la costa, mientras que otros tienen una ribera definida sólo en las colinas, sin ribera definida dentro de la planicie costera, donde el flujo puede volverse laminar sobre el terreno antes de llegar a las zonas de humedales. Además, ambas referencias muestran algunos cursos de agua efímeros interceptados por estanques artificiales utilizados anteriormente con fines agrícolas; durante la evaluación del lugar, se observó que algunos de estos estanques estaban secos, mientras que otros contenían agua. El cuadrángulo topográfico del USGS también muestra una antigua zona de producción de sal, o "Salinas", en la parte central septentrional de la zona de estudio, donde históricamente producía y extraía sal.

La delimitación de los humedales jurisdiccionales se realizó utilizando los tres criterios de humedales en puntos de muestreo dentro de las zonas de humedales potenciales, el juicio profesional, la cubierta vegetal observada en el lugar, mediciones GPS y equipos de topografía.

Las comunidades vegetales dominantes en la zona de estudio consisten en zonas de arbustos y matorrales, zonas boscosas, árboles dispersos en zonas abiertas y praderas no gestionadas. Humedales y zonas altas

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se han observado. Las zonas de tierras altas, próximas a humedales, están dominadas mayoritariamente por las especies *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL), y *Pithecellobium dulce* (UPL), mientras que las zonas de humedales adyacentes a las zonas de tierras altas están dominadas mayoritariamente por las especies: *Avicennia germinans* (OBL), *Batis maritima* (FACW), *Conocarpus erectus* (FACW) y *Laguncularia racemosa* (OBL). Todas las clasificaciones de especies se basan en la Lista Nacional de Plantas de Humedales para el Caribe (Región CB) de 2020 del Servicio de Pesca y Vida Silvestre de EE.UU. (USFWS). Además, también hay bosques de manglares rojos, lagunas costeras y zonas de aguas abiertas estacionales, marismas y salinas.

El Estudio de Determinación Jurisdiccional y Delineación de Humedales realizado por AMBIENTA INC**.** muestra que dentro de los límites del hay humedales que están bajo la jurisdicción de la Sección 404 de la CWA y la Sección 10 de la RHA.

Los humedales de la zona de estudio consisten en marismas sin vegetación, marismas con vegetación, manglares y lagunas costeras. Las zonas de marismas y algunas salinas se utilizan con frecuencia para vehículos todoterreno y 4x4, lo que puede considerarse una actividad ilegal. Las salinas se han degradado en cierta medida debido a la sedimentación excesiva causada por estas actividades todoterreno y otros aportes históricos de sedimentos procedentes del lugar. El bosque de manglares se vio gravemente afectado por el huracán María en 2017; actualmente, se observa que algunas zonas están en proceso de recuperación, mientras que otras no muestran signos de recuperación.

Durante los últimos cuatro (4) años, se han producido varios cambios en relación con la definición federal de "Aguas de los Estados Unidos" (WOTUS) en virtud de la CWA, incluyendo la publicación de una nueva norma y definición revisada de WOTUS en el *Registro Federal* el 18 de enero de 2023. El 25 de mayo de 2023, el Tribunal Supremo de los Estados Unidos emitió una sentencia en el caso *Sackett contra la Agencia de Protección del Medio Ambiente* (EPA) (caso nº 21-454), en la que dictaminaba y limitaba la jurisdicción de la EPA sobre los humedales en virtud de la CWA. En el caso *Sackett*, el tribunal indaga en la norma jurisdiccional de la CWA para identificar humedales adyacentes como WOTUS en la situación de una impugnación de la orden de cumplimiento de la EPA por el vertido no autorizado de material de relleno en WOTUS.

Recientemente, el 29 de agosto de , la Agencia de Protección del Medio Ambiente de EE.UU. (EPA) y el Departamento del Ejército (las agencias) emitieron una norma final *de* conformidad (*Norma de Conformidad WOTUS 2023*) para modificar la *Definición Revisada WOTUS 2023* (18 de enero de 2023). Esta norma final adapta la definición de WOTUS a la decisión del Tribunal Supremo de EE.UU. de 25 de mayo de 2023 en el caso *Sackett contra EPA*. Algunas secciones de la norma de enero de 2023 no son válidas en virtud de la interpretación del Tribunal Supremo de la CWA en la decisión *Sackett*. Por lo tanto, las agencias han modificado aspectos clave del texto normativo para ajustarse a la decisión del Tribunal.

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Según la norma *Sackett*, "para hacer valer la jurisdicción sobre un humedal adyacente, una parte debe demostrar, en primer lugar, que la masa de agua adyacente constituye WOTUS (es decir, un agua relativamente permanente conectada a las aguas navegables interestatales tradicionales); y, en segundo lugar, que el humedal tiene una conexión superficial continua con esa agua, lo que hace difícil determinar dónde termina el 'agua' y empieza el 'humedal'". Basándose en la prueba de Sackett, "los humedales que están separados de las aguas navegables tradicionales no pueden considerarse parte de esas aguas, aunque estén situados cerca". El caso *Sackett contra la EPA* representa la última de una serie de disputas legales sobre la interpretación del WOTUS. Aunque el Tribunal no abordó la validez de la Norma en el caso *Sackett*, la sentencia del Tribunal rechaza el uso de la norma de "nexo significativo" en la que se basa la interpretación de las Agencias del WOTUS.

La *Norma de Conformidad WOTUS de 2023*, incluida en el (Registro Federal) *40 CFR 120.2(a)(3) y 33 CFR 328.3(a)(3)* eliminó la norma de nexo significativo de la disposición sobre afluentes, y la *40 CFR 120.2(a)(4) y 33 CFR 328.3(a)(4)* eliminó la norma de nexo significativo de la disposición sobre humedales adyacentes. *La Regla de Conformidad WOTUS de 2023* eliminó el requisito de "nexo significativo", basándose en esto, los afluentes no navegables evaluados que no son aguas relativamente permanentes (NRPW) y que consisten en cursos de agua efímeros, arroyos, zanjas, cunetas o rasgos erosivos (por ejemplo, barrancos, pequeños lavados caracterizados por un flujo de bajo volumen, infrecuente o de corta duración) se considerarían no jurisdiccionales. De acuerdo con las observaciones de campo, algunos elementos efímeros de la zona de estudio se gestionaron en el pasado mediante la creación de zanjas y zonas de retención de agua, mientras que otros se deben a la erosión o fueron creados por el hombre para gestionar la escorrentía y, de acuerdo *con la Norma de Conformidad con el WOTUS de 2023*, podrían considerarse no jurisdiccionales.

Los impactos en los humedales pueden evitarse mediante una planificación integral. Los humedales proporcionan funciones y poseen atributos que bien pueden mejorar el paisaje del Proyecto, entre otros servicios. Si existe la posibilidad de afectar a los recursos acuáticos bajo la jurisdicción de la Sección 404 de la CWA y/o la Sección 10 de la RHA durante la fase de construcción del Proyecto, puede ser necesario iniciar un proceso formal de obtención de permisos con la Sección Reguladora del Distrito del Caribe del USACE. Es política del USACE y de la EPA, a través de un Memorando de Entendimiento, que se debe considerar una secuencia de pasos durante el diseño de cualquier proyecto que afecte humedales jurisdiccionales. En primer lugar, debe intentarse desarrollar un diseño que evite el impacto en la zona húmeda. Si los impactos en las zonas húmedas son inevitables, debe intentarse minimizarlos en la medida de lo posible y, a continuación, deben adoptarse medidas de mitigación para los humedales que vayan a verse inevitablemente afectados.

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INTRODUCCIÓN

Cabo Rojo Land Acquisition LLC (en adelante el "Proponente") propone un desarrollo turístico-residencial en el Municipio de Cabo Rojo (en adelante "Esencia" o el "Proyecto"), a desarrollarse dentro de 81 solares con un área total de 1,549 "cuerdas" (6,088,514 metros cuadrados). La topografía de los terrenos muestra cambios de elevación que van desde un mínimo de 1 metro hasta un máximo de 107 metros sobre el nivel medio del mar (msnm) y, en su mayor parte, están fuera del nivel de llanura de inundación establecido por los mapas ABFE 2018. Los terrenos urbanizables están clasificados como DTS, R-G, DS y UR; clasificados como SUNP, SRC, SREP; y forman parte de la Zona Especial Superpuesta de Interés Turístico de Cabo Rojo. **La Figura 1** incluye la ubicación del Proyecto sobre el Cuadrángulo Topográfico del USGS.

Con base en la información proporcionada, el plan conceptual de Esencia propone usos hoteleros, recreativos, turístico-residenciales y áreas de conservación consistentes con los usos existentes en el sector. El Proyecto también incluye cuatro puntos de acceso vehicular público a la playa con instalaciones sanitarias, apoyo a actividades recreativas públicas como senderismo, observación de aves y ciclismo de montaña.

AMBIENTA INC. fue contratada para realizar una determinación jurisdiccional de humedales dentro de las parcelas que ocupará el Proyecto (el Área de Estudio). Este documento representa la *Determinación Jurisdiccional de Humedales y el Estudio de Delineación* (JD) para el Proyecto Esencia.

La metodología utilizada para este estudio siguió el *Suplemento Regional del Manual de Delineación de Humedales del Cuerpo de Ingenieros: Región de las Islas del Caribe* (Suplemento del Caribe, 2011). En primer lugar, se realizó un proceso de selección preliminar de la literatura existente y las capas de información geográfica para determinar los posibles humedales jurisdiccionales en el sitio del Proyecto. Posteriormente, para identificar específicamente las áreas de humedales potenciales dentro de los límites del Proyecto incluidas bajo la jurisdicción de la Sección 404 de la Ley de Aguas Limpias o bajo la jurisdicción de la Sección 10 de la Ley de Ríos y Puertos regulada por el Cuerpo de Ingenieros del Ejército de los Estados Unidos (USACE), se realizó un análisis de selección detallado utilizando herramientas del Sistema de Información Geográfica (SIG), equipos del Sistema de Posicionamiento Global (GPS) y datos recopilados en el campo por especialistas en humedales, científicos ambientales, biólogos y técnicos ambientales. El reconocimiento sobre el terreno y la evaluación se llevaron a cabo durante los meses de junio y noviembre de 2023.

Este informe está organizado en cuatro (4) secciones: 1) descripción del lugar, 2) metodología y enfoque técnico, 3) resultados y discusión, y 4) conclusiones y recomendaciones. Los resultados y conclusiones de este Estudio están respaldados por los Formularios de Datos para la Determinación de Humedales y la Documentación Fotográfica presentados en los apéndices de este informe.

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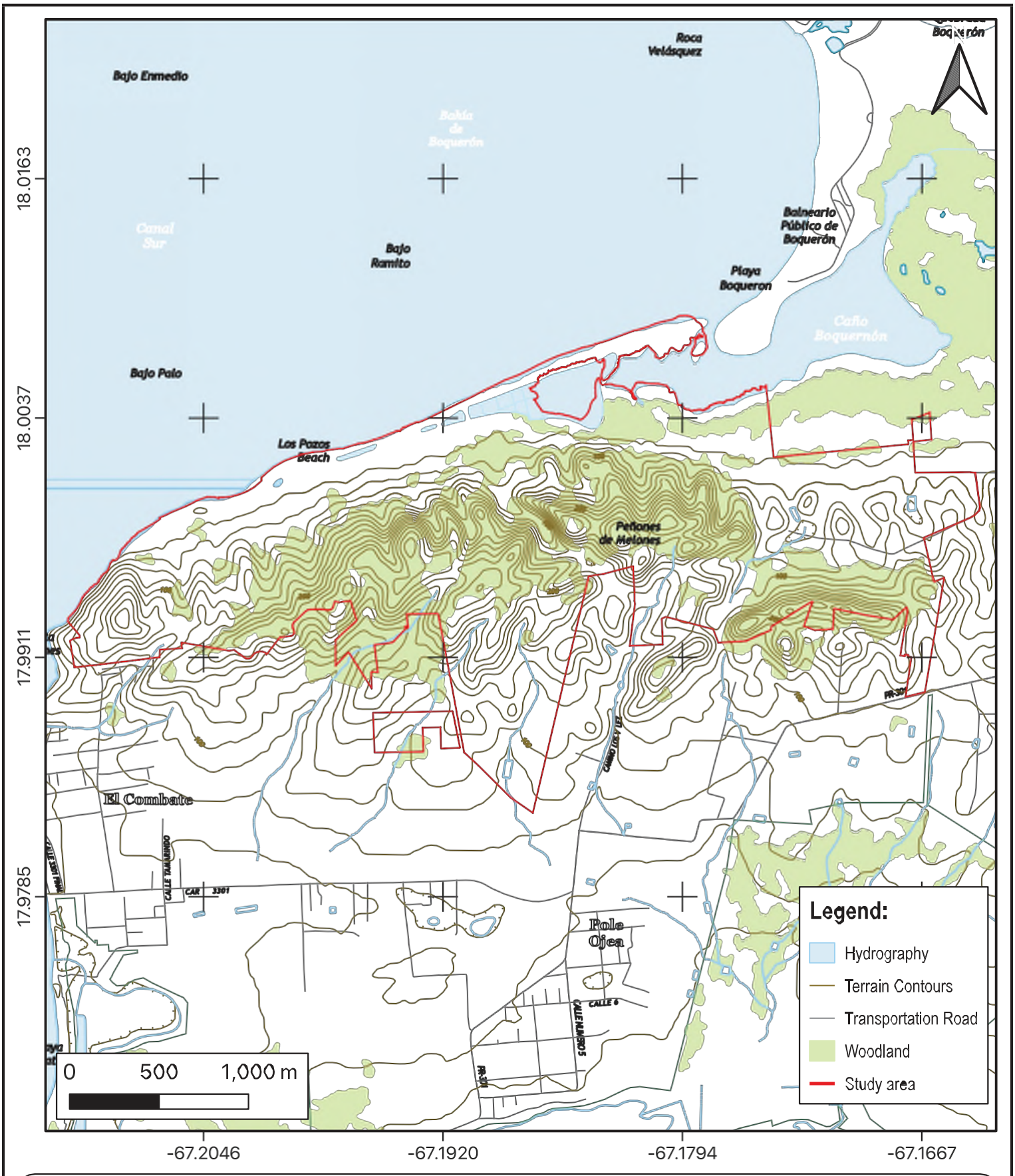

Figura 1: Mapa de situación de cuadrángulos topográficos del USGS
Proyecto Esencia
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

SITIO DESCRIPCIÓN

Una descripción exhaustiva del sitio es crucial para evaluar con precisión los atributos de la Zona de Estudio y, lo que es más importante, para confirmar la presencia de humedales jurisdiccionales dentro de sus límites. Esta información, junto con una investigación y un análisis de campo detallados que tengan en cuenta los tres criterios de humedales jurisdiccionales (presencia de vegetación hidrófita, hidrología del humedal y suelos hídricos), es fundamental para determinar la existencia de humedales jurisdiccionales.

Ubicación y topografía: El Área de Estudio comprende 81 solares con un área total de 1,549 cuerdas (6,088,514 metros cuadrados). Está localizada en la carretera estatal PR-301, en el Barrio Boquerón del Municipio de Cabo Rojo, Puerto Rico. Su topografía es variable con una elevación entre 1 y 107 metros sobre el nivel del mar. **La Figura 1** (ver página anterior) muestra el Cuadrángulo Topográfico del USGS con el mapa de localización del Área de Estudio.

Comunidades vegetales: Las comunidades vegetales dominantes dentro del Área de Estudio incluyen zonas de arbustos y matorrales, áreas boscosas, árboles dispersos en espacios abiertos y pastizales no gestionados. Se observaron tanto humedales como tierras altas. En las zonas altas cercanas a humedales predominan *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL) y *Pithecellobium dulce* (UPL). Por el contrario, las zonas húmedas adyacentes a las tierras altas se caracterizan principalmente por *Avicennia germinans* (OBL), *Batis maritima* (FACW), *Conocarpus erectus* (FACW) y *Laguncularia racemosa* (OBL). La clasificación de estas especies sigue la Lista Nacional de Plantas de Humedales para el Caribe (Región CB) de 2020 publicada por el Servicio de Pesca y Vida Silvestre de EE.UU. (USFWS). Además, la zona de estudio cuenta con otros recursos acuáticos, como bosques de manglares rojos, lagunas costeras, zonas de aguas abiertas estacionales, marismas con vegetación y marismas sin vegetación.

Suelos: Basándose en el estudio de suelos de la web del Servicio de Conservación de Suelos (SCS) del Departamento de Agricultura de EE.UU., la zona de estudio contiene veintidós (22) series de suelos. **La figura 2** incluye el mapa de suelos del NRCS. Estas series de suelos son descritas por el SCS de la siguiente manera:

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Figura 2: Mapa del estudio del suelo
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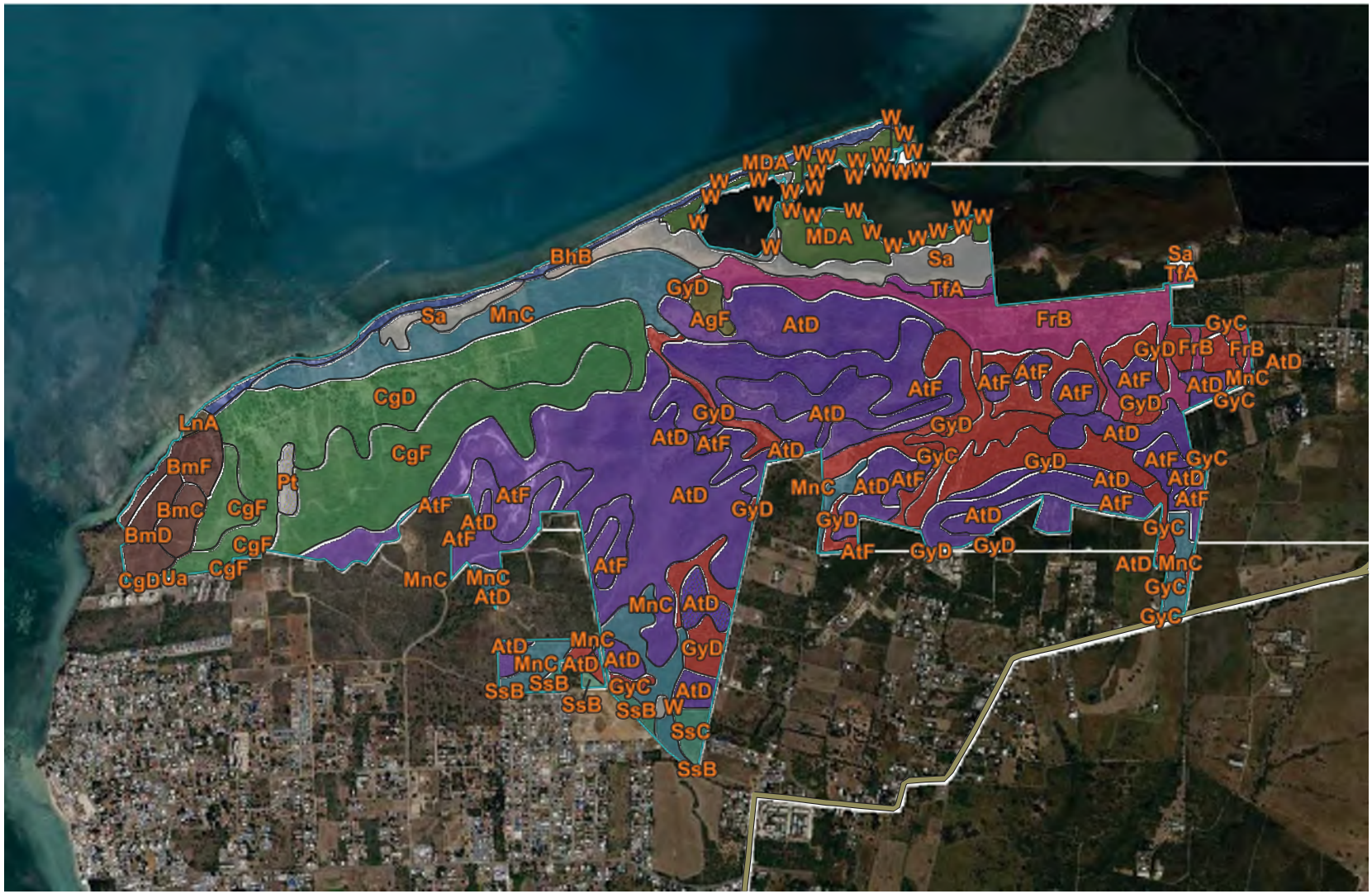
Cabo Rojo, Puerto Rico



- **Aguilita franco arcilloso limoso (AgF), 20 a 60 por ciento de pendiente:** Suelo muy escarpado que se encuentra en colinas y laderas. Tiene buen drenaje y permeabilidad moderada. Con una capacidad hídrica baja o moderada y una fertilidad moderada. La escorrentía es elevada y la erosión constituye un riesgo. Se ha utilizado sobre todo para pastos y hábitat natural.

- **Altamira gravelly clay (AtD), 2 a 20 por ciento de pendiente:** Suelos escarpados que se encuentran en colinas calizas. Su escorrentía es media. Tiene buen drenaje y permeabilidad moderada. El riesgo de erosión es severo. Tiene severas limitaciones para la agricultura debido a su inclinación y baja capacidad hídrica. Se encuentra principalmente con arbustos y pastos naturalizados.

- **Altamira gravelly clay (AtD), 20 a 60 por ciento de pendiente:** Suelo escarpado que se encuentra en colinas calizas. Su escorrentía es rápida. Tiene buen drenaje y permeabilidad moderada. El riesgo de erosión es de moderado a severo. Presenta graves limitaciones para la agricultura debido a su inclinación y a su escasa capacidad hídrica. Se encuentra sobre todo en pastizales y hábitats naturales.

- **Arena de Bahía Salinas (BhB), de 0 a 5% de pendiente:** Este suelo se encuentra en las llanuras costeras y playas. Tiene un drenaje excesivo y una escorrentía insignificante. Tiene una permeabilidad muy rápida, una capacidad hídrica muy baja y una fertilidad natural baja. Se encuentra sobre todo en hábitats naturales.

- **Complejo Bermeja-Cerro Mariquita (BmC), pendientes del 5 al 12 por ciento:** Este terreno escarpado se encuentra en los cerros y lomas. Con buen drenaje y escorrentía media. Tiene una permeabilidad moderada y muy poca capacidad hídrica. Se encuentra principalmente con pastos y arbustos.

- **Complejo Bermeja-Cerro Mariquita (BmD), de 12 a 20% de pendiente:** Este suelo escarpado se encuentra en las montañas y laderas. Con buen drenaje y escorrentía media. Tiene una permeabilidad moderada y muy poca capacidad hídrica. Se encuentra principalmente con pastos y arbustos.

- **Complejo Bermeja-Cerro Mariquita (BmF), de 20 a 60% de pendiente:** Este suelo escarpado se encuentra en las laderas de montañas y colinas. Tiene buen drenaje y escorrentía rápida. Tiene una permeabilidad moderada y muy poca capacidad hídrica. Se encuentra sobre todo en hábitats naturales**.**

- **Arcilla de Casabe (CgD), pendientes del 5 al 20%:** Este suelo escarpado se encuentra en las laderas de montañas y colinas. Con permeabilidad moderada y escorrentía rápida. Con muy baja capacidad hídrica y fertilidad moderada. Se utiliza sobre todo para el desarrollo urbano.

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- **Arcilla de Casabe (CgF), de 20 a 60% de pendiente:** Este suelo escarpado se encuentra en las laderas de montañas y colinas. Con buena permeabilidad y escorrentía rápida. Con baja capacidad hídrica y fertilidad moderada. Se encuentra sobre todo en hábitats naturales**.**

- **Fraternidad arcillosa (FrB) 2 a 5 por ciento de pendiente:** Este suelo se encuentra en las cuencas. Con permeabilidad lenta y escorrentía media. Tiene alta capacidad hídrica y alta fertilidad. Se encuentra principalmente en pastizales.

- **Guayacán arcilloso (GyB), 0 a 5 por ciento de pendiente:** Suelo que se encuentra en los abanicos aluviales. Con buen drenaje y escurrimiento medio. Tiene una permeabilidad moderadamente lenta, muy baja capacidad de agua y alta fertilidad natural. Ha sido utilizado como pastizal durante muchos años.

- **Guayacán arcilloso (GyC), 5 a 12 por ciento de pendiente:** Suelo que se encuentra en colinas bajas y abanicos aluviales. Con buen drenaje y escurrimiento rápido. Tiene una permeabilidad moderada, muy baja capacidad de agua y alta fertilidad natural. Se ha utilizado para pastos durante muchos años.

- **Guayacán arcilloso (GyD), 12 a 20% de pendiente:** Suelo que se encuentra en los cerros bajos. Con buen drenaje y rápida escorrentía. Tiene una permeabilidad moderadamente lenta, muy baja capacidad de agua y alta fertilidad natural. Ha sido utilizado como pastizal durante muchos años.

- **Marga de Llanos Costa (LnA), 0 a 2 por ciento de pendiente:** Este suelo se encuentra en los abanicos aluviales. De escorrentía lenta, buen drenaje y permeabilidad moderada. Tiene una capacidad hídrica baja y una fertilidad natural moderada. Se utiliza principalmente para pastos.

- **Suelos de Manglillo, Boquerón y Serrano (MDA), muy frecuentemente inundables:** Suelos casi llanos en las llanuras costeras. Con escorrentía muy lenta, drenaje deficiente y permeabilidad rápida. Este suelo se encuentra en hábitats naturales.

- **Melone arcilloso (MnC), de 2 a 12% de pendiente:** Este suelo se encuentra en las llanuras costeras. Tiene una escorrentía media, un buen drenaje y una permeabilidad lenta. Tiene una capacidad hídrica muy baja y una fertilidad natural alta. Se encuentra sobre todo en pastizales y hábitats naturales.

- **Pozos y canteras (Pt):** Esta unidad cartográfica es un tipo de terreno diverso formado por tajos y canteras y zonas de suelo muy alterado por medios mecánicos. Suele incluir zonas de afloramientos rocosos. Las zonas de esta unidad cartográfica se explotan en busca de minerales arcillosos y piedra. En estas zonas se ha retirado la sobrecarga del suelo y se ha apilado a un lado. La mayoría de las zonas están inactivas.

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- **Salinas, encharcadas (Sa):** Esta unidad cartográfica es un tipo de terreno diverso formado por zonas de las que se ha extraído sal. Suele incluir zonas de marismas. Las zonas de esta unidad cartográfica se explotan para la producción de sal. En estas zonas se ha retirado la sobrecarga del suelo y se ha apilado a un lado. La mayoría de las zonas están inactivas.

- **Franco arenoso de Sosa (SsB), de 2 a 5 por ciento de pendiente:** Este suelo se encuentra en las llanuras y terrazas costeras. Tiene una escorrentía media, un buen drenaje y una permeabilidad moderadamente lenta. Tiene una baja capacidad hídrica y fertilidad natural. Estos suelos se utilizan sobre todo para el desarrollo urbano**.**

- **Franco arenoso de Sosa (SsC), pendientes del 5 al 12 por ciento:** Este suelo se encuentra en las llanuras y terrazas costeras. Tiene una escorrentía media, buen drenaje y permeabilidad lenta. Tiene una baja capacidad hídrica y fertilidad natural. Estos suelos se utilizan sobre todo para el desarrollo urbano.

- **Arcilla de Teresa (TfA), encharcada:** Este suelo se encuentra en llanuras costeras y aluviales. Es de escorrentía muy lenta, drenaje pobre y permeabilidad muy lenta. Tiene una elevada capacidad hídrica y una baja fertilidad natural. Se encuentra sobre todo en hábitats naturales.

- **Agua (W):** Esta unidad cartográfica es un área diversa que consiste en masas de agua de tamaño igual o superior a 40 acres. Comúnmente incluye áreas de embalses, lagos artificiales, ríos y lagunas costeras. Las áreas de esta unidad cartográfica son administradas por el Departamento de Recursos Ambientales y Naturales de Puerto Rico.

Recursos acuáticos: El Mapa del Inventario Nacional de Humedales (NWI) del USFWS muestra humedales en la zona norte del Área de Estudio. Según el Comité Federal de Datos Geográficos (FGDC, 2013) y el Sistema de Clasificación Cowardin (1979), las clasificaciones de los humedales son las siguientes: E1UBL (estuarino, submareal, fondo no consolidado, submareal), E2FO3N (estuarino, intermareal, arbolado, perennifolio de hoja ancha, Regularmente inundado) y E2US2/3P (estuarino, intermareal, orilla no consolidada, arena/lodo, irregularmente inundado). **La figura 3** muestra el mapa del NWI. Algunos de estos humedales están asociados al área de la bahía "Caño Boquerón" y otros colindan estacionalmente con el mar a través de la duna de arena.

Un sistema estuarino suele estar formado por hábitats mareales de aguas profundas y humedales mareales adyacentes que suelen estar semiencerrados por tierra pero tienen acceso abierto, parcialmente obstruido o esporádico al océano abierto, y en los que el agua del océano se diluye al menos ocasionalmente por la escorrentía de agua dulce de la tierra. La salinidad puede aumentar periódicamente por encima de la del océano abierto debido a la evaporación. Durante la evaluación sobre el terreno no se observaron humedales de agua dulce (palustres o fluviales).

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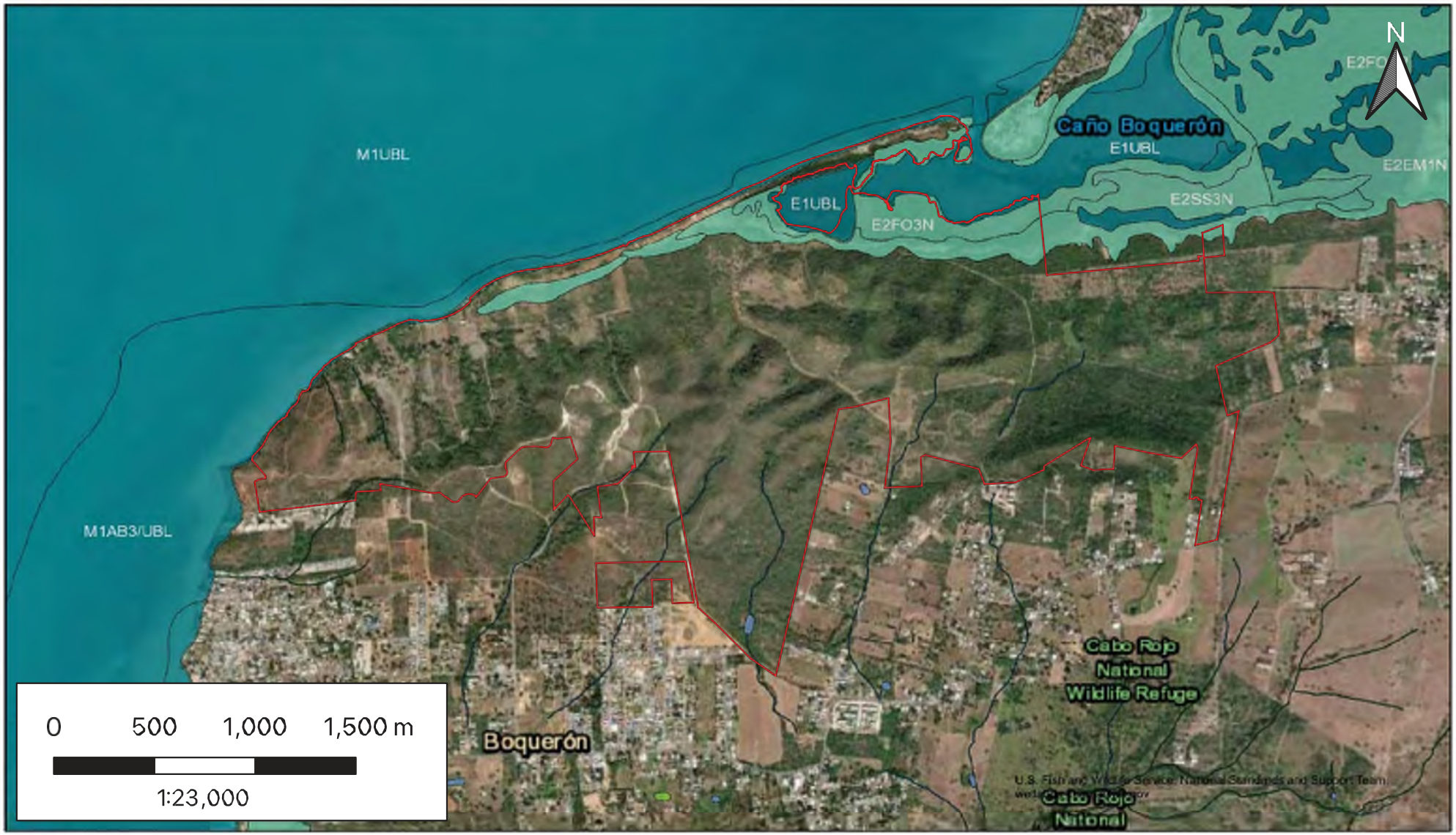
U.S. Fish and Wildlife Service
National Wetlands Inventory

Figura 3: Mapa USFWS NWI Proyecto Esencia

Cabo Rojo, Puerto Rico



May 5, 2024

Wetlands

- Estuarine and Marine Deepwater
- Estuarine and Marine Wetland
- Freshwater Emergent Wetland
- Freshwater Forested/Shrub Wetland
- Freshwater Pond
- Lake
- Other
- Riverine

This map is for general reference only. The US Fish and Wildlife Service is not responsible for the accuracy or currentness of the base data shown on this map. All wetlands related data should be used in accordance with the layer metadata found on the Wetlands Mapper web site.

— Study Area

National Wetlands Inventory (NWI)
This page was produced by the NWI mapper

El cuadrilátero topográfico del Servicio Geológico de Estados Unidos (USGS) y el mapa del Inventario Nacional de Humedales (NWI) indican la presencia de varios cursos de agua en la zona de estudio. Según las observaciones de campo, estos cursos de agua parecen ser efímeros más que intermitentes, ya que no se observó flujo de agua en ningún momento, ni siquiera durante la estación lluviosa. Es probable que estos cursos de agua efímeros sólo recojan y transporten agua durante las lluvias torrenciales.

Algunos cursos de agua presentan una orilla definida que se extiende desde las colinas hasta la costa, mientras que otros tienen una estructura de orilla clara sólo en las regiones de colinas y pierden definición en la llanura costera. En estas zonas costeras más llanas, el flujo de agua puede pasar a un flujo laminar a través del terreno antes de llegar finalmente a las zonas húmedas.

Además, algunos de los cursos de agua efímeros que aparecen en el cuadrángulo topográfico del USGS y en el mapa NWI están interceptados por estanques artificiales, construidos históricamente con fines agrícolas. Las observaciones revelaron que algunos de estos estanques estaban secos, mientras que otros aún contenían agua, dependiendo de su ubicación y de los aportes hidrológicos.

En la parte central septentrional de la zona de estudio, el cuadrángulo topográfico del USGS también destaca un antiguo emplazamiento de producción de sal, o "Salinas", donde se llevaron a cabo actividades de extracción de sal durante el siglo pasado. Esta zona contiene restos de salinas, estanques e infraestructuras asociadas a las prácticas históricas de extracción de sal.

Los recursos acuáticos de la zona de estudio consisten en marismas sin vegetación y con vegetación, manglares, lagunas costeras y otras aguas abiertas estacionales. Las marismas y salinas, en particular, están sometidas a importantes perturbaciones humanas. En estas zonas se observan con frecuencia actividades todoterreno, como el uso de vehículos todoterreno (ATV) y 4x4, que pueden constituir una actividad ilegal. Estas perturbaciones han contribuido a la degradación, incluida la sedimentación excesiva en partes de las marismas y salinas, probablemente agravada por las aportaciones históricas de sedimentos procedentes de los usos del suelo circundantes.

Los manglares de la zona también se han visto gravemente afectados por fenómenos naturales, en particular el huracán María en 2017. Mientras que algunas partes del manglar muestran signos de recuperación natural, otras permanecen en un estado degradado sin indicios visibles de rebrote o restauración. Los impactos acumulativos del uso histórico de la tierra, los todoterrenos y los fenómenos meteorológicos extremos ponen de relieve la necesidad de una gestión activa y de esfuerzos de conservación para restaurar y proteger estos valiosos recursos acuáticos.

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ENFOQUE TÉCNICO Y METODOLOGÍA

Para la determinación de la jurisdicción de los humedales y el estudio de delimitación (JD) realizado para el proyecto se utilizó un enfoque de cuatro fases. El enfoque técnico siguió el método de determinación descrito en el *Suplemento Regional del Manual de Delineación de Humedales del Cuerpo de Ingenieros: Región de las Islas del Caribe* (Suplemento del Caribe, 2011).

Durante la fase 1 del estudio, se realizó un análisis de selección para identificar las zonas del proyecto consideradas posibles humedales jurisdiccionales en virtud del artículo 404 de la Ley de aguas limpias y del artículo 10 de la Ley de ríos y puertos. El análisis del nivel de selección se realizó utilizando un Sistema de Información Geográfica (SIG) cargado con los siguientes datos:

- Topografía.
- Estudio del suelo.
- Mapa del Inventario Nacional de Humedales (NWI).
- Zonas inundables e hidrografía.
- Fotografías aéreas.

Asimismo, durante esta Fase 1 se utilizaron la topografía topográfica y la topografía LIDAR. Los resultados de esta fase de la investigación proporcionaron información específica e importante para el diseño del reconocimiento sobre el terreno y la recogida de datos.

La Fase 2 del Estudio consistió en una serie de visitas preliminares al terreno, incluida la inspección de las zonas de humedales potenciales previamente identificadas. Estas visitas ayudaron a validar los datos recopilados durante la fase anterior, contribuyendo al mismo tiempo a comprender mejor las condiciones ambientales de la zona de estudio y a elaborar un plan de trabajo de campo.

La fase 3 del estudio incluyó visitas sobre el terreno para delimitar todos los humedales jurisdiccionales de la zona de estudio. Esto incluyó una descripción de la hidrología, el suelo y la vegetación dominante en lugares de muestreo representativos. Durante esta fase se tomó documentación fotográfica de las zonas evaluadas para futuras referencias y análisis. **El Apéndice A** incluye documentación fotográfica de la zona de estudio.

La delimitación final de los humedales se realizó mediante una combinación de los tres criterios de humedales dentro de las comunidades vegetales presentes, el juicio profesional, la cubierta vegetal observada en el lugar y las mediciones topográficas.

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La descripción de cada lugar de muestreo se incluye en un Formulario de Datos para la Determinación de Humedales individual. **El Apéndice B** incluye las transcripciones de los Formularios de Datos de Determinación de Humedales del Suplemento del Caribe del Manual de Delineación de Humedales.

Durante esta fase se llevaron a cabo las siguientes tareas:

- Establecimiento de transectos de muestreo.
- Inspección visual del lugar e identificación de las características paisajísticas.
- Identificación de comunidades vegetales.
- Selección de una zona representativa dentro de cada comunidad vegetal para establecer un punto de muestreo y excavar una fosa en el suelo.
- Identificación de las especies vegetales dominantes de los distintos estratos alrededor de la fosa de suelo.
- Clasificación de especies vegetales utilizando la *Revisión 2020 de la Lista Nacional de Especies Vegetales que Ocurren en Humedales: Caribe (Región C)*.
- Descripción de la hidrología dentro y alrededor de la fosa de suelo.
- Caracterización del suelo mediante la carta de colores Munsell.
- Rellene los datos recogidos para cada punto de muestreo en el Formulario de Datos para la Determinación de Humedales del Suplemento del Caribe del Manual de Delineación de Humedales; Mapa del Inventario Nacional de Humedales (NWI).
- Documentación fotográfica del emplazamiento, la fosa de tierra y la vegetación circundante.
- Delimitación sobre el terreno de zonas húmedas utilizando fotografías aéreas y marcas de campo recogidas con equipos topográficos.

A efectos del presente estudio, se establecieron ciento trece (113) puntos de muestreo a lo largo de la zona de estudio. Si había humedales, se registraron sus límites con GPS. Se accedió a todas las zonas y se inspeccionaron detalladamente a pie y con vehículos todo terreno (UTV).

La Fase 4 del Estudio comprendió el análisis final de los datos recogidos durante las visitas de inspección y delineación, y la redacción del presente Informe de Delineación y Determinación Jurisdiccional de Humedales. La determinación final de los límites del humedal se basó en la combinación de todas las pruebas disponibles. El reconocimiento de campo y la evaluación se llevaron a cabo durante los meses de mayo a octubre de 2023 y de abril a mayo de 2024.

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RESULTADOS Y CONCLUSIONES

Según la interpretación de las fotografías aéreas históricas y los datos históricos del lugar, algunas partes de la zona de estudio estuvieron ocupadas anteriormente por casas y granjas. Varias zonas se utilizaban con fines agrícolas, probablemente con árboles frutales, cultivos menores, ganado y producción de sal. En algunas zonas también se observaron indicios de actividades de extracción de tierra, indicativas de antiguas canteras.

Se han observado impactos recientes asociados a la urbanización de parcelas, posiblemente para la construcción de viviendas unifamiliares y la instalación de caravanas móviles, con la explanación del suelo y el vallado evidentes en algunos lugares. En la actualidad, algunas zonas se siguen utilizando para el pastoreo de ganado, aunque este uso parece ser informal y no planificado.

Otros usos informales actuales del terreno incluyen actividades recreativas como el baño en la playa, la pesca, el senderismo, la bicicleta de montaña, la observación de aves, la acampada y el todoterreno no planificado. Las zonas más escarpadas y las colinas parecen estar en desuso desde hace varias décadas.

Los usos del suelo pasados y presentes, junto con otros factores antropogénicos, han influido en el estado actual de la zona de estudio, incluidas las zonas húmedas.

Las zonas altas adyacentes a los humedales están dominadas principalmente por las especies *Megathyrsus maximus* (FACU), *Neltuma juliflora* (UPL) y *Pithecellobium dulce* (UPL). Hay otras zonas de tierras altas que podrían clasificarse como pastizales no gestionados con matorrales y árboles dispersos, matorrales, bosques secos secundarios y bosques secos costeros.

El Mapa del Inventario Nacional de Humedales (NWI) del USFWS muestra humedales en la zona norte del Área de Estudio. Según el Comité Federal de Datos Geográficos (FGDC, 2013) y el Sistema de Clasificación Cowardin (1979), las clasificaciones de los humedales son las siguientes: E1UBL (estuarino, submareal, fondo no consolidado, submareal), E2FO3N (estuarino, intermareal, arbolado, de hoja ancha perenne, inundado regularmente) y E2US2/3P (estuarino, intermareal, orilla no consolidada, arena/lodo, inundado irregularmente).

Los humedales de la zona de estudio incluyen marismas sin vegetación y con vegetación, manglares, lagunas costeras y otras aguas abiertas estacionales. Entre ellos, las marismas y salinas se ven especialmente afectadas por importantes perturbaciones humanas. En estas zonas se observan con frecuencia actividades todoterreno, como el uso de vehículos todoterreno (ATV) y 4x4. Estas actividades, que pueden considerarse ilegales, han provocado una notable degradación de estos hábitats. Los impactos incluyen el aumento de la sedimentación en partes de las marismas y salinas, una condición probablemente exacerbada por la histórica

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aportes de sedimentos procedentes de los usos del suelo circundantes. Esta degradación supone un reto para la salud ecológica y la resistencia de estos importantes sistemas acuáticos.

Los manglares de la zona de estudio también han sufrido graves impactos de fenómenos naturales, sobre todo del huracán María en 2017. Mientras que ciertas secciones del manglar están mostrando signos de recuperación natural, otras permanecen en un estado degradado, mostrando poca o ninguna evidencia de rebrote o restauración. Los efectos combinados del uso histórico de la tierra, las actividades todoterreno y los fenómenos meteorológicos extremos subrayan la necesidad urgente de una gestión activa y de medidas de conservación específicas para restaurar y salvaguardar estos ecosistemas acuáticos críticos.

Los límites de las zonas húmedas están dominados principalmente por las especies *Avicennia germinans* (OBL), *Batis maritime* (FACW), *Conocarpus erectus* (FACW) y *Laguncularia racemosa* (OBL). La clasificación de todas estas especies se basa en la Lista Nacional de Plantas de Humedales para el Caribe (Región CB) de 2020 del Servicio de Pesca y Vida Silvestre de EE.UU. (USFWS).

El cuadrángulo topográfico del Servicio Geológico de Estados Unidos (USGS) y el mapa NWI indican la presencia de algunos cursos de agua dentro de la zona de estudio. Estos cursos de agua parecen ser efímeros más que intermitentes, ya que no se observó que tuvieran caudal de agua durante la estación lluviosa. Parece que sólo recogen agua durante las lluvias torrenciales.

Algunos cursos de agua tienen una ribera definida desde las colinas hasta la costa, mientras que otros sólo la tienen en las colinas, sin ribera definida dentro de la llanura costera, donde el flujo puede convertirse en laminar sobre el terreno antes de llegar a las zonas húmedas. Además, tanto los mapas del USGS como los del NWI ilustran algunos cursos de agua efímeros interceptados por estanques artificiales utilizados históricamente con fines agrícolas; se observó que algunos de estos estanques estaban secos, mientras que otros contenían agua.

En la parte central septentrional de la zona de estudio, el cuadrilátero topográfico del USGS también muestra una antigua zona de producción de sal, o "Salinas", donde se realizaron extracciones de sal durante el siglo pasado.

La delimitación de los humedales jurisdiccionales se llevó a cabo utilizando los tres criterios de humedales en puntos de muestreo dentro de las zonas de humedales potenciales, el juicio profesional, la cubierta vegetal observada en el lugar, mediciones GPS y equipos de topografía. Los humedales de la zona de estudio consisten en marismas sin vegetación, marismas con vegetación, manglares y lagunas costeras. **La figura 4** muestra la ubicación de los puntos de muestreo y la delimitación de los humedales.

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Figura 4: Delimitación de humedales y ubicación de los puntos de muestreo
Proyecto Esencia
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

El Estudio de Determinación Jurisdiccional y Delineación de Humedales realizado por AMBIENTA INC. muestra que dentro de los límites del Proyecto hay humedales estuarinos que están bajo la jurisdicción de la Sección 404 de la CWA y la Sección 10 de la RHA. Sin embargo, no hay zonas fluviales (arroyos) o palustres (agua dulce) bajo la jurisdicción de la Sección 404 de la CWA y la Sección 10 de la RHA. Esta determinación se basa en la normativa vigente y en la interpretación de la Regla de Conformidad sobre "Aguas de los Estados Unidos" (WOTUS) de 2023.

La tabla 1 resume los criterios de humedal jurisdiccional que cumplía cada uno de los puntos de muestreo y la decisión final sobre si la zona debía considerarse o no humedal jurisdiccional. De un total de ciento trece (113) puntos de muestreo, cuarenta y dos (42) se encuentran dentro de zonas húmedas. **El Apéndice C** contiene una vista detallada de la ubicación de los puntos de muestreo y la delimitación de los humedales.

TABLA 1: ESTADO DE LOS CRITERIOS DE HUMEDALES DE LOS PUNTOS DE MUESTREO.

SP #	Latitud	Longitud	Vegetación hidrófita	Suelo hídrico	Hidrología de los humedales	Determinación de humedales
SP01	18.002822	-67.166168	No	Sí	Sí	No
SP02	18.002788	-67.166164	No	No	No	No
SP03	18.002839	-67.16622	No	No	No	No
SP04	18.002672	-67.166185	No	No	No	No
SP05	18.002597	-67.168267	No	No	No	No
SP06	18.002427	-67.16901	No	Sí	Sí	No
SP07	18.002312	-67.170612	No	No	No	No
SP08	18.001955	-67.171906	Sí	No	Sí	No
SP09	18.002095	-67.171842	No	Sí	Sí	No
SP10	18.001965	-67.172893	Sí	Sí	Sí	Sí
SP11	18.002001	-67.173002	No	No	No	No
SP12	18.001759	-67.172966	Sí	No	Sí	No
SP13	18.002281	-67.173443	Sí	Sí	Sí	Sí
SP14	18.002259	-67.175445	No	No	No	No
SP15	18.001670	-67.177073	No	No	Sí	No
SP16	18.002717	-67.176766	Sí	Sí	Sí	Sí
SP17	18.002697	-67.176805	No	No	No	No
SP18	18.002440	-67.177788	Sí	Sí	Sí	Sí
SP19	18.002419	-67.177813	No	No	Sí	No
SP20	18.002754	-67.178992	Sí	Sí	Sí	Sí
SP21	18.002682	-67.179065	No	No	No	No
SP22	18.002384	-67.179497	No	No	Sí	No
SP23	18.002596	-67.180229	Sí	Sí	Sí	Sí
SP24	18.002541	-67.180224	No	No	No	No
SP25	18.002964	-67.18156	Sí	Sí	Sí	Sí
SP26	18.002922	-67.181587	No	No	Sí	No
SP27	18.002794	-67.182475	Sí	Sí	Sí	Sí
SP28	18.002758	-67.182439	No	No	Sí	No
SP29	18.002751	-67.182481	No	No	No	No
SP30	18.003203	-67.184825	Sí	Sí	Sí	Sí

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SP #	Latitud	Longitud	Vegetación hidrófita	Suelo hídrico	Hidrología de los humedales	Determinación de humedales
SP31	18.003146	-67.184883	No	No	No	No
SP32	18.002217	-67.18733	Sí	Sí	Sí	Sí
SP33	18.003172	-67.187323	No	No	No	No
SP34	18.003871	-67.188628	Sí	Sí	Sí	Sí
SP35	18.003673	-67.188527	No	No	No	No
SP36	18.008225	-67.178448	Sí	Sí	Sí	Sí
SP37	18.008566	-67.180623	No	Sí	Sí	No
SP38	18.008262	-67.180542	Sí	Sí	Sí	Sí
SP39	18.007934	-67.182495	No	Sí	Sí	No
SP40	18.007775	-67.182504	Sí	Sí	Sí	Sí
SP41	18.003900	-67.189588	Sí	Sí	Sí	Sí
SP42	18.003853	-67.189612	No	No	Sí	No
SP43	18.003793	-67.190648	Sí	Sí	Sí	Sí
SP44	18.003773	-67.190732	No	No	Sí	No
SP45	18.003042	-67.191584	No	Sí	Sí	No
SP46	18.002786	-67.191553	No	Sí	Sí	No
SP47	18.003264	-67.191904	Sí	Sí	Sí	Sí
SP48	18.003169	-67.191873	No	No	No	No
SP49	18.002788	-67.194334	Sí	Sí	Sí	Sí
SP50	18.002887	-67.194347	Sí	Sí	Sí	Sí
SP51	18.002935	-67.194292	No	Sí	No	No
SP52	18.002522	-67.194585	Sí	No	No	No
SP53	18.002118	-67.194506	No	No	No	No
SP54	18.007466	-67.183832	Sí	Sí	Sí	Sí
SP55	18.007587	-67.183788	Sí	Sí	Sí	Sí
SP56	18.006823	-67.185884	Sí	Sí	Sí	Sí
SP57	18.006924	-67.185884	No	No	No	No
SP58	18.004738	-67.19005	Sí	Sí	Sí	Sí
SP59	18.004875	-67.19008	No	No	Sí	No
SP60	18.002783	-67.194609	No	No	No	No
SP60B	18.002786	-67.194691	Sí	Sí	Sí	Sí
SP61	18.001649	-67.196333	Sí	Sí	Sí	Sí
SP62	18.001555	-67.196273	No	No	No	No
SP63	18.000826	-67.19825	Sí	Sí	Sí	No
SP64	18.000720	-67.198181	No	No	No	No
SP65	18.000911	-67.198629	Sí	Sí	Sí	Sí
SP66	18.000806	-67.198599	No	No	No	No
SP67	18.000734	-67.200827	No	No	No	No
SP68	18.000914	-67.200754	No	Sí	Sí	No
SP69	18.000516	-67.200528	Sí	Sí	Sí	Sí
SP70	18.000665	-67.201168	No	No	No	No
SP71	18.000309	-67.200896	No	Sí	No	No
SP72	18.000311	-67.201506	Sí	Sí	Sí	Sí
SP73	17.999976	-67.201476	No	No	No	No
SP74	17.999558	-67.203018	No	Sí	Sí	No
SP75	17.999420	-67.202949	No	No	No	No
SP76	17.998929	-67.205436	No	Sí	Sí	No
SP77	17.998454	-67.20521	No	No	No	No

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SP #	Latitud	Longitud	Vegetación hidrófita	Suelo hídrico	Hidrología de los humedales	Determinación de humedales
SP78	17.999437	-67.204453	Sí	Sí	Sí	Sí
SP79	17.999150	-67.204418	No	Sí	Sí	No
SP80	17.999093	-67.204395	No	No	No	No
SP81	17.998470	-67.206254	Sí	Sí	Sí	Sí
SP82	17.997919	-67.206492	No	Sí	Sí	No
SP83	17.998012	-67.206079	No	Sí	No	No
SP84	17.997916	-67.20643	No	Sí	No	No
SP85	17.998167	-67.206571	No	Sí	No	No
SP86	17.997731	-67.206735	No	No	Sí	No
SP87	17.997825	-67.207714	Sí	Sí	No	No
SP88	17.997606	-67.207542	No	No	No	No
SP89	17.996908	-67.208034	No	No	Sí	No
SP90	17.996924	-67.208629	No	No	No	No
SP91	17.997011	-67.208652	Sí	No	No	No
SP92	17.995982	-67.209333	No	No	No	No
SP93	17.994194	-67.210744	No	No	No	No
SP94	17.998075	-67.207153	Sí	Sí	Sí	Sí
SP95	17.998048	-67.207202	No	No	No	No
SP96	18.000050	-67.201458	No	Sí	Sí	No
SP97	18.000967	-67.199908	Sí	Sí	Sí	Sí
SP98	18.005705	-67.188242	Sí	Sí	Sí	Sí
SP99	18.003416	-67.167476	Sí	Sí	Sí	Sí
SP100	18.003374	-67.167523	No	No	No	No
SP101	18.003287	-67.167053	Sí	Sí	Sí	Sí
SP102	18.003269	-67.167046	No	No	No	No
SP103	18.003329	-67.166944	Sí	Sí	Sí	Sí
SP104	18.003349	-67.166952	No	No	No	No
SP105	18.003043	-67.166935	Sí	Sí	Sí	Sí
SP106	18.002961	-67.166949	No	No	No	No
SP107	18.003292	-67.166216	Sí	Sí	Sí	Sí
SP108	18.003325	-67.166255	No	No	No	No
SP109	18.003347	-67.166072	Sí	Sí	Sí	Sí
SP110	18.003370	-67.166085	No	No	No	No
SP111	18.003166	-67.174448	Sí	Sí	Sí	Sí
SP112	18.003170	-67.174437	No	No	No	No

La conclusión de la determinación jurisdiccional se basa y apoya en:

- Juicio profesional.
- Indicadores de presencia de vegetación hidrófita, hidrología de humedales y suelos hídricos.
- Conexión hidrológica estacional superficial con otros humedales y/o aguas estadounidenses.
- Fotografías aéreas, mapas NWI, topografía LIDAR y documentación fotográfica.
- Formularios de datos rellenados durante el reconocimiento del lugar.

Durante los últimos cuatro (4) años, se han producido varios cambios en relación con la definición federal de "Aguas de los Estados Unidos" (WOTUS) en virtud de la CWA, incluida la publicación de una nueva norma y de un nuevo reglamento.

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definición revisada de WOTUS publicada en el *Registro Federal* fue el 18 de enero de 2023. El 25 de mayo de 2023, el Tribunal Supremo de los Estados Unidos emitió una decisión en el caso *Sackett contra la Agencia de Protección del Medio Ambiente (EPA*) (caso n.º 21-454), en la que dictaminaba y limitaba la jurisdicción de la EPA sobre los humedales en virtud de la CWA.

En el caso *Sackett*, el tribunal indaga en la norma jurisdiccional de la CWA para identificar humedales adyacentes como WOTUS en la situación de una impugnación de la orden de cumplimiento de la EPA por el vertido no autorizado de material de relleno en WOTUS.

Recientemente, el 29 de agosto de , la Agencia de Protección del Medio Ambiente de EE.UU. (EPA) y el Departamento del Ejército (las agencias) emitieron una norma final *de* conformidad (*Norma de Conformidad WOTUS 2023*) para modificar la *Definición Revisada WOTUS 2023* (18 de enero de 2023). Esta norma final adapta la definición de WOTUS a la decisión del Tribunal Supremo de EE.UU. del 25 de mayo de 2023 en el caso *Sackett contra la EPA*.

Algunas secciones de la norma de enero de 2023 no son válidas en virtud de la interpretación de la CWA realizada por el Tribunal Supremo en la sentencia *Sackett*. Por lo tanto, las agencias han modificado aspectos clave del texto normativo para ajustarse a la decisión del Tribunal.

Según la norma *Sackett*, "para hacer valer la jurisdicción sobre un humedal adyacente, una parte debe demostrar, en primer lugar, que la masa de agua adyacente constituye WOTUS (es decir, un agua relativamente permanente conectada a las aguas navegables interestatales tradicionales); y, en segundo lugar, que el humedal tiene una conexión superficial continua con esa agua, lo que hace difícil determinar dónde termina el 'agua' y comienza el 'humedal'".

Según la prueba de Sackett, "los humedales que están separados de las aguas navegables tradicionales no pueden considerarse parte de esas aguas, aunque se encuentren cerca". El caso *Sackett contra la EPA* representa la última de una serie de disputas legales sobre la interpretación del WOTUS. Aunque el Tribunal no abordó la validez de la Norma en el caso *Sackett*, la sentencia del Tribunal rechaza el uso de la norma de "nexo significativo" en la que se basa la interpretación de las Agencias del WOTUS.

La Norma de Conformidad WOTUS de 2023, incluida en el (Registro Federal) *40 CFR 120.2(a)(3) y 33 CFR 328.3(a)(3)* eliminó la norma de nexo significativo de la disposición sobre afluentes, y el *40 CFR 120.2(a)(4) y 33 CFR 328.3(a)(4)* eliminó la norma de nexo significativo de la disposición sobre humedales adyacentes.

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La Regla de Conformidad WOTUS de 2023 eliminó el requisito de "nexo significativo", basándose en esto, los afluentes no navegables evaluados que no son aguas relativamente permanentes (NRPW) y que consisten en arroyos efímeros, zanjas, cunetas o rasgos erosivos (por ejemplo, barrancos, pequeños lavados caracterizados por un flujo de bajo volumen, infrecuente o de corta duración) se considerarían no jurisdiccionales.

Según las observaciones de campo, algunos elementos efímeros de la zona de estudio se gestionaron en el pasado mediante la creación de zanjas y zonas de retención de agua, mientras que otros se deben a la erosión o fueron creados por el hombre para gestionar la escorrentía y, según la *Norma de Conformidad con el WOTUS de 2023*, podrían considerarse no jurisdiccionales.

Según el cuadrante topográfico del USGS, algunos cursos de agua intermitentes fluyen a través de las zonas norte y sur del Sitio del Proyecto. Los cursos de agua de la zona norte descargan hacia el mar y el Caño Boquerón ("Laguna Rincón"), mientras que los de la zona sur descargan en el interior del Caño Boquerón.

La evaluación realizada por AMBIENTA INC. ha determinado que estos cursos de agua que actúan como zonas de recogida de drenaje no cumplen los criterios de la Norma de Conformidad WOTUS de 2023 para su clasificación como aguas intermitentes o relativamente permanentes. La evaluación determinó que estas zonas carecen de algunas de las características ecológicas de un arroyo, como el caudal continuo o incluso estacional, y solo recogen agua durante los episodios de lluvias intensas. Por consiguiente, se clasifican como no jurisdiccionales con arreglo a la Ley de Aguas Limpias y a la definición actual de Aguas de los Estados Unidos (WOTUS) según la Norma de Conformidad WOTUS de 2023, identificándose como elementos efímeros.

Los impactos en los humedales pueden evitarse mediante una planificación integral. Los humedales proporcionan funciones y poseen atributos que bien pueden mejorar el paisaje del Proyecto, entre otros servicios. Si existe la posibilidad de afectar a los recursos acuáticos bajo la jurisdicción de la Sección 404 de la CWA y/o la Sección 10 de la RHA durante la fase de construcción del Proyecto, puede ser necesario iniciar un proceso formal de obtención de permisos con la Sección Reguladora del Distrito Caribe del USACE.

La política del USACE y de la EPA, a través de un Memorando de Entendimiento, es considerar una secuencia de pasos durante el diseño de cualquier proyecto que afecte a humedales jurisdiccionales. En primer lugar, debe intentarse desarrollar un diseño que evite el impacto en la zona húmeda. Si los impactos en las zonas húmedas son inevitables, debe intentarse minimizarlos en la medida de lo posible y, a continuación, deben adoptarse medidas de mitigación para los humedales que vayan a verse inevitablemente afectados.

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APÉNDICES

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APÉNDICE A:

DOCUMENTACIÓN FOTOGRÁFICA

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Vista típica de la zona en el punto de muestreo SP-1.

Muestra de suelo en SP-1.

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Vista típica de la zona en el punto de muestreo SP-3.

Muestra de suelo en el punto de muestreo SP-5.

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Delimitación del humedal en el punto de muestreo SP-6.

Vista típica de un arroyo efímero.

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Realización de la fosa de muestreo en el punto de muestreo SP-09.

Evaluación del suelo en el punto de muestreo SP-13.

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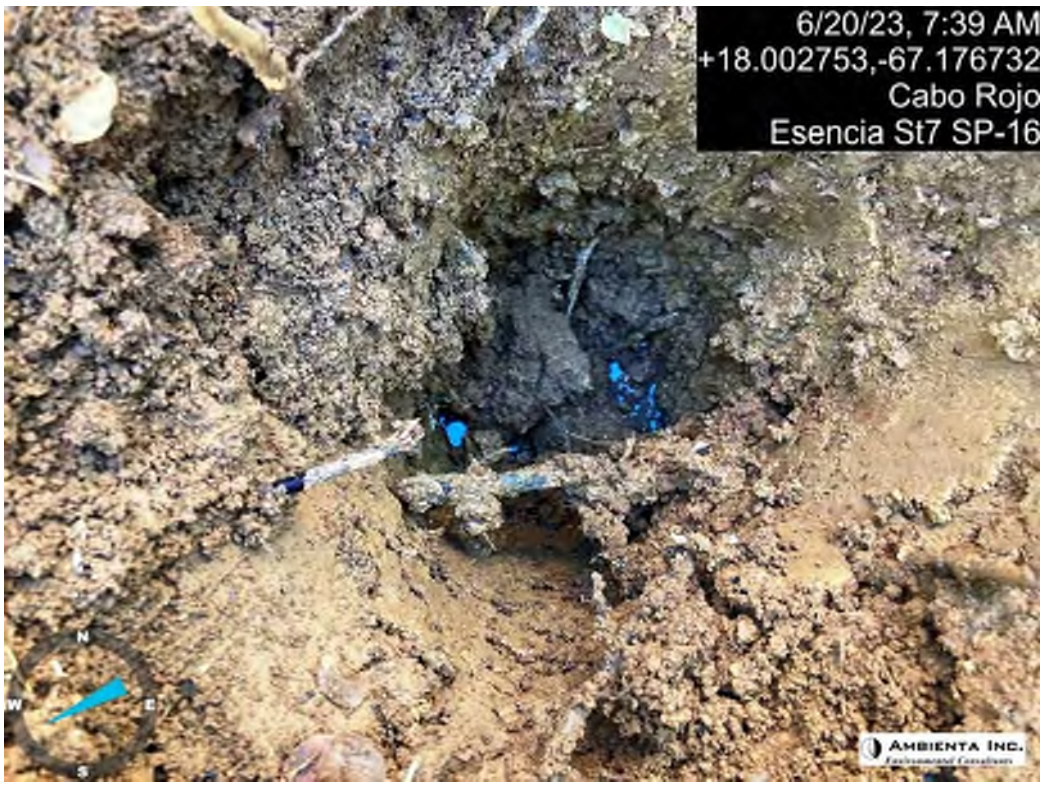

Agua en la fosa de muestreo en el punto de muestreo SP-16.

Evaluación del suelo en el punto de muestreo SP-20.

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Muestra de suelo en el punto de muestreo SP-26.

Pozo de muestreo en el punto de muestreo SP-30.

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Evaluación del suelo en el punto de muestreo SP-35.

Delimitación de humedales en el punto de muestreo SP-40.

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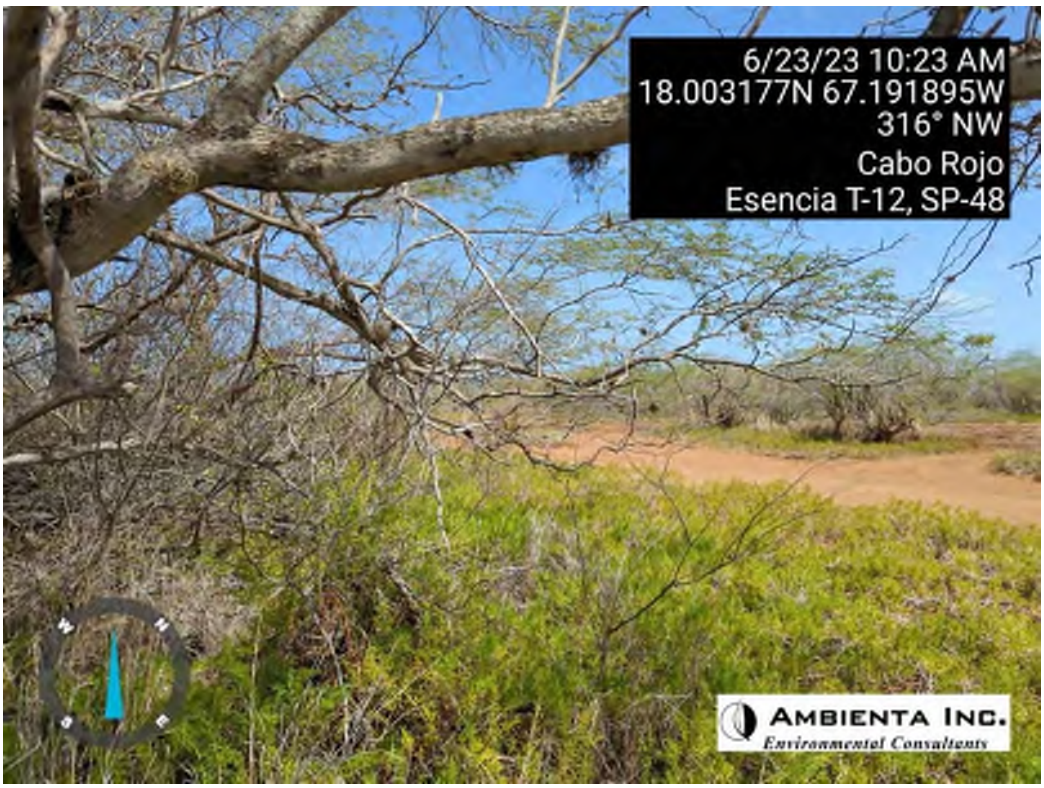

Vista típica de la zona en el punto de muestreo SP-48.

Agua en la fosa de muestreo del punto de muestreo SP-55.

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Vista típica de la zona en el punto de muestreo SP-57.

Vista típica de la zona Punto de muestreo SP-65.

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Evaluación del suelo en el punto de muestreo SP-76.

Evaluación del suelo en el punto de muestreo SP-78.

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Vista típica de la zona en el punto de muestreo SP-82.

Muestra de suelo en el punto de muestreo SP-86.

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Realización de la fosa de muestreo en el punto de muestreo SP-92.

Pozo de muestreo en el punto de muestreo SP-97.

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Zona de evaluación y límite del humedal en el punto de muestreo SP-99.

Zona de evaluación cerca del límite del humedal en el punto de muestreo SP-100.

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Área de evaluación de la ciénaga del humedal en el punto de muestreo SP-105.

Evaluación del suelo en el punto de muestreo SP-107.

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APÉNDICE B:

TRANSCRIPCIONES DE LOS FORMULARIOS DE DATOS DE PUNTOS DE MUESTREO PARA LA DETERMINACIÓN RUTINARIA DE HUMEDALES

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FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-01

Investigador(es): Walter Soler, Jesus Babilonia Landform | Barrio/Estado: Boquerón

(ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.002822° | Largo: -67.166168° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado dentro de una cuenca de captación cóncava que recibe las aguas pluviales que arroja una tubería corrugada (24") procedente de una antigua carretera asfaltada; y descarga en un manglar.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies) Especie Estado

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Crysopogon zizanioides	60	Sí	FAC
2.	Megathyrsus maximus	40	Sí	FACU
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	60	x 3=	180
Especie FACU	40	x 4=	160
Especies UPL	____	x =	____
Totales de columna:	100 (A)		340 (B)

Índice de prevalencia= B/A= 3,4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☑ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

*Indicador Estado basado en el juicio profesional.

SUELO

Punto de muestreo: SP-01

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 3/2	100					Franco arenoso	
6-10	10YR 6/6	100					Arcilla limosa	
10-18	10YR 3/4	100					Franco arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ✔ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X _____ **No** _____

Observaciones:

Punto de muestreo situado dentro de una cuenca de captación cóncava que recibe las aguas pluviales que arroja una tubería corrugada (24") procedente de una antigua carretera asfaltada; y descarga en un manglar.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✔ Grietas en la superficie del suelo (B6)
- ✔ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-02

Investigador(es): Walter Soler, Jesus Babilonia Landform | Barrio/Estado: Boquerón

(ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.002785° | Largo: -67.166129° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** Sí ____ No X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado al este de una húmeda, dentro de una zona que parece tener material de relleno (piedras de gavión) como parte de una alcantarilla de control del agua.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	20 Sí	UPL
2.	Thespesia populnea	20 Sí	FAC
3.	Quadrella indica	10 No	UPL
4.			
5.			

50 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100 Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 25 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	20	x 3=	60
Especie FACU	100	x 4=	400
Especies UPL	30	x 5=	150
Totales de columna:	150 (A)		610 (B)

Índice de prevalencia= B/A= 4,06

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí ____ No X

Observaciones:

SUELO

Punto de muestreo: SP-02

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 4/3	100					Franco limoso	Formación de gaviones 100

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-03

Investigador(es): Walter Soler, Jesus Babilonia Landform | Barrio/Estado: Boquerón

(ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.002839° | Largo: -67.166220° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** Sí _____ No X
¿Suelo hídrico presente?	Sí _____	No X	
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

Punto de muestreo situado al oeste de una zona húmeda, punto de observación inaccesible.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — indicadores dominantes absolutos

	Especie	Estado
1.	Prosopis juliflora	60 Sí UPL
2.		
3.		
4.		
5.		

60 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Bromelia pinguin	100 Sí UPL
2.		
3.		
4.		
5.		
6.		
7.		
8.		

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:
Especies OBL	_____	x 1 = _____
Especies FACW	_____	x = _____
Especies FAC	_____	x = _____
Especies FACU	_____	x = _____
Especies UPL	160	x 5= 800
Totales de columna:	160 (A)	800 (B)

Índice de prevalencia= B/A= 5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí _____ No X

Observaciones:

SUELO

Punto de muestreo: SP-03

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
								N/A

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X**

Observaciones:

Material de relleno (rocas de gaviones) sin fosa de muestreo.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X**

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-04

Investigador(es): Walter Soler, Jesus Babilonia Landform Barrio/Estado: Boquerón

(ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002672° Largo: -67.166185° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No	X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____ No	X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____ No	X	

Observaciones:

Punto de muestreo situado en una antigua carretera asfaltada.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	_____= Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1.			
2.			
3.			
4.			
5.			
	_____= Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____= Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____= Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 0 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:	Multiplicar por:	
Especie OBL _____	x 1	_____
FACW _____	x 2	_____
Especie FAC _____	x 3	_____
FACU _____	x 4	_____
Especies UPL _____	x 5	_____
Totales de columna: _____ (A)		_____ (B)

Índice de prevalencia = B/A _____

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Hidrófitos Vegetación

¿Está presente? **Sí** _____ **No X**

Observaciones:

SUELO

Punto de muestreo: SP-04

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
								N/A

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X**

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X**

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-05

Investigador(es): Jesus Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002597° | Largo: -67.168267° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en una zona boscosa de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	75	Sí	UPL
2. Bourreria succulenta	20	Sí	UPL
3.			
4.			
5.			
	95	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Randia aculeata	5	Sí	UPL
2.			
3.			
4.			
5.			
	5	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1. Jasminum fluminense	75	Sí	UPL
2.			
3.			
4.			
	75	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	100	x 4=	400
Especies UPL	175	x 5=	875
Totales de columna:	275 (A)		1,275 (B)

Índice de prevalencia= B/A= 4,6

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-05

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-9	10YR 3/1	100					Franco limoso	
9-18	10YR 4/2	75	10YR 3/1	15			Arcilla limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X** ____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** ____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-06

Investigador(es): Jesus Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.002427° | Largo: -67.169010° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación X Suelo ____ o Hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

Vegetación ____ Suelo ____ o la ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** X	**No** ____
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en la cuenca de captación al norte de una carretera asfaltada y rodeado de gaviones cerca de la zona pantanosa de manglares.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	____ = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1.			
2.			
3.			
4.			
5.			
	____ = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____ = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 0 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:	Multiplicar por:	
Especie OBL ____	x 1	____
FACW ____	x 2	____
Especie FAC ____	x 3	____
FACU ____	x 4	____
Especies UPL ____	x 5	____
Totales de columna: ____ (A)		____ (B)

Índice de prevalencia = B/A ____

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Hidrófitos Vegetación ¿Está presente? **Sí** ____ **No** X

Observaciones:

No se observó vegetación en la zona muestreada.

SUELO

Punto de muestreo: SP-06

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-9	10YR 3/2	50	10YR 3/4	25			Franco limoso	
9-18	10YR 5/4	50	10YR 6/2	20			Arcilla limosa	10YR 5/8 15

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ✓ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X _____ No _____ Profundidad (pulgadas): 2

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-07

Investigador(es): Jesus Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002312° | Largo: -67.170612° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No X	

Observaciones:

Punto de muestreo situado en una zona boscosa de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	75	Sí	UPL
2. Bourreria succulenta	20	Sí	UPL
3.			
4.			
5.			
	95	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Randia aculeata	5	Sí	UPL
2. Quadrella indica	15	Sí	UPL
3.			
4.			
5.			
	20	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1. Jasminum fluminense	75	Sí	UPL
2.			
3.			
4.			
	75	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar
por: Especies OBL		x 1 =
Especies FACW		x =
Especies FAC		x =
Especies FACU		x =
Especies UPL	190	x 5= 950
Totales de columna:	190 (A)	950 (B)

Índice de prevalencia= B/A= 5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-07

Descripción del perfil: (Descríbalo con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-18	10YR 2/1	75	10YR 4/6	25			Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-08

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.001955° | Largo: -67.171906° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí		No	X	
¿Está presente la hidrología del humedal?	Sí	X	No		

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** ____ **No** X

Observaciones:

Punto de muestreo situado dentro de una cuenca de captación que recibe las aguas pluviales de las laderas al sur, enviando el agua de escorrentía a través de una tubería corrugada (24") en una antigua carretera asfaltada; y vierte a otra cuenca de captación al norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Crysopogon zizanioides	100	Sí FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:
Especies OBL		x 1 =
Especies FACW		x =
Especies FAC	100	x 3= 300
Especies FACU		x =
Especies UPL		x =
Totales de columna:	100 (A)	300 (B)

Índice de prevalencia= B/A= 3

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** X **No** ____

Observaciones:

*Indicador Estado basado en el juicio profesional.

SUELO

Punto de muestreo: SP-08

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-7	10YR 4/3	100					Franco limoso	
7-18	10YR 4/3	50	10YR 2/1	50			Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☑ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 15 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-09

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.002095° | Largo: -67.171842° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo ubicado dentro de una cuenca de captación cóncava que recibe aguas pluviales del sur, arroja una tubería corrugada (24") sobre una antigua carretera pavimentada; y descarga al área del humedal de manglar al norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	85	Sí	FACU
2.	Chloris barbata	15	No	FACU
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.	
2.	
3.	
4.	

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	100	x 4=	400
Especies UPL		x =	
Totales de columna:	100 (A)		400 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

DECLARACIÓN IMPACTO AMBIENTAL
ESENCIA, BOQUERÓN, CABO ROJO
TOMO IV

NOVIEMBRE 2025

TOMO 4 DE 16

ANEJOS 4-5a

SUELO

Punto de muestreo: SP-09

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 4/3	25	2.5Y 2.5/1	45			Franco arcilloso limoso	5YR 5/8 15
10-18	10YR 4/3	45	10YR 3/2	25	C	M	Franco arcilloso limoso	10YR 5/6 15%, 2.5YR 4/6 5%, Gley2 4/5BG 10%.

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí X** _____ **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ✓ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ✓ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ✓ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-10

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.001965° | Largo: -67.172893° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una cuenca de captación cóncava que parece estancar las aguas pluviales y está rodeada por una estructura de roca con gaviones. No se observa ninguna tubería visible procedente del sur ni ninguna descarga.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Cyperus polystachyos	100	Sí FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especie FACW	100	x 2=	200
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	____	x =	____
Totales de columna:	100 (A)		200 (B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-10

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 4/2	60	10YR 6/6	40			Franco arcilloso	
6-10	10YR 5/6	75	7,5YR 5/8	25			Franco arcilloso	
10-18	10YR 5/6	45	2.5Y 5/1	45			Franco arcilloso	2,5YR 3/4 10

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☑ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Aislar la estructura de gestión de las aguas pluviales.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-11

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002001° | Largo: -67.173002° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No X	

Observaciones:

Punto de muestreo situado en una boscosa de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	35	Sí	UPL
2. Bourreria succulenta	25	Sí	UPL
3.			
4.			
5.			
	60	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Randia aculeata	35	Sí	UPL
2.			
3.			
4.			
5.			
	35	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	30	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	30	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1. Jasminum fluminense	85	Sí	UPL
2.			
3.			
4.			
	85	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	30	x 4=	120
Especies UPL	180	x 5=	900
Totales de columna:	210 (A)		1,020 (B)

Índice de prevalencia= B/A= 4,8

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-11

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 3/1	100					Franco limoso	
12-18	10YR 3/1	50	10YR 5/3	45			Franco arenoso	5Y 8/1 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-12

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.001759° | Largo: -67.172966° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí		No	X	
¿Está presente la hidrología del humedal?	Sí	X	No		

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** ____ **No** X

Observaciones:

Punto de muestreo situado en una cuenca poco profunda rodeada por una estructura de gaviones donde parecen acumularse sedimentos. No hay cruce visible de tuberías hacia el sur y no se observa ninguna descarga.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — indicadores dominantes absolutos — Especie — Estado

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Crysopogon zizanioides	100	Sí	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC	100	x 3=	300
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		300 (B)

Índice de prevalencia= B/A= 3

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

*Indicador Estado basado en el juicio profesional.

SUELO

Punto de muestreo: SP-12

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-10	10YR 5/6	60	10YR 5/3	35			Franco limoso	10YR 4/6 5
10-18								Desmenuzamiento de rocas

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X**

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-13

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002259° | Largo: -67.175418° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí	X	No	**¿Es la zona muestreada ¿Dentro de un humedal?**	**Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en el borde del humedal de manglar en la zona marítimo-terrestre.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Avicennia germinans	40	Sí	OBL
2. Prosopis juliflora	35	Sí	UPL
3. Laguncularia racemosa	5	No	OBL
4.			
5.			
	80	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Avicennia germinans	50	Sí	OBL
2. Thespesia populnea	45	Sí	FAC
3.			
4.			
5.			
	95	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 3 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 75 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	95	x 1 =	95
Especies FACW		x =	
Especies FAC	45	x 3=	135
Especies FACU		x =	
Especies UPL	35	x 5=	175
Totales de columna:	175 (A)		405 (B)

Índice de prevalencia= B/A= 2,28

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-13

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/4	100					Franco arcilloso	
4-18	10YR 6/2	45	10YR 7/6	15			Arcilla	Concreciones 10

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ✓ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 16

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 4

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-14

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002225° | Largo: -67.175418° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____ No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____ No X	

Observaciones:

Punto de muestreo situado en una zona elevada cerca de un sendero todoterreno (4x4) y cerca de la zona marítimo-terrestre señalizada.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Ziziphus reticulata	50	Sí	UPL
2.			
3.			
4.			
5.			
	50 = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Randia aculeata	25	Sí	UPL
2. Flueggea acidoton	15	Sí	UPL
3.			
4.			
5.			
	40 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:	Multiplicar	
por: Especies OBL	x 1 =	
Especies FACW	x =	
Especies FAC	x =	
Especie FACU 100	x 4=	400
Especies UPL 90	x 5=	450
Totales de columna: 190 (A)		850 (B)

Índice de prevalencia= B/A= 4,47

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-14

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 4/4	100					Franco arcilloso limoso	
4-18	10YR 5/8	50	10YR 4/4	50			Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 16 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-15

Investigador(es): Jesús Babilonia | Barrio/Estado: Boqueón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.001670° | Largo: -67.177073° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en un arroyo efímero en una zona boscosa de tierras altas. Este arroyo podría haber sido afectado por múltiples senderos existentes para vehículos todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies)

dominantes absolutos		Especie	Estado
1. Prosopis juliflora	45	Sí	FAC
2. Bourreria succulenta	30	Sí	UPL
3. Quadrella indica	25	Sí	UPL
4.			
5.			
	100	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 25 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	45	x 3=	135
Especie FACU	100	x 4=	400
Especies UPL	55	x 5=	275
Totales de columna:	200 (A)		810 (B)

Índice de prevalencia= B/A= 4,05

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-15

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 4/4	100					Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☑ Patrones de drenaje (B10)
- ☐ Nivel freático en la estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-16

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002717° | Largo: -67.176766° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en el borde de la zona de humedales de manglares dentro de la zona marítimo-terrestre. Parece ser una zona que recoge y canaliza la escorrentía hacia los humedales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Avicennia germinans	50	Sí	OBL
2.			
3.			
4.			
5.			
	50 = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Avicennia germinans	45	Sí	OBL
2.			
3.			
4.			
5.			
	45 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____ = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar
por: Especies OBL	95	x 1 = 95
Especies FACW		x =
Especies FAC		x =
Especies FACU		x =
Especies UPL		x =
Totales de columna:	95 (A)	95 (B)

Índice de prevalencia= B/A= 1

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-16

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-5	10YR 4/6	50	10YR 4/2	50			Arcilla limosa	
15-18	10YR 5/4	75	2,5YR 5/8	20			Arcilla limosa	10YR 7/1 5

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ✓ Agua superficial (A1)
- ✓ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ✓ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí X No _____ Profundidad _____

(pulgadas): 8 ¿Hay nivel freático? Sí _____ No X Profundidad

(pulgadas): ¿Saturación presente? Sí X No _____ Profundidad _____

(pulgadas): 4
(incluye franja capilar)

¿Hidrología del humedal presente? **Sí X** _____ **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-17

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002697° | Largo: -67.176805° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en lo que parece ser un arroyo efímero en una zona boscosa de tierras altas, cerca de la zona marítimo-terrestre. Esta zona parece drenar la escorrentía hacia los humedales del norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	45	Sí	UPL
2. Pithecellobium dulce	20	Sí	FACU
3.			
4.			
5.			
	65	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Randia aculeata	5	Sí	UPL
2.			
3.			
4.			
5.			
	5	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1. Jasminum fluminense	5	Sí	UPL
2.			
3.			
4.			
	5	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	120	x 4=	480
Especies UPL	55	x 5=	275
Totales de columna:	175 (A)		755 (B)

Índice de prevalencia= B/A= 4,31

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-17

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 4/4	100					Franco arcilloso limoso	
2-18	7,5YR 4/6	100						

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en lo que parece ser un arroyo efímero en una zona boscosa de tierras altas, cerca de la zona marítimo-terrestre. Esta zona parece drenar la escorrentía hacia los humedales del norte.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-18

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002440° Largo: -67.177788° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en el borde de un humedal de manglares y cerca de la zona marítimo-terrestre. Zona parece drenar la escorrentía hacia los humedales del norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1. Avicennia germinans	95	Sí OBL
2.		
3.		
4.		
5.		

95 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	100	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	95	x 1 =	95
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	195 (A)		295 (B)

Índice de prevalencia= B/A= 1,51

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-18

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/2	75	10R 4/8	5	C	M	Arcilla limosa	10YR 6/8 25%, Gley1 5/N 10%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] ✓ Nivel freático alto (A2)
- [ ] ✓ Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] ✓ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10) Marcas de
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [ ] ✓ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X _____ No _____ Profundidad (pulgadas): 13

¿Saturación presente? (incluye franja capilar) Sí X _____ No _____ Profundidad (pulgadas): 16

¿Hidrología del humedal presente? **Sí X** _____ **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-19

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002419° | Largo: -67.177813° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado entre una zona alta boscosa y una zona húmeda de transición, cerca de la zona marítimo-terrestre .

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores

dominantes absolutos		Especie	Estado
1. Bourreria succulenta	50	Sí	UPL
2. Prosopis juliflora	45	Sí	UPL
3.			
4.			
5.			
	95	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	100	x 4=	400
Especies UPL	95	x 5=	475
Totales de columna:	195 (A)		875 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-19

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 3/1	100					Franco arcilloso limoso	
2-18	10YR 3/1	50	10YR 5/4	50			Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] Nivel freático alto (A2)
- [ ] Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] Depósitos de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] ✓ Rizósferas oxidadas en raíces vivas (C3)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)
- [ ]

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] ✓ Patrones de drenaje (B10) Marcas de
- [ ] Nivel freático en estación seca (C2)
- [ ] Saturación visible en imágenes aéreas (C9)
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [ ] Prueba FAC-Neutral (D5)
- [ ]

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-20

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002764° | Largo: -67.179027° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No** ____
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una zona de transición de un humedal, en la zona marítimo-terrestre. Zona que parece drenar la escorrentía hacia la zona húmeda.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Avicennia germinans	90 Sí OBL
2.		
3.		
4.		
5.		

90 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	50 Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	90	x 1 =	90
Especie FACW	50	x 2=	100
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	140 (A)		190 (B)

Índice de prevalencia= B/A= 1,35

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-20

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-8	10YR 5/6	70	10YR 6/8	25			Arcilla limosa	10YR 5/3 10
8-18	10YR 6/4	50	10YR 6/8	50		M	Arcilla limosa	2.5YR 4/8 5%, Hormigones 15%.

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ✓ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X _____ No _____ Profundidad (pulgadas): 2

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Three Rules Capital PR, LLC | PR o USVI: PR | Punto de muestreo: SP-21

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002682° | Largo: -67.179065° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No	X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____ No	X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____ No	X	

Observaciones:

Punto de muestreo situado en una zona elevada boscosa, cerca de la zona de transición de un humedal en la zona marítimo-terrestre. Zona que parece drenar la escorrentía hacia la zona húmeda.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	90	Sí	UPL
2.			
3.			
4.			
5.			
	90 = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Cryptostegia madagascariensis	25	Sí	FACW
2.			
3.			
4.			
5.			
	25 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	85	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	85 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33.3 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	_____	x 1 =	_____
Especie FACW	25	x 2=	50
Especies FAC	_____	x =	_____
Especies FACU	85	x 4=	340
Especies UPL	90	x 5=	450
Totales de columna:	200 (A)		840 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-21

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	7,5YR 4/4	100					Franco limoso	
10-18	7,5YR 4/4	100					Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-22

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Pendiente Relieve local (cóncavo, convexo, ninguno): Cóncavo Pendiente (%):

Lat: 18.002384° Largo: -67.179497° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?**	**Sí** _____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No _____			

Observaciones:

Punto de muestreo situado en una cuenca de captación que parece recoger y estancar la escorrentía de la carretera principal a través de una zanja de drenaje. No se observa ningún desagüe de salida.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	10	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

10 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	10	x 4=	40
Especies UPL	_____	x =	_____
Totales de columna:	10 (A)		40 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

Este punto de muestreo está dentro de la cuenca de captación y la mayor parte de la vegetación está muerta.

SUELO

Punto de muestreo: SP-22

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 5/3	90	2.5Y 7/8	50			Franco limoso	5YR 4/6 15
10-18								Desmenuzamiento de rocas

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ✓ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ✓ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología del humedal presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una cuenca de captación, cerca de una zona de transición entre un humedal y la zona marítimo-terrestre.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-23

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Terreno llano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002596° | Largo: -67.180229° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación _____ el suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una zona húmeda de manglares.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores

dominantes absolutos

	Especie	Estado	
1.	Avicennia germinans	90	Sí	OBL
2.				
3.				
4.				
5.				

90 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Sesuvium portulacastrum	80	Sí	FACW
2.	Opuntia repens	20	Sí	UPL
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 66.6 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	90	x 1 =	90
Especie FACW	80	x 2=	160
Especies FAC		x =	
Especies FACU		x =	
Especies UPL	20	x 5=	100
Totales de columna:	190 (A)		350 (B)

Índice de prevalencia= B/A= 1,84

Indicadores de vegetación hidrófita:

- [✓] Prueba rápida de vegetación hidrófita
- [✓] La prueba de dominancia es >50%.
- [✓] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X**___ **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-23

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	2.5Y 5/3	95	10YR 3/1	5			Franco arcilloso	
12-18	10YR 4/1	10	7,5YR 4/4	80				Gley1 5/10Y 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 4 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una zona boscosa de manglares donde parece que se acumulan aguas y estanques cerca de un humedal y de la zona marítimo-terrestre.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 20 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-24

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002541° Largo: -67.180224° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No	X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No	X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No	X	

Observaciones:

Punto de muestreo situado en una zona boscosa de transición entre tierras altas y humedales, dentro de la zona marítimo-terrestre.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)	Absoluto % Cobertura	Indicador dominante Especies?	Estado
1. Prosopis juliflora	70	Sí	UPL
2.			
3.			
4.			
5.			
	70	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Cynophalla flexuosa	15	Sí	UPL
2.			
3.			
4.			
5.			
	15	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	80	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	80	x 4=	320
Especies UPL	85	x 5=	425
Totales de columna:	165 (A)		670 (B)

Índice de prevalencia= B/A= 4,52

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-24

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/8	50	10YR 4/2	50			Arcilla limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-25

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002964° | Largo: -67.181560 | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí X	No ____	**¿Es la zona muestreada**	
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** X **No** ____
¿Está presente la hidrología del humedal?	Sí X	No ____		

Observaciones:

Punto de muestreo situado en una zona de transición de humedales en la zona marítimo-terrestre. Se trata de un arroyo efímero que parece drenar la escorrentía hacia los humedales del norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Avicennia germinans 75	Sí OBL
2.		
3.		
4.		
5.		

75 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	75	x 1 =	75
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	____	x =	____
Totales de columna:	75 (A)		75 (B)

Índice de prevalencia= B/A= 1

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** X **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-25

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/4	45	5YR 4/6	50			Franco arcilloso	5Y 6/2 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☑ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 3 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-26

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002922° Largo: -67.181587° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?**	**Sí** _____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No _____			

Observaciones:

Punto de muestreo situado en un canal de drenaje con profundidad, que parece drenar la escorrentía hacia la zona de humedales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) dominantes absolutos

	Especie	Estado	
1. Bourreria succulenta	50	Sí	UPL
2. Prosopis juliflora	45	Sí	UPL
3. Pithecellobium dulce	5	No	FACU
4.			
5.			

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

_____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. Jasminum fluminense	30	Sí	UPL
2.			
3.			
4.			

30 = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU 5	_____	x 4=	20
Especies UPL	125	x 5=	625
Totales de columna:	130 (A)		645 (B)

Índice de prevalencia= B/A= 4,9

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-26

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 3/4	100					Franco limoso	
6-18	5YR 3/4	100						

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-27

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002817° | Largo: -67.182504° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una zona húmeda de manglares.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Avicennia germinans	65	Sí	OBL
2. Laguncularia racemosa	35	Sí	OBL
3.			
4.			
5.			
	100	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Avicennia germinans	25	Sí	OBL
2.			
3.			
4.			
5.			
	25	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 3 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	125	x 1 =	125
Especies FACW		x =	
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	125 (A)		125 (B)

Índice de prevalencia= B/A= 1

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** ___ **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-27

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 3/3	100					Franco arcilloso	
10-18	10YR 4/4	65	2,5YR 5/8	5	D	M		Gley2 4/5PB ?%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ✓ Agua superficial (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de Drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 3 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-28

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002758° Largo: -67.182439° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X _____ No _____

¿Hay vegetación _____ el suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?**	**Sí** _____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No _____			

Observaciones:

Punto de muestreo situado en el borde de una zona de transición entre una zona húmeda y una de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores	Especie Estado
1. Prosopis juliflora	75	Sí UPL
2. Randia aculeata	10	No UPL
3.		
4.		
5.		
	85	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

_____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	100	x 4=	400
Especies UPL	85	x 5=	425
Totales de columna:	185 (A)		825 (B)

Índice de prevalencia= B/A= 4,46

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-28

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-16	10YR 3/3	75	10YR 4/6	25			Franco limoso	Rocas en el fondo de la fosa de muestreo

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-29

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Pendiente | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002751° | Largo: -67.182481° | Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en una zona de mayor altitud (1,5 m) en comparación con el punto de muestreo 28, cerca de un sendero todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Prosopis juliflora	75	Sí UPL
2.	Randia aculeata	10	No UPL
3.			
4.			
5.			

85 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	100	x 4=	400
Especies UPL	85	x 5=	425
Totales de columna:	185 (A)		825 (B)

Índice de prevalencia= B/A= 4,46

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-29

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-16	10YR 3/3	75	10YR 4/6	25			Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☑ Patrones de drenaje (B10)
- ☐ Nivel freático en la estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-30

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.003203° Largo: -67.184825° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una zona de transición de la llanura aluvial del humedal de manglar, donde pueden producirse inundaciones y aguas superficiales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) dominantes absolutos

	Especie	Estado
1. Avicennia germinans	15	Sí OBL
2.		
3.		
4.		
5.		

15 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	100	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	15	x 1 =	15
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	115 (A)		215 (B)

Índice de prevalencia= B/A= 1,87

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-30

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/3	65	Gley1 4/N	25	D	M	Franco arcilloso	2.5YR 4/8 5%, Concreciones 15%.

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☑ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☑ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 4 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-31

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Convexo Pendiente (%):

Lat: 18.003146° Largo: -67.184883° Datum: PR Datum

(Mapa de suelos) (Unidad) (Nombre:) Fraternidad arcillosa (FrB) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en una berma, que separa el sendero todoterreno (4x4) de la zona de la llanura aluvial del humedal.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies)

dominantes absolutos

	Especie	Estado
1. Prosopis juliflora	40	Sí UPL
2.		
3.		
4.		
5.		

40 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Bromelia pinguin	5	Sí	UPL
2.			
3.			
4.			
5.			
6.			
7.			
8.			

5 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	45	x 5=	225
Totales de columna:	45 (A)		225 (B)

Índice de prevalencia= B/A= 5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

Humedal en mosaico con vegetación problemática dentro de la zona húmeda.

SUELO

Punto de muestreo: SP-31

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 4/4	100					Franco limoso	
12-18	10YR 6/8	70					Franco arcilloso limoso	Inclusión 10YR 5/4 30% Concreciones 15

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-32

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.003271° Largo: -67.187280° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Aguilita limo arcilloso (AgF) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en la llanura aluvial un humedal.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) dominantes absolutos

	Especie	Estado	
1.	Avicennia germinans	30 Sí	OBL
2.			
3.			
4.			
5.			

30 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	100 Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL	30	x 1 =	30	
Especie FACW	100	x 2=	200	
Especies FAC		x =		
Especies FACU		x =		
Especies UPL		x =		
Totales de columna:	130	(A)	230	(B)

Índice de prevalencia= B/A= 1,77

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-32

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/1	65	10YR 5/4	35			Franco limoso	
4-18	10YR 4/2	75	Gley1 4/N	15	D	M	Arcilla limosa	10YR 4/8 5

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☑ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☑ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 2 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-33

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.003172° | Largo: -67.187323° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** Sí ____ No X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en una berma de mayor elevación y entre una zona de llanura aluvial de un humedal y un sendero todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Prosopis juliflora	40	Sí	UPL
2.			
3.			
4.			
5.			
	40	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Pithecellobium dulce	25	Sí	FACU
2.			
3.			
4.			
5.			
	25	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	125	x 4=	500
Especies UPL	40	x 5=	200
Totales de columna:	165 (A)		700 (B)

Índice de prevalencia= B/A= 4,24

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí ____ No X

Observaciones:

Humedal en mosaico con vegetación problemática dentro de la zona húmeda.

SUELO

Punto de muestreo: SP-33

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 3/3	80	10YR 7/3	20			Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-34

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.004008° | Largo: -67.188627° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado cerca de una zona de llanura aluvial de humedales donde un arroyo efímero parece drenar la escorrentía hacia los humedales del norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	50	Sí	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW 50		x 2= 100	
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna: 50	(A)	100	(B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-34

Descripción del perfil: (Descríbalo con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 6/4	75	10YR 6/2	25	RM	M	Arcilla limosa	2,5YR 4/8 5% M
10-18	5YR 5/6	55	2.5Y 7/2	45			Arcilla	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 21 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-35

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): terreno llano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.003673° Largo: -67.188527° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en una zona boscosa de tierras altas donde parece un arroyo efímero que desagua en la llanura aluvial del humedal adyacente.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio ____)			
1. Prosopis juliflora	85	Sí	UPL
2.			
3.			
4.			
5.			
	85	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies ____)			
1. Pithecellobium dulce	20	Sí	FACU
2. Flueggea acidoton	20	Sí	UPL
3. Melicoccus bijugatus	18	Sí	UPL
4.			
5.			
	58	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio ____)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies ____)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	120	x 4=	480
Especies UPL	123	x 5=	615
Totales de columna:	243 (A)		1095 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-35

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	5YR 4/4	50	10YR 4/4	50			Franco limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 22 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-36

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.008225° | Largo: -67.178448° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: E2FO3N

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X _____ No _____

¿Hay vegetación _____ el suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una llanura entre un humedal y la zona costera.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores	Especie Estado
1. Rhizophora mangle	15	Sí OBL
2.		
3.		
4.		
5.		
	15	= Cobertura total
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)		
1. Laguncularia racemosa	25	Sí OBL
2. Conocarpus erectus	25	Sí FACW
3.		
4.		
5.		
	50	= Cobertura total
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)		
1. Fimbristylis cymosa	85	Sí FACW
2. Spartina patens	5	No FACW
3.		
4.		
5.		
6.		
7.		
8.		
	90	= Cobertura total
Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)		
1.		
2.		
3.		
4.		
	_____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	40	x 1 =	40
Especies FACW	115	x 2=	230
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	155 (A)		270 (B)

Índice de prevalencia= B/A= 1,74

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-36

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	2.5Y 8/1	65	2.5Y 7/1	20	CS	M	Arena	5YR 4/6 10
8-18	Gley2 6/5PB	100						

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☑ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☑ Nivel freático alto (A2)
- ☑ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☑ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☑ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☑ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☑ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☑ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 10

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 8

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 22 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-37

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 18.008566° | Largo: -67.180623° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en una depresión cóncava donde el agua podría estancarse y entre la orilla costera y la llanura aluvial del humedal.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio ____)			
1. Coccoloba uvifera	10	Sí	FACU
2.			
3.			
4.			
5.			
	10	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies ____)			
1. Colubrina arborescens	55	Sí	UPL
2. Canelalla winterana	45	Sí	UPL
3.			
4.			
5.			
	100	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio ____)			
1. Fimbristylis cymosa	25	Sí	FACW
2. Sporolobus virginicus	15	Sí	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	40	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies ____)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 40 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		~~Multiplicar~~	
por: Especies OBL	____	x 1 =	____
Especie FACW	40	x 2=	80
Especies FAC	____	x =	____
Especie FACU	10	x 4=	40
Especies UPL	100	x 5=	500
Totales de columna:	150 (A)		620 (B)

Índice de prevalencia= B/A= 4,13

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-37

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 6/8	100					Arena limosa	
2-8	10YR 4/1	100						
8-18	2.5Y 8/1	50	2.5Y 7/1	50				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 5

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 22 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-38

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.008218° | Largo: -67.180522° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X _____ No _____

¿Hay vegetación _____ el suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? Sí X No _____

Observaciones:

Punto de muestreo situado en una duna con mayor elevación adyacente a una llanura aluvial de un humedal.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1. Avicennia germinans	35	Sí OBL
2. Conocarpus erectus	15	Sí FACW
3.		
4.		
5.		

50 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	50	Sí	FACW
2. Sesuvium portulacastrum	50	Sí	FACW
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	35	x 1 =	35
Especies FACW	115	x 2=	230
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	150 (A)		265 (B)

Índice de prevalencia= B/A= 1,8

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí X___ No _____

Observaciones:

SUELO

Punto de muestreo: SP-38

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-10	10YR 5/1	75	2.5Y 7/2	25	CS	M	Arena limosa	7,5YR 5/8 10
10-18	10YR 6/2	75	Gley2 6/5PB	10				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ✓ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 15

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No _____ Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 22 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-39

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.007984° | Largo: -67.182600° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguno

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** Sí _____ No X
¿Suelo hídrico presente?	Sí X	No _____	
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

Punto de muestreo situado en una duna con mayor elevación entre el manglar costero y la zona húmeda.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Jacquinia arborea	90	Sí UPL
2.		
3.		
4.		
5.		

90 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Sporobolus virginicus	15	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

15 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especie FACW 15	_____	x 2= 30	_____
Especies FAC	_____	x =	_____
Especies FACU	_____	x =	_____
Especies UPL	90	x 5= 450	_____
Totales de columna:	105 (A)		480 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí _____ No X

Observaciones:

SUELO

Punto de muestreo: SP-39

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 6/1	100					Arena limosa	
2-8	10YR 4/1	100						
8-18	2.5Y 8/1	50	2.5Y 7/1	50				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 22 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-40

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.007765° | Largo: -67.182503° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguno

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una zona de llanura aluvial entre un humedal de manglares al sur y un sendero todoterreno (4x4) al norte.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Avicennia germinans	45	Sí OBL
2.		
3.		
4.		
5.		

45 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	75	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

75 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	45	x 1 =	45
Especies FACW	75	x 2=	150
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	120 (A)		195 (B)

Índice de prevalencia= B/A= 1,6

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-40

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	2.5Y 6/1	50					Arena limosa	
8-18	Gley1 5/N		2,5YR 4/5	20	C	M		

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [x] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [x] Nivel freático alto (A2)
- [ ] Saturación (A3)
- [ ] Marcas de agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3)
- [x] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)
- [ ]

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10)
- [ ] Nivel freático en estación seca (C2)
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [x] Prueba FAC-Neutral (D5)
- [ ]

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 12

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en la llanura aluvial de un humedal entre un bosque de manglares al sur y un sendero todoterreno (4x4) al norte.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-41

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.003928° | Largo: -67.189585° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en la llanura de inundación de un humedal al norte de una berma que separa el humedal de un sendero todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	____ = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Avicennia germinans	100	Sí	OBL
2.			
3.			
4.			
5.			
	100 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Batis maritima	100	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	100	x 1 =	100
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	200 (A)		300 (B)

Índice de prevalencia= B/A= 1,5

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-41

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 5/4	100					Franco limoso	
(8-) (18)	(10YR) (6/8)	70	(Gley2) (6/10B)	10	D	M	Arcilla limosa	5YR 5/8 5%, 10YR 6/4 15%,10YR 4/1 25%, Concreciones

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ✓ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-42

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Convexo | Pendiente (%):

Lat: 18.003853° | Largo: -67.189612° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí ____	No X			

Observaciones:

Punto de muestreo situado en una berma entre una zona húmeda al norte y un sendero todoterreno (4x4) al sur.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies) Especie Estado

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	65	Sí	FACU
2.	Batis maritima	15	No	FACW
3.	Sesuvium portulacastrum	5	No	FACW
4.				
5.				
6.				
7.				
8.				

85 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL		x 1 =	
Especie FACW	20	x 2=	40
Especies FAC		x =	
Especies FACU	65	x 4=	260
Especies UPL		x =	
Totales de columna:	85 (A)		300 (B)

Índice de prevalencia= B/A= 3,53

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

Humedal en mosaico con vegetación problemática dentro de la zona húmeda.

SUELO

Punto de muestreo: SP-42

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 4/3	100					Franco limoso	
8-18	10YR 5/3	50					Franco limoso	10YR 6/8 50

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X**

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-43

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003793° | Largo: -67.190648° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en un arroyo efímero en una zona inundable de humedal de manglar.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1. Avicennia germinans	40	Sí OBL
2.		
3.		
4.		
5.		

40 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	100	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	40	x 1 =	40
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	140 (A)		240 (B)

Índice de prevalencia= B/A= 1,71

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-43

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-6	10YR 5/8	60	2,5YR 5/6	40			Franco arcilloso arenoso	
6-8	10YR 5/4	65					Franco arenoso	10YR 7/1 35
8-18	7,5YR 4/6	70	Gley1 6/5GY	15				5YR 5/4 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ✓ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No 3 Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/propietario: No hay indicadores hidrológicos presentes. | PR o USVI: PR | Punto de muestreo: SP-44

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003711° | Largo: -67.190716° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación _____ el suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en un arroyo efímero entre un sendero todoterreno (4x4) y una zona de llanura aluvial de un humedal, donde parece que este arroyo.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores	Especie	Estado
1. Prosopis juliflora	30	Sí	UPL
2. Pithecellobium dulce	5	No	FACU
3.			
4.			
5.			
	35	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	10	No	FACW
2. Megathyrsus maximus	75	Sí	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	85	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	10	x 2=	20
Especies FAC		x =	
Especie FACU	80	x 4=	320
Especies UPL	30	x 5=	150
Totales de columna:	120 (A)		490 (B)

Índice de prevalencia= B/A= 4,08

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-44

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/4	55					Franco arcilloso arenoso	10YR 5/6 30%, 10YR 4/3 15%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-45

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003042° | Largo: -67.191584° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en un arroyo efímero en una superficie plana donde el agua parece estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Prosopis juliflora	100 Sí UPL
2.		
3.		
4.		
5.		

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	10 Sí FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		

10 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	10	x 4=	40
Especies UPL	100	x 5=	500
Totales de columna:	110 (A)		540 (B)

Índice de prevalencia= B/A= 4,9

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

En este punto de muestreo se observa vegetación de tierras altas creciendo en la zona donde el agua parece estancarse.

SUELO

Punto de muestreo: SP-45

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-5	10YR 3/2	100					Franco arcilloso	
5-18	10YR 3/4	65	Gley2 5/5PB	15				10YR 4/6 20%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11) presente, Superficie oscura gruesa (A12) problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ☑ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Rasgos redox encontrados entre una matriz de suelo no cumplen criterios hídricos.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-46

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002786° | Largo: -67.191553° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en un arroyo efímero en una plana en una zona boscosa de tierras altas, donde el agua podría estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores) Especie	Estado
1. Prosopis juliflora	45	Sí UPL
2. Pithecellobium dulce	45	Sí FACU
3. Flueggea acidoton	5	No UPL
4.		
5.		
	95	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. Jasminum fluminense	25	Sí	UPL
2.			
3.			
4.			
	25	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	145	x 4=	580
Especies UPL	75	x 5=	375
Totales de columna:	220 (A)		955 (B)

Índice de prevalencia= B/A= 4,34

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-46

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-5	10YR 3/2	100					Franco arcilloso	
5-18	10YR 3/4	65	Gley2 5/5PB	15				10YR 4/6 20%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ✔ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Rasgos redox encontrados entre una matriz de suelo no cumplen criterios hídricos.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-47

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003264° | Largo: -67.191904° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado en la llanura aluvial de un humedal.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	80	Sí	FACW
2.	Sesuvium portulacastrum	20	Sí	FACW
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.	
2.	
3.	
4.	

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		200 (B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** ___ **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-47

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/5	50	Gley1 6/5GY	5			Franco arcilloso	10YR 5/4 35%, 7.5YR 4/6 10%,

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ☑ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Rasgos redox encontrados entre una matriz de suelo no cumplen criterios hídricos.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☑ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☑ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-48

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003143° | Largo: -67.191896° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No X	

Observaciones:

Punto de muestreo situado en una berma de mayor elevación entre senderos todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores) Especie	Estado
1. Prosopis juliflora	20	Sí UPL
2. Pithecellobium dulce	15	Sí FACU
3.		
4.		
5.		
	35 = Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	115	x 4=	460
Especies UPL	20	x 5=	100
Totales de columna:	135 (A)		560 (B)

Índice de prevalencia= B/A= 4,15

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-48

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-5	10YR 3/3	100					Franco limoso	
5-18	10YR 4/6	50						10YR 4/4 50

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-49

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002788° | Largo: -67.194334° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en la llanura aluvial, en el borde del humedal de manglares, en un sendero todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies) Especie Estado

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima 100 Sí FACW
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		200 (B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-49

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 4/3	20	5YR 3/3	35			Arcilla limosa	10YR 5/3 20
8-12 pozo	10YR 5/8	50	2.5Y 5/6	50			Marga arenosa	Desmenuzamiento de rocas en el fondo del

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ☑ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Humedal en mosaico.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☑ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐
- ☑ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-50

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002865° | Largo: -67.194345° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en una llanura aluvial entre una duna de arena y senderos todoterreno (4x4) en un islote de humedales de manglares.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Avicennia germinans	10	Sí OBL
2.			
3.			
4.			
5.			

10 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	100	Sí FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	10	x 1 =	10
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	110 (A)		210 (B)

Índice de prevalencia= B/A= 1,9

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-50

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 4/2	65					Arcilla limosa	
4-8	7,5YR 4/6	65						
8-18	10YR 6/1	70	Gley2 7/5B	10	CS	M	Franco arenoso	5 AÑOS 4/4 10%, 10 AÑOS 7/2 20%, 10 AÑOS 5/3 20%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ✓ Patrones de drenaje (B10)
- ✓ Nivel freático en estación seca (C2)
- ✓ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-51

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002935° Largo: -67.194292° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) Clasificación NWI: E2FO3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí X	No _____	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

Punto de muestreo situado en una zona boscosa entre la orilla costera y senderos todoterreno (4x4), en la zona marítimo-terrestre.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Thespesia populnea	45	Sí FAC
2.		
3.		
4.		
5.		

45 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)

1. Megathyrsus maximus	75	Sí FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		

75 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	45	x 3=	135
Especie FACU	75	x 4=	300
Especies UPL	_____	x =	_____
Totales de columna:	120 (A)		435 (B)

Índice de prevalencia= B/A= 3,6

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-51

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-18	10YR 6/1	65	5Y 7/1	20			Arena	5Y 8/1 15%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-52

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002393° Largo: -67.194571° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita? Sí X No _____ ¿Suelo hídrico presente? Sí _____ No X ¿Está presente la hidrología del humedal? Sí _____ No X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** _____ **No** X

Observaciones:

Punto de muestreo situado en las llanuras de inundación en una zona boscosa entre senderos todoterreno (4x4). No hay canalización de drenaje visible.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie		Estado
1.	Prosopis juliflora	25	Sí UPL
2.			
3.			
4.			
5.			
		25	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
		_____	= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	60	Sí FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		60	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.			
2.			
3.			
4.			
		_____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especie FACW 60	_____	x 2= 120	_____
Especies FAC	_____	x =	_____
Especies FACU	_____	x =	_____
Especies UPL	25	x 5= 125	_____
Totales de columna:	85 (A)		245 (B)

Índice de prevalencia= B/A= 2,9

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☑ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-52

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 3/3	50	7,5YR 4/4	50			Franco arcilloso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 23 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-53

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002118° Largo: -67.194506° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No X	

Observaciones:

Punto de muestreo situado en un arroyo efímero con un barranco de 0,3 m de profundidad y 0,5 m de anchura.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)		Especie Estado
1. Prosopis juliflora	20	Sí UPL
2. Pithecellobium dulce	20	Sí FACU
3. Flueggea acidoton	10	Sí UPL
4.		
5.		
	50	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	95	Sí FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		
	95	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	115	x 4=	460
Especies UPL	30	x 5=	150
Totales de columna:	145 (A)		610 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-53

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-5	10YR 3/3	100					Franco arcilloso	
5-18	10YR 4/6	100						

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en un arroyo efímero con una zanja de 0,3 m de profundidad y 0,5 m de anchura. Este canal de drenaje procede de las laderas del sur que drenan hacia las llanuras aluviales del humedal. No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-54

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.007466° | Largo: -67.183832° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ningu no

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado en una duna cerca de una zona húmeda.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie		Estado
1. Laguncularia racemosa	20	Sí	OBL
2. Rhizophora mangle	20	Sí	OBL
3. Avicennia germinans	20	Sí	OBL
4.			
5.			

60 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	75	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

75 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL	60	x 1 =	60
Especies FACW	75	x 2=	150
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	135 (A)		210 (B)

Índice de prevalencia= B/A= 1,5

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-54

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/3	50	5Y 7/1	40	C	M	Arenoso	2,5YR 5/6 10%, Gley1 3/N 10%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [x] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [x] Nivel freático alto (A2)
- [x] Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [x] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [x] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10) Marcas de
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [x] Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 10

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 6

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-55

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.007587° | Largo: -67.183788° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí X	No ____	**¿Es la zona muestreada**	
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** X **No** ____
¿Está presente la hidrología del humedal?	Sí X	No ____		

Observaciones:

Punto de muestreo situado en un humedal de manglares entre un sendero todoterreno (4x4) y la orilla costera.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (dominantes absolutos (Tamaño de la parcela: radio de 30 pies))

	Especie	Estado	
1. Laguncularia racemosa	30	Sí	OBL
2. Conocarpus erectus	25	Sí	FACW
3. Avicennia germinans	20	Sí	OBL
4. Thespesia populnea	10	No	FAC
5.			

85 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Sporobolus virginicus	90	Sí	FACW
2. Batis maritima	10	No	FACW
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	50	x 1 =	50
Especies FACW	125	x 2=	250
Especies FAC	10	x 3=	30
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	185 (A)		330 (B)

Índice de prevalencia= B/A= 1,8

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-55

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10 AÑOS 5/3	45	2.5Y 7/1	35	C	M	Arenoso	2,5YR 5/8 15%, Gley1 3/N 10%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [x] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [x] Nivel freático alto (A2)
- [x] Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [x] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10) Marcas de
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [x] Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 10

¿Saturación presente? (pulgadas): (incluye franja capilar) Sí X No _____ Profundidad _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-56

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.006600° Largo: -67.185848° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí	X	No	**¿Es la zona muestreada ¿Dentro de un humedal?**	**Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en el borde de una depresión cóncava junto a un sendero todoterreno (4x4) y un humedal de manglares.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Conocarpus erectus	85	Sí	FACW
2.			
3.			
4.			
5.			
	85	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Jacquinia arborea	20	Sí	UPL
2.			
3.			
4.			
5.			
	20	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW	85	x 2=	170
Especies FAC		x =	
Especies FACU		x =	
Especies UPL	20	x 5=	100
Totales de columna:	105 (A)		270 (B)

Índice de prevalencia= B/A= 2,6

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de dominancia de vegetación hidrófita La prueba es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-56

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 5/3	50	2.5Y 7/2	50			Arenoso	
6-18	2.5Y 7/1	40	Gley1 6/N	60				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [x] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] Nivel freático alto (A2)
- [ ] Saturación (A3)
- [ ] Marcas de agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [x] Depósitos a la deriva (B3)
- [ ] o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Fina superficie de lodo (C7)
- [x] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)
- [ ]

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10)
- [ ]
- [ ] Saturación visible en imágenes aéreas (C9)
- [ ] Posición geomórfica (D2) Capa
- [ ] Aquitardos poco profundos (D3)
- [x] Prueba FAC-Neutral (D5)
- [ ]

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en el borde de una depresión cóncava junto a un sendero todoterreno (4x4) y un humedal de manglares. Esta zona de depresión tiene agua superficial y después de hacer el hoyo no se llenó de agua.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-57

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.006637° | Largo: -67.185884° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No	X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** ____ **No** X
¿Suelo hídrico presente?	Sí ____ No	X	
¿Está presente la hidrología del humedal?	Sí ____ No	X	

Observaciones:

Punto de muestreo situado en una duna entre un sendero todoterreno (4x4) y la orilla costera.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Eugenia foetida	75	Sí	UPL
2.			
3.			
4.			
5.			
	75	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Jacquinia arborea	20	Sí	UPL
2.			
3.			
4.			
5.			
	20	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Paspalum dilatatum	15	Sí	FAC
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC	15	x 3=	45
Especies FACU		x =	
Especies UPL	95	x 5=	475
Totales de columna:	110	(A)	520 (B)

Índice de prevalencia= B/A= 4,72

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-57

Descripción del perfil: (Descríbalo con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/3	65	2.5Y 7/2	35			Arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-58

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.004738° | Largo: -67.190050° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado en la llanura de inundación de un humedal en una duna entre senderos MTV.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.			
2.			
3.			
4.			
5.			

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	80	Sí	FACW
2.	Sesuvium portulacastrum	15	No	FACW
3.	Sporobolus virginicus Batis maritima	5	No	FACW
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		200 (B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-58

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-13	10YR 5/3	65					Franco arcilloso arenoso	10YR 5/6 35
13-18	2.5Y 7/1	100					Franco arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] Nivel freático alto (A2)
- [ ] Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10) Marcas de
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [ ] Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X _____ No _____ Profundidad (pulgadas): 14

¿Saturación presente? (incluye franja capilar) Sí _____ No X Profundidad (pulgadas): 6

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-59

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.004875° | Largo: -67.190080° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** _____ **No** X
¿Suelo hídrico presente?	Sí _____ No X	
¿Está presente la hidrología del humedal?	Sí _____ No X	

Observaciones:

Punto de muestreo situado en una zona boscosa entre un sendero todoterreno (4x4) en la llanura aluvial y la orilla del mar.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)			
1. Jacquinia arborea	30	Sí	UPL
2. Pithecellobium dulce	20	Sí	FACU
3. Thespesia populnea	15	Sí	FAC
4. Prosopis juliflora	10	No	UPL
5.			
	75	= Cobertura total	
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1.			
2.			
3.			
4.			
5.			
	_____	= Cobertura total	
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Sporobolus virginicus	15	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	15	= Cobertura total	
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x =	_____
Especie FACW	15	x 2=	30
Especies FAC	15	x 3=	45
Especie FACU	20	x 4=	80
Especies UPL	40	x 5=	200
Totales de columna:	90 (A)		355 (B)

Índice de prevalencia= B/A= 3,9

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Hidrófitos Vegetación

¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-59

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/3	100					Franco arenoso	
4-8	2.5Y 7/2	70	2.5Y 7/1	25			Arena limosa	
8-18	10YR 5/3	100					Franco arcilloso arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X**

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-60

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002812° | Largo: -67.194598° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No	X
¿Suelo hídrico presente?	Sí ____ No	X
¿Está presente la hidrología del humedal?	Sí ____ No	X

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** ____ **No** X

Observaciones:

Punto de muestreo situado en una duna entre la llanura aluvial y la orilla del mar.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Thespesia populnea	20	Sí FAC
2.	Avicennia germinans	15	Sí OBL
3.			
4.			
5.			

35 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	45	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

45 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 66 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL	15	x 1 =	15	
Especies FACW		x =		
Especies FAC	20	x 3=	60	
Especie FACU	45	x 4=	180	
Especies UPL		x =		
Totales de columna:	80	(A)	255	(B)

Índice de prevalencia= B/A= 3,18

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-60

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-6	10YR 5/3	50					Arenoso	10YR 4/3 50
6-18	10YR 3/4	60					Arcilla limosa	10YR 6/2 40

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-60B

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.002790° | Largo: -67.194581° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado en una llanura aluvial.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Thespesia populnea	30	Sí	FAC
2.	Prosopis juliflora	5	No	UPL
3.				
4.				
5.				

35 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC	30	x 3=	90
Especies FACU		x =	
Especies UPL	5	x 5=	25
Totales de columna:	35 (A)		115 (B)

Índice de prevalencia= B/A= 3,28

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%
- [ ] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-60B

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/3	100	2.5Y 7/1	60			Franco arcilloso arenoso	10YR 5/3 50
4-10	10YR 4/6	75					Arcilla limosa	10YR 4/1 25%
10-18	2.5Y 7/1	15	Gley1 6/N	55			Arcilla arenosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ✓ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Humedal en mosaico.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ✓ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una llanura aluvial por donde podrían desaguar las escorrentías de un arroyo efímero. (Esto según la capa Hidrología de los cursos de agua).

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-61

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.001649° | Largo: -67.196333° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en la llanura aluvial de un humedal cerca de un sendero todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — dominantes absolutos

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	100	Sí	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.	
2.	
3.	
4.	

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		200 (B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-61

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-15	10YR 4/3	50	5YR 5/6	50			Arcilla limosa	
15-18	10YR 5/3	40	Gley2 5/5PB	15	C	M	Arcilla limosa	5AÑOS 4/6 15%, 2,5AÑOS 6/3 15%, 2,5AÑOS 3/6
5%								

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☑ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☑ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-62

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): ninguno | Pendiente (%):

Lat: 18.001555° | Largo: -67.196273° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en el borde de una zona elevada (con mayor elevación) y una zona de transición de humedales en las llanuras aluviales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	45	Sí UPL
2.	Randia aculeata	20	Sí UPL
3.			
4.			
5.			

65 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	95	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

95 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	95	x 4=	380
Especies UPL	65	x 5=	325
Totales de columna:	160 (A)		705 (B)

Índice de prevalencia= B/A= 4,4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-62

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 4/4	100					Marga	
12-18	10YR 5/3	85	2.5Y 8/3	15			Franco arcilloso limoso	Concreciones

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-63

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.000826° | Largo: -67.198250° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en las llanuras aluviales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — indicadores dominantes absolutos

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	100	Sí	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.				
2.				
3.				
4.				

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =		
Especie FACW	100	x 2=	200	
Especies FAC		x =		
Especies FACU		x =		
Especies UPL		x =		
Totales de columna:	100	(A)	200	(B)

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-63

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
(0-) (15)	(10YR) (4/3)	65					Franco	10YR 6/4 25%, 10YR 5/1 10%, Desmenuzamiento de rocas en la capa
15-18	10YR 5/1	55	2.5Y 5/3	45			Franco arcilloso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ✓ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Humedal en mosaico.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ✓ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay vías de drenaje visibles que provengan de la ladera hacia el sur. Este punto de muestreo se recogió en un arroyo principal (St16). Este arroyo parece estar afectado por múltiples senderos todoterreno (4x4) en la zona, desde las colinas hasta las llanuras de inundación.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-64

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000720° Largo: -67.198181° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) dominantes absolutos

	Especie	Estado	
1. Prosopis juliflora	55	Sí	UPL
2.			
3.			
4.			
5.			

55 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Cynodon dactylon	80	Sí	FAC
2. Megathyrsus maximus	20	Sí	FACU
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	80	x 3=	240
Especie FACU	20	x 4=	80
Especies UPL	55	x 5=	275
Totales de columna:	155 (A)		595 (B)

Índice de prevalencia= B/A= 3,83

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-64

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/3	100					Franco limoso	Desmenuzamiento de rocas en la capa

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una zona en la que la vegetación no muestra una cuneta visible. Se observa un drenaje visible que proviene de la ladera hacia el sur y el agua de escorrentía causa erosión a lo largo del sendero todoterreno (4x4). Este punto de muestreo se recogió en arroyo principal (St16). Este arroyo parece estar afectado por múltiples senderos todoterreno en la zona, desde las colinas hasta las llanuras aluviales.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-65

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000911° Largo: -67.198629° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado en las llanuras aluviales, donde parece que el agua tiende a estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Prosopis juliflora	15	Sí UPL
2.		
3.		
4.		
5.		

15 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Batis maritima	100	Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	100	x 2=	200
Especies FAC		x =	
Especies FACU		x =	
Especies UPL	15	x 5=	75
Totales de columna:	115 (A)		275 (B)

Índice de prevalencia= B/A= 2,4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita La prueba es >50%.
- ☑ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-65

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-16	10YR 3/2	100					Marga	Desmenuzamiento de rocas en la capa
16-18	10YR 5/2	45	Gley2 3/5PB	30	C	M	Franco arcilloso	5A 4/6 25%, 2,5A 7/2 10%.

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.

- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ☑ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Humedal en mosaico.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☑ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-66

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000806° Largo: -67.198599° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí ____	No X			

Observaciones:

Punto de muestreo situado en una zona de pastizales de tierras altas con pocos árboles.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Prosopis juliflora	20	Sí UPL
2.			
3.			
4.			
5.			

20 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Cynodon dactylon	100	Sí	FAC
2.				
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC	100	x 3=	300
Especies FACU		x =	
Especies UPL	20	x 5=	100
Totales de columna:	120 (A)		400 (B)

Índice de prevalencia= B/A= 3,33

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-66

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/3	100					Marga	Desmenuzamiento de rocas en la capa

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-67

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.000734° | Largo: -67.200827° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado cerca de un sendero todoterreno (4x4) en una zona boscosa de tierras altas que tiende a inundarse llueve.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — dominantes absolutos

	Especie		Estado
1.	Prosopis juliflora	65	Sí UPL
2.	Pithecellobium dulce	15	No FACU
3.			
4.			
5.			
		80	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
		____	= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		100	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.			
2.			
3.			
4.			
		____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	115	x 4=	460
Especies UPL	65	x 5=	325
Totales de columna:	180 (A)		785 (B)

Índice de prevalencia= B/A= 4,36

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**

Observaciones:

SUELO

Punto de muestreo: SP-67

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 4/3	65					Franco arenoso	Inclusiones 10YR5/3 35
10-18	10YR 4/3	100					Arcilla limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-68

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.000919° | Largo: -67.200773° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) | Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

SP situado en una zona de microtopografía cóncava que presenta algunas características de mosaico humedal/no humedal donde el agua de lluvia tiende a estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Thespesia populnea	65	Sí	FAC
2.	Prosopis juliflora	35	Sí	UPL
3.				
4.				
5.				

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	10	Sí	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				

10 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33.3 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	65	x 3=	195
Especie FACU	10	x 4=	40
Especies UPL	35	x 5=	175
Totales de columna:	110 (A)		410 (B)

Índice de prevalencia= B/A= 3,7

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-68

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 6/6	40	Gley2 5/10BG	5			Arenoso	Inclusiones 10YR 4/3 25%, 2.5Y 7/2 15%
6-12	10YR5/3	100					Arenoso	
12-18	5Y 7/1	100					Sandy	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí X** _____ **No** _____

Observaciones:

Microtopografía y características de mosaico de humedal/no humedal observadas en un punto aislado inferior detrás de la duna de arena.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☑ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☑ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☑ Patrones de drenaje (B10) Marcas de
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología del humedal presente? **Sí X** _____ **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

El punto de muestreo está situado en una zona boscosa detrás de la duna de arena de la playa, con una superficie cóncava donde el agua de lluvia tiende a estancarse.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-69

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Terreno llano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.000516° | Largo: -67.200528° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P.

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en una zona de microtopografía cóncava que presenta algunas características de mosaico humedal/no humedal donde el agua de lluvia tiende a estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Prosopis juliflora	55	Sí UPL
2.		
3.		
4.		
5.		

55 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	55	x =	____
Totales de columna:	55 (A)		275 (B)

Índice de prevalencia= B/A= 5 ____

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

Zona donde el agua tiende a estancarse con vegetación boscosa.

SUELO

Punto de muestreo: SP-69

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 3/2	100					Franco limoso	
4-6	10YR 5/4	100					Franco limoso	
6-18	10YR 5/2	99	2.5Y 5/4	1	RM	M	Franco arcilloso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X** _____

Observaciones:

Superficie cóncava. El redox marginal no cumple los criterios de suelo hídrico. A mayor profundidad se observa suelo gleyado en madrigueras de cangrejos.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☑ Patrones de drenaje (B10)
- ☐ Nivel freático en la estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-70

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000665° Largo: -67.201168° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No	X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** _____ **No** X
¿Suelo hídrico presente?	Sí _____ No	X	
¿Está presente la hidrología del humedal?	Sí _____ No	X	

Observaciones:

Punto de muestreo situado cerca de la orilla del mar en la ZMT.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Estrato de árboles indicadores		
dominantes absolutos (Tamaño de la parcela: radio de 30 pies)		Especie Estado	
1. Prosopis juliflora	25	Sí	UPL
2.			
3.			
4.			
5.			
	25	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	85	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	85	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especies FACU	85	x 4=	340
Especies UPL	25	x 5=	125
Totales de columna:	110 (A)		465 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-70

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 5/3	50					Arenoso	10YR 6/3 25%, 10YR 7/3 25%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-71

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000309° Largo: -67.200896° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita? Sí ____ No X ¿Suelo hídrico presente? Sí X No ____ ¿Está presente la hidrología del humedal? Sí ____ No X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** ____ **No** X

Observaciones:

Punto de muestreo situado en una zona donde el agua parece estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Prosopis juliflora	70	Sí UPL
2.		
3.		
4.		
5.		

70 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	70	x 5=	350
Totales de columna:	70 (A)		350 (B)

Índice de prevalencia= B/A= 5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-71

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 4/3	60					Franco limoso	5YR 3/3 40
12-18	10YR 5/1	100					Franco arenoso	Desmenuzamiento de rocas

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] Nivel freático alto (A2)
- [ ] Saturación (A3)
- [ ] Marcas de agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)
- [ ]

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10)
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [ ] Prueba FAC-Neutral (D5)
- [ ]

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-72

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.000311° | Largo: -67.201506° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Melones arcilla (MnC), Bahía Salinas arena (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** _____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Prosopis pallida	30	Sí FAC
2.			
3.			
4.			
5.			

30 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

30 = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

_____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	30	x 3=	90
Especies FACU	_____	x =	_____
Especies UPL	_____	x =	_____
Totales de columna:	30 (A)		90 (B)

Índice de prevalencia= B/A= 3

Indicadores de vegetación hidrófita:

- ☐ Prueba rápida de vegetación hidrófita
- ☑ La prueba de dominancia es >50%.
- ☑ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-72

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 4/3	80					Franco arcilloso	10YR 5/6 20
10-11	10YR 6/1	100					Arcilla arenosa	
11-18	10YR 5/2	80					Arcilla	10YR 8/2 15

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☑ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☑ Patrones de drenaje (B10)
- ☐ Nivel freático en la estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una zona húmeda problemática. Esta zona se encuentra entre estructuras abandonadas donde con frecuencia hay actividad humana. En esta zona, las aguas de escorrentía atraviesan un canal de drenaje de hormigón antes de desembocar en la costa.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-73

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Pendiente | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.999976° | Largo: -67.201476° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí ____	No X			

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies)

dominantes absolutos		Especie	Estado
1. Prosopis juliflora	25	Sí	UPL
2. Pithecellobium dulce	20	Sí	FACU
3.			
4.			
5.			
	45	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	80	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	80	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	100	x 4=	400
Especies UPL	25	x 5=	125
Totales de columna:	125 (A)		525 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-73

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 3/3	100					Marga	
11-18	10YR 3/1	100					Marga	Desmenuzamiento de rocas

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado donde un arroyo efímero recoge el agua de escorrentía. En esta zona, las aguas de escorrentía procedentes de múltiples drenajes (procedentes de las colinas del sur) se unen y atraviesan un canal de drenaje de hormigón antes de desembocar en la costa. No hay indicadores hidrológicos.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-74

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Terreno llano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.999558° | Largo: -67.203018° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en una superficie plana donde el agua parece estancarse, junto a una duna en la orilla costera y la ZMT. Esta zona es un terreno de acampada.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)		Especie	Estado
1. Prosopis juliflora	10	No	UPL
2. Thespesia populnea	25	Sí	FAC
3.			
4.			
5.			
	35	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	10	No	FACU
2. Chloris barbata	20	Sí	FACU
3.			
4.			
5.			
6.			
7.			
8.			
	30	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	25	x 3=	75
Especie FACU	30	x 4=	120
Especies UPL	10	x 5=	50
Totales de columna:	65 (A)		245 (B)

Índice de prevalencia= B/A= 3,7

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-74

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 4/3	60					Franco arenoso	10YR 6/4 40
6-18	10YR 3/2	70	Gley2 5/5PB	20	C	M	Franco arcilloso	2.5YR 4/8 10

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ✓ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-75

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Pendiente Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 17.999420° Largo: -67.202949° Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** Sí _____ No X
¿Suelo hídrico presente?	Sí _____	No X	
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

Punto de muestreo situado en una zona ligeramente inclinada. Esta zona es un terreno de acampada.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

_____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	25	Sí	FACU
2.	Chloris barbata	75	Sí	FACU
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	100	x 4=	400
Especies UPL	_____	x =	_____
Totales de columna:	100 (A)		400 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí _____ No X

Observaciones:

SUELO

Punto de muestreo: SP-75

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 3/2	100					Franco limoso	
10-18	10YR 5/3	65					Franco arenoso	10YR 7/3 35

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-76

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.998929° | Largo: -67.205436° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Arcilla de Melones (MnC | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en una zona donde el agua parece estancarse cerca de las dunas costeras y la ZMT.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores) Especie	Estado
1. Pithecellobium dulce	50	Sí FACU
2. Prosopis juliflora	40	Sí UPL
3.		
4.		
5.		
	90	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

_____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	50	x 4=	200
Especies UPL	40	x 5=	200
Totales de columna:	90 (A)		400 (B)

Índice de prevalencia= B/A= 4,4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-76

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 5/3	80					Arena limosa	10YR 7/2 20
12-18	10YR 6/6	80					Arena limosa	2.5Y 7/1 20%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 27 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-77

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.998454° | Largo: -67.205210° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí ____ No X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____ No X	

Observaciones:

Punto de muestreo situado en una zona boscosa de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

			Especie Estado
1. Pithecellobium dulce	40	Sí	FACU
2. Prosopis juliflora	30	Sí	UPL
3. Terminalia buceras	30	Sí	FACU
4.			
5.			

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	170	x 4=	680
Especies UPL	30	x 5=	150
Totales de columna:	200 (A)		830 (B)

Índice de prevalencia= B/A= 4,15

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-77

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-14	10YR 3/3	100					Franco arcilloso arenoso	
14-18	10YR 4/2	100					Arena limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 28 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-78

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.999437° | Largo: -67.204453° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1. Thespesia populnea	95	Sí	FAC
2. Laguncularia racemosa	5	No	OBL
3.			
4.			
5.			

_____= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

_____= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

_____= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

_____= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL	5	x 1 =	5	
Especies FACW		x =		
Especies FAC	95	x 3=	285	
Especies FACU		x =		
Especies UPL		x =		
Totales de columna:	100 (A)		290 (B)	

Índice de prevalencia= B/A= 2,9

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-78

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 5/3	35					Franco arcilloso arenoso	10YR 4/1 65
10-18	10YR 5/1	65	Gley2 4/10B	5			Arcilla limosa	10YR 4/3 30

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☑ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado al final de un arroyo efímero, donde desagua en una zona de manchas boscosas con manglares que vierte agua a la orilla costera y está cerca de la ZMT.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 28 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-79

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 17.999150° | Largo: -67.204918° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Pithecellobium dulce 20	Sí FACU
2.		
3.		
4.		
5.		

20 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)

1.	Megathyrsus maximus 50	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	70	x 4=	280
Especies UPL	____	x =	____
Totales de columna:	70 (A)		280 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-79

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 5/3	100					Arenoso	Sedimentos
8-18	10YR 5/2	75	Gley2 5/5PB	5			Franco arcilloso arenoso	7,5YR 5/6 65

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ✓ Marcas de agua (B1)
- ✓ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en un arroyo efímero, donde se observa un barranco visible de 1,5 m de profundidad y 4 m de anchura. Esta zona está afectada por vehículos todo terreno (ATV).

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 28 de junio de 2023

Solicitante/Propietario: Three Rules Capital PR, LLC | PR o USVI: PR | Punto de muestreo: SP-80

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Pendiente | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 17.999093° | Largo: -67.204395° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** Sí ____ No X
¿Suelo hídrico presente?	Sí ____	No X	
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en un arroyo efímero, donde hay un barrizal visible. Esta zona se encuentra en una zona boscosa de tierras altas y se ve afectada por vehículos todo terreno (ATV).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Pithecellobium dulce	35 Sí	FACU
2.			
3.			
4.			
5.			

35 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	50 Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	85	x 4=	340
Especies UPL	____	x =	____
Totales de columna:	85 (A)		340 (B)

Índice de prevalencia= B/A= 4,04

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí ____ No X

Observaciones:

SUELO

Punto de muestreo: SP-80

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 4/3	75					Franco arcilloso arenoso	10YR 3/1 25
12-18	10YR 5/3	35					Arena limosa	2.5Y 7/2 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X**

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 28 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-81

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.998470° | Largo: -67.206254° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Thespesia populnea	Sí	FAC
2.	Laguncularia racemosa	Sí	OBL
3.			
4.			
5.			

40 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL	20	x 1 =	20	
Especies FACW	____	x =	____	
Especies FAC	20	x 3=	60	
Especies FACU	____	x =	____	
Especies UPL	____	x =	____	
Totales de columna:	40 (A)		80 (B)	

Índice de prevalencia= B/A= 2

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-81

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-8	10YR 4/1	65					Franco arcilloso	7.5YR 4/4 30%, 2.5Y 7/2 5%
8-18	10YR 7/2	45	Gley1 4/6	20	CS	M	Arena limosa	2,5Y 7/1 30%, 5YR 4/6 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado al final de un arroyo efímero, en una zona de manglares, que desemboca en la orilla del mar. Esta vía de drenaje tiene múltiples arroyos efímeros afluentes que provienen de las laderas al sur.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 28 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-82

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 17.997835° | Largo: -67.206447° | Datum: PR Datum

Nombre de la unidad del mapa de suelos de Casabe (CgD): Arcilla | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

El punto de muestreo está situado en un arroyo efímero que parece ser el principal desagüe de las laderas situadas al sur.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies)

dominantes absolutos	Especie	Estado
1. Prosopis juliflora	50	Sí UPL
2. Pithecellobium dulce	50	Sí FACU
3.		
4.		
5.		

50 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8.

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	50	x 4=	200
Especies UPL	50	x 5=	250
Totales de columna:	100 (A)		450 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

En este punto de muestreo, la vía de drenaje discurre entre zona boscosa de tierras altas, lo que hace que tenga vegetación de tierras altas creciendo en condiciones de humedal.

SUELO

Punto de muestreo: SP-82

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 3/2	65					Franco arcilloso arenoso	10YR 5/1 35% 4-
8	2.5Y 7/2	50	5Y 5/1	50				
8-18	10YR 5/1	40	Gley1 4/N	60			Franco arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí X** _____ **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ✓ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología del humedal presente? **Sí** X _____ **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-83

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 17.998012° | Largo: -67.206079° | Datum: PR Datum

Nombre de la unidad del mapa de suelos de Casabe (CgD): Arcilla | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en un arroyo efímero en una zona de transición entre tierras altas y humedales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie		Estado
1.	Prosopis juliflora	30	Sí UPL
2.	Pithecellobium dulce	15	No FACU
3.			
4.			
5.			
		45	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
		____	= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		100	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.			
2.			
3.			
4.			
		____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	115	x 4=	460
Especies UPL	30	x 5=	150
Totales de columna:	145 (A)		610 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

Vegetación de tierras altas que crece en condiciones de humedal.

SUELO

Punto de muestreo: SP-83

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 3/2	55					Marga	7.5YR 3/2 45
10-18	10YR 5/2	35	Gley1 4/5G	10			Franco arenoso	2.5Y 7/2 45%
			Gley1 4/10Y	10				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí X** _____ **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-84

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.997874° | Largo: -67.206404° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Arcilla de Casabe (CgD) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X ____ No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí ____	No X			

Observaciones:

Punto de muestreo situado dentro de un arroyo efímero en una zona boscosa de transición entre tierras altas y humedales. En esta llanura las aguas de escorrentía parecen estancarse.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie		Estado
1.	Prosopis juliflora	45	Sí UPL
2.	Pithecellobium dulce	25	Sí FACU
3.			
4.			
5.			
		70	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
		____	= Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100	Sí	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		100	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.			
2.			
3.			
4.			
		____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	125	x 4=	500
Especies UPL	45	x 5=	225
Totales de columna:	170 (A)		725 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-85

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 3/2	50					Franco arenoso	10YR 5/2 50
6-10	10YR 2/1	100					Franco limoso	
10-18	10YR 6/1	20	Gley2 5/5PB	15			Franco arcilloso arenoso	2,5Y 7/2 35%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí X** _____ **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-85

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.998167° | Largo: -67.206571° | Datum: PR Datum

Nombre de la unidad del mapa de suelos de Casabe (CgD): Arcilla | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

Punto de muestreo situado en un arroyo efímero al norte de una zona boscosa de transición entre tierras altas y humedales.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)		Especie	Estado
1. Prosopis juliflora	30	Sí	UPL
2. Thespesia populnea	30	Sí	FAC
3.			
4.			
5.			
	60	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
	____	= Cobertura total	

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	75	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	75	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.		
2.		
3.		
4.		
	____	= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	30	x 3=	90
Especie FACU	75	x 4=	300
Especies UPL	30	x 5=	150
Totales de columna:	135 (A)		540 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-85

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 3/2	70					Arena limosa	10YR 7/2 30
6-12	10YR 6/2	65					Arena limosa	7,5YR 3/2 35
12-18	5Y 8/1	65	Gley2 5/5PB	35			Arcilla arenosa	Crumble de conchas marinas

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-86

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.997727° | Largo: -67.206740° | Datum: PR Datum

Nombre de la unidad del mapa de suelos de Casabe (CgD): Arcilla | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X ____ No ____

¿Hay vegetación ____ el suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en un arroyo efímero en una parcela residencial. Este segmento de arroyo efímero se ve afectado por un sendero todoterreno (4x4) que desciende desde el sur.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) — dominantes absolutos

	Especie	Estado
1.	Prosopis juliflora	30 Sí UPL
2.		
3.		
4.		
5.		

30 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	30	x 5=	150
Totales de columna:	30 (A)		150 (B)

Índice de prevalencia= B/A= 5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-86

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-10	10YR 3/2	50					Franco arenoso	7.5YR 3/2 50
10-18	10YR 5/2	50					Franco arenoso	10YR 4/2 50

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☑ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología del humedal presente? **Sí** X _____ **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-87

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.997825° | Largo: -67.207714° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí		No	X	

¿Es la zona muestreada ¿Dentro de un humedal? Sí ____ No X

Observaciones:

Punto de muestreo situado en la llanura de la orilla del mar en una zona boscosa con manglares, en la ZMT.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores	Especie Estado
1. Thespesia populnea	20	Sí FAC
2. Conocarpus erectus	20	FACW
3.		
4.		
5.		
	40	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	20	FACU
2.		
3.		
4.		
5.		
6.		
7.		
8.		
	20	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 66.6 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL		x 1 =	
Especie FACW	20	x 2=	40
Especies FAC	20	x 3=	60
Especie FACU	20	x 4=	80
Especies UPL		x =	
Totales de columna:	60 (A)		180 (B)

Índice de prevalencia= B/A= 3

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? Sí X__ No ____

Observaciones:

SUELO

Punto de muestreo: SP-87

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 3/2	55					Arena	10YR 5/2 45%
4-18	2.5Y 7/2	70					Arena	7,5YR 3/2 30

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-88

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 17.997606° Largo: -67.207542° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) Clasificación NWI: Ningu no

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

Punto de muestreo situado en la llanura costera plana con vegetación de tierras altas.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado
1. Prosopis juliflora	20	Sí UPL
2.		
3.		
4.		
5.		

20 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	100	x 4=	400
Especies UPL	20	x 5=	100
Totales de columna:	120 (A)		500 (B)

Índice de prevalencia= B/A= 4,17

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-88

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 3/1	100					Marga	Materia orgánica
2-6	10YR 4/2	60					Arena	10YR 6/6 40
6-18	10YR 7/3	50					Arena	7,5YR 7/3 50

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-89

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.996908° | Largo: -67.208034° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Complejo Bermeja-Cerro Mariquita (BmF) | Clasificación NWI: Ninguno

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada**		
¿Suelo hídrico presente?	Sí ____	No X	**¿Dentro de un humedal?**	**Sí** ____	**No** X
¿Está presente la hidrología del humedal?	Sí X	No ____			

Observaciones:

Punto de muestreo situado en una cuenca de captación que parece drenar el exceso de agua hacia la orilla costera llana.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.		
2.		
3.		
4.		
5.		

____ = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	80	Sí	FACU
2.	Crysopogon zizanioides	20	Sí	FAC
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.	
2.	
3.	
4.	

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____	
Especies FACW	____	x =	____	
Especies FAC	20	x 3=	60	
Especie FACU	80	x 4=	320	
Especies UPL	____	x =	____	
Totales de columna:	100	(A)	380	(B)

Índice de prevalencia= B/A= 3,8

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

*Indicador Estado basado en el juicio profesional.

SUELO

Punto de muestreo: SP-89

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	7,5YR 5/6	65					Franco arcilloso	7,5YR 3/2 35
6-18	10YR 7/1	45					Arena	10YR 6/3 35%, 7.5YR 6/8 15%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☑ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☑ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

En esta zona se construyeron múltiples cuencas de captación con estructuras de gaviones para recibir el agua de escorrentía de las laderas situadas al sur. Esta zona está afectada por senderos todoterreno (4x4).

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FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-90

Investigador(es): Jesús Babilonia Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 17.996924° Largo: -67.208629° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Lanos Costa loam (LnA) Clasificación NWI: PFO3A

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita? Sí _____ No X ¿Suelo hídrico presente? Sí _____ No X ¿Está presente la hidrología del humedal? Sí X No _____	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** _____ **No** X

Observaciones:

Punto de muestreo situado en una zona llana por donde pasa el agua de escorrentía y se han ido acumulando depósitos de sedimentos a lo largo de los años. Esta zona está afectada por senderos todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Prosopis juliflora 25	Sí UPL
2.		
3.		
4.		
5.		

25 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	100 Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	100	x 4=	400
Especies UPL	25	x 5=	125
Totales de columna:	125 (A)		525 (B)

Índice de prevalencia= B/A= 4,2

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☰ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No X**___

Observaciones:

SUELO

Punto de muestreo: SP-90

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	5YR 4/6	80					Franco limoso	10YR 5/2 20%, roca desmenuzada

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

Punto de muestreo situado en una zona llana por donde pasa el agua de escorrentía y se han ido acumulando depósitos de sedimentos a lo largo de los años. Esta zona está afectada por senderos todoterreno (4x4).

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-91

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.996924° | Largo: -67.208629° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Lanos Costa loam (LnA) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo X ____ o Hidrología X significativamente alteradas? las "circunstancias normales"? Sí ____ No X

Vegetación ____ Suelo ____ o la ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí		No	X	**¿Dentro de un humedal?** **Sí** ____ **No** X
¿Está presente la hidrología del humedal?	Sí		No	X	

Observaciones:

Punto de muestreo situado en una duna de la orilla del mar. Esta zona parece estar muy alterada por la erosión y las actividades humanas durante un largo periodo de tiempo.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)	Estrato de árboles indicadores) Especie	Estado
1. Thespesia populnea	20	Sí FAC
2. Laguncularia racemosa	5	No OBL
3.		
4.		
5.		
	25	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5. ____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8. ____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4. ____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL	5	x 1 =	5
Especies FACW		x =	
Especies FAC	20	x 3=	60
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	25 (A)		65 (B)

Índice de prevalencia= B/A= 2,6

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-91

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	5YR 4/6	80					Franco limoso	10YR 7/2 20%, roca desmenuzada

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ✔ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

Zona afectada por la erosión del sendero todoterreno (4x4) y los suelos originales parecen estar enterrados gran profundidad.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X**

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-92

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Ladera | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.995982° | Largo: -67.209333° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Complejo Bermeja-Cerro Mariquita (BmF) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No	X
¿Suelo hídrico presente?	Sí _____ No	X
¿Está presente la hidrología del humedal?	Sí _____ No	X

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** _____ **No** X

Observaciones:

Punto de muestreo situado en un terreno inclinado, cerca de los límites del proyecto.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	_____ = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Leucaena leucocephala	20	Sí	FACU
2.			
3.			
4.			
5.			
	20 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	120	x 4=	480
Especies UPL	_____	x =	_____
Totales de columna:	120 (A)		480 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-92

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	5YR 4/6	70					Franco arenoso	10YR 4/3 30%, roca desmenuzada

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 29 de junio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-93

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Ladera | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.994194° | Largo: -67.210744° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Complejo Bermeja-Cerro Mariquita (BmF) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No	X
¿Suelo hídrico presente?	Sí _____ No	X
¿Está presente la hidrología del humedal?	Sí _____ No	X

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** _____ **No** X

Observaciones:

Punto de muestreo situado en un terreno inclinado cerca del límite del proyecto.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	_____ = Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Leucaena leucocephala	40	Sí	FACU
2.			
3.			
4.			
5.			
	40 = Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)			
1. Megathyrsus maximus	100	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____ = Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar	
por: Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especies FACU	140	x 4=	560
Especies UPL	_____	x =	_____
Totales de columna:	140 (A)		560 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-93

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	5YR 4/6	80					Franco arenoso	10YR 7/2 20%, roca desmenuzada

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 12 de julio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-94

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plan o | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: 17.998075° | Largo: -67.207153° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí X	No ____	**¿Es la zona muestreada**	
¿Suelo hídrico presente?	Sí X	No ____	**¿Dentro de un humedal?**	**Sí** X **No** ____
¿Está presente la hidrología del humedal?	Sí X	No ____		

Observaciones:

Punto de muestreo situado en un arroyo efímero adyacente a la orilla del mar.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Thespesia populnea	60	Sí	FAC
2.	Laguncularia racemosa	30	Sí	OBL
3.	Prosopis juliflora	10	No	UPL
4.				
5.				

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL	30	x 1 =	30
Especies FACW	____	x =	____
Especies FAC	60	x 3=	180
Especies FACU	____	x =	____
Especies UPL	10	x 5=	50
Totales de columna:	100 (A)		260 (B)

Índice de prevalencia= B/A= 2,6

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X**___ **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-94

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-2	10YR 3/1	100					Arena	Materia orgánica
2-7	10YR 6/2	80					Lodo arcilloso	5YR 5/8 20%. Motas (20%)
7-12	10YR 7/1	100					Arena limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 4

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 12 de julio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-95

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 17.998048° | Largo: -67.207202° | Datum: PR Datum

(Unidad del mapa de suelos) (Nombre:) Melones arcillosos (MnC) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** ____ **No** X
¿Suelo hídrico presente?	Sí ____	No X	
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

El punto de muestreo está situado en la orilla superior occidental de un arroyo efímero, junto a un camino de tierra.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores

dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie		Estado
1. Prosopis juliflora	10	Sí	UPL
2. Thespesia populnea	10	Sí	FAC
3.			
4.			
5.			

20 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	50	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 33.3 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	10	x 3=	30
Especie FACU	50	x 4=	200
Especies UPL	10	x 5=	50
Totales de columna:	70 (A)		280 (B)

Índice de prevalencia= B/A= 4

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-95

Descripción del perfil: (Descríbalo con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-12	10YR 6/6	80					Arena	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No X** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No X** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 12 de julio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-96

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Cóncavo | Pendiente (%):

Lat: | Long: | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado en un arroyo efímero.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	50	Sí UPL
2.	Pithecellobium dulce	50	Sí FACU
3.			
4.			
5.			
		50	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5. ____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. 2. 3. 4. 5. 6. 7. 8. ____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4. ____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL		x 1 =	
Especies FACW		x =	
Especies FAC		x =	
Especie FACU	50	x 4=	200
Especies UPL	50	x 5=	250
Totales de columna:	100 (A)		450 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

En esta zona, el drenaje atraviesa una zona boscosa de tierras altas, lo que hace que la vegetación de tierras altas crezca en condiciones de humedal.

SUELO

Punto de muestreo: SP-96

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 3/2	65					Franco arcilloso arenoso	10YR 5/1 35
4-8	2.5Y 7/2	50	5Y 5/1	50			Franco arenoso	
8-18	10YR 5/1	40	Gley1 4/N	60				

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ✓ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 12 de julio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-97

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.000967° Largo: -67.199908° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Salinas (Sa) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación X, Suelo X, o Hidrología X ¿Problemas significativos? ¿Se dan las "circunstancias normales"? Sí ____ No X

Vegetación ____ Suelo ____ o la ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Zona muy alterada y afectada por la erosión y las actividades humanas durante un largo periodo de . Zona afectada por senderos todoterreno (4x4).

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	= Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1.			
2.			
3.			
4.			
5.			
	= Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	100 = Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	= Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que sean OBL, FACW o FAC ____ (A)

Número total de dominantes Especies en todos los estratos: ____ (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC ____ (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:	Multiplicar por:	
Especie OBL	x 1	
FACW	x 2	
Especie FAC	x 3	
FACU	x 4	
Especies UPL	x 5	
Totales de columna: (A)		(B)

Índice de prevalencia = B/A ____

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☑ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Hidrófitos Vegetación ¿Está presente? **Sí X** **No** ____

Observaciones:

No hay vegetación en punto de muestreo.

SUELO

Punto de muestreo: SP-96

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 3/2	100					Franco arcilloso limoso	
6-8	5YR 5/2	10	Gley2 4/10BG	70				
8-12	2.5Y 6/2	20	7,5YR 5/6	45				Gley1 2.5/N 35%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ (TF12) Hístico negro (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda
- ✓ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y La hidrología del humedal debe estar a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

Suelos muy alterados.

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ✓ Depósitos de sedimentos (B2)
- ☐ Depósitos de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ✓ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 13 de julio de 2023

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-98

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.005705° | Largo: -67.188242° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Arena de Bahía Salinas (BhB) | Clasificación NWI: Ninguna

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

El punto de muestreo está situado dentro de una duna de arena costera boscosa cerca de la costa dominada por un bosque de manglares. Esta zona parece estar muy alterada y afectada por la erosión y las actividades humanas durante un largo periodo de tiempo.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie		Estado
1.	Conocarpus erectus	50	Sí FACW
2.	Avicennia germinans	30	Sí OBL
3.	Laguncularia racemosa	20	Sí OBL
4.			
5.			
		100	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	100	Sí FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			
		100	= Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	50	x 1 =	50
Especies FACW	150	x 2=	300
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	200 (A)		350 (B)

Índice de prevalencia= B/A= 1,75

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-98

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-14	10YR 8/2	80					Arenoso	
14-18	2.5Y 7/1	20					Arena	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☑ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí X No _____ Profundidad (pulgadas): 10

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-99

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003416° | Largo: -67.167476° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato arbóreo (Tamaño de la parcela: 30 pies de radio)	Absoluto % Cobertura	Indicador dominante Especies?	Estado
1. Avicennia germinans	30	Sí	OBL
2. Laguncularia racemosa	10	Sí	OBL
3.			
4.			
5.			
	40	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1. Laguncularia racemosa	20	Sí	OBL
2. Avicennia germinans	10	Sí	OBL
3.			
4.			
5.			
	30	= Cobertura total	

Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	____	= Cobertura total	

Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	____	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar
por: Especies OBL	70 x 1 =	70
Especies FACW	____ x =	
Especies FAC	____ x =	
Especies FACU	____ x =	
Especies UPL	____ x =	
Totales de columna:	70 (A)	70 (B)

Índice de prevalencia= B/A= 1

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-99

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-14	10YR 8/2	80					Arenoso	
14-18	2.5Y 7/1	20					Arena	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ✓ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-100

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003374° | Largo: -67.167523° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	25	Sí	UPL
2.	Bourreria succulenta	25	Sí	UPL
3.	Randia aculeata	15	Sí	UPL
4.	Pithecellobium dulce	5	No	FACU
5.				

70 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	50	Sí	FACU
2.	Paspalum virgatum	50	Sí	FACW
3.				
4.				
5.				
6.				
7.				
8.				

100 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.	Jasminum fluminense	15	Sí	UPL
2.				
3.				
4.				

15 = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 6 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 16 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especie FACW	50	x 2=	100
Especies FAC	_____	x =	_____
Especie FACU	55	x 4=	220
Especies UPL	80	x 5=	400
Totales de columna:	185 (A)		720 (B)

Índice de prevalencia= B/A= 3,89

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-100

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/4	100					Franco limoso	
4-18	7,5YR 4/6	100					Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-101

Investigador(es): Jesús Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003287° | Largo: -67.167053° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No	
¿Suelo hídrico presente?	Sí	X	No	
¿Está presente la hidrología del humedal?	Sí	X	No	

¿Es la zona muestreada ¿Dentro de un humedal? **Sí** X **No** ____

Observaciones:

Punto de muestreo situado al final de un posible canal de drenaje.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles indicadores dominantes absolutos (Tamaño de la parcela: radio de 30 pies)

	Especie	Estado	
1.	Avicennia germinans	45	Sí OBL
2.	Laguncularia racemosa	15	Sí OBL
3.			
4.			
5.			

60 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Batis maritima	40	Sí	FACW
2.				
3.				
4.				
5.				
6.				
7.				
8.				

40 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 3 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	60	x 1 =	60
Especie FACW	40	x 2=	80
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	100 (A)		140 (B)

Índice de prevalencia= B/A= 1,4

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-101

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	2.5Y 7/1	95					Marga	Concreciones 2.5Y 3/1 5%

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- [ ] Histosol (A1)
- [ ] Epipedón hístico (A2)
- [ ] Negro Histic (A3)
- [ ] Sulfuro de hidrógeno (A4)
- [ ] Cuerpos orgánicos (A6)
- [ ] 5 cm Mucky Mineral (A7)
- [ ] Presencia de lodo (A8)
- [ ] Agotado bajo superficie oscura (A11)
- [ ] presente, Superficie oscura gruesa (A12)
- [ ] problemáticas.
- [ ]
- [ ] Matriz arenosa (S4)
- [ ] Redox Arenoso (S5)
- [ ] Matriz desnuda (S6)
- [ ] Superficie oscura (S7)
- [ ] Matriz limosa gléica (F2)
- [ ] Matriz agotada (F3)
- [ ] Superficie oscura redox (F6)
- [ ] Superficie oscura agotada (F7)
- [ ] Depresiones redox (F8)
- [ ]

Indicadores de suelos hídricos problemáticos[3]:

- [ ] Capas estratificadas (A5)
- [ ] Superficie oscura muy poco profunda (TF12)
- [ ] Otros (explique en observaciones)
- [ ]

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- [ ] Aguas superficiales (A1)
- [ ] Nivel freático alto (A2)
- [ ] ✓Saturación (A3)
- [ ] agua (B1)
- [ ] Depósitos de sedimentos (B2)
- [ ] de deriva (B3)
- [ ] Capa o corteza de algas (B4)
- [ ] Depósitos de hierro (B5)
- [ ] Inundación visible en imágenes aéreas (B7)
- [ ]
- [ ] Hojas manchadas de agua (B9)
- [ ] Fauna acuática (B13)
- [ ] Olor a sulfuro de hidrógeno (C1)
- [ ] Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- [ ] Presencia de hierro reducido (C4)
- [ ] Reducción reciente del hierro en suelos labrados (C6)
- [ ] Superficie de lodo fino (C7)
- [ ] Madrigueras del cangrejo violinista (C10)
- [ ] Otros (explique en observaciones)
- [ ]

Indicadores secundarios (se requiere un mínimo de dos)

- [ ] Grietas en la superficie del suelo (B6)
- [ ] Superficie cóncava con escasa vegetación (B8)
- [ ] Patrones de drenaje (B10) Marcas de
- [ ] Saturación visible en imágenes aéreas (C9) Depósitos
- [ ] Posición geomórfica (D2)
- [ ] Aquitardado poco profundo (D3)
- [ ] ✓Prueba FAC-Neutral (D5)
- [ ]

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 3

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-102

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003269° | Largo: -67.167046° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí ____	No X	**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** ____ **No** X
¿Suelo hídrico presente?	Sí ____	No X	
¿Está presente la hidrología del humedal?	Sí ____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Randia aculeata	45	Sí	UPL
2.	Prosopis juliflora	40	Sí	UPL
3.	Bourreria succulenta	15	No	UPL
4.				
5.				

100 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	15	Sí	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				

15 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 6 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 16 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	____	x 1 =	____
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especie FACU	15	x 4=	60
Especies UPL	100	x 5=	500
Totales de columna:	115 (A)		560 (B)

Índice de prevalencia= B/A= 4,87

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** ____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-102

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-3	10YR 4/4	100					Franco limoso	
3-18	10YR 7/3	100					Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-103

Investigador(es): Jesús Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003329° | Largo: -67.166944° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado al este de un posible canal de drenaje.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores

dominantes absolutos	Especie	Estado
1. Avicennia germinans	30	Sí OBL
2. Laguncularia racemosa	10	Sí OBL
3.		
4.		
5.		
	40	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.			
2.			
3.			
4.			
5.			
		= Cobertura total	

Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)

1. Batis maritima	30	Sí	FACW
2. Sesuvium portulacastrum	15	Sí	FACW
3.			
4.			
5.			
6.			
7.			
8.			
	45	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.		
2.		
3.		
4.		
		= Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 4 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL	40	x 1 =	40
Especies FACW	45	x 2=	90
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	85 (A)		130 (B)

Índice de prevalencia= B/A= 1,53

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-103

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 7/1	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ✓ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 2

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-104

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003349° | Largo: -67.166952° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1. Randia aculeata	25	Sí	UPL
2. Prosopis juliflora	20	Sí	UPL
3. Bourreria succulenta	5	No	UPL
4.			
5.			
	50	= Cobertura total	

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. Megathyrsus maximus	50	Sí	FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	50	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. Jasminum fluminense	20	Sí	UPL
2.			
3.			
4.			
	20	= Cobertura total	

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 4 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	50	x 4=	200
Especies UPL	50	x 5=	250
Totales de columna:	100 (A)		450 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-104

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	10YR 4/4	100					Franco limoso	
4-18	10YR 7/3	100					Franco arcilloso limoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-105

Investigador(es): Jesús Babilonia Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.003043° Largo: -67.166935° Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

	Absoluto % Cobertura	Indicador dominante Especies?	Estado
Estrato arbóreo (Tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
5.			
	_____= Cobertura total		
Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)			
1.			
2.			
3.			
4.			
5.			
	_____= Cobertura total		
Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)			
1.			
2.			
3.			
4.			
5.			
6.			
7.			
8.			
	_____= Cobertura total		
Estrato leñoso de la vid (tamaño de la parcela: radio de 30 pies)			
1.			
2.			
3.			
4.			
	_____= Cobertura total		

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes
Que sean OBL, FACW o FAC_____ (A)

Número total de dominantes
Especies en todos los estratos: _____ (B)

Porcentaje de especies dominantes
Que son OBL, FACW o FAC_____ (A/B)

Hoja de cálculo del Índice de Prevalencia:

Total % de cobertura de:		Multiplicar por:	
Especie OBL		x 1	
FACW		x 2	
Especie FAC		x 3	
FACU		x 4	
Especies UPL		x 5	
Totales de columna:	(A)		(B)

Índice de prevalencia = B/A _____

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Hidrófitos Vegetación
¿Está presente? **Sí X**___ **No** _____

Observaciones:

SUELO

Punto de muestreo: SP-105

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-6	10YR 4/1	80	5Y 8/2	20			Arcilla limosa	
6-18	10YR 4/1	40	2.5Y 8/3	60			Arcilla limosa	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos. [2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☑ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☑ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☐ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-106

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.002961° Largo: -67.166949° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	45	Sí UPL
2.	Pithecellobium dulce	10	No FACU
3.	Randia aculeata	10	No UPL
4.			
5.			

65 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	45	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

45 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	55	x 4=	220
Especies UPL	55	x 5=	275
Totales de columna:	110 (A)		495 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-106

Descripción del perfil: (Descríbalo con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox					
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/4	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-107

Investigador(es): Jesús Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003292° | Largo: -67.166216° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Avicennia germinans 45	Sí OBL
2.		
3.		
4.		
5.		

45 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 1,5 m de radio)

1.	Batis maritima	50 Sí	FACW
2.			
3.			
4.			
5.			
6.			
7.			
8.			

50 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 2 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	45	x 1 =	45
Especie FACW	50	x 2=	100
Especies FAC		x =	
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	95 (A)		145 (B)

Índice de prevalencia= B/A= 1,53

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-107

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 7/1	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☑ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☑ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ☑ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ☑ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia Municipio/Pueblo: Cabo Rojo Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC PR o USVI: PR Punto de muestreo: SP-108

Investigador(es): Jesús Babilonia Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano Relieve local (cóncavo, convexo, ninguno): Ninguno Pendiente (%):

Lat: 18.003325° Largo: -67.166255° Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies)

dominantes absolutos		Especie	Estado
1.	Prosopis juliflora	25	Sí UPL
2.	Pithecellobium dulce	20	Sí FACU
3.			
4.			
5.			
		45	= Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	25	Sí	FACU
2.				
3.				
4.				
5.				
6.				
7.				
8.				
		25	= Cobertura total	

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	45	x 4=	180
Especies UPL	25	x 5=	125
Totales de columna:	70 (A)		305 (B)

Índice de prevalencia= B/A= 4,36

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-108

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/4	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-109

Investigador(es): Jesús Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003347° | Largo: -67.166072° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación ____ Suelo ____ o la hidrología ____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación ____ Suelo ____ o hidrología ____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada ¿Dentro de un humedal?** **Sí** X **No** ____
¿Suelo hídrico presente?	Sí	X	No		
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado junto al cauce de un arroyo.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Avicennia germinans 50	Sí OBL
2.		
3.		
4.		
5.		

50 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. ____
2. ____
3. ____
4. ____
5. ____

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. ____
2. ____
3. ____
4. ____
5. ____
6. ____
7. ____
8. ____

____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. ____
2. ____
3. ____
4. ____

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 1 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:		Multiplicar por:
Especies OBL	50	x 1 =	50
Especies FACW	____	x =	____
Especies FAC	____	x =	____
Especies FACU	____	x =	____
Especies UPL	____	x =	____
Totales de columna:	50 (A)		50 (B)

Índice de prevalencia= B/A= 1

Indicadores de vegetación hidrófita:

- ✓ Prueba rápida de vegetación hidrófita
- ✓ La prueba de dominancia es >50%.
- ✓ El índice de prevalencia es ≤3,0[1]
- ☐ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X**___ **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-109

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-4	2.5Y 1/5	50	5Y 8/6	50			Marga	
4-18	2.5Y 1/5	30	5Y 8/6	70			Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ✓ Depósitos a la deriva (B3)
- ☐ o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ✓ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Posición geomórfica (D2) Capa
- ☐ Aquitardos poco profundos (D3)
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 4

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-110

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.00337° | Largo: -67.166085° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____	No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____	No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____	No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Bourreria succulenta	20	Sí UPL
2.	Leucaena leucocephala	15	Sí FACU
3.	Randia aculeata	15	Sí UPL
4.	Prosopis juliflora	15	Sí UPL
5.			

65 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1.
2.
3.
4.
5.

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Megathyrsus maximus	35	Sí FACU
2.			
3.			
4.			
5.			
6.			
7.			
8.			

35 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1.
2.
3.
4.

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 0 (A)

Número total de dominantes Especies en todos los estratos: 5 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 0 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	_____	x =	_____
Especie FACU	50	x 4=	200
Especies UPL	50	x 5=	250
Totales de columna:	100 (A)		450 (B)

Índice de prevalencia= B/A= 4,5

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[1] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-110

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/4	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

No hay indicadores hidrológicos presentes.

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-111

Investigador(es): Jesús Babilonia | Barrio/Estado: Cabo Rojo

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.003166° | Largo: -67.174448° | Datum: PR Datum

(Suelo) (Mapa) (Unidad) (Nombre:) Teresa clay ponded (Tsa) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No ____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No ____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí	X	No		**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí	X	No		**¿Dentro de un humedal?** **Sí** X **No**
¿Está presente la hidrología del humedal?	Sí	X	No		

Observaciones:

Punto de muestreo situado junto al cauce de un arroyo.

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado
1.	Avicennia germinans 35	Sí OBL
2.	Thespesia populnea 5	FAC
3.		
4.		
5.		

40 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. 2. 3. 4. 5.

____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1.	Sesuvium portulacastrum 30	FACW
2.		
3.		
4.		
5.		
6.		
7.		
8.		

30 = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. 2. 3. 4.

____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes Que son OBL, FACW o FAC: 3 (A)

Número total de dominantes Especies en todos los estratos: 3 (B)

Porcentaje de especies dominantes Que son OBL, FACW o FAC: 100 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	35	x 1 =	35
Especie FACW	30	x 2=	60
Especies FAC	5	x 3=	15
Especies FACU		x =	
Especies UPL		x =	
Totales de columna:	70 (A)		110 (B)

Índice de prevalencia= B/A= 1,57

Indicadores de vegetación hidrófita:

- [x] Prueba rápida de vegetación hidrófita
- [x] La prueba de dominancia es >50%.
- [x] El índice de prevalencia es ≤3,0[1]
- [ ] Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí X** **No** ____

Observaciones:

SUELO

Punto de muestreo: SP-111

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad	Matriz		Características Redox				Textur	Observaciones
(pulgadas)	Color (húmedo)	%	Color (húmedo)	%	Tipo[1]	Lugar[2]		
0-4	2.5Y 7/4	100					Franco arenoso	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐

- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** X **No** _____

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ✓ Saturación (A3)
- ☐ agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ (D3) Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐

- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3) Nivel freático en estación seca (C2)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Fina superficie de lodo (C7)
- ✓ Madrigueras de cangrejos (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10) Marcas de
- ☐ Saturación visible en imágenes aéreas (C9) Depósitos
- ☐ Posición geomórfica (D2)
- ☐ Aquitardos poco profundos
- ✓ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí X No _____ Profundidad (pulgadas): 6

¿Hidrología de humedales presente? **Sí** X **No** _____

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

Observaciones:

FICHA DE DETERMINACIÓN DE LAS ZONAS HÚMEDAS - Región de las Islas del Caribe

Proyecto/Sitio: Esencia | Municipio/Pueblo: Cabo Rojo | Fecha de muestreo: 26 de abril de 2024

Solicitante/Propietario: Cabo Rojo Land Acquisition, LLC | PR o USVI: PR | Punto de muestreo: SP-112

Investigador(es): Jesús Babilonia | Barrio/Estado: Boquerón

Forma del terreno (ladera, terraza, etc.): Plano | Relieve local (cóncavo, convexo, ninguno): Ninguno | Pendiente (%):

Lat: 18.00317° | Largo: -67.174437° | Datum: PR Datum

Nombre de la unidad del mapa de suelos: Teresa arcilla (TfA) | Clasificación NWI: E2US2/3P

¿Son las condiciones climáticas e hidrológicas del lugar las típicas de esta época del año? Sí X No _____ (En caso negativo, explíquelo en Observaciones.)

Vegetación _____ Suelo _____ o la hidrología _____ o la hidrología? ¿Se dan las "circunstancias normales"? Sí X No _____

¿La vegetación _____ Suelo _____ o hidrología _____ naturalmente problemáticas? (Si es necesario, explique las respuestas en Observaciones).

RESUMEN DE LOS HALLAZGOS - Adjunte un mapa del lugar en el que se indiquen la ubicación de los puntos de muestreo, los transectos, las características importantes, etc.

¿Hay vegetación hidrófita?	Sí _____ No X	**¿Es la zona muestreada**
¿Suelo hídrico presente?	Sí _____ No X	**¿Dentro de un humedal?** **Sí** _____ **No** X
¿Está presente la hidrología del humedal?	Sí _____ No X	

Observaciones:

VEGETACIÓN - Utiliza los nombres científicos de las plantas.

Estrato de árboles (Tamaño de la parcela: radio de 30 pies) indicadores dominantes absolutos

	Especie	Estado	
1.	Prosopis juliflora	15	Sí	UPL
2.	Thespesia populnea	10	Sí	FAC
3.	Bourreria succulenta	5	No	UPL
4.				
5.				

30 = Cobertura total

Estrato arbustivo (Tamaño de la parcela: radio de 15 pies)

1. _____
2. _____
3. _____
4. _____
5. _____

_____ = Cobertura total

Estrato de hierbas (Tamaño de la parcela: 5 pies de radio)

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____

_____ = Cobertura total

Estrato de la vid leñosa (Tamaño de la parcela: 30 pies de radio)

1. _____
2. _____
3. _____
4. _____

_____ = Cobertura total

Hoja de trabajo de la prueba de dominancia:

Número de especies dominantes que son OBL, FACW o FAC: 1 (A)

Número total de dominantes Especies en todos los estratos: 2 (B)

Porcentaje de especies dominantes que son OBL, FACW o FAC: 50 (A/B)

Hoja de cálculo del Índice de Prevalencia:

	Total % de cobertura de:	Multiplicar por:	
Especies OBL	_____	x 1 =	_____
Especies FACW	_____	x =	_____
Especies FAC	10	x 3=	30
Especies FACU	_____	x =	_____
Especies UPL	20	x 5=	100
Totales de columna:	30 (A)		130 (B)

Índice de prevalencia= B/A= 4,33

Indicadores de vegetación hidrófita: Prueba

- ☐ rápida de dominancia de vegetación hidrófita
- ☐ La prueba es >50%.
- ☐ El índice de prevalencia es ≤3,0[1]
- ☒ Vegetación hidrófita problemática[(1)] (Explique)

[1]Los indicadores de suelo hídrico e hidrología de humedal deben estar presentes, a menos que estén perturbados o sean problemáticos.

Vegetación hidrófita ¿Está presente? **Sí** _____ **No** X

Observaciones:

SUELO

Punto de muestreo: SP-112

Descripción del perfil: (Describir con la profundidad necesaria para documentar el indicador o confirmar la ausencia de indicadores).

Profundidad (pulgadas)	Matriz Color (húmedo)	%	Características Redox Color (húmedo)	%	Tipo[1]	Lugar[2]	Textur	Observaciones
0-18	10YR 4/4	100					Marga	

[1]Tipo: C=Concentración, D=Depleción, RM=Matriz reducida, CS=Granos de arena cubiertos o recubiertos.

[2]Localización: PL=Forro de arena, .

Indicadores de suelos hídricos:

- ☐ Histosol (A1)
- ☐ Epipedón hístico (A2)
- ☐ Negro Histic (A3)
- ☐ Sulfuro de hidrógeno (A4)
- ☐ Cuerpos orgánicos (A6)
- ☐ 5 cm Mucky Mineral (A7)
- ☐ Presencia de lodo (A8)
- ☐ Agotado bajo superficie oscura (A11)
- ☐ presente, Superficie oscura gruesa (A12)
- ☐ problemáticas.
- ☐
- ☐ Matriz arenosa (S4)
- ☐ Redox Arenoso (S5)
- ☐ Matriz desnuda (S6)
- ☐ Superficie oscura (S7)
- ☐ Matriz limosa gléica (F2)
- ☐ Matriz agotada (F3)
- ☐ Superficie oscura redox (F6)
- ☐ Superficie oscura agotada (F7)
- ☐ Depresiones redox (F8)
- ☐

Indicadores de suelos hídricos problemáticos[3]:

- ☐ Capas estratificadas (A5)
- ☐ Superficie oscura muy poco profunda (TF12)
- ☐ Otros (explique en observaciones)
- ☐

[3]Indicadores de vegetación hidrófita y
La hidrología del humedal debe estar
a menos que estén perturbadas o sean

Capa restrictiva (si se observa):

Tipo: _____

Profundidad (pulgadas)_____

¿Suelo hídrico presente? **Sí** _____ **No** X

Observaciones:

HIDROLOGÍA

Indicadores hidrológicos de humedales:

Indicadores primarios (se requiere un mínimo de uno; marque todos los que procedan)

- ☐ Aguas superficiales (A1)
- ☐ Nivel freático alto (A2)
- ☐ Saturación (A3)
- ☐ Marcas de agua (B1)
- ☐ Depósitos de sedimentos (B2)
- ☐ de deriva (B3)
- ☐ Capa o corteza de algas (B4)
- ☐ Depósitos de hierro (B5)
- ☐ Inundación visible en imágenes aéreas (B7)
- ☐
- ☐ Hojas manchadas de agua (B9)
- ☐ Fauna acuática (B13)
- ☐ Olor a sulfuro de hidrógeno (C1)
- ☐ Rizósferas oxidadas en raíces vivas (C3)
- ☐ Presencia de hierro reducido (C4)
- ☐ Reducción reciente del hierro en suelos labrados (C6)
- ☐ Superficie de lodo fino (C7)
- ☐ Madrigueras del cangrejo violinista (C10)
- ☐ Otros (explique en observaciones)
- ☐

Indicadores secundarios (se requiere un mínimo de dos)

- ☐ Grietas en la superficie del suelo (B6)
- ☐ Superficie cóncava con escasa vegetación (B8)
- ☐ Patrones de drenaje (B10)
- ☐ Nivel freático en estación seca (C2)
- ☐ Saturación visible en imágenes aéreas (C9)
- ☐ Depósitos de Posición geomórfica (D2)
- ☐ Aquitardado poco profundo (D3)
- ☐ Prueba FAC-Neutral (D5)
- ☐

Observaciones sobre el terreno:

¿Hay agua superficial? Sí _____ No _____ Profundidad (pulgadas): _____

¿Hay nivel freático? Sí _____ No _____ Profundidad (pulgadas): _____

¿Saturación presente? (incluye franja capilar) Sí _____ No _____ Profundidad (pulgadas): _____

¿Hidrología de humedales presente? _____ **No** X

Describa los datos registrados (medidor del arroyo, pozo de control, fotos aéreas, inspecciones anteriores), si están disponibles:

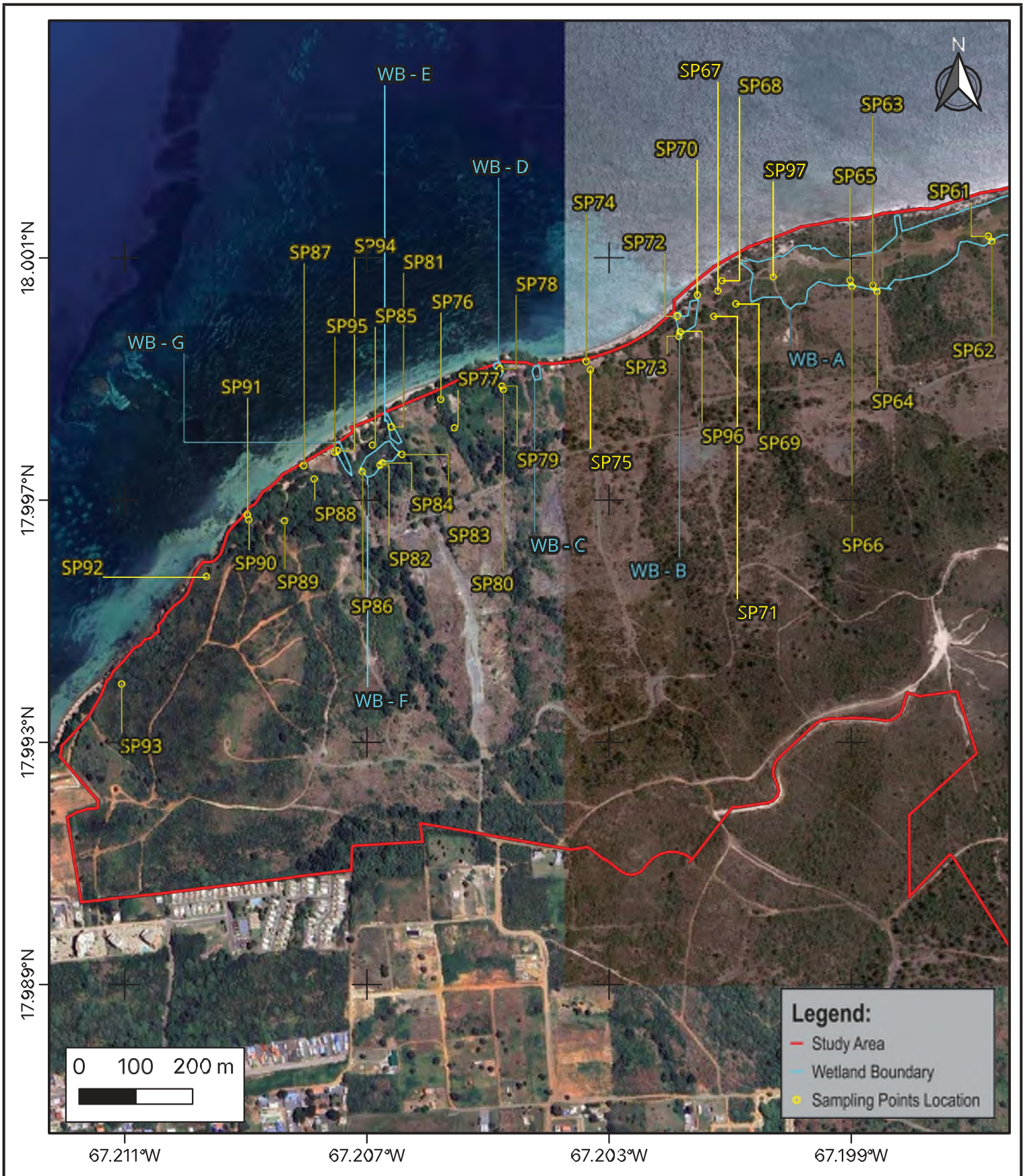
Observaciones:

No hay indicadores hidrológicos presentes.

APÉNDICE C:

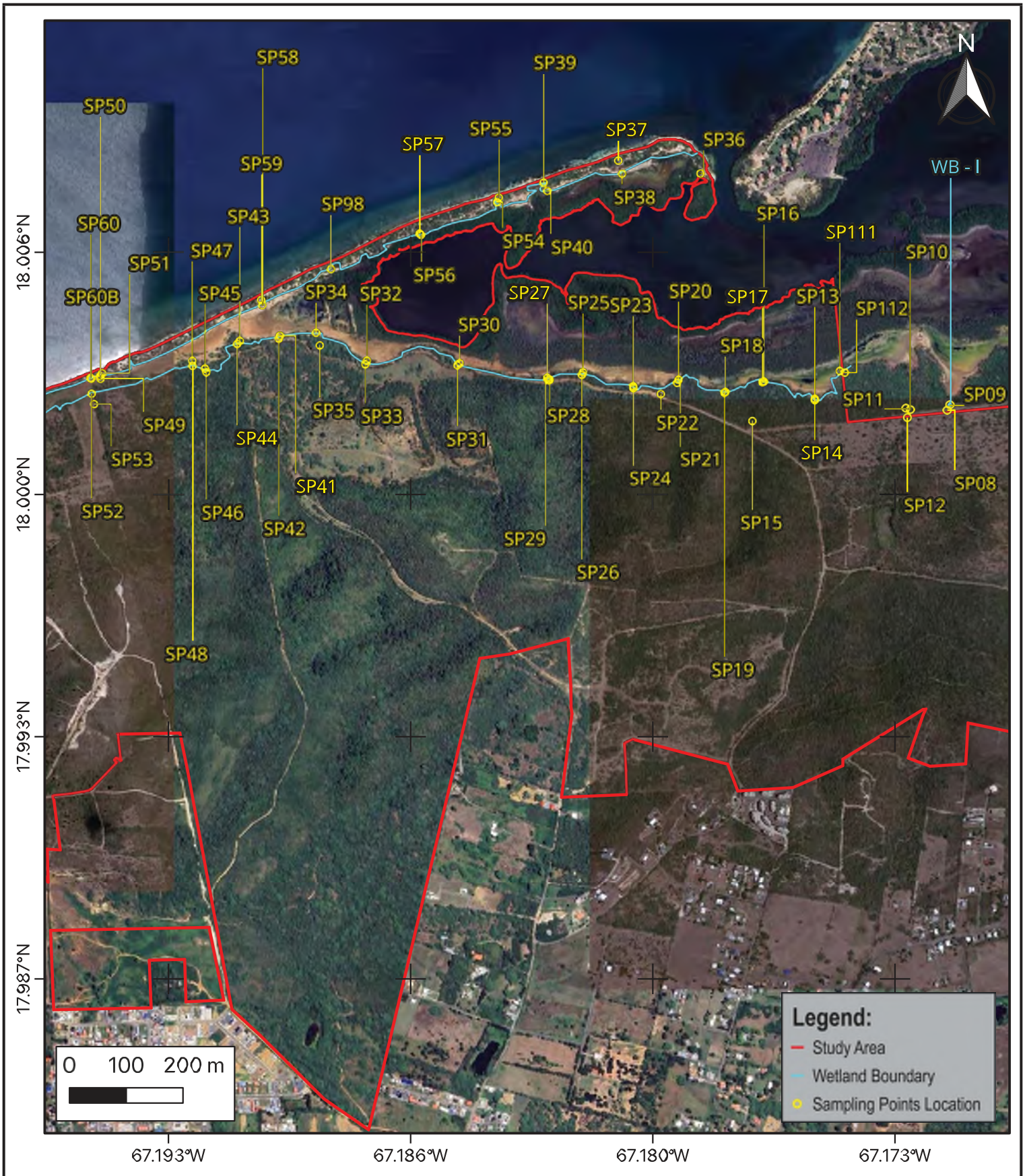
DELIMITACIÓN DE HUMEDALES Y UBICACIÓN DE LOS PUNTOS DE MUESTREO

AMBIENTA INC.
HC2 BOX 14029 AGUAS BUENAS, PR 00703
TELS. (787) 510-7031 / (787) 732-0907
FAX (787) 732-0907 wsoler@ambientainc.com



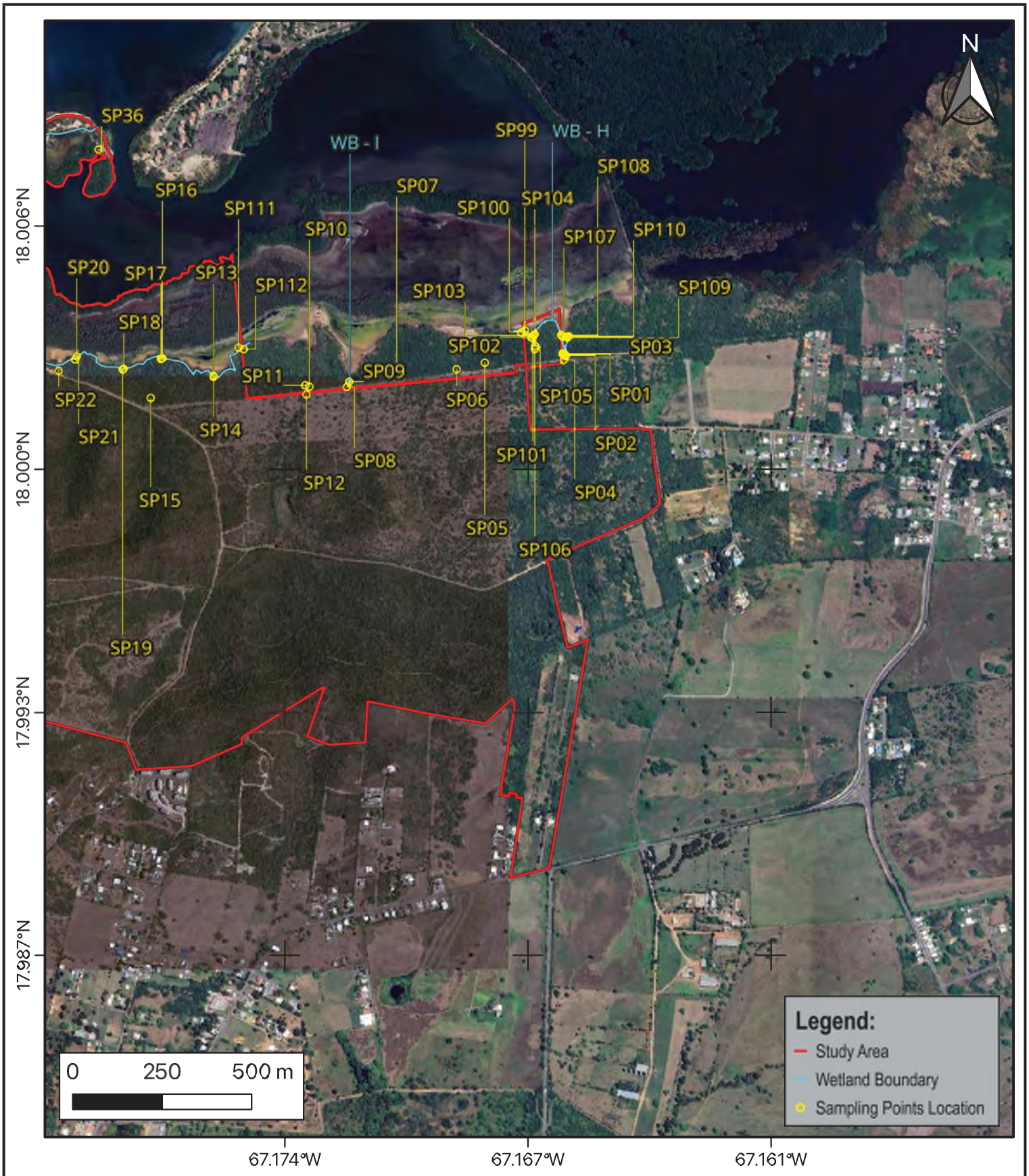
Apéndice C-1: Delimitación de humedales y ubicación de los puntos de muestreo
Proyecto Esencia
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants



Apéndice C-2: Delimitación de humedales y ubicación de los puntos de muestreo
Proyecto Esencia
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants



Apéndice C-3: Delimitación de humedales y ubicación de los puntos de muestreo
Proyecto Esencia
Cabo Rojo, Puerto Rico

AMBIENTA INC.
Environmental Consultants

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 5a

NOVIEMBRE 2025

Preliminary Stormwater Management Analysis Report For Esencia Development Cabo Rojo, PR

Prepared for: ***Álvarez-Díaz & Villalón (AD&V)***

Prepared by:

PMG AND ASSOCIATES
ENGINEERING DESIGN & CONSULTING

May 17, 2024

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ABFE	Advisory Base Flood Elevation (map)
BFE	Base Flood Elevation
BLE	Base Level Engineering
DEM	Digital Elevation Model
DNER	Department of Natural and Environmental Resources
EC	Existing Condition
FEMA	Federal Emergency Management Agency
FIRM	Flood Insurance Rate Map
HEC-RAS	Hydrologic Engineering Center – River Analysis System
ICPR	Interconnected Channel and Pond Routing
LiMWA	Limit of Moderate Wave Action
MoWA	Moderate Wave Action
MSL	Mean Sea Level
NOAA	National Oceanic and Atmospheric Administration
PRPB	Puerto Rico Planning Board
USACE	US Army Corps of Engineers
USGS	United States Geological Survey
WSE	Water Surface Elevation

1 INTRODUCTION

This Stormwater Management (SWM) Study presents the hydrologic analysis for a proposed tourist and residential resort development in the Boquerón Ward in Cabo Rojo, Puerto Rico. **Appendix A** provides an aerial view of the project location.

To ensure an environmentally friendly design, a hydrologic analysis is required to assess the surface runoff peak flow and volume under pre- and post-developed conditions.

Alvarez-Díaz & Villalón (AD&V) retained the services of PMG & Associates, LLC (PMG) to perform a Stormwater Management study to evaluate the existing hydrologic conditions on the Project property.

1.1 Purpose of this Study

The purpose of this study is to estimate the storm runoff volume and peak flows generated within the proposed project area, including offsite stormwater contributions, and the neighboring properties receiving stormwater downstream of the Project site.

This study was prepared following the recommendations of the document prepared by the Department of Natural and Environmental Resources (DNER) and the Puerto Rico Planning Board (PRPB) titled “Guías para la Elaboración de Estudios Hidrológicos-Hidráulicos” (June 2016) and may be consider as a preliminary storm water management analysis to plan for the storm water design in compliance with Regulation Num. 40 “Reglamento para el Diseño, Criterios de Operación y Mantenimiento para Sistemas de Alcantarillados Pluviales de Puerto Rico”.

This study also considered the Cabo Rojo Coastal Resources Management Master Plan (Nov. 2023) and the point source effects the proposed project may have on the coastal resources receiving the project stormwater excess runoff.

1.2 Scope of Work

The study's scope of work is to gather the hydrologic data required to determine the runoff discharge before the Project development. The following tasks are part of this study to accomplish the scope of work:

- Collect and assess the required data to perform the hydrological analysis.
- Watersheds delineation and flow pattern determination within the proposed development area.
- Assess the hydrological classification of soils and land uses for the studied basins.
- Determination and assignment of precipitation values for all watersheds.
- Calculation of hydrological parameters: Time of concentration and Natural Resources Conservation Service (NRCS) Curve Number (CN).
- Develop a hydrologic simulation model to determine the maximum peak flow generated by storms with recurrence periods of 10-, 25-, and 100-years under pre- and post-developed conditions.

2 DESCRIPTION OF STUDY AREA

2.1 Project Location

The proposed Project is located near Boquerón Bay, State Roads PR-301 and PR-3301, in the Municipality of Cabo Rojo. The project area is bounded to the north and west by the Caribbean Sea and Caño Boquerón, to the east by PR-301 and the Llanos Costa sector, and to the south by PR-3301 and the El Combate sector. **Appendix B** shows the Project location over the United States Geological Survey (USGS) Topographic Quadrangles of Puerto Real and Cabo Rojo.

2.2 Description of Proposed Project

The Project Site is currently undeveloped, and its vegetation cover consists mainly of a combination of medium-density trees, brush, and grasses.

The proposed Project is a complex residential and tourist development. **Appendix C** shows the Project Schematic site plan.

2.3 Existing Topography

The existing topography at the project site and surrounding areas follow a mostly northward drainage pattern, with small portions of the south zone draining southward.

The property's topography fluctuates from sea level to 106 meters (mean sea level, MSL). The "Peñones de Melones" is a mountainous formation with the highest elevations within the project area. **Appendix D** shows the topographic plans prepared by professional surveyor José E. Bidot (Lic. 12972).

The NOAA topographic data, USGS Lidar: Post Hurricane Maria for Puerto Rico (2018), was used to develop the topographic contours only for watersheds delineation purposes outside the project limits.

2.4 Existing Waterbodies

According to the USGS topographic quadrangle of Puerto Real and Cabo Rojo, some intermittent watercourses flow to the north and south zones of the Project Site. The watercourses of the northern zone discharge towards the sea and the Caño Boquerón. The watercourses of the southern zone discharge into the interior of the Boquerón ward.

Stormwater surface runoff flows overland into drainage gully's with steep to mild slopes until reaching the costal fringe where it spreads out before draining into the coastline without a well-defined channel.

An assessment conducted by Ambienta Inc. has determined that these watercourses acting as drainage collection areas do not meet the WOTUS criteria for classification as intermittent or relatively permanent waters. The assessment found that these areas lack some of the ecological characteristics of a creek, such as continuous or even seasonal flow, and only collect water during heavy rain events. Consequently, they are classified as non-jurisdictional under the Clean Water Act and the current definition of Waters of the United States (WOTUS) as per the 2023 WOTUS Conforming Rule, being identified as ephemeral features. **Appendix E** shows the existing water courses over an aerial photo.

2.5 Flood Studies near the Project Area

2.5.1 Flood Insurance Study (FIS)

According to FEMA's Flood Insurance Rate Map (FIRM) panel 72000C1540J, 72000C1545J, 72000C1905J, and 72000C1910J (November 18, 2009), the following flood areas are identified within General Project Site limits: Zone VE Coastal flood zone with velocity hazard "wave action" with Base Flood Elevations Determined, Zone AE 1.0-percent annual chance flood with Base Flood Elevations determined and Zone X outside of the 0.2-percent annual chance flood.

2.5.2 FEMA Advisory Base Flood Elevation Maps (ABFEs)

After Hurricane Maria, FEMA developed the Puerto Rico Advisory Base Flood Elevations (ABFE) maps, which provide information about Base Flood Elevations (BFE), and revised floodplains with annual probability occurrence of 1% and 0.2% in Puerto Rico. ABFEs intend to be a tool for the communities to help recover Puerto Rico and make them more resilient. These new maps were developed for design purposes with limited data considering a methodology named Base Level Engineering (BLE). The PRPB adopted the ABFE maps as a regulation design criterion for Development. **Appendix F** shows the Project Site limits over the FEMA FIRM09 and the ABFE Flood Maps; and a copy of the PRPB Flood Determination document for the Western Site.

2.5.3 Regulatory Flood Zone Classification

According to the ABFE, the General Project Site limits are classified as Zone AE, Zone VE, Coastal Zone A, Zone X 0.2pct ACF, and most of the project site is outside the 0.2-percent annual chance flood "500-yr".

The regulatory base flood elevations near the proposed project result from the Moderate Wave Action (MoWA) 1-percent floodplain for coastal areas. At the Project site, the regulatory 1-pct base flood elevations range from approximately 3.8 to 4.7 meters at the coast limits (Zone VE), from 3.5 to 3.8 meters within the Coastal Zone A (30 to 90 meters inland measured from the coastal limit, at the northeast of the Project limit shallow areas), and from 3.1 to 3.8 meters (Zone AE, 0 to 90 meters inland measured from the coastline or, where apply, the Limit of Moderate Wave Action "LiMWA").

3 STORMWATER MANAGEMENT ANALYSIS

This study is required to manage the local runoff generated by the property under study and the runoff from areas outside the Project. In this first stage, the current characteristics in the study area are defined, which defines the existing condition, to calculate the runoff generated in the watercourses. The following sections describe the Storm Water Management analysis.

3.1 Hydrologic Analysis Methodology

The hydrologic simulation performed in this study follows the methodology developed by the Soil Conservation Service (SCS). The computational model used was the Interconnected Channel and Pond Routing Model (ICPR) developed by Streamlines Technologies. The ICPR model estimates the surface runoff from any synthetic or natural storm. Rainfall transforms into runoff via the Unit Hydrograph method. As a result, the model computes the peak discharge flow at the outlet of each sub-area (sub-basin).

3.2 Design Storm and Rainfall Data

This study analysis uses the precipitation data for return periods of 10-, 25-, and 100-years and durations of 6-, 12-, and 24-hours. The source of the storm data was the Precipitation-Frequency-Atlas (Atlas 14), Volume 3 Version 4.0 for Puerto Rico and the US Virgin Islands, published by the National Oceanic and Atmospheric Administration (NOAA). Table 3-1 shows the Atlas 14 rainfall average values for the study area centroid at coordinates 17.9973°N and 67.187°W. **Appendix G** shows the NOAA's Atlas 14 Point Precipitation Frequency Estimates report.

Table 3-1. Rainfall average values for different return periods.

Duration (hrs.)	Precipitation Depth (mm)		
	Recurrence		
	10-yr	25-yr	100-yr
6	129	155	197
12	157	201	277
24	195	257	367

3.3 Watershed Description

For watershed identification purposes, the project site and its contributing areas are divided into two main zones: the North Zone and the South Zone. This classification is based on the flow direction of the watercourses identified for the runoff analysis. The watercourses of the northern zone discharge towards the sea and the Caño Boquerón. The watercourses of the southern zone discharge into the interior of the Boquerón ward.

The stormwater analysis's first step is delineating the Project's drainage areas. The Basin's name is related to discharge pattern direction and the project site location: the Northern Site's Basins (BN) and the Southern Site's Basins (BS). In this study, forty-nine general basins have been identified within the project area. **Appendix H** shows the watershed limits map over the topographic contour map generated using the NOAA LiDAR/DEM (2018).

3.3.1 Land Cover

The land cover for the studied basins in the Existing Condition corresponds to the NRCS's Technical Paper TR-55 land cover classification and CN relationships (NRCS, 1986). The following land use types were identified within the study area: Mainly Wooded areas combined with Pastures, Brush weed-grass mixture, Bare Soils, and Dirt Roads. **Appendix I** shows the land cover map for the Existing Condition (EC) study area.

3.3.2 Soil Type

The soil types for the study area were published in the NRCS Soils Survey for the Cabo Rojo Area. The soil types encountered within the delimited basins are mainly Altamira gravelly clay (45.56% of the total studied basins area), Guayacan clay, Casabe clay, Melones clay, Fraternidad clay, Bermeja-Cerro Mariquita complex, among others. The studied watersheds have a predominant hydrologic soil group of Type D (95.01%) in addition to having the hydrological soil groups C (3.99%) and D (0.92%). **Appendix J** shows the soil type map for the study area and a soil report with the project area's soil composition.

3.3.3 Runoff Curve Number

The NRCS method of runoff estimation involves the computation of a runoff Curve Number (CN). This number corresponds to hydrologic soil-cover relations and land uses. The major factors determining CN are the hydrologic soil group, cover type, and the Antecedent Moisture Condition (AMC).

The existing condition values of CN were obtained from tables prepared by the NRCS for the Caribbean and were weighted according to the soil type and land use area percentage on each sub-basin.

The soil characteristics of the study area were identified using soil maps. The United States Department of Agriculture Natural Soil Conservation Service (NRCS) has published soil maps and classified the soils according to their hydrologic characteristics.

The Aerial photography and site plans help determine the existing and proposed land cover conditions for the studied watersheds. Runoff CN values were determined using the information provided in the Soil Map and Land Cover Map, combined with the NRCS's CN tables for Antecedent Moisture Condition II (AMC II). **Appendix K** shows the CN maps for each Basin for Existing Condition (EC).

3.3.4 Time of Concentration

The Time of concentration (Tc) was estimated using the method commonly known as Watershed Lag Method. This equation was developed by NRCS using 24 watersheds in the United States. It provides reasonable results for watershed areas up to 19 square miles (12,160 ac).

The Lag equation is as follows,

$$T_c = \frac{100 \times L^{0.8}[(1000/CN) - 9]^{0.7}}{1900 \times S^{0.5}}$$

Where:

Tc = Time of concentration (minutes), ≥6 minutes (PRPR Reg. No.40)

L= Watershed flow length (ft)

S = Watershed Slope (%)

CN = Curve number

Table 3-2 and Table 3-3 summarizes the hydrologic parameters of the basins considered in this study. **Appendix M** includes the hydrological properties and computations to estimate the Tc for the studied basins in Existing Condition.

Table 3-2. Basins Hydrological Properties for EC – North Basins

Basin ID	Area (ha)	CN	Length Flow Path (meters)	Slope %	Tc (min)
BN01	4.54	77	233.76	18.94	6.5
BN02	2.72	77	265.89	26.25	6.1
BN03	5.57	77	278.25	29.01	6.0
BN04	5.70	79	510.03	22.94	10.3
BN05	20.02	81	666.54	11.87	16.6
BN06	23.36	82	958.07	15.96	18.5
BN07	17.03	83	929.53	15.27	18.3
BN08A	16.49	83	870.67	20.87	14.8
BN08B	1.23	54	193.89	3.75	23.3

BN09A	5.53	80	394.57	9.48	12.5
BN09B	1.40	57	212.97	2.16	30.2
BN10A	5.72	83	253.11	21.05	6.0
BN10B	1.33	47	168.74	2.47	30.0
BN11A	3.54	84	138.17	14.56	6.0
BN11B	1.09	49	132.59	2.70	22.5
BN11C	14.98	84	704.70	23.06	11.3
BN11D	1.65	57	183.74	2.45	25.2
BN12A	14.81	82	733.53	24.35	12.2
BN12B	0.77	73	121.36	2.83	11.1
BN13A	15.65	82	795.17	23.34	13.3
BN13B	1.76	73	225.17	2.01	21.4
BN13C	50.60	83	1461.53	29.03	19.1
BN13D	1.81	74	256.00	1.58	26.4
BN14	3.62	80	319.52	4.14	16.0
BN15	5.76	83	395.58	15.23	9.2
BN16	19.62	83	646.51	28.75	9.9
BN17	16.85	82	608.99	30.74	9.4
BN18	8.49	82	541.82	30.75	8.6
BN19	26.43	81	891.41	19.54	16.6
BN20	58.42	82	1396.78	20.63	22.0
BN21	8.10	84	415.80	9.93	11.3
BN22	27.75	83	1057.83	13.66	20.9
BN23	66.78	84	952.38	13.23	19.1
BN43	44.93	84	1020.70	1.13	68.8
Total	**504.06**				

Table 3-3. Basins Hydrological Properties for EC – South Basins

Basin ID	Area (ha)	CN	Length Flow Path (meters)	Slope %	Tc (min)
BS24	4.78	84	323.37	12.27	8.3
BS25	7.47	84	460.50	12.20	11.1
BS26	1.78	83	64.52	23.92	6.0
BS27	2.76	82	129.88	26.76	6.0
BS28	3.71	82	191.35	28.68	6.0
BS29A	16.83	82	645.39	18.86	12.5
BS29B	3.65	82	243.46	20.52	6.0
BS29C	5.34	82	309.57	15.08	7.8
BS30	4.74	82	198.47	21.70	6.0

BS31	4.36	82	231.56	20.63	6.0
BS32	1.84	83	115.10	17.79	6.0
BS33	1.73	83	76.42	6.26	6.0
BS34	2.88	83	95.30	5.62	6.0
BS35	51.16	82	1372.17	11.95	28.5
BS36A	10.84	82	444.87	21.53	8.7
BS36B	0.70	82	78.68	12.90	6.0
BS36C	1.59	82	21.96	17.70	6.0
BS36D	25.29	82	869.14	9.43	22.4
BS37A	10.38	82	537.97	20.01	10.2
BS37B	20.16	83	537.97	20.01	10.2
BS37C	7.69	82	209.19	21.32	6.0
BS38	3.60	82	121.60	19.51	6.0
BS39	3.00	83	110.46	15.63	6.0
BS40	1.42	82	585.98	15.49	12.5
BS41	15.12	83	585.98	15.49	12.5
BS42	2.51	79	259.03	16.95	7.0
Total	**215.33**				

3.4 Hydrologic Simulation

The hydrologic computer model used for this study was the Interconnected Channel and Pond Routing Model (ICPR) v4.07.08, licensed by Streamlines Technologies. The performed hydrologic simulations included storm events with return periods of 10-, 25-, and 100-years, and 6-, 12-, and 24-hours duration. The simulations were performed based on the SCS Dimensionless Unit Hydrograph Method.

ICPR configuration for EC and PC requires basins, nodes, and links to complete the simulation process. ICPR basins (shown in gray in Figure 3-1 to Figure 3-7) represent the basins where a storm event generates runoff. ICPR basins connect to nodes (red dots). ICPR nodes receive runoff generated by basins connected to links. Nodes may include stage-area data if runoff storage is expected or required.

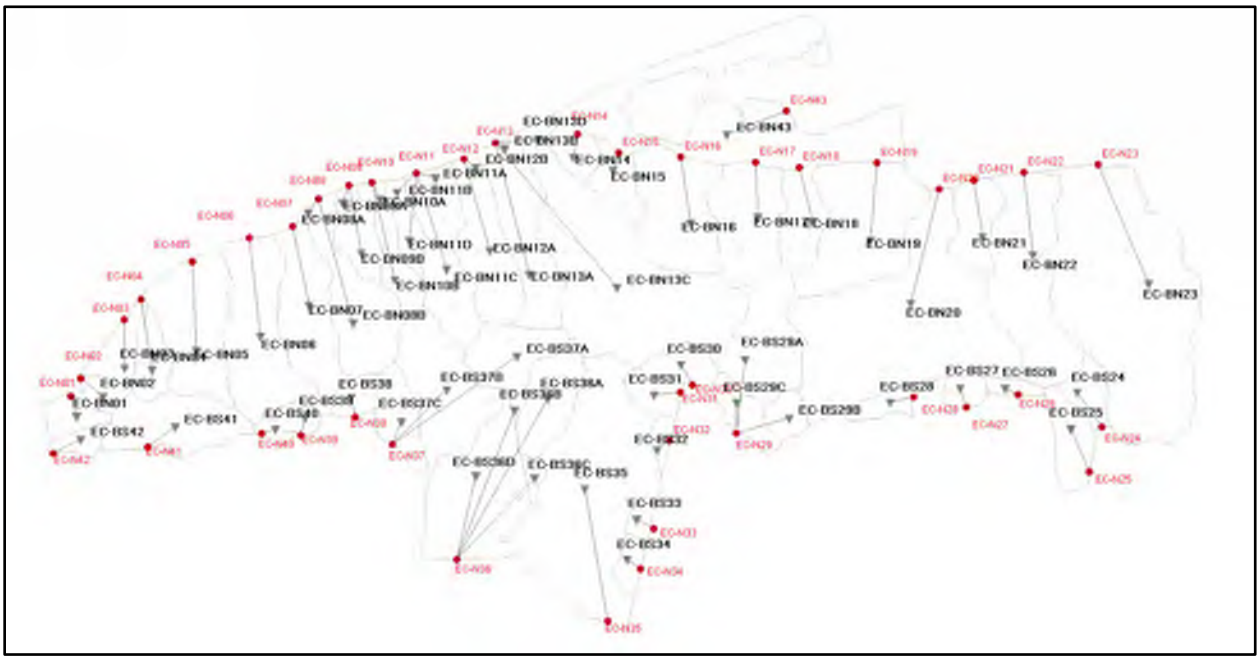

Figure 3-1. ICPR Model Configuration under Existing Conditions.

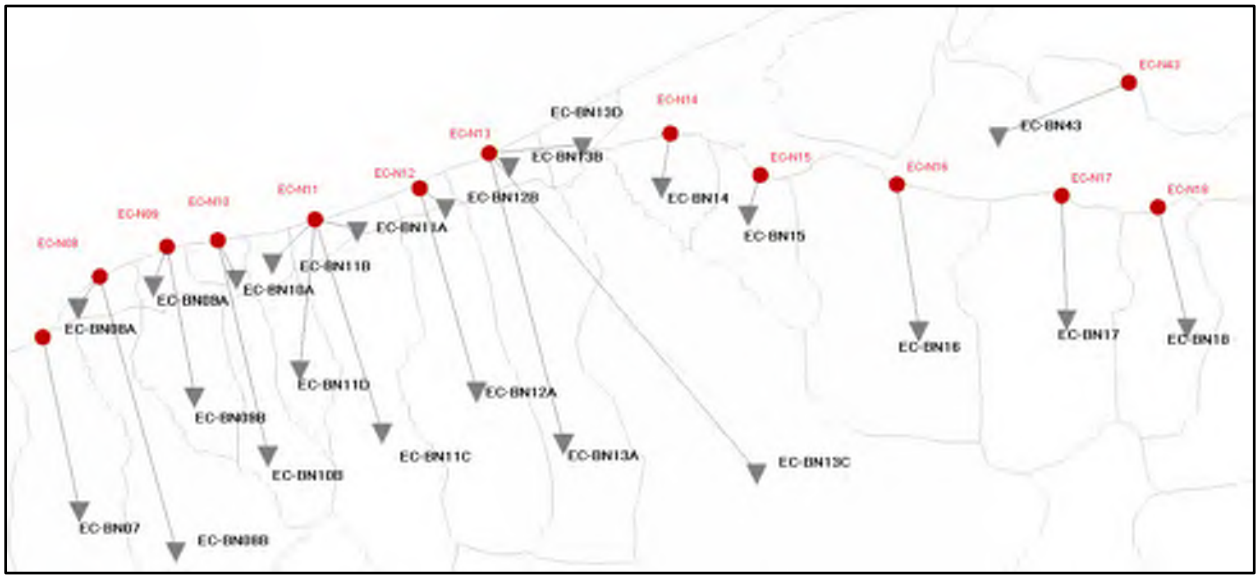

Figure 3-2. ICPR Model Configuration under Existing Conditions – interconnection details North Basins (BN07-BN18).

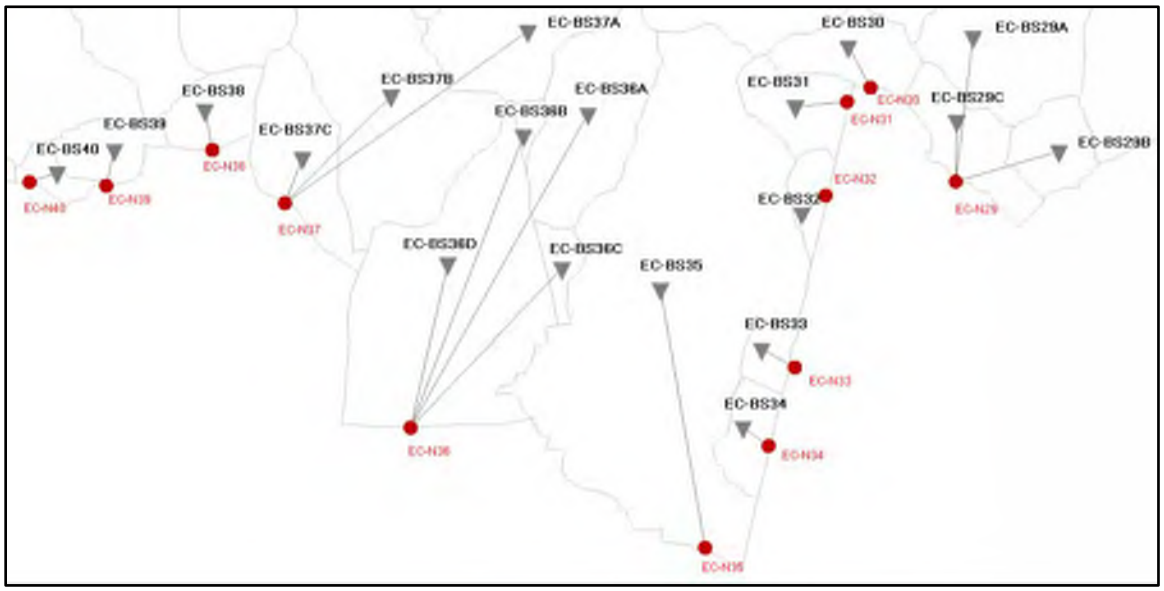

Figure 3-3. ICPR Model Configuration under Existing Conditions – interconnection details South Basins (BS29B-BS40).

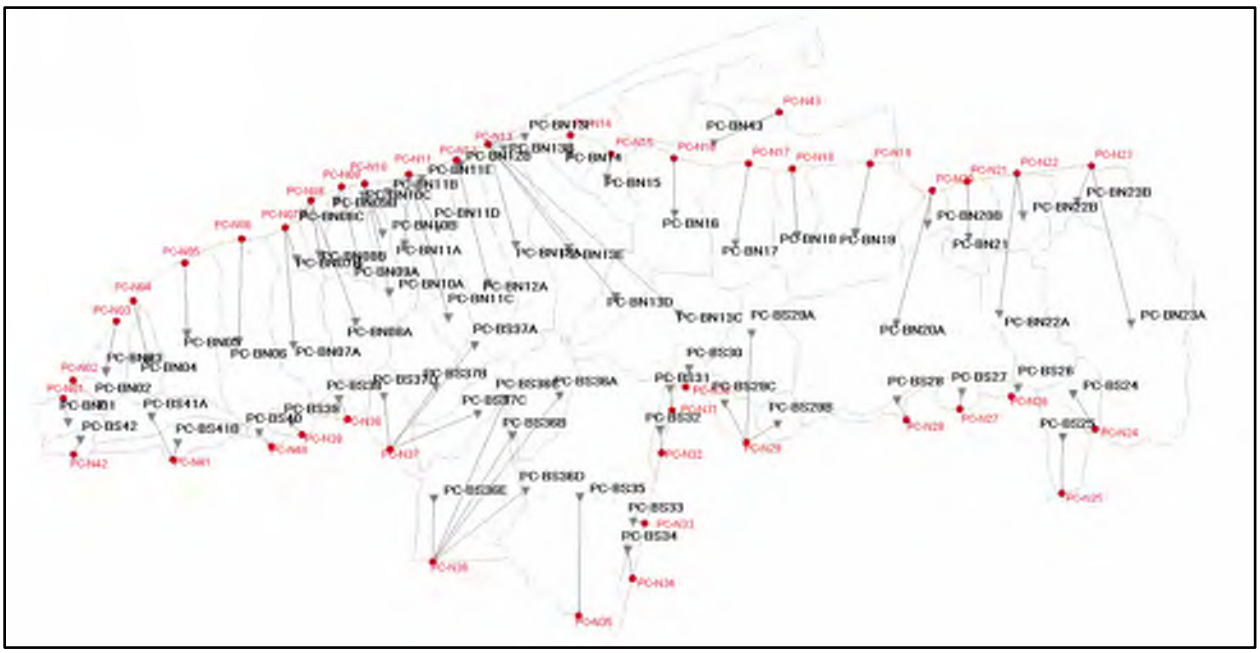

Figure 3-4. ICPR Model Configuration under Proposed Conditions.

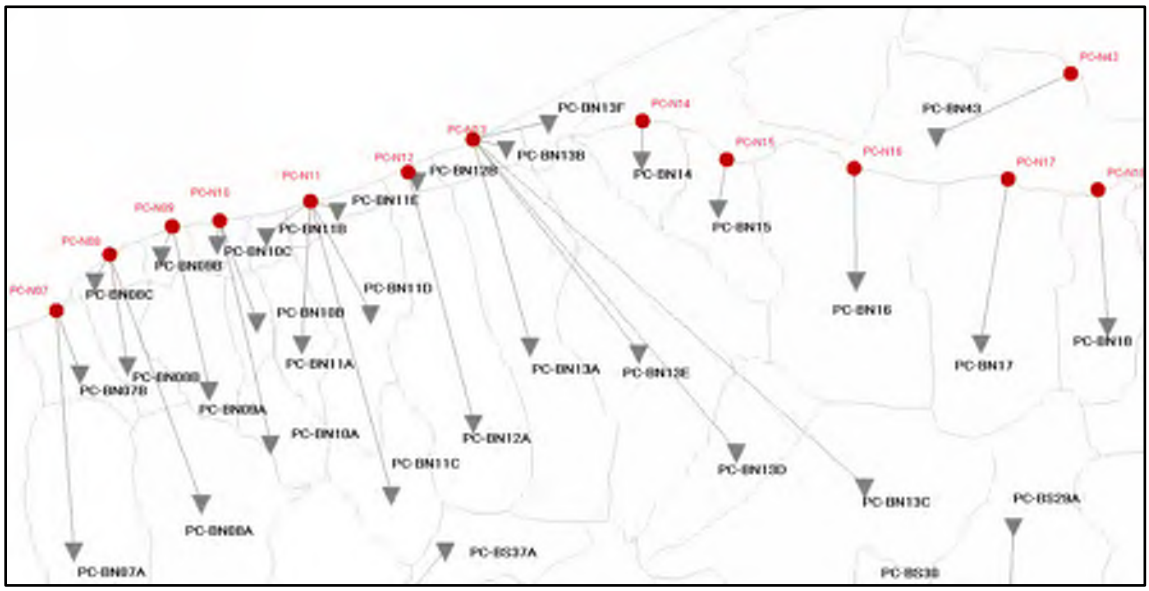

Figure 3-5. ICPR Model Configuration under Proposed Conditions – interconnection details North Basins (BN07-BN18).

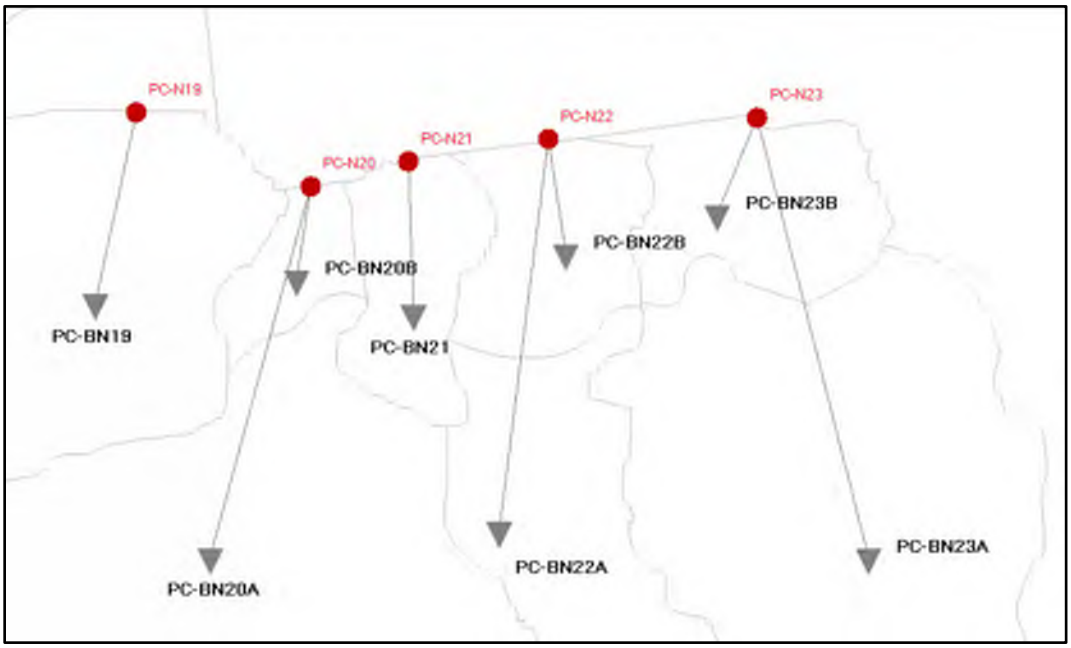

Figure 3-6. ICPR Model Configuration under Proposed Conditions – interconnection details North Basins (BN19-BN23B).

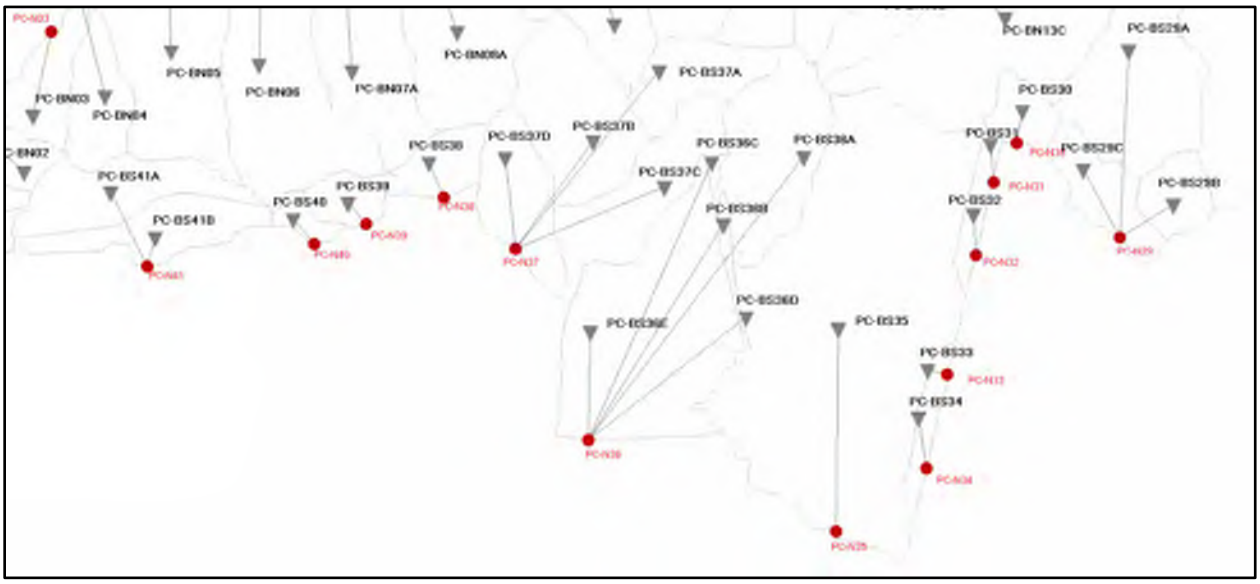

Figure 3-7. ICPR Model Configuration under Proposed Conditions – interconnection details South Basins (BS29B-BS41B).

3.4.1 Existing Condition (EC)

In the ICPR model, nodes receive the basins discharge and compute the sum of hydrographs connected at the same node. In this first analysis, the basin-node relationship is one-to-one for the Existing Condition since each node receives a single basin. Although each basin discharge is computed in a single point (node), that does not represent necessarily a point discharge (concentrated discharge), and typically the discharges at the north are laminar flow (linear distributed overland discharge) flow at the basin outlet. Discharges towards the North Zone, meaning discharges towards the coastal zone and mangroves, shall be considered distributed discharges.

Based on the gathered information (aerial photo and topographic contours) and verified with the topographic quadrangle of Puerto Real, there are three ponds within the project site; these existing ponds were not modeled and were assumed as continuous streams for simulation purposes. This assumption is a conservative approach.

In the Existing Condition (EC), a total of forty-three (43) stormwater outfalls were located in the study area, divided into those located north (24) and those located south (19) of the project site.

To comply with the current regulations, the runoff peak discharge at these Outlet Nodes in the Proposed Condition (PC) shall be equal to or less than the Existing Condition (EC) and will be a matter of further analysis.

3.4.1.1 Determination of the Design Storm Event

PRPB Regulation No. 40 requires an initial computer model run to determine the simulation that generates the maximum outflow for the 10-, 25-, and 100-year recurrences interval, also known as the "design storm event." Therefore, this analysis establishes which rainfall event duration (6, 12, and 24-hr) and percentile (10^{th} and 90^{th}) generates the maximum peak value for each storm of simulated recurrences, following the recommendations of the DRNA "Guías para la preparación de Estudios HH, (2016)". The “design event” peak flow for each recurrence (10-, 25-, and 100-year) is defined as the simulation that produces the maximum peak flow resulting from six (6) different simulations (3 durations by 2 percentiles) in the Existing Condition at each outlet node. The “design event” determines which simulation prevails for the further analysis of the Proposed Condition for each Basin.

3.4.1.2 Summary Results for EC

Basin's analysis results for Existing Conditions establish the target to compare with the Proposed Condition results and determine if a runoff increase occurs in any downstream outlet. Table 3-4 shows the peak flows summary for all downstream outlet (NODES) under existing conditions. Table 3-5 shows the peak flows summary for all basins under existing conditions. **Appendix N** shows the computer model results and parameters for the ICPR model in Existing Conditions.

Table 3-4. Nodes Flow Summary Results for EC.

Basins	Nodes	Max. Total Inflow Rate [m^3/s]	Simulation	Max. Total Inflow Rate [m^3/s]	Simulation	Max. Total Inflow Rate [m^3/s]	Simulation
BN01	N01	0.658	10yr-6hr-10%	0.866	25yr-6hr-10%	1.211	100yr-6hr-10%
BN02	N02	0.394	10yr-6hr-10%	0.518	25yr-6hr-10%	0.724	100yr-6hr-10%
BN03	N03	0.807	10yr-6hr-10%	1.063	25yr-6hr-10%	1.483	100yr-6hr-10%
BN04	N04	0.865	10yr-6hr-10%	1.130	25yr-6hr-10%	1.567	100yr-6hr-10%
BN05	N05	3.155	10yr-6hr-10%	4.094	25yr-6hr-10%	5.652	100yr-6hr-10%
BN06	N06	3.760	10yr-6hr-10%	4.858	25yr-6hr-10%	6.675	100yr-6hr-10%
BN07	N07	2.823	10yr-6hr-10%	3.632	25yr-6hr-10%	4.966	100yr-6hr-10%
BN08A, BN08B	N08	2.801	10yr-6hr-10%	3.617	25yr-6hr-10%	4.967	100yr-6hr-10%
BN09A, BN09B	N09	0.895	10yr-6hr-10%	1.189	25yr-24hr-90%	1.763	100yr-24hr-90%
BN10A, BN10B	N10	0.983	10yr-6hr-10%	1.266	25yr-6hr-10%	1.773	100yr-24hr-90%
BN11A, BN11B, BN11C, BN11D	N11	3.278	10yr-6hr-10%	4.218	25yr-6hr-10%	5.772	100yr-6hr-10%
BN12A, BN12B	N12	2.534	10yr-6hr-10%	3.271	25yr-6hr-10%	4.495	100yr-6hr-10%
BN13A, BN13B, BN13C, BN13D	N13	11.310	10yr-6hr-10%	14.592	25yr-6hr-10%	20.016	100yr-6hr-10%
BN14	N14	0.555	10yr-6hr-10%	0.723	25yr-6hr-10%	1.003	100yr-6hr-10%
BN15	N15	0.983	10yr-6hr-10%	1.259	25yr-6hr-10%	1.732	100yr-6hr-10%
BN16	N16	3.344	10yr-6hr-10%	4.279	25yr-6hr-10%	5.887	100yr-6hr-10%
BN17	N17	2.797	10yr-6hr-10%	3.595	25yr-6hr-10%	4.959	100yr-6hr-10%
BN18	N18	1.411	10yr-6hr-10%	1.812	25yr-6hr-10%	2.504	100yr-6hr-10%
BN19	N19	4.165	10yr-6hr-10%	5.405	25yr-6hr-10%	7.461	100yr-6hr-10%
BN20	N20	9.284	10yr-6hr-10%	11.983	25yr-6hr-10%	16.464	100yr-6hr-10%
BN21	N21	1.411	10yr-6hr-10%	1.802	25yr-6hr-10%	2.465	100yr-6hr-10%
BN22	N22	4.554	10yr-6hr-10%	5.856	25yr-6hr-10%	8.008	100yr-6hr-10%
BN23	N23	11.357	10yr-6hr-10%	14.546	25yr-6hr-10%	19.793	100yr-6hr-10%
BS24	N24	0.839	10yr-6hr-10%	1.077	25yr-6hr-10%	1.471	100yr-6hr-10%
BS25	N25	1.303	10yr-6hr-10%	1.663	25yr-6hr-10%	2.275	100yr-6hr-10%
BS26	N26	0.305	10yr-6hr-10%	0.394	25yr-6hr-10%	0.540	100yr-6hr-10%
BS27	N27	0.462	10yr-6hr-10%	0.594	25yr-6hr-10%	0.821	100yr-6hr-10%
BS28	N28	0.620	10yr-6hr-10%	0.799	25yr-6hr-10%	1.104	100yr-6hr-10%
BS29A, BS29B, BS29C	N29	4.258	10yr-6hr-10%	5.488	25yr-6hr-10%	7.512	100yr-6hr-10%
BS30	N30	0.793	10yr-6hr-10%	1.021	25yr-6hr-10%	1.410	100yr-6hr-10%
BS31	N31	0.729	10yr-6hr-10%	0.939	25yr-6hr-10%	1.297	100yr-6hr-10%
BS32	N32	0.316	10yr-6hr-10%	0.407	25yr-6hr-10%	0.558	100yr-6hr-10%

BS33	N33	0.297	10yr-6hr-10%	0.383	25yr-6hr-10%	0.525	100yr-6hr-10%
BS34	N34	0.494	10yr-6hr-10%	0.637	25yr-6hr-10%	0.874	100yr-6hr-10%
BS35	N35	7.901	10yr-6hr-10%	10.191	25yr-6hr-10%	13.989	100yr-6hr-10%
BS36A, BS36B, BS36C, BS36D	N36	6.091	10yr-6hr-10%	7.832	25yr-6hr-10%	10.791	100yr-6hr-10%
BS37A, BS37B, BS37C	N37	6.432	10yr-6hr-10%	8.247	25yr-6hr-10%	11.360	100yr-6hr-10%
BS38	N38	0.602	10yr-6hr-10%	0.775	25yr-6hr-10%	1.071	100yr-6hr-10%
BS39	N39	0.515	10yr-6hr-10%	0.663	25yr-6hr-10%	0.910	100yr-6hr-10%
BS40	N40	0.237	10yr-6hr-10%	0.306	25yr-6hr-10%	0.422	100yr-6hr-10%
BS41	N41	2.559	10yr-6hr-10%	3.283	25yr-6hr-10%	4.492	100yr-6hr-10%
BS42	N42	0.385	10yr-6hr-10%	0.502	25yr-6hr-10%	0.697	100yr-6hr-10%
BN43	N43	5.945	10yr-6hr-10%	7.601	25yr-6hr-10%	10.327	100yr-6hr-10%

According to the peak discharges evaluated in the outlet nodes of the hydrographic Basin, the 6-hour simulation and the 10% percentile produce the maximum peak flow values for all the main basins studied, except for N09 and N10 nodes, whose maximum values in the 100-year return period are obtained for the 24-hour simulation and the 90th percentile.

Table 3-5. Basins Summary Results for EC

Basins (ICPR Model)	Nodes	10-yr		25-yr		100-yr	
		Q_{MAX} [m^3/s]	Simulation	Q_{MAX} [m^3/s]	Simulation	Q_{MAX} [m^3/s]	Simulation
BN01	N01	0.658	10yr-6hr-10%	0.866	25yr-6hr-10%	1.211	100yr-6hr-10%
BN02	N02	0.394	10yr-6hr-10%	0.519	25yr-6hr-10%	0.724	100yr-6hr-10%
BN03	N03	0.807	10yr-6hr-10%	1.063	25yr-6hr-10%	1.484	100yr-6hr-10%
BN04	N04	0.865	10yr-6hr-10%	1.130	25yr-6hr-10%	1.567	100yr-6hr-10%
BN05	N05	3.155	10yr-6hr-10%	4.094	25yr-6hr-10%	5.652	100yr-6hr-10%
BN06	N06	3.761	10yr-6hr-10%	4.858	25yr-6hr-10%	6.676	100yr-6hr-10%
BN07	N07	2.823	10yr-6hr-10%	3.632	25yr-6hr-10%	4.966	100yr-6hr-10%
BN08A	N08	2.771	10yr-6hr-10%	3.561	25yr-6hr-10%	4.864	100yr-6hr-10%
BN08B	N08	0.066	10yr-6hr-10%	0.100	25yr-6hr-10%	0.163	100yr-6hr-10%
BN09A	N09	0.858	10yr-6hr-10%	1.000	25yr-24hr-90%	1.459	100yr-24hr-90%
BN09B	N09	0.085	10yr-6hr-10%	0.192	25yr-24hr-90%	0.308	100yr-24hr-90%
BN10A	N10	0.982	10yr-6hr-10%	1.266	25yr-6hr-10%	1.521	100yr-24hr-90%
BN10B	N10	0.043	10yr-6hr-10%	0.071	25yr-6hr-10%	0.256	100yr-24hr-90%

BN11A	N11	0.624	10yr-6hr-10%	0.803	25yr-6hr-10%	1.095	100yr-6hr-10%
BN11B	N11	0.042	10yr-6hr-10%	0.068	25yr-6hr-10%	0.118	100yr-6hr-10%
BN11C	N11	2.611	10yr-6hr-10%	3.333	25yr-6hr-10%	4.558	100yr-6hr-10%
BN11D	N11	0.102	10yr-6hr-10%	0.152	25yr-6hr-10%	0.242	100yr-6hr-10%
BN12A	N12	2.439	10yr-6hr-10%	3.143	25yr-6hr-10%	4.314	100yr-6hr-10%
BN12B	N12	0.096	10yr-6hr-10%	0.129	25yr-6hr-10%	0.186	100yr-6hr-10%
BN13A	N13	2.570	10yr-6hr-10%	3.315	25yr-6hr-10%	4.545	100yr-6hr-10%
BN13B	N13	0.213	10yr-6hr-10%	0.286	25yr-6hr-10%	0.410	100yr-6hr-10%
BN13C	N13	8.369	10yr-6hr-10%	10.767	25yr-6hr-10%	14.723	100yr-6hr-10%
BN13D	N13	0.221	10yr-6hr-10%	0.296	25yr-6hr-10%	0.422	100yr-6hr-10%
BN14	N14	0.555	10yr-6hr-10%	0.723	25yr-6hr-10%	1.003	100yr-6hr-10%
BN15	N15	0.983	10yr-6hr-10%	1.259	25yr-6hr-10%	1.732	100yr-6hr-10%
BN16	N16	3.344	10yr-6hr-10%	4.280	25yr-6hr-10%	5.888	100yr-6hr-10%
BN17	N17	2.797	10yr-6hr-10%	3.595	25yr-6hr-10%	4.959	100yr-6hr-10%
BN18	N18	1.411	10yr-6hr-10%	1.812	25yr-6hr-10%	2.505	100yr-6hr-10%
BN19	N19	4.165	10yr-6hr-10%	5.405	25yr-6hr-10%	7.462	100yr-6hr-10%
BN20	N20	9.284	10yr-6hr-10%	11.984	25yr-6hr-10%	16.465	100yr-6hr-10%
BN21	N21	1.412	10yr-6hr-10%	1.802	25yr-6hr-10%	2.465	100yr-6hr-10%
BN22	N22	4.554	10yr-6hr-10%	5.856	25yr-6hr-10%	8.009	100yr-6hr-10%
BN23	N23	11.357	10yr-6hr-10%	14.546	25yr-6hr-10%	19.794	100yr-6hr-10%
BN43	N43	5.945	10yr-6hr-10%	7.601	25yr-6hr-10%	10.328	100yr-6hr-10%
BS24	N24	0.839	10yr-6hr-10%	1.077	25yr-6hr-10%	1.471	100yr-6hr-10%
BS25	N25	1.303	10yr-6hr-10%	1.664	25yr-6hr-10%	2.275	100yr-6hr-10%
BS26	N26	0.306	10yr-6hr-10%	0.394	25yr-6hr-10%	0.540	100yr-6hr-10%
BS27	N27	0.462	10yr-6hr-10%	0.595	25yr-6hr-10%	0.821	100yr-6hr-10%
BS28	N28	0.621	10yr-6hr-10%	0.800	25yr-6hr-10%	1.104	100yr-6hr-10%
BS29A	N29	2.770	10yr-6hr-10%	3.570	25yr-6hr-10%	4.898	100yr-6hr-10%
BS29B	N29	0.611	10yr-6hr-10%	0.787	25yr-6hr-10%	1.086	100yr-6hr-10%
BS29C	N29	0.890	10yr-6hr-10%	1.143	25yr-6hr-10%	1.580	100yr-6hr-10%
BS30	N30	0.793	10yr-6hr-10%	1.022	25yr-6hr-10%	1.410	100yr-6hr-10%
BS31	N31	0.730	10yr-6hr-10%	0.940	25yr-6hr-10%	1.297	100yr-6hr-10%
BS32	N32	0.316	10yr-6hr-10%	0.407	25yr-6hr-10%	0.558	100yr-6hr-10%
BS33	N33	0.297	10yr-6hr-10%	0.383	25yr-6hr-10%	0.525	100yr-6hr-10%
BS34	N34	0.495	10yr-6hr-10%	0.637	25yr-6hr-10%	0.874	100yr-6hr-10%
BS35	N35	7.902	10yr-6hr-10%	10.191	25yr-6hr-10%	13.990	100yr-6hr-10%
BS36A	N36	0.266	10yr-6hr-10%	0.343	25yr-6hr-10%	0.473	100yr-6hr-10%
BS36B	N36	1.802	10yr-6hr-10%	2.314	25yr-6hr-10%	3.198	100yr-6hr-10%
BS36C	N36	0.117	10yr-6hr-10%	0.151	25yr-6hr-10%	0.208	100yr-6hr-10%
BS36D	N36	4.013	10yr-6hr-10%	5.178	25yr-6hr-10%	7.115	100yr-6hr-10%

BS37A	N37	1.723	10yr-6hr-10%	2.215	25yr-6hr-10%	3.056	100yr-6hr-10%
BS37B	N37	3.430	10yr-6hr-10%	4.390	25yr-6hr-10%	6.037	100yr-6hr-10%
BS37C	N37	1.280	10yr-6hr-10%	1.644	25yr-6hr-10%	2.273	100yr-6hr-10%
BS38	N38	0.602	10yr-6hr-10%	0.776	25yr-6hr-10%	1.071	100yr-6hr-10%
BS39	N39	0.515	10yr-6hr-10%	0.664	25yr-6hr-10%	0.911	100yr-6hr-10%
BS40	N40	0.238	10yr-6hr-10%	0.306	25yr-6hr-10%	0.422	100yr-6hr-10%
BS41	N41	2.559	10yr-6hr-10%	3.283	25yr-6hr-10%	4.492	100yr-6hr-10%
BS42	N42	0.385	10yr-6hr-10%	0.502	25yr-6hr-10%	0.697	100yr-6hr-10%

3.4.2 Proposed Conditions (PC)

The proposed development consists of a mixed uses tourist and residential project. This will require earthwork activities to provide adequate grading to the proposed development. Grading in most cases will decrease flow path slope, thus affecting the basins' time of concentration. Existing land cover will be modified from mostly grass land and shrubs to less permeable land cover that may result in an increment in surface runoff. This change in land cover is reflected in the Curve Number. However, most of the project will drain into the proposed golf course before outflowing into the coastline. **Appendix I** shows the land cover map representing the proposed development and the resulting curve number.

The hydrologic parameters of the basins resulting from the proposed development are presented in Table 3-6 and Table 3-7.

Table 3-6. Basins Hydrological Properties for PC – North Basins

Basin ID	Area (ha)	CN	Length Flow Path (meters)	Slope %	Tc (min)
BN01	4.54	82	233.76	18.93	6.0
BN02	2.72	94	265.71	26.26	6.0
BN03	5.57	94	278.25	28.89	6.0
BN04	5.70	92	486.80	23.01	6.2
BN05	20.02	92	666.54	11.86	11.1
BN06	23.36	92	958.07	15.88	12.9
BN07A	13.42	91	725.13	18.11	10.1

BN07B	3.87	93	204.69	5.30	6.2
BN08A	13.49	91	568.59	24.44	7.1
BN08B	3.04	95	301.43	6.63	6.8
BN08C	0.60	85	193.58	4.50	8.8
BN09A	5.90	89	394.57	9.47	9.3
BN09B	2.15	53	209.43	2.17	33.0
BN10A	3.75	86	105.09	27.16	6.0
BN10B	2.02	78	243.33	9.98	8.9
BN10C	1.33	39	156.59	2.47	35.3
BN11A	3.54	89	136.65	14.70	6.0
BN11B	1.09	39	132.38	2.73	29.4
BN11C	6.03	89	198.28	32.74	6.0
BN11D	9.00	88	506.41	16.36	9.0
BN11E	1.66	39	183.23	2.45	40.2
BN12A	14.81	87	733.53	24.37	10.3
BN12B	0.77	55	121.10	2.83	17.7
BN13A	15.61	86	1063.01	23.37	14.6
BN13B	1.80	44	225.17	2.01	45.8
BN13C	19.99	85	517.96	31.33	7.4
BN13D	7.98	83	212.30	38.59	6.0
BN13E	22.61	85	695.17	23.34	10.8
BN13F	1.83	68	256.00	1.60	30.8
BN14	3.62	95	320.16	4.15	9.1
BN15	5.76	94	395.58	15.27	6.0
BN16	19.62	88	646.51	28.75	8.2
BN17	16.85	87	608.99	30.74	7.9
BN18	8.49	84	541.82	30.74	8.0
BN19	26.43	83	891.41	19.56	15.4
BN20A	56.76	85	1142.37	21.78	16.6
BN20B	4.15	85	255.40	8.14	8.2
BN21	8.10	83	415.80	9.90	11.8
BN22A	18.31	84	637.52	10.03	15.9
BN22B	9.44	83	419.53	5.22	16.3
BN23A	56.01	84	704.69	9.70	17.5
BN23B	10.77	81	245.76	5.00	11.6
BN43	44.93	81	1020.70	1.13	76.2
Total	**507.45**				

Table 3-7. Basins Hydrological Properties for PC – South Basins

Basin ID	Area (ha)	CN	Length Flow Path (meters)	Slope %	Tc (min)
BS24	4.78	84	323.37	12.31	8.3
BS25	7.56	84	460.51	12.16	11.1
BS26	1.25	81	64.52	26.75	6.0
BS27	2.75	82	129.77	26.97	6.0
BS28	1.93	85	152.36	27.91	6.0
BS29A	16.88	85	645.39	18.85	11.3
BS29B	3.65	82	241.02	20.50	6.0
BS29C	5.34	83	309.57	15.08	7.5
BS30	3.07	81	201.67	18.06	6.0
BS31	1.04	87	140.65	16.44	6.0
BS32	1.32	85	115.10	18.44	6.0
BS33	1.03	88	75.36	6.86	6.0
BS34	1.41	85	93.16	5.99	6.0
BS35	58.78	84	1365.74	12.45	26.2
BS36A	12.60	85	432.89	20.45	7.9
BS36B	0.48	87	72.33	12.23	6.0
BS36C	0.60	87	183.00	20.78	6.0
BS36D	0.42	90	16.18	14.93	6.0
BS36E	25.29	86	867.16	9.44	19.5
BS37A	6.29	90	265.24	18.40	6.0
BS37B	12.68	93	500.42	20.64	6.4
BS37C	9.89	82	551.14	22.15	10.2
BS37D	7.70	82	393.74	16.30	9.1
BS38	3.41	82	209.19	21.76	6.0
BS39	2.60	83	121.60	20.69	6.0
BS40	1.35	83	110.46	16.13	6.0
BS41A	8.39	86	325.29	16.03	6.8
BS41B	6.89	84	149.35	14.82	6.0
BS42	2.51	82	259.03	16.92	6.4
Total	**211.90**				

3.4.2.1 Summary of Results for PC

The ICPR simulation model was updated to reflect the basin's hydrological parameters under proposed conditions. Table 3-8 shows the peak flows summary for all downstream outlet (NODES) under proposed conditions These basins must provide enough storage to handle the runoff volume increment for each basin outfall presented in Table 3-9. **Appendix O** shows the computer model results and parameters for the ICPR model in Proposed Conditions

Table 3-10 shows a comparison of peak flows for each discharge node under pre- and post-developed conditions. Excess runoff must be mitigated therefore detention basins must be implemented within the proposed development. Minimum storage requirements are also included in Table 3-10. **Appendix L** shows the suggested areas to include the required detention basins. The hydraulic structure for each basin must be designed to assure that at each basin outfall the post developed runoff does not exceed that of the pre-developed condition.

Table 3-8. Nodes Flow Summary Results for PC.

Basins	Nodes	Max. Total Inflow Rate [m^3/s]		
		10-yr	25-yr	100-yr
BN01	N01	0.759	0.978	1.350
BN02	N02	0.624	0.769	1.001
BN03	N03	1.279	1.574	2.050
BN04	N04	1.242	1.539	2.030
BN05	N05	4.324	5.350	7.017
BN06	N06	5.027	6.225	8.164
BN07	N07	3.693	4.578	6.013
BN08A, BN08B	N08	3.677	4.548	6.015
BN09A, BN09B	N09	1.191	1.370	2.026
BN10A, BN10B	N10	0.988	1.268	1.739
BN11A, BN11B, BN11C, BN11D	N11	3.703	4.661	6.214
BN12A, BN12B	N12	2.820	3.589	4.845
BN13A, BN13B, BN13C, BN13D	N13	11.961	15.199	20.715
BN14	N14	0.846	1.037	1.345

BN15	N15	1.322	1.628	2.120
BN16	N16	3.860	4.865	6.489
BN17	N17	3.223	4.084	5.477
BN18	N18	1.490	1.914	2.614
BN19	N19	4.431	5.696	7.781
BN20	N20	10.752	13.709	18.560
BN21	N21	1.373	1.760	2.413
BN22	N22	4.727	6.060	8.255
BN23	N23	11.300	14.499	19.763
BS24	N24	0.839	1.077	1.471
BS25	N25	1.318	1.683	2.303
BS26	N26	0.215	0.276	0.379
BS27	N27	0.460	0.592	0.818
BS28	N28	0.351	0.449	0.608
BS29A, BS29B, BS29C	N29	4.542	5.793	7.921
BS30	N30	0.500	0.644	0.895
BS31	N31	0.200	0.253	0.339
BS32	N32	0.240	0.307	0.416
BS33	N33	0.204	0.256	0.341
BS34	N34	0.256	0.328	0.444
BS35	N35	9.695	12.406	16.878
BS36A, BS36B, BS36C, BS36D	N36	7.032	8.944	12.050
BS37A, BS37B, BS37C	N37	6.983	8.824	11.814
BS38	N38	0.570	0.734	1.014
BS39	N39	0.446	0.575	0.789
BS40	N40	0.240	0.310	0.410
BS41	N41	2.782	3.559	4.821
BS42	N42	0.420	0.541	0.747
BN43	N43	5.945	7.601	10.327

Table 3-9. Basins Summary Results for PC

Basins	Nodes	Max. Total Rate [m^3/s]		
		10-yr	25-yr	100-yr
BN01	N01	0.760	0.978	1.350
BN02	N02	0.624	0.769	1.001
BN03	N03	1.279	1.575	2.051
BN04	N04	1.242	1.539	2.030

BN05	N05	4.325	5.350	7.017
BN06	N06	5.028	6.226	8.165
BN07A	N07	2.839	3.527	4.638
BN07B	N07	0.863	1.069	1.401
BN08A	N08	2.870	3.559	4.704
BN08B	N08	0.716	0.877	1.136
BN08C	N08	0.108	0.138	0.188
BN09A	N09	1.188	1.490	1.978
BN09B	N09	0.176	0.272	0.446
BN10A	N10	0.702	0.893	1.203
BN10B	N10	0.299	0.392	0.546
BN10C	N10	0.063	0.113	0.212
BN11A	N11	0.719	0.900	1.191
BN11B	N11	0.054	0.096	0.179
BN11C	N11	1.225	1.533	2.028
BN11D	N11	1.764	2.224	2.969
BN11E	N11	0.145	0.218	0.350
BN12A	N12	2.808	3.563	4.789
BN12B	N12	0.071	0.107	0.173
BN13A	N13	2.849	3.614	4.881
BN13B	N13	0.102	0.172	0.306
BN13C	N13	3.614	4.630	6.282
BN13D	N13	1.370	1.766	2.422
BN13E	N13	4.054	5.177	7.041
BN13F	N13	0.204	0.289	0.438
BN14	N14	0.846	1.037	1.345
BN15	N15	1.322	1.628	2.120
BN16	N16	3.861	4.866	6.490
BN17	N17	3.224	4.085	5.478
BN18	N18	1.490	1.914	2.615
BN19	N19	4.431	5.696	7.781
BN20A	N20	10.023	12.774	17.298
BN20B	N20	0.749	0.960	1.303
BN21	N21	1.373	1.760	2.413
BN22A	N22	3.150	4.032	5.484
BN22B	N22	1.578	2.029	2.773
BN23A	N23	9.584	12.273	16.696
BN23B	N23	1.727	2.235	3.077
BN43	N43	5.945	7.601	10.328

BS24	N24	0.839	1.077	1.471
BS25	N25	1.319	1.684	2.303
BS26	N26	0.215	0.277	0.379
BS27	N27	0.460	0.593	0.818
BS28	N28	0.351	0.449	0.608
BS29A	N29	3.019	3.851	5.240
BS29B	N29	0.611	0.787	1.086
BS29C	N29	0.914	1.174	1.614
BS30	N30	0.500	0.644	0.895
BS31	N31	0.200	0.253	0.339
BS32	N32	0.240	0.307	0.416
BS33	N33	0.204	0.256	0.341
BS34	N34	0.256	0.328	0.444
BS35	N35	9.696	12.407	16.879
BS36A	N36	2.273	2.912	3.954
BS36B	N36	0.092	0.117	0.157
BS36C	N36	0.116	0.146	0.196
BS36D	N36	0.087	0.109	0.144
BS36E	N36	4.537	5.760	7.764
BS37A	N37	1.310	1.631	2.158
BS37B	N37	2.832	3.511	4.599
BS37C	N37	1.648	2.115	2.925
BS37D	N37	1.283	1.646	2.278
BS38	N38	0.571	0.623	1.014
BS39	N39	0.446	0.477	0.789
BS40	N40	0.240	0.257	0.410
BS41A	N41	1.568	1.558	2.690
BS41B	N41	1.215	1.268	2.132
BS42	N42	0.420	0.459	0.747

Table 3-10. Nodes Peak Flow comparison

Nodes	10-yr			25-yr			100-yr			
	EC -	PC	Diff. -	EC -	PC -	Diff.	EC -	PC -	Diff.	Storage Required
	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	m^3
N01	0.658	0.759	0.101	0.866	0.978	0.112	1.211	1.350	0.139	796
N02	0.394	0.624	0.230	0.518	0.769	0.251	0.724	1.001	0.277	1,604
N03	0.807	1.279	0.472	1.063	1.574	0.511	1.483	2.050	0.567	3,276
N04	0.865	1.242	0.377	1.130	1.539	0.409	1.567	2.030	0.463	2,552
N05	3.155	4.324	1.169	4.094	5.350	1.256	5.652	7.017	1.365	7,517
N06	3.760	5.027	1.267	4.858	6.225	1.367	6.675	8.164	1.489	8,061
N07	2.823	3.693	0.870	3.632	4.578	0.946	4.966	6.013	1.047	5,776
N08	2.801	3.677	0.876	3.617	4.548	0.931	4.967	6.015	1.048	4,528
N09	0.895	1.191	0.296	1.189	1.370	0.181	1.763	2.026	0.263	4,133
N10	0.983	0.988	0.005	1.266	1.268	0.002	1.773	1.739	-0.034	0
N11	3.278	3.703	0.425	4.218	4.661	0.443	5.772	6.214	0.442	2,495
N12	2.534	2.820	0.286	3.271	3.589	0.318	4.495	4.845	0.350	1,993
N13	11.310	11.961	0.651	14.592	15.199	0.607	20.016	20.715	0.699	2,287
N14	0.555	0.846	0.291	0.723	1.037	0.314	1.003	1.345	0.342	1,844
N15	0.983	1.322	0.339	1.259	1.628	0.369	1.732	2.120	0.388	2,109
N16	3.344	3.860	0.516	4.279	4.865	0.586	5.887	6.489	0.602	3,408
N17	2.797	3.223	0.426	3.595	4.084	0.489	4.959	5.477	0.518	2,903
N18	1.411	1.490	0.079	1.812	1.914	0.102	2.504	2.614	0.110	610
N19	4.165	4.431	0.266	5.405	5.696	0.291	7.461	7.781	0.320	1,830
N20	9.284	10.752	1.468	11.983	13.709	1.726	16.464	18.560	2.096	14,145
N21	1.411	1.373	-0.038	1.802	1.760	-0.042	2.465	2.413	-0.052	0

N22	4.554	4.727	0.173	5.856	6.060	0.204	8.008	8.255	0.247	598
N23	11.357	11.300	-0.057	14.546	14.499	-0.047	19.793	19.763	-0.030	0
N24	0.839	0.839	0.000	1.077	1.077	0.000	1.471	1.471	0.000	0
N25	1.303	1.318	0.015	1.663	1.683	0.020	2.275	2.303	0.028	284
N26	0.305	0.215	-0.090	0.394	0.276	-0.118	0.540	0.379	-0.161	0
N27	0.462	0.460	-0.002	0.594	0.592	-0.002	0.821	0.818	-0.003	0
N28	0.620	0.351	-0.269	0.799	0.449	-0.350	1.104	0.608	-0.496	0
N29	4.258	4.542	0.284	5.488	5.793	0.305	7.512	7.921	0.409	2,080
N30	0.793	0.500	-0.293	1.021	0.644	-0.377	1.410	0.895	-0.515	0
N31	0.729	0.200	-0.529	0.939	0.253	-0.686	1.297	0.339	-0.958	0
N32	0.316	0.240	-0.076	0.407	0.307	-0.100	0.558	0.416	-0.142	0
N33	0.297	0.204	-0.093	0.383	0.256	-0.127	0.525	0.341	-0.184	0
N34	0.494	0.256	-0.238	0.637	0.328	-0.309	0.874	0.444	-0.430	0
N35	7.901	9.695	1.794	10.191	12.406	2.215	13.989	16.878	2.889	27,619
N36	6.091	7.032	0.941	7.832	8.944	1.112	10.791	12.050	1.259	8,164
N37	6.432	6.983	0.551	8.247	8.824	0.577	11.360	11.814	0.454	626
N38	0.602	0.570	-0.032	0.775	0.734	-0.041	1.071	1.014	-0.057	0
N39	0.515	0.446	-0.069	0.663	0.575	-0.088	0.910	0.789	-0.121	0
N40	0.237	0.240	0.003	0.306	0.310	0.004	0.422	0.410	-0.012	0
N41	2.559	2.782	0.223	3.283	3.559	0.276	4.492	4.821	0.329	1,587
N42	0.385	0.420	0.035	0.502	0.541	0.039	0.697	0.747	0.050	283
N43	5.945	5.945	0.000	7.601	7.601	0.000	10.327	10.327	0.000	0

4 CONCLUSIONS AND RECOMMENDATIONS

This Stormwater Management (SWM) Study presents the hydrologic analysis required to provide an initial assessment of the storm water runoff storage required to mitigate a proposed tourist and residential resort development in the Boquerón Ward in Cabo Rojo, Puerto Rico. The following conclusions and recommendations are made:

- To ensure an environmentally friendly design, a hydrologic analysis was completed to assess the surface runoff quantity in terms of maximum discharges and total volume for each analyzed basin before the proposed Project development.
- This study estimated the storm runoff volume and peak flows generated over the Project Property, its onsite and offsite stormwater contributions, and the neighboring properties receiving stormwater downstream of the Project site.
- The results presented in this report are based on the latest available data provided by the professionals authorized by the project owner at the submission date.
- The existing topography at the project site and surrounding areas follow a mostly northward drainage pattern, with small portions of the south zone draining southward.
- The property's topography fluctuates from sea level to 106 meters (mean sea level, MSL). The "Peñones de Melones" is a mountainous formation with the highest elevations within the project area.
- The USGS topographic quadrangle of Puerto Real and Cabo Rojo, some intermittent watercourses flow to the north and south zones of the Project Site. The watercourses of the northern zone discharge towards the sea and the Caño Boquerón. The watercourses of the southern zone discharge into the

interior of the Boquerón ward. However, based on field reconnaissance these water features do not have the typical property of a creek but that of a runoff collection area only presenting flow during rainfall events.

- The regulatory base flood elevations near the proposed project result from the Moderate Wave Action (MoWA) 1-percent floodplain for coastal areas. At the Project site, the regulatory 1-pct base flood elevations range from approximately 3.8 to 4.7 meters at the coast limits (Zone VE), from 3.5 to 3.8 meters within the Coastal Zone A (30 to 90 meters inland measured from the coastal limit, at the northeast of the Project limit shallow areas), and from 3.1 to 3.8 meters (Zone AE, 0 to 90 meters inland measured from the coastline or, where apply, the Limit of Moderate Wave Action "LiMWA").
- For watershed identification purposes, the project site and its contributing areas are divided into two main zones: the North Zone and the South Zone. This classification is based on the flow direction of the watercourses identified for the runoff analysis. The watercourses of the northern zone discharge towards the sea and the Caño Boquerón. The watercourses of the southern zone discharge into the interior of the Boquerón ward
- The following land use types were identified within the study area: Mainly Wooded areas combined with Pastures, Brush weed-grass mixture, Bare Soils, and Dirt Roads.
- The soil types for the study area were published in the NRCS Soils Survey for the Cabo Rojo Area. The soil types encountered within the delimited basins are mainly Altamira gravelly clay (45.56% of the total studied basins area), Guayacan clay, Casabe clay, Melones clay, Fraternidad clay, Bermeja-Cerro Mariquita complex, among others.

- In the Existing Condition (EC), a total of (43) stormwater outfalls were located in the study area, divided into those located north (24) and those located south (19) of the project site.
- Rainfall runoff is collected by natural drainage gullies that eventually disperses into the coastal fringe before reaching the coastline.
- To comply with the current regulations, the runoff peak discharge in the Outlet Nodes in the Proposed Condition (PC) shall be equal to or less than the Existing Condition (EC) for each basin outfall.
- The proposed development will increase storm water runoff, however most of the project will eventually discharge into a golf course where several detention ponds are proposed to manage the excess runoff. The golf course will also aid in reducing the runoff flow velocities and erosion potential.
- All drainage outfalls not discharged into the golf course must provide adequate pond storage and flow energy dissipation before discharging into the coastline.
- The storm water runoff storage volumes presented in this report are to be used as the starting point for the basis of design. However, the final storm water design shall be validated with a dynamic simulation model following the requirements of Regulation Num. 40.
- Following the recommendations established on the Cabo Rojo Coastal Resources Management Master Plan, the project storm water system shall be design considering the enhancement of the stormwater quality before discharging it into the coastline. This could be achieved by promoting grass lined channels, extended detention basins with biological water quality control volume (i.e wetland creation) and\or sedimentation storage. These drainage features are recommended to avoid point source contamination from reaching the coastline.

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10. NOAA Office for Coastal Management (OCM) downloaded 4333 PR_PuertoRico_2015/ Digital Elevation Model (DEM) files from USGS site: ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Elevation/OPR/ and processed the data to the Data Access Viewer (DAV).
11. Department of Natural and Environmental Resources, Cabo Rojo Coastal Resources Management Master Plan (Nov. 2023)

6 CERTIFICATION

I hereby certify that the information included on this Report was performed using the best engineering practices applicable to the Project as described herein and based on field observations.

Related to this report, I Pedro M. García Campos, MSCE, PE, certify that to the best of my knowledge, the information included on this document is truthful, correct, and complete.

Pedro M. García Campos, MSCE, PE
Lic. 18874

7 APPENDIXES

Appendix A: Project Site over Aerial Photo

Appendix B: Location Map over USGS Quadrangle

Appendix C. Project Schematic Site Plan

Appendix D. Project Site Topography

Appendix E. Waterbodies Maps

Appendix F: FEMA's FIRM and ABFE Flood Maps

Appendix G. Precipitation Data

Appendix H: Watershed Limits

Appendix I. Land Cover Maps

Appendix J: Soil Type and Hydrologic Group Maps

Appendix K. CN Maps

Appendix L: Suggested Detention Basin Map

Appendix M: Tc Calculation Sheets

Appendix N: Existing Condition ICPR Report

Appendix O: Proposed Condition ICPR Report

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:24,000

400 200 0 400 Meters

Aerial Photo

Esencia - Cabo Rojo, PR

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Date: 5/14/2024

PMG AND ASSOCIATES

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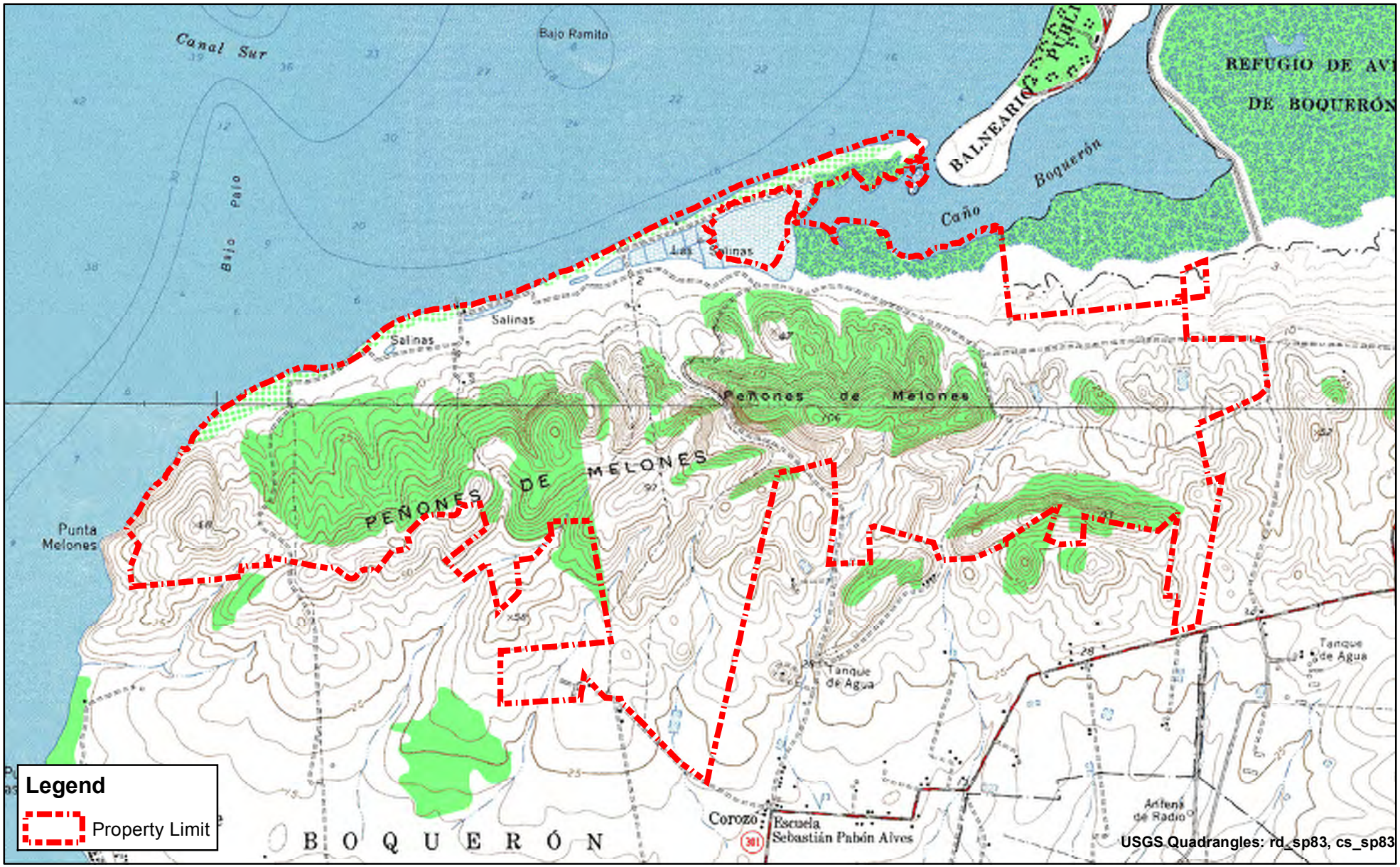

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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240 120 0 240 Meters

Location Map

Esencia - Cabo Rojo, PR

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Date: 5/14/2024

PMC AND ASSOCIATES

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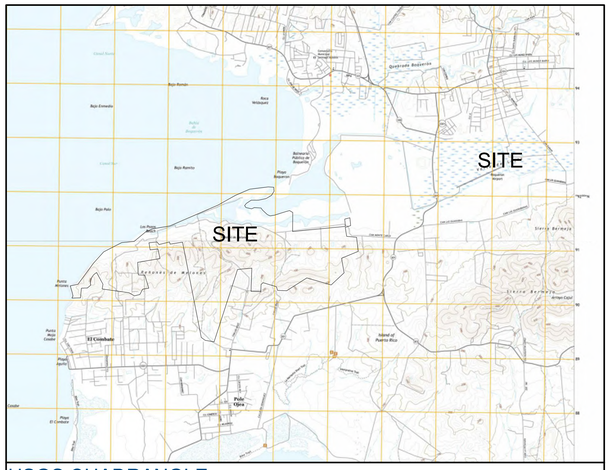
CONCEPTUAL PLAN
DETAILED ILLUSTRATIVE OVERALL PLAN

SCALE: 1:15,000

0 250m 500m 1,000m

ESENCIA
CONCEPTUAL PLANNING
MAY 2024

Rees Jones, Inc.
edsa
AD&V
ALVAREZ-DIAZ & VILLALÓN



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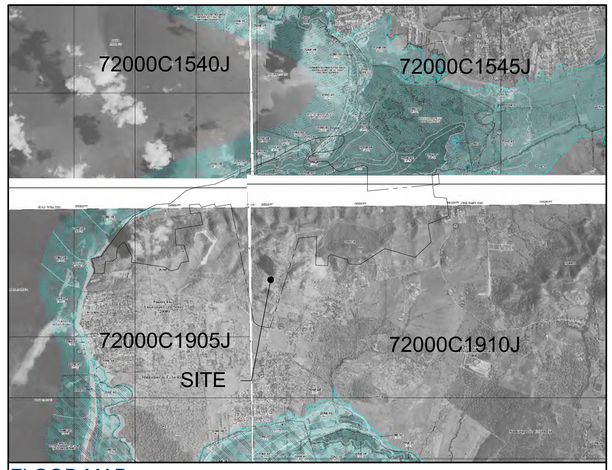
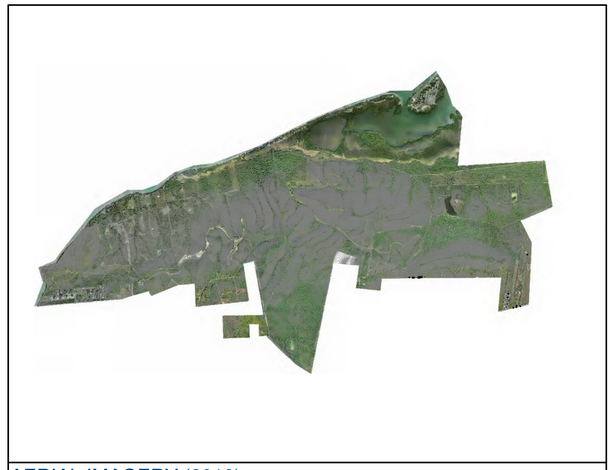


FLOOD MAP SCALE 1:10,000



AERIAL IMAGERY (2010) NOT TO SCALE

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

INDEX :

SHEET NO.	DESCRIPTION
VF-1	TITLE, LOCATION PLAN, NOTES, LEGEND & CONTROLS.
VF-2	GENERAL SITE PLAN
VF-3	TRACT REGISTRY
VF-4 - VF-16	EXISTING CONDITIONS AND TOPOGRAPHIC PLAN
VF-17 - VF-18	INSCRIPTION DATA
VF-19 - VF-23	GEOMETRIC TABLES

LEGEND:

- CONTROL STATION
- PROPERTY POINT
- SANITARY SEWER MANHOLE
- STORM SEWER MANHOLE
- ELECTRIC UTILITY MANHOLE
- TELEPHONE MANHOLE
- WATER MANHOLE
- HEAD WALL
- CATCH BASINS
- WATER METER
- WATER VALVE
- CONCRETE LIGHT POLE
- CONCRETE POWER POLE
- CONCRETE POWER & TELEPHONE POLE
- UTILITY POLE
- WOODEN POWER/ TELEPHONE POLE
- TELEPHONE POLE
- WOODEN POWER POLE
- WOODEN LIGHT POLE
- ELECTRIC BOX
- METAL CAP
- REBAR
- GUY POLE
- NOT IN USE POLE
- CABLE TV POLE
- METAL LIGHT POLE
- TWO SIDE METAL LIGHT POLE
- METAL POWER POLE
- STREET LIGHT POLE
- KM ID
- SANITARY CLEAN OUT
- FIRE HYDRANT
- CURB INLET
- PUBLIC TELEPHONE BOOTH
- STREET LIGHT BOX
- HANDICAP RAMP
- SIGN
- GUY WIRE
- EXISTING TREE
- PALM TREE
- MONITORING WELL
- BOLLARDS
- VERTICAL PIPE
- CONCRETE GUTTER
- SANITARY SEWER LINE
- STORM SEWER LINE
- ABOVEGROUND WATER LINE
- AERIAL TELEPHONE LINE
- AERIAL POWER LINE
- CHAIN LINK FENCE
- BARBED WIRE FENCE
- UNDERGROUND POWER LINE
- UNDERGROUND TELECOMMUNICATION
- GUARDRAIL
- SPOT ELEVATIONS
- CONTOUR INTERVAL EVERY 1.0 METER
- CONTOUR INTERVAL EVERY 5.0 METER
- EXISTING STRUCTURES
- CONCRETE SLAB
- UNKNOWN UNDERGROUND PIPE LINE
- ABOVEGROUND POWER LINE

FLOOD INFORMATION

BASED ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AVAILABLE ONLINE AT WWW.MSC.FEMA.GOV, AND BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED WITHIN AN AREA HAVING DESIGNATIONS X, AE & VE ON THE FLOOD INSURANCE RATE MAPS 72000C1905J, 72000C1540J, 72000C1545J & 72000C1910J DATED NOVEMBER 18, 2009. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THE ACCURACY OF THE MAP AND/OR TO APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

ABBREVIATIONS :

CB	CATCH BASIN
SMH	SANITARY SEWER MANHOLE
STMH	STORM SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CONC.	CONCRETE
C.S.	CONCRETE SLAB
B.S.	BUS STOP
F.F.E.	FINISH FLOOR ELEVATION
P.R.H.T.A.	PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY
A.E.P.	PUBLIC BUILDING AUTHORITY
J.P.	"JUNTA DE PLANIFICACION DE PUERTO RICO"
N/A	NO ACCESS
PREPA	PUERTO RICO ELECTRIC POWER AUTHORITY
PRASA	PUERTO RICO AQUEDUCT AND SEWER AUTHORITY
T.W.E.	TOP OF WALL ELEVATION
I.E.	INVERT ELEVATION
T.E.	TOP ELEVATION
Ø	PIPE DIAMETER
HW	HEADWALL
C.I.	CURB INLET
UNK	UNKNOWN
S.F.M.	SANITARY FORCE MAIN
G.I.S.	GEOGRAPHIC INFORMATION SYSTEMS
S.U.S.	SUBSURFACE UTILITY SURVEYING
S.L.P.	STREET LIGHT POST
M.C.	METAL CAP
S.L.	STREET LIGHTING

NOTES :

1. ALL DISTANCES ARE EXPRESSED IN METERS, UNLESS OTHERWISE NOTED.
2. FIELDWORK PERFORMED ON JANUARY 2023.
3. HORIZONTAL CONTROLS ARE REFERRED TO NAD 83 (2011) EPOCH 2010.00.
4. VERTICAL DATUM IS REFERRED TO PRVD02.
5. PLEASE REFER TO SURVEY JEB-3840.
6. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULT OF THE SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS AN INDICATION OF THE GENERAL CONDITIONS EXISTING AT THAT TIME.
7. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND MEASUREMENTS AND ADVISE ARCHITECT OR OWNER OF ANY DIFFERENCES.
8. PLANIMETRIC MAPPING ENHANCED WITH RECORD AERIAL MAPPING, SHOWN FOR REFERENCE PURPOSES ONLY INFORMATION COLLECTED ON GROUND SHALL BE USED FOR ENGINEERING DESIGN.

HORIZONTAL AND VERTICAL CONTROL

STA	COORDINATES		ELEVATION	DESCRIPTION
	NORTHING	EASTING		
3840-2	217,776.284	117,476.073	21.735	1/4" BRONZE DISK
3840-13	218,023.698	119,460.552	79.081	1/4" BRONZE DISK
3840-15	218,402.543	118,664.538	11.985	1/4" BRONZE DISK
3840-18	217,424.798	119,812.499	44.931	1/4" BRONZE DISK
3840-21	218,924.896	119,536.913	0.515	1/4" BRONZE DISK
3840-22	217,864.522	121,084.781	45.829	1/4" BRONZE DISK
3840-23	218,454.933	120,920.666	53.774	1/4" BRONZE DISK
3840-26	217,858.659	122,018.269	64.185	1/4" BRONZE DISK
3840-29	218,641.863	122,568.633	12.263	1/4" BRONZE DISK
3840-30	218,966.415	121,903.630	1.550	1/4" BRONZE DISK

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
16 Cordova St. | Terralinda | Caguas, PR 00727
Phone: (787)746-5486 Fax: (787)704-6215
www.jebpr.com

CERTIFY CORRECT

I, JAVIER E. BIDOT CRUZ, HEREBY CERTIFY THAT THIS PLAN IS AN EXACT AND TRUE GRAPHIC REPRESENTATION OF THE EXISTING CONDITIONS.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR 12972

PROJECT: JEB-3840
CHECKED BY: C.LEBRON
DRAWING BY: J.CAINS
DATE: MAY 14, 2024

VF-1
23

FILE NAME : 3840-EC

JAVIER E. BIDOT
ASSOCIATES, PSC
Land Surveyors & Consultants
16 Cordova St. | Fortaleza | Caguas, PR 00725
Phone: (787)746-5886 Fax: (787)704-6215
www.Jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

PLOT SCALE : 1:1

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CANS
CHECKED BY:	C. LEBRON
SCALE:	1: 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY AND MAPS WERE PREPARED UNDER MY DIRECTION AND THAT THEY ARE IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR THE PRACTICE OF LAND SURVEYING IN PUERTO RICO. THIS SURVEY AND MAPS ARE TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. SURVEY ACCURACY OF THE BOUNDARIES AND INTERIOR CONTROL POINTS IS WITHIN THE LIMITS PRESCRIBED BY THE PUERTO RICO PLANIMETRIC MANUAL FOR URBAN AREAS.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE #20

DRAWING TITLE:
EXISTING CONDITIONS
& TOPOGRAPHIC
SURVEY

FILE NAME : 3840-EC

DATE:	SHEET NO.
MAY 14, 2024	2
PROJECT NUMBER:	DWG. NO.
3840-EC	VF-2
	23

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC

GENERAL SITE PLAN

SCALE 1 : 7,500

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

PLOT DATE : MAY 14, 2024

TRACT REGISTRY

TRACT REGISTER (BOQUERÓN)

			REGISTERED DATA		RECORDS (** = NOT PROVIDED)		RECORDED AREA		SURVEYED AREA	
ASSET ID	LAND OWNER	CADASTRAL ID	BOOK	PAGE	PROPERTY #	PROPERTY DEED NO.	SQUARE METERS	CUERDAS	SQUARE METERS	CUERDAS
11-A	ANTONIO J. FAS ALZAMORA	402-009-005-29-000	971	212	24096	22	422473.44	107.49	466421.2499	118.2887
11-B	MARGARITA DE LOURDES FAS ALZAMORA	402-009-005-28-000	971	213	24097	23	422473.44	107.49	462773.8943	117.3951
165	CD GROUP	379-089-327-75-000	950	285	18859	107	19651.55	5.00	19564.5953	4.9619
32	NC ACQUISITION CORP.	402-008-327-23-000	908	19	18663	21	19651.55	5.00	22140.1051	5.6151
167		379-089-327-77-000	950	283	18861	1	19656.25	5.00	18,788.01	4.7862
168		379-089-327-78-000	951	1	18862	21	19656.25	5.00	19213.4963	4.8884
21	QUIJANO MORENO PEDROSO	379-090-010-05-000	906	241	18782	254	19656.25	5	19286.351	4.9005
20		379-090-010-04-000	909	213	18781	252	19656.25	5	26940.5213	6.8544
19		379-090-010-03-000	910	229	18880	53	19656.25	5	20384.5211	5.1608
181		379-090-009-05-000	910	143	18814	8	19656.25	5	26702.6084	6.764
7	EMILY GLASER	379-090-009-04-000	950	181	18822	38	19652.00	5.00	17158.6802	4.3636
79	PLAYA RUSTICA, LLC	379-090-009-03-000	910	97	18908	27	19651.98	5.00	19656.2923	5.0019
78		379-090-009-02-000	910	93	18907	27	19651.98	5.00	19772.2027	5.0306
33		379-099-327-80-000	908	81	18704	22	20381.46	5.16	19212.5606	4.8882
77		379-090-009-01-000	905	66	18806	71	19651.9781	5.00	21123.5259	5.3744
54		402-009-327-30-000	964	14	18707	72	19651.9781	5.00	21555.9187	5.4854
53		402-009-327-29-000	964	17	18708	72	19651.9781	5.00	21555.7454	5.4850
56		402-008-327-28-000	964	43	18709	72	19651.9781	5.00	22624.4242	5.7568
57		402-008-327-27-000	964	44	18710	72	19651.9781	5.00	20138.3384	5.1240
70		402-007-327-15-000	954	62	18716	72	19651.9781	5.00	19714.7056	5.0180
69		402-017-327-26-000	908	139	18715	72	19651.9781	5.00	19695.5246	5.0175
83		402-017-327-17-000	908	175	18721	72	19651.9781	5.00	19744.2876	5.0235
73	CABO ROJO LAND ACQUISITION, LLC	402-007-327-13-000	908	145	18719	72	19651.9781	5.00	20232.7023	5.1478
65		402-017-327-08-000	908	113	18711	72	19651.9781	5.00	18888.5404	4.8081
38		402-018-327-50-000	906	286	18706	72	19651.9781	5.00	20021.5563	5.0940
29		402-017-327-09-000	906	247	18783	72	19651.9781	5.00	19750.4213	5.0250
31		402-018-327-06-000	908	23	18696	72	19651.9781	5.00	22320.4014	5.6794
118		402-018-327-18-000	964	142	18742	72	19651.9781	5.00	21171.9618	5.3864
15		402-008-327-14-000	964	148	18779	72	19651.9781	5.00	23127.7787	5.8858
16		402-008-327-13-000	908	13	18694	72	19651.9781	5.00	20015.1585	5.0930
178		402-028-327-49-000	964	187	18853	72	19651.9781	5.00	19608.3698	4.9879
17		402-018-327-24-000	906	229	18738	72	19651.9781	5.00	21562.3366	5.4886
67		402-017-327-23-000	908	127	18713	72	19651.9781	5.00	20137.9903	5.1237
**	RAMEL CARDONA DURAN	402-010-004-67-000	950	79	18803	29	**	**	12585.5423	3.1717
**	VISTA BONITA, LLC	402-010-004-66-000	950	73	18804	2	**	**	13705.1569	4.5647
3	BOQUERON WARD, LLC	402-007-327-03-000	**	**	**	**	**	**	3753.6717	0.9551
2		402-007-327-02-000	**	**	**	**	**	**	4004.1138	1.1471
4		402-007-327-04-000	**	**	**	**	**	**	3696.3333	1.0274
5		402-007-327-05-000	**	**	**	**	**	**	3805.4346	1.0698
1	ISMAEL TORCOM & LILIAM BIRREL	402-007-327-01-000	PENDING INSCRIPTION AT ENTRY 2020-0038881-SGJ1				3960.1153	0.9771	3218.5275	0.814
42	PATRICIA TAMAREZ VARGAS	402-010-004-64-000	908	46	18705	26	**	**	19426.7077	5.0699
72	RAMONITA MARTIN VELEZ	402-007-327-10-000	726	740	4671	44	**	**	20132.5753	5.1598
71	MARCUS MAUMUS HANS	402-007-327-14-000	191	308	18717	71	**	**	19753.4574	5.0268

TRACT REGISTER (BOQUERÓN)

			REGISTERED DATA		RECORDS (** = NOT PROVIDED)		RECORDED AREA		SURVEYED AREA	
ASSET ID	LAND OWNER	CADASTRAL ID	BOOK	PAGE	PROPERTY #	PROPERTY DEED NO.	SQUARE METERS	CUERDAS	SQUARE METERS	CUERDAS
90	WK DEVELOPMENT, LLC	402-016-327-18-000	169	308	18725	5	19651.9781	5.00	19677.9707	5.0061
40	KAVLAN CORPORATION	402-026-327-19-000	KARST		19701	**	**	**	19779.4809	5.0304
174	ORIENTAL BANK	402-018-327-41-000	520	169	18889	24	19651.9781	5.00	21077.1954	5.3615
64		402-018-327-42-000	520	61	18890	24	19651.9781	5.00	20918.9024	5.3209
6		402-018-327-43-000	508	7	18883	24	19651.9781	5.00	21705.3161	5.5221
5		402-018-327-44-000	508	1	18882	24	19651.9781	5.00	21160.9533	5.3835
1	NORIEGA RIVETEX,INC	379-090-010-03-000	PENDING INSCRIPTION AT ENTRY 2021-143611-SGJ1				20072.177	5.1069	20668.125	5.1349
37	FORRESTROSA CONSULTING ENGINEERS, PSC	402-017-327-12-000	909	269	18709	12	20474.741	5.208	20439.741	5.208
22	ESTEBAN HERNANDEZ RIVERA	402-018-327-37-000	510	216	18881	23	20627.676	5.1975	20425.7557	5.1852
112	NORMA ROSARIO RIZARRY & DORIS ROSARIO RIZARRY	402-009-327-04-000	511	25	18946	5	21334.9	5.4282	21009.4749	5.3433
44	FERNANDO A. DIEZ AUTO GROUP	402-009-327-35-000	520	1	18751	36	21716.65	55.2663	21490.5754	5.4673
58		402-018-327-69-000	520	25	18736	53	20592.4	5.2395	19853.9661	4.9751
59		402-009-327-71-000	345	199	18724	26	19651.9781	5.00	22922.7218	5.8296
60	LOMA LINDA S.E.	402-018-327-18-000	341	292	18798	96	19706.92	5.014	21727.1302	5.5736
109	EDGARDO MANUEL HERNANDEZ ALVARADO	402-009-327-93-000	949	145	18843	292	21966.17	5.5735	172266.7672	4.3801
40	ESTEBAN HERNANDEZ RIVERA	402-018-327-38-000	504	37	18881	23	20637.642	5.1267	21457.6959	5.4767
41	EMPRESAS SAYUS DEL ESTUARE	402-008-327-11-000	508	41	18859	36	20985.9674	5.144	20985.9674	5.1440
179		402-018-327-48-000	520	133	18914	22	20556.3307	5.2305	20559.3304	5.2306
85	SARAH LEE KING APPLEGATE	402-009-006-69-000	508	139	18725	53	19651.9781	5.00	20281.8425	5.1691
84	CAPSTONE DEVELOPMENT CORP.	402-017-327-07-000	508	180	18724	15	19651.9679	5.0182	19694.6837	5.0190
66		402-017-327-06-000	508	135	18714	15	20754.8515	5.2784	20708.2307	5.2667
52	QUIJANO MERINO PEDROSO	379-099-327-79-000	520	227	18925	258	**	**	**	**
30	NORIEGA RIVETEX,INC	402-016-327-16-000	**	**	**	**	**	**	**	**
110	PUERTO ROSA I V.G.	402-009-327-37-000	PENDING INSCRIPTION AT ENTRY 2022-151435-SGJ1				19653.5	5.00	17145.6235	4.3652
45		402-009-327-38-000					19653.5	5	20897.8084	5.3142
104		401-009-327-32-001					19653.5	5	18526.0984	4.7135
111		402-019-327-89-000					19653.5	5	17525.1983	4.4582
46		402-019-327-36-000	PENDING INSCRIPTION AT ENTRY 2022-151356-SGJ1				19653.5	5.00	30371.4125	7.7246
34	NC ACQUISITION CORP.	402-019-327-69-000	**	**	**	**	**	**	25140.7287	6.3969
8508	RICARDO E. CARLO DIAZ	402-020-327-70-000	**	**	**	**	**	**	22237.2402	5.6577
108	LUIS ALBERTO TORRES SANTIAGO	379-089-327-76-000	510	245	18840	153	19654.54	5	22918.233	5.4
113	PR INVESTCO, LLC.	379-099-327-91-000	PENDING INSCRIPTION AT ENTRY 2022-147940-SGJ1				19653.5	5	24322.3403	5.425
31	CPD, LLC	402-007-327-20-000	509	261	18705	92	19653.5	5	19479.54	5.0071
47	BAHIA BONITA, INC	402-019-327-51-000	441	184	18756	50	19653.5	5	20180.25	5.1150
35	PUERTO ROSA I V.G.	402-020-327-57-000	381	138	18787	58	19459.25	5.0019	18433.40	5.0004
78	DAVID CARTAGENA GARCIA	402-020-010-15-000	PENDING INSCRIPTION AT ENTRY 2020-0100414-SGJ1				21592.97	5	24174.75	6.1391
88	MARGARITA SAMUEL OLSON & HEREDIA TEXCON MAYAGUEZ	403-000-002-53-000	246	29	7,351		19653.5	5	19358.17	5.0779

JAVIER E. BIDOT ASSOCIATES, PSC
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www.jebpr.com

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

BY:	DATE:	REVISION

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF EXAMINERS OF ENGINEERS, SURVEYORS, IN CHAPTER 5,6,7,8,9,12, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 15925

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-3	3 / 23
PROJECT: JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC

PLOT DATE: MAY 14, 2024

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GERMAN
TAX ID: 402-007-327-90-000

PARCEL 71
PROPERTY #18,717
TITLE VESTED IN FAVOR OF
MARCUS MALKMUS HANS,
RECORDED AT PAGE 151,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF
PUERTO RICO, SECTION OF SAN
GERMAN
TAX ID: 402-007-327-14-000

PARCEL 72
PROPERTY #4,911
TITLE VESTED IN FAVOR OF
RAMONITA MARTIN VELEZ,
RECORDED AT PAGE 140,
VOLUME 726 OF CABO ROJO,
PROPERTY REGISTRY OF
PUERTO RICO, SECTION OF SAN
GERMAN
TAX ID: 402-007-327-90-000

PARCEL 70
PROPERTY #18,716
TITLE VESTED IN FAVOR OF CABO
ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 62,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-007-327-15-000

SURVEILLANCE EASEMENT
6.00 METER WIDTH

STATUTORY COASTAL
14.00 METER WIDTH

DIRT ROAD

CARIBBEAN SEA

EDGE OF WATER

PARCEL 69
PROPERTY #18,715
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 139,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-017-327-16-000

PARCEL 68
PROPERTY #18,714
TITLE VESTED IN FAVOR OF
CAPSTONE DEVELOPMENT CORP.,
RECORDED AT PAGE 133,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-06-000

PARCEL 73
PROPERTY #18,719
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 163,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-007-327-13-000

PARCEL 37
PROPERTY #18,789
TITLE VESTED IN FAVOR OF
TORRES ROSA CONSULTING ENGINEERS
RECORDED AT PAGE 283,
VOLUME 509 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-007-327-12-000

PARCEL 41
PROPERTY #18,789
TITLE VESTED IN FAVOR OF
EMPRESAS SATIVA DEL ESTE
RECORDED AT PAGE 43,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-008-327-11-000

PARCEL 38
OWNER: NORIEGA RAMOS REYES
TAX ID: 402-000-004-68-000

PARCEL 65
PROPERTY #18,711
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 115,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-08-000

PARCEL 29
PROPERTY #18,783
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 247,
VOLUME 509 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-09-000

PARCEL 38
PROPERTY #18,790
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 289,
VOLUME 509 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-018-327-10-000

PARCEL 33
PROPERTY #18,696
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 25,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-018-327-08-000

15MTS ACCESS EASEMENT

14MTS ACCESS EASEMENT

PARCEL 81
PROPERTY #18,721
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 175,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-17-000

WW DEVELOPMENT LLC
TAX ID: 402-016-327-18-000

3840-2

PARCEL 84
PROPERTY #18,724
TITLE VESTED IN FAVOR OF
CAPSTONE DEVELOPMENT CORP.,
RECORDED AT PAGE 193,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-07-000

PARCEL 67
PROPERTY #18,713
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 127,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-23-000

PARCEL 17
PROPERTY #18,780
TITLE VESTED IN FAVOR OF
CABO ROJO LAND ACQUISITION, LLC,
RECORDED AT PAGE 229,
VOLUME 509 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-017-327-24-000

PARCEL 5
PROPERTY #16,692
TITLE VESTED IN FAVOR
OF
ORIENTAL BANK,
RECORDED AT PAGE 1
VOLUME 508 OF CABO
ROJO,
PROPERTY REGISTRY OF
PUERTO RICO, SECTION
OF SAN GERMAN
TAX ID: 402-018-327-44-000

PARCEL 31
PROPERTY #18,785
TITLE VESTED IN FAVOR OF
CPD, LLC,
RECORDED AT PAGE 261,
VOLUME 509 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-027-327-20-000

EDUARDO RUIZ VALENTIN
TAX ID: 402-026-327-19-000/402-027-327-21-000

EDUARDO RUIZ VALENTIN
TAX ID: 402-027-327-22-000

PARCEL 85
PROPERTY #18,725
TITLE VESTED IN FAVOR OF
BRIAN LEE KING APPLEGATE,
RECORDED AT PAGE 199,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-000-004-69-000

VARGAS RODRIGUEZ VALENTIN
TAX ID: 402-028-506-02-000

DE JESUS FERNANDEZ WANDA IRIS
TAX ID: 402-028-506-01-000

KING APPLEGATE BRIAN LEE
TAX ID: 402-000-004-72-000

CINTRON NUNEZ IBIS
TAX ID: 402-000-004-74-000

IRON ROD FOUND

VILLAS DEL MAR DEVELOPMENT

EL COMBATE DEVELOPMENT

NAUTICA DEL MAR APTS.

COSTA DEL MAR CONDOMINIUM

CARIBBEAN SEA

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

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REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
PO Box 1871 Cabo Rojo, PR 00623
Phone: (787)746-5486 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY:	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS OF PUERTO RICO IN CHAPTER VIII OF THE ADMINISTRATIVE CODE PURSUANT TO SECTION 4TH OF FLORIDA STATUTES THIS SURVEY CONSISTS OF 1 SHEET AND EACH SHEET IS SIGNED AND RAISED SEAL OF THE FLORIDA LICENSED SURVEYOR. ALL THE SURVEY INFORMATION, DRAWINGS, NOTES, SURVEYS, OR REPORT BY CONSULTANT IN THE WORKING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 13972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-4	4 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840-EC

CARIBBEAN SEA

LOS POZOS BEACH

PARCEL 76
PROPERTY #18,805
TITLE VESTED IN FAVOR OF RAFAEL CARDONA DURAN
RECORDED AT PAGE 79,
VOLUME 510 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-000-004-67-000

PARCEL 1
PROPERTY #29,700
TITLE VESTED IN FAVOR OF ISMAEL TEXIDOR PAGAN,
RECORDED AT PAGE 214,
VOLUME 875 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-007-327-01-000

PARCEL 75
PROPERTY #18,804
TITLE VESTED IN FAVOR OF VISTA BONITA LLC,
RECORDED AT PAGE 73,
VOLUME 510 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-000-004-66-000

PARCEL 42
PROPERTY #18,700
TITLE VESTED IN FAVOR OF PATRICIA TAMARIZ VARGAS,
RECORDED AT PAGE 49,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-000-004-64-000

PARCEL 72
PROPERTY #4,971
TITLE VESTED IN FAVOR OF RAMONITA MARTIN VELEZ,
RECORDED AT PAGE 740,
VOLUME 726 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-007-327-90-000

PARCEL 71

PARCEL 77
PROPERTY #18,806
PROPERTY ROJO LAND ACQUISITION,LLC.
RECORDED AT PAGE 96,
VOLUME 508 OF CABO ROJO,
REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-009-01-000
TITLE VESTED IN FAVOR OF
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-009-02-001

PARCEL 78
PROPERTY #18,807
TITLE VESTED IN FAVOR OF PLAYA RUSTICA, LLC
RECORDED AT PAGE ROJO,
REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-009-03-000
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-009-02-001

PARCEL 79
PROPERTY #18,808 PLAYA RUSTICA,LLC.
FAVOR OF PAGE 97,
RECORDED AT CABO ROJO
VOLUME 510 OF PUERTO RICO, SECTION OF
PROPERTY REGISTRY OF SAN GERMAN
TAX ID: 379-000-009-02-001

PARCEL 1
PROPERTY #18,818 RICO FARM CREDIT,
PROPERTY #18,811
TITLE VESTED IN FAVOR OF AT PAGE 181,
RECORDED AT CABO ROJO, SECTION OF
VOLUME 510 OF PUERTO RICO,
REGISTRY OF GERMAN
SAN 379-000-009-03-000
PROPERTY REGISTRY OF
TAX ID: 379-000-009-04-000

PARCEL 181
OWNER: QUIRINO MERINO PEDROSO
TAX ID: 379-000-009-05-000

PARCEL 7
PROPERTY #18,822
TITLE VESTED IN FAVOR OF EMILY GLASER,
RECORDED AT PAGE 181,
VOLUME 510 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-009-04-000

PARCEL 55
PROPERTY #18,708
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 37,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-009-327-29-000

PARCEL 57
PROPERTY #18,710
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 44,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-008-327-27-000

PARCEL 56
PROPERTY #18,709
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 41,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-008-327-28-000

PARCEL 32
PROPERTY #18,789
TITLE VESTED IN FAVOR OF MC ACQUISITION CORP,
RECORDED AT PAGE 19,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 402-008-327-25-000

OWNER: NORIEGA RAMOS REYES
TAX ID: 402-000-004-68-000

OWNER: BODEGON MAD LLC
TAX ID: 402-007-327-04-000
PARCEL 5

OWNER: BODEGON MAD LLC
TAX ID: 402-007-327-02-000
PARCEL 4

OWNER: BODEGON MAD LLC
TAX ID: 402-007-327-03-000
PARCEL 3

OWNER: BODEGON MAD LLC
TAX ID: 402-007-327-05-000
PARCEL 2

SURVEILLANCE EASEMENT
6.00 METER WIDTH

EDGE OF WATER

STATUTORY COASTAL
14.00 METER WIDTH

SKEPTICAL WELL

CONCRETE WALL

EXISTING BUILDING

ACCESS EASEMENT

DIRT ROAD

3840-15

PARCEL OF

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

PLOT DATE : MAY 14, 2024

N
W E
S

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Juan A. Rivera #1, Cabo Rojo, PR 00623
Phone: (787)746-5486 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

PLOT SCALE: 1:1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM STANDARDS OF PRACTICE SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-5	5 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME: 3840-EC

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
PO Box 1871 Bayamón, PR 00960-1871
Phone: (787)746-4484 Fax: (787)704-0215
www.jebpr.com

REVISION | BY: | DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E BIDOT ASSOCIATES, PSC

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE REQUIREMENTS OF THE MINIMUM STANDARD FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS, IN CHAPTER 53 OF LAW 173 OF 1952, FLORIDA STATUTES. PURSUANT TO SECTION 472.027 FLORIDA STATUTES THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:

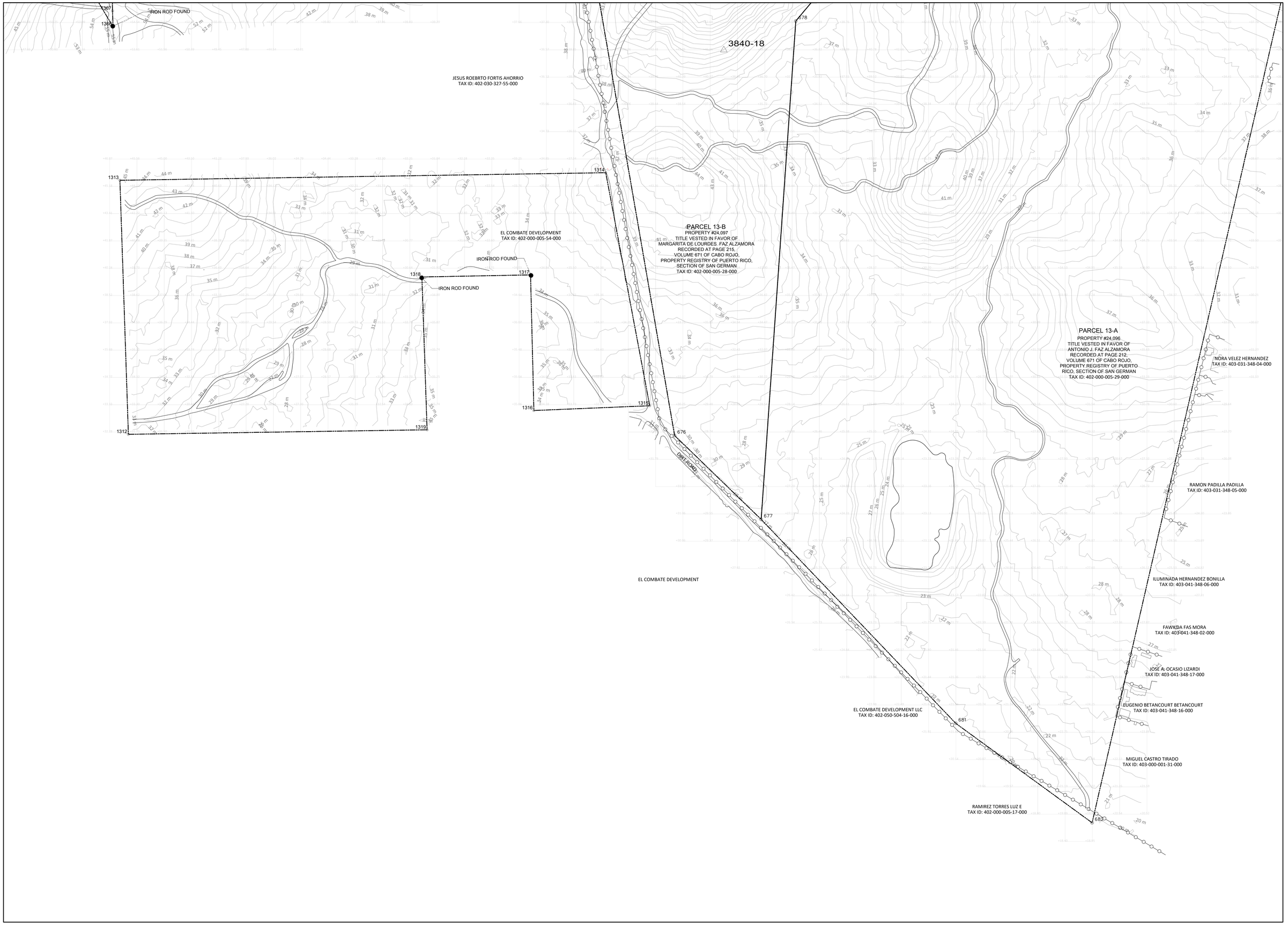
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.	SHEET NO. 6 / 23
PROJECT JEB-3840	VF-6	

PAPER SIZE: 30x42

PLOT SCALE 1:1

FILE NAME : 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

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REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Eduardo Conde #1, Bo. Obrero, San Juan, PR 00915
Phone: (787)766-5486 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY SUPERVISION AND COMPLIES WITH THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 472 OF THE FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO SURVEY MAPS BY ANY PARTY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICNO. 13013

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-7	7 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840 - EC
PLOT SCALE : 1:1

BOQUERÓN BAY

SURVEILLANCE EASEMENT
6.00 METER WIDTH

EDGE OF WATER

STATUTORY COASTAL
14.00 METER WIDTH

DIRT ROAD

3840-21

OWNER: CABO ROJO LAND ACQUISITION, LLC.

PARCEL 19
OWNER: QUIRINO MERINO PEDROSO
TAX ID: 379-099-327-80-000

PARCEL 20
PROPERTY #18,707
TITLE VESTED IN FAVOR OF QUIRINO MERINO PEDROSO
RECORDED AT PAGE 205, VOLUME 509 OF CABO ROJO
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-010-04-000

PARCEL 21
PROPERTY #18,782
TITLE VESTED IN FAVOR OF QUIRINO MERINO PEDROSO
RECORDED AT PAGE 241, VOLUME 509 OF CABO ROJO
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
TAX ID: 379-000-010-05-000

PARCEL 108
PROPERTY #18,842
OWNER: MC ACQUISITION GROUP,
PROPERTY OF MC ACQ
RECORDED AT PAGE 1,
TITLE VESTED IN FAVOR OF CABO ROJO
VOLUME 511 OF CABO RICO, SECTION OF SAN GERMAN
PROPERTY REGISTRY OF PUERTO RICO 379-099-327-76-000

PARCEL 107
PROPERTY #18,841
OWNER: MC ACQUISITION GROUP,
PROPERTY OF MC ACQ 295
TITLE VESTED IN FAVOR OF CABO ROJO
RECORDED AT CABO ROJO, SECTION OF SAN GERMAN
VOLUME 511 OF PUERTO RICO, 379-327-77-000
PROPERTY REGISTRY OF PUERTO RICO, 379-099-327-77-000
TAX ID: 379-099-327-77-000

PARCEL 106
PROPERTY #18,840 - TORRES SANTIAGO
PROPERTY OF ALBERTO LAZO
TITLE VESTED IN FAVOR OF BARRIOS, VOLUME 510
&WIFE, RONAT PAGE 205, SECTION OF SAN GERMAN
RECORDED AT PUERTO RICO, 379-327-76-000
PROPERTY REGISTRY OF PUERTO RICO, 379-099-327-76-000
TAX ID: 379-099-327-76-000

PARCEL 105
PROPERTY #18,839
OWNER: MC ACQUISITION GROUP,
PROPERTY OF MC ACQ 115
IN FAVOR OF CABO ROJO
TITLE VESTED IN FAVOR OF CABO ROJO, SECTION OF SAN GERMAN
RECORDED AT PUERTO RICO, 379-327-75-000
VOLUME 838 IN RICO, SECTION OF SAN GERMAN
PROPERTY REGISTRY OF PUERTO RICO, 379-099-327-75-000
TAX ID: 379-099-327-75-000

GROUPED PARCEL
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION, LLC.
PENDING TO INSCRIPTION AT ENTRY: 2022-051251-SG01 OF SISTEMA KARIBE
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN

PARCEL 52
OWNER: QUIRINO MERINO PEDROSO
TAX ID: 379-099-327-79-000

PARCEL 53
PROPERTY #18,707
TITLE VESTED IN FAVOR OF CABO
ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 34,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 379-099-327-80-000

PARCEL 55
PROPERTY #18,708
TITLE VESTED IN FAVOR OF CABO
ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 37,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-009-327-29-000

PARCEL 54
PROPERTY #18,707
TITLE VESTED IN FAVOR OF CABO
ROJO LAND ACQUISITION LLC,
RECORDED AT PAGE 34,
VOLUME 864 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-009-327-30-000

PARCEL 53
PROPERTY #18,706
TITLE VESTED IN FAVOR OF
EMPRESAS SATIVA DEL ESTE, INC.,
RECORDED AT PAGE 85,
VOLUME 508 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-31-000

PARCEL 44
PROPERTY #18,792
TITLE VESTED IN FAVOR OF FERNANDO A
DIEZ ANTONGIORGI
RECORDED AT PAGE 1,
VOLUME 510 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-85-000

PARCEL 112
PROPERTY #18,846
TITLE VESTED IN FAVOR OF NORMA ROMAN
IRIZARRY, & DORIS ROMAN IRIZARRY
RECORDED AT PAGE 25,
VOLUME 511 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-84-000

PARCEL 104
PROPERTY #18,838
TITLE VESTED IN FAVOR OF FIDEICOMISO I.V.G.
PENDING TO INSCRIPTION AT ENTRY:
2022-151613-SG01 OF SISTEMA DEL KARIBE
TAX ID: 402-009-327-82-000

PARCEL 113
PROPERTY #18,847
TITLE VESTED IN FAVOR OF
PR INVESTCO LLC
RECORDED AT PAGE 31,
VOLUME 511 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 379-099-327-81-000

PARCEL 62
PROPERTY #18,800
TITLE VESTED IN FAVOR OF ANWAR SADAR MORALES
RECORDED AT PAGE 49,
VOLUME 510 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF
SAN GERMAN
TAX ID: 379-099-327-74-000

PARCEL 61
PROPERTY #18,799
TITLE VESTED IN FAVOR OF ANWAR SADAR MORALES
RECORDED AT PAGE 43,
VOLUME 511 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF
SAN GERMAN
TAX ID: 379-099-327-73-000

PARCEL 60
PROPERTY #18,798
TITLE VESTED IN FAVOR OF LOMA LINDA, SE.
RECORDED AT PAGE 202,
VOLUME 841 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-72-000

PARCEL 13-B
PROPERTY #24,097
TITLE VESTED IN FAVOR OF
MARGARITA DE LOURDES FAZ ALZAMORA
RECORDED AT PAGE 215,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-000-005-28-000

ACCESS EASEMENT

IRON ROD FOUND

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

281 of 599

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REVISION	BY:	DATE:

SYM.

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ponce, P.R. 00716-2221
Phone: (787)746-5486 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE, MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID UNLESS IT BEARS THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO SURVEY MAPS BY ANY PARTY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 12972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-8	8 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840-EC

PARCEL 13-B
PROPERTY #24,097
TITLE VESTED IN FAVOR OF
MARGARITA DE LOURDES FAZ ALZAMORA
RECORDED AT PAGE 215,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-000-005-28-000

GROUPED PARCEL
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION, LLC.
PENDING TO INSCRIPTION AT ENTRY: 2022-051251-SG01 OF SISTEMA KARIBE
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN

PARCEL 59
PROPERTY #18,796
TITLE VESTED IN FAVOR OF
FERNANDO A DIEZ ANTORGIORGI,
RECORDED AT PAGE 199,
VOLUME 841 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-71-000

PARCEL "BEBE"
OWNER: RICARDO E. CARLO DÍAZ
TAX ID: 402-019-327-327-70-000

PARCEL 13-A
PROPERTY #24,096
TITLE VESTED IN FAVOR OF
ANTONIO J. FAZ ALZAMORA
RECORDED AT PAGE 212,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-000-005-29-000

OWNER: CABO ROJO LAND ACQUISITION, LLC.

TORO VELEZ MANUEL A
TAX ID: 403-001-378-06-000

SANTOS PADILLA VELEZ
TAX ID: 403-000-001-74-000

VELEZ VELEZ SARA MA
TAX ID: 403-000-001-73-000

RAMONA J VELEZ VELEZ
TAX ID: 403-000-001-72-000

LUGO VELEZ MISAEL R
TAX ID: 403-000-001-71-000

VELEZ VELEZ JOSE D
TAX ID: 403-000-001-70-000

RADIO X BROADCASTING CORP
TAX ID: 403-011-348-40-000

VELEZ VELEZ JOSE DE C
TAX ID: 403-000-001-68-000

VELEZ VELEZ SERAFIN
TAX ID: 403-000-001-67-001

VELEZ VELEZ ILIA
TAX ID: 403-000-001-66-000

A & R CONSULTANTS,CORP
TAX ID: 403-000-001-65-000

MORALES FIGUEROA MOISES
TAX ID: 402-029-327-52-000

QUAOAR SOLUTIONS GROUP CORPORATION
TAX ID: 402-020-327-53-000

MC ACQUISITION CORP
TAX ID: 402-030-327-54-000

JESUS ROEBRTO FORTIS AHORRIO
TAX ID: 402-030-327-55-000

3840-18

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Ponce de León #1607, Suite 1201
Puerta de Tierra, San Juan, PR 00909
Phone: (787)746-6486; Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF LAND SURVEYORS OF PUERTO RICO IN CHAPTER 5 OF CODE OF ADMINISTRATIVE CODE PURSUANT TO SECTION 7(A) OF ACT NO. 173 OF AUGUST 12, 1988, AS VALID TO MOST RECENT REVISIONS AND ORDAINED. WITNESS MY SIGNATURE AND OFFICIAL SEAL OF LAND SURVEYOR, LICENSED IN THE STATE OF FLORIDA. ALTERATIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 13972

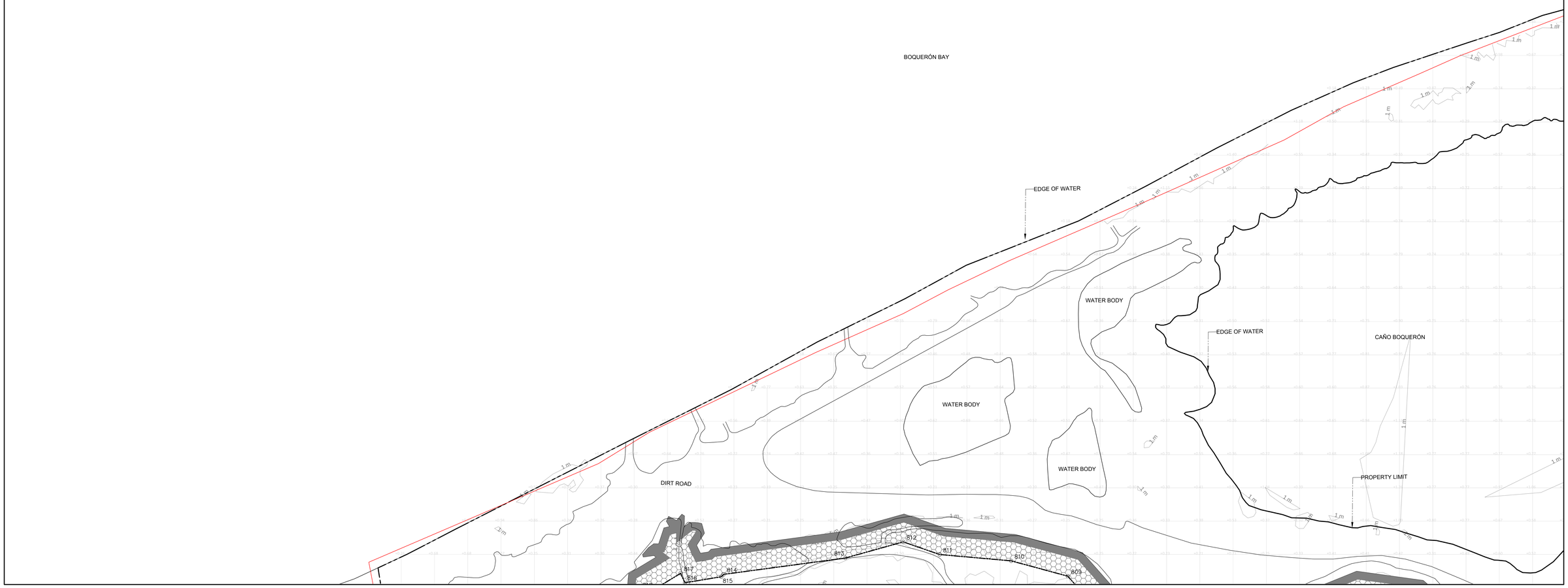
DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-9	9 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE: 1:1

FILE NAME: - 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

N
W E
S

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
P.O. Box 1744, Cabo Rojo, P.R. 00623-1744
Phone: (787) 746-5484 Fax: (787) 704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE, ACCORDING TO THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 61G17-6 OF THE FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT FULL AND COMPLETE WITHOUT THE ATTACHED RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO SURVEY MAPS BY PERSONS OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICNO. 13972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-10	10 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840 - EC

SURVEILLANCE EASEMENT
6.00 METER WIDTH

WATER BODY

WATER BODY

DIRT ROAD

STATUTORY COASTAL
14.00 METER WIDTH

GROUPED PARCEL
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION, LLC.
PENDING TO INSCRIPTION AT ENTRY: 2022-051251-SG01 OF SISTEMA KARIBE
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN

PARCEL 13-B
PROPERTY #24,097
TITLE VESTED IN FAVOR OF
MARGARITA DE LOURDES FAZ ALZAMORA
RECORDED AT PAGE 215,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-000-005-28-000

DIRT ROAD

3840-23

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Ponce de León #1607 Suite 201
Phone: (787)746-4484 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS FOR MINIMUM STANDARDS FOR PROFESSIONAL LAND SURVEYORS, IN CHAPTER 3,4,11 AND 12 OF THE REGULATIONS FOR THE PRACTICE OF ENGINEERING AND SELF-FLAVOR STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 13972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-11	11 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC

GROUPED PARCEL
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION, LLC.
PENDING TO INSCRIPTION AT ENTRY: 2022-051251-SG01 OF SISTEMA KARIBE
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN

3840-22

PRIVATE OWNER
TAX ID: 403-000-001-02-000

HERNANDEZ HERNANDEZ IRMA
TAX ID: 403-000-001-25-001

HERNANDEZ HERNANDEZ IRMA
TAX ID: 403-000-001-03-000

VCM102 LLC
TAX ID: 403-000-001-05-003

SUCN LUIS VELEZ RIVERA
TAX ID: 403-000-001-06-001

SOTO SANTIAGO JESUS M
TAX ID: 403-000-002-01-000

PADILLA SEPULVEDA PEDRO
TAX ID: 403-000-002-03-002

MARTINEZ FERRER ANGEL
TAX ID: 403-000-002-04-901

VELEZ CAMACHO ANGEL L
TAX ID: 403-021-378-07-000

VELEZ PADILLA JORGE
TAX ID: 403-022-378-12-000

DIRT ROAD

IRON ROD FOUND

688 689 690 691 692 693 694 695 696 697 698 699 700 701 702 703 704 705 706 707 708 709 710

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

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REVISION	BY:	DATE:
SYM.		

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Ponce de León #1607, Suite 201
Puerto Nuevo, P.R. 00921
Phone: (787)746-6486 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM STANDARDS OF PRACTICE SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS, IN CHAPTER 53-17.052 FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 12972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-12	12 / 23
PROJECT: JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE : 1 : 1,200

PLOT DATE : MAY 14, 2024

N
W E
S

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Jesús T. Piñero #1454, Suite A-1, San Juan, PR 00921
Phone: (787)746-5484 Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE, ACCORDING TO THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS AND MAPPERS IN CHAPTER 61G17-6 ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE ORIGINAL SIGNATURE AND RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO SURVEY MAPS BY ANY PARTY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 13013

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-13	13 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

N
W E
S

REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Ponce de León #1519 Int. Puerta de Tierra, San Juan, PR 00907
Phone: (787)746-6486; Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF EXAMINERS OF LAND SURVEYORS, IN CHAPTER 5,6,7,8 OF THE FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES. NOT VALID UNLESS VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 13072

DRAWING TITLE:

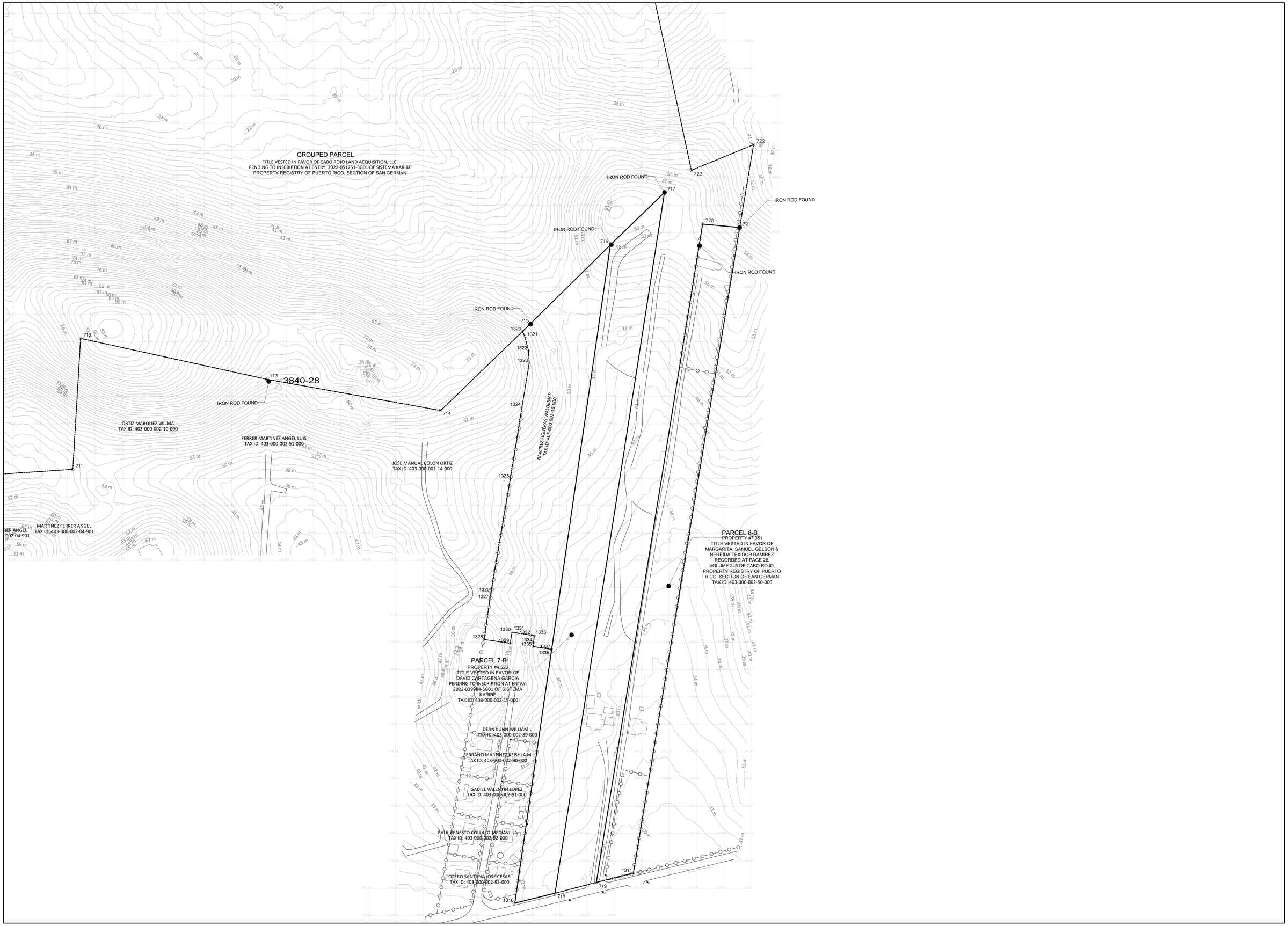
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-14	14 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

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W E
S

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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Phone: (787)746-5486, Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF LAND SURVEYORS OF PUERTO RICO IN CHAPTER 5 OF CODE, FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027, FLORIDA STATUTES, AND THAT I AM DULY VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 13972

DRAWING TITLE:

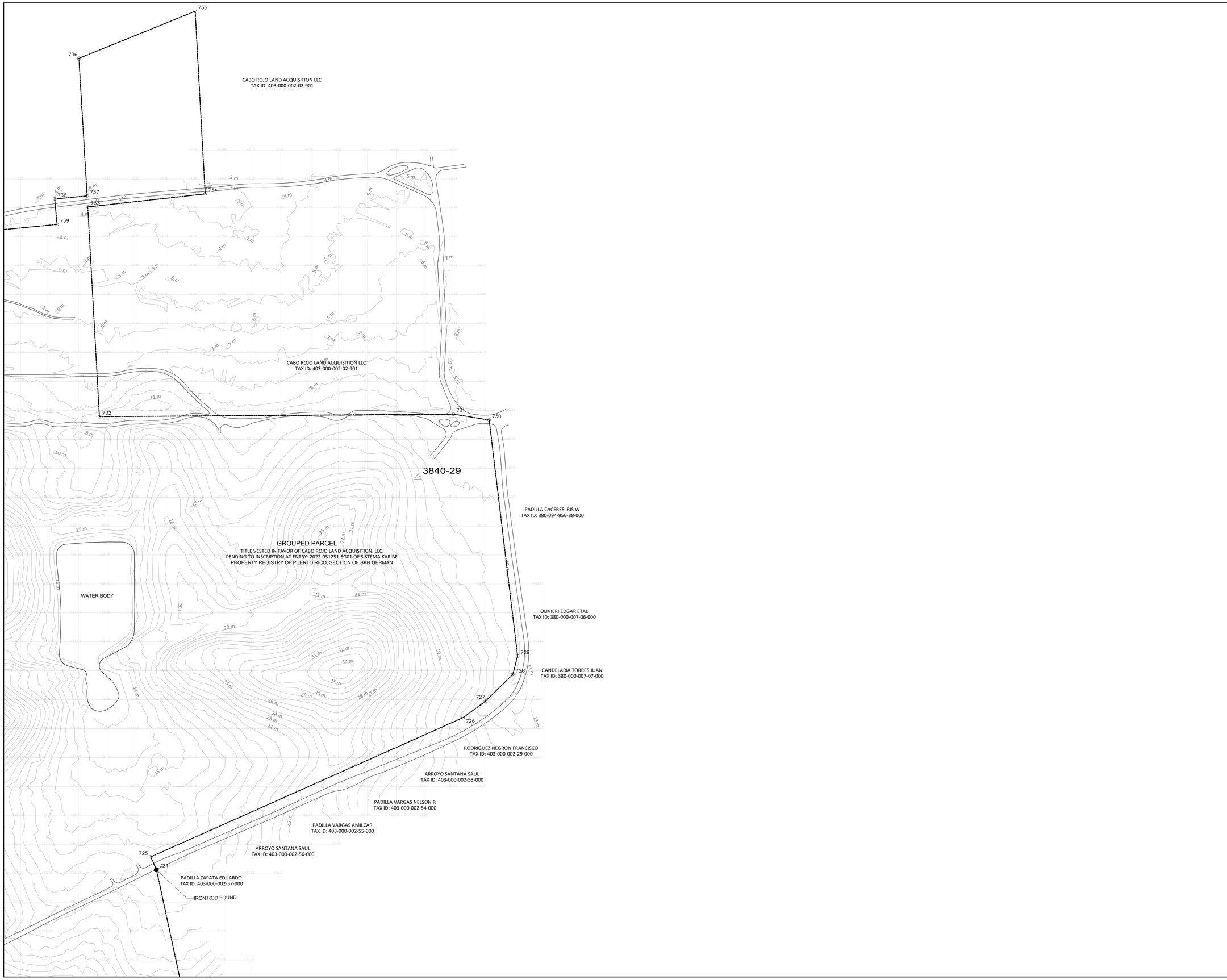
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-15	15 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE

24 12 0 24 48 72

SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

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SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

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www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF EXAMINERS OF LAND SURVEYORS, IN CHAPTER 11 A.17.002, FLORIDA ADMINISTRATIVE CODE, PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LIC.NO. 13972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-16	16 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840-EC

PROPERTY: 18,806 (LOT 77)
PAGE: 96
BOOK: 805 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,123.5259 SQ MT =0= 5.3744 CDAS.

RUSTICA: PARCELA NUMERO SETENTA Y SIETE (77) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.) EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES AL NORTE, CON EL MAR CARIBE; POR EL SUR, CON PARCELA NUMERO TREINTA Y OCHO (38) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5)PERTENECEN A ESTA PARCELA; POR EL ESTE, CON PARCELA NUMERO SETENTA Y OCHO (78) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA Y SEIS (76) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 24,096 (LOT 13-A)
PAGE: 212
BOOK: 671 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 422,473.4400 SQ.MT. =O= 107.4890 CDAS.
SURVEYED AREA: 464,921.2455 SQ.MT. =O= 118.2887 CDAS.

RUSTICA: PREDIO DE TERRENO IDENTIFICADO CON EL NÚMERO TRECE GUION "A" (13-A) DEL PLANO DE PARCELACIÓN DE LA FINCA LLAMADA "COROZO", SITO EN EL BARRIO LLANOS COSTA, SECTOR EL COROZO DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CUATROCIENTOS VEINTIDOS MIL CUATROCIENTOS SETENTA Y TRES PUNTO CUARENTA Y CUATRO (422,473.44) METROS CUADRADOS, EQUIVALENTES A CIENTO SIETE PUNTO CUATROCIENTAS OCHENTA Y NUEVE (107.489) CUERDAS. EN LINDES, POR EL NORTE, EN QUINIENTOS CINCO PUNTO CERO CERO OCHENTA Y CINCO (505.0085) METROS LINEALES, CON CAMINO MUNICIPAL DENOMINADO CAMINO PEIIONES; POR EL SUR, EN TRESCIENTOS CUARENTA PUNTO OCHOCIENTOS CUARENTA Y TRES (340.843) METROS LINEALES, CON PREDIO IDENTIFICADO EN EL PIANO DE PARCELACI6N COMO CAMINO DE ACCESO; POR EL OESTE, EN MIL TRESCIENTOS NOVENTA Y DOS PUNTO TRESCIENTOS CUARENTA Y OCHO (1,392.348) METROS LINEALES, CON PREDIO IDENTIFICADO CON EL NUMERO TRECE GUION "B" (13-B) DEL PIANO DE INSCRIPCI6N; Y POR EL ESTE, NOVENTA Y SIETE PUNTO CERO SESENTA Y CUATRO (97.064), CIENTO VEINTINUEVE PUNTO TRESCIENTOS SESENTA Y UNO (129.361) Y MIL DOSCIENTOS SESENTA Y SIETE PUNTO DOS MIL SEISCIENTOS CINCUENTA Y TRES (1,267.2653) METROS LINEALES, CON PREDIOS IDENTIFICADOS EN EL PIANO DE PARCELACI6N CON LOS NUMEROS CATORCE (14) Y QUINCE (15) Y CON PROPIEDADES DE SIGFRIDO VELEZ, SUCESI6N VALENTIN Y SERAFIN VELEZ, RESPECTIVAMENTE, PARA UN TOTAL DE MIL CUATROCIENTOS NOVENTA Y TRES PUNTO SEIS MIL NOVECIENTOS TRES (1,493.6903) METROS LINEALES."

PROPERTY: 18,807 (LOT 78)
PAGE: 91
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.000 CDAS.
SURVEYED AREA: 16,552.0669 SQ.MT. =O= 4.211 CDAS.

RUSTICA: PARCELA NÚMERO SETENTA Y OCHO (78), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5) CUERDAS, EQUIVALENTES A UN (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES; POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO TREINTA Y OCHO (38) Y SERVIDUMBRE DE PASO DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO SETENTA Y NUEVE (79) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO SETENTA Y SIETE (77) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,842 (LOT 108)
PAGE: 1
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2700 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: 19,213.4915 SQ.MT. =O= 4.8884 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO OCHO (108) DE LA FINCA BAHIA BONITA QUE RADICA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE MIL SEISCIENTOS CINCUENTA Y SEIS METROS CUADRADOS CON VEINTISIETE CENTIMETROS CUADRADOS (19,656.27 M.C.), EQUIVALENTES A CINCO CUERDAS CON ONCE DIEZMILESIMAS DE OTRA (5.0011 CUERDAS). EN LINDES, POR EL NORTE, CON LA BAHIA DE BOQUERÓN; POR EL SUR, CON LA PARCELA CIENTO TRECE (113), LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO, DE LOS CUALES SIETE METROS CON CINCUENTA CENTIMETROS (7.50 MTS.) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA CIENTO SIETE (107), LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO; Y POR EL OESTE, CON LA PARCELA CUARENTA Y TRES (43), LA CUAL CONTIENE UNA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO Y CON RICARDO CARLO.

PROPERTY: 18,841 (LOT 107)
PAGE: 295
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: SQ.MT.18,788.0102 =O= 4.7802 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO CIENTO SIETE (107) DE LA BAHIA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE DIECINUEVE MIL SEISCIENTOS CINCUENTA Y SEIS METROS, VEINTICINCO DECIMETROS CUADRADOS (19,656.25 M.C.). EN LINDEROS POR EL NORTE, CON LA BAHIA DE BOQUERÓN; SUR, CON LAS PARCELAS SESENTA Y DOS (62) Y CIENTO TRECE (113) DE LAS CUALES AMBAS CONTIENEN PARTE DE LAS SERVIDUMBRES DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO DE LOS SIETE PUNTO CINCUENTA (7.50) METROS PERTENECEN A ESTA PARCELA; ESTE, CON LA PARCELA CIENTO SEIS (106) LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO; OESTE, CON LA PARCELA NÚMERO CIENTO OCHO (108) LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO. LA COLINDANCIA SUR DE LA FINCA SE HALLA AFECTA A UNA SERVIDUMBRE DE PASO PARA USO VEHICULAR Y PEATONAL DE SIETE PUNTO CINCUENTA (7.50) METROS DE ANCHO POR SESENTA Y CUATRO PUNTO VEINTE (64.20) METROS DE LARGO, AFECTANDO ESTA SERVIDUMBRE TODO LO LARGO DE LA COLINDANCIA SUR Y RESULTANDO EN UN AREA AFECTADA POR DICHA SERVIDUMBRE DE CUATROCIENTOS OCHENTA Y UNO PUNTO CUARENTA Y SIETE (481.47) METROS CUADRADOS, LAS CUALES FORMA PARTE DEL AREA TOTAL DE LA FINCA SEGUN HA SIDO DESCRITA.

PROPERTY: 18,762 (LOT 138)
PAGE: 142
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,171.6639 SQ.MT. =O= 5.3866 CDAS.

RUSTICA: PARCELA NUMERO CIENTO TREINTA Y OCHO (138), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, PARCELA NUMERO TREINTA Y DOS (32) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO SEIS (6) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO QUINCE (15) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO TREINTA (30) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,808 (LOT 79)
PAGE: 97
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 19,659.2923 SQ MT =0= 5.0019 CDAS.

RUSTICA: PARCELA NÚMERO SETENTA Y NUEVE (79), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5) CUERDAS, EQUIVALENTES A UN (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES; POR EL NORTE, EN UNA DISTANCIA DE CINCUENTA Y DOS PUNTO SESENTA Y DOS (52.62) METROS LINEALES, CON EL MAR CARIBE; POR EL SUR, EN UNA DISTANCIA DE CINCUENTA Y DOS PUNTO CINCUENTA Y SIETE (52.57) METROS LINEALES, CON UNA SERVIDUMBRE DE DIEZ (10.00) METROS DE ANCHO, CINCO (5) DE LOS CUALES PERTENECEN A ESTA PARCELA Y QUE LA SEPARA DE LA PARCELA CIENTO SETENTA Y CUATRO (174) DE ENRIQUE CARLO AYMAT; POR EL ESTE, EN UNA DISTANCIA DE TRESCIENTOS SETENTA Y CUATRO PUNTO VEINTICUATRO (374.24) METROS LINEALES, CON LA PARCELA NÚMERO UNO (1) DE LA FINCA SIETE MIL SEISCIENTOS TRES (7,603) DE ENRIQUE CARLO AYMAT; Y POR EL OESTE, EN UNA DISTANCIA DE TRESCIENTOS SETENTA Y CUATRO PUNTO SESENTA Y SEIS (374.66) METROS LINEALES, CON LA PARCEL A SETENTA Y OCHO (78).

PROPERTY:18,839 (LOT. 105)
PAGE: 283
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,364.5933 SQ MT =O= 4.9269 CDAS.

RUSTICA: PARCELA DENOMINADA CIENTO CINCO (105). PARCELA DE TERRENO SITA EN EL BARRIO BOQUERÓN, SECTOR EL COMBATE, CARR. 301, KILOMETRO 7.4 INTERIOR, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO. UBICA EN EL PROYECTO BAHIA BONITA. EL NÚMERO DE LA FINCA PRINCIPAL DE LA CUAL SE SEGREGA ESTA PARCELA ES 55-402-000-02-901. TIENE UNA CABIDA SUPERFICIAL DE 19,653.50 METROS CUADRADOS, EQUIVALENTES A 5.00 CUERDAS. EN LINDEROS: NORTE, EN 64.001 METROS LINEALES, CON LA ZONA MARITIMA TERRESTRE DE LA BAHIA DE BOQUERÓN; SUR, EN DOS ALINEACIONES QUE TOTALIZAN 45.706 METEROS LINEALES, O SEA, 38 METROS LINEALES, CON LA SERVIDUMBRE DE PASO QUE SIRVE AL SOLAR Y EN 7.50 METROS LINEALES, CON LA PARCELA #62 DEL PROYECTO BAHIA BONITA; ESTE, EN DOS ALINEACIONES QUE TOTALIZAN 317.577 METROS LINEALES, CON TERRENOS DE LA SUCESIÓN RAMIREZ DE ARELLANO; OESTE, EN 307.900 METROS LINEALES, CON LA PARCELA #106 DEL PROYECTO BAHIA BONITA. SERVIDUMBRE: EN LA ESQUINA DE LA PARCELA #105 EN LA CUAL CONVERGEN LAS COLINDANCIAS SUR Y OESTE UBICA UNA SERVIDUMBRE DE PASO QUE TIENE UNA CABIDA SUPERFICIAL DE 288.90 METROS CUADRADOS Y SUS COLINDANCIAS SON: NORTE, EN 28.206 METROS LINEALES, CON LOS TERRENOS DE LA PARCELA #105 DEL PROYECTO BAHIA BONITA; POR EL SUR, EN 38.341 METROS LINEALES, CON LA PARCELA #62 DEL PROYECTO BAHIA BONITA; POR EL ESTE, EN 7.50 METROS LINEALES, CON TERRENOS DE LA PARCELA #105 DEL PROYECTO BAHIA BONITA; POR EL OESTE, EN 7.501 METROS LINEALES, CON TERRENOS DE LA PARCELA #106 DEL PROYECTO BAHIA BONITA.

PROPERTY: 18,694 (LOT 16)
PAGE: 13
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 20,033.1585 SQ MT =0= 5.0970 CDAS.

RUSTICA: PARCELA NUMERO DIECISEIS (16), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE LOS HERMANOS RUIZ Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5)METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA· PARCELA NUMERO SESENTA Y CUATRO (64) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO CIENTO OCHENTA (180) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, PARCELA NUMERO QUINCE (15) Y SERVIDUBRE DE PASO DE DIEZ (10.00) METROS, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,779 (LOT 15)
PAGE: 148
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 23027.7787 SQ. MTS =O= 5.8589 CDAS.

RUSTICA: PARCELA NUMERO QUINCE (15) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, PARCELA NUMERO DIECISEIS (16) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5)METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA· PARCELA NUMERO SEIS (6) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN. A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO DIECISEIS (16)Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE· ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO CIENTO TREINTA Y OCHO (138)Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,707 (LOT 54)
PAGE: 34
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,551.9387 SQ.MT. =O= 5.4834 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y CUATRO (54) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES AL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y TRES (53) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON TERRENOS DE RICARDO ENRIQUE CARLO DIAZ Y POR EL OESTE, CON LA PARCELA NUMERO CINCUENTA Y CINCO (55).

PROPERTY: 18,696 (LOT 33)
PAGE: 25
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,020.4014 SQ MT. =O= 5.6026 CDAS.

RUSTICA: PARCELA NUMERO TREINTA Y TRES (33), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE VICTOR QUILES Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCO (5) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO CIENTO TREINTA Y OCHO (138) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON SERVIDUMHRE DE PASO DE VEINTE PUNTO SESENTA (20.60) METROS DE ANCHO.

PROPERTY: 18,709 (LOT 56)
PAGE: 41
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: = 22,626.4242 SQ MT. =O= 5.7568 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y SEIS (56), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y DOS (52); POR I EL ESTE, CON LA PARCELA NUMERO CINCUENTA Y CINCO (55) Y POR I (57).

PROPERTY: 18,710 (LOT 57)
PAGE: 44
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,139.3584 SQ MT =0= 5.1240 CDAS.

RUSTICA: PARCELA NÚMERO CINCUENTA Y SIETE (57), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LAS PARCCILAS NUMEROS CIENTO OCHENTA (180) Y CINCUENTA Y DOS (52); POR EL ESTE, CON LA PARCELA NUMERO I CINCUENTA Y SEIS (56) Y POR EL OESTE, CON TERRENOS DE LOS 1 HERMANOS RUIZ Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,813 (LOT 178)
PAGE: 187
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,958.3058 SQ MT. =O= 5.0779 CDAS.

RUSTICA: PARCELA NUMERO CIENTO SETENTA Y OCHO (178), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LAS PARCELAS NUMEROS CINCO (5), SEIS (6) Y SESENTA Y CUATRO (64) Y; SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE IOSL CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR,: CON LAS PARCELAS NUMEROS CIENTO SETENTA Y SEIS (176) Y SESENTA Y SEIS (66) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO TREINTA Y DOS (32) Y POR EL OESTE, CON LA PARCELA NUMERO CIENTO SETENTA Y SEIS (176) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) ' METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,715 (LOT 69)
PAGE: 139
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,691.5244 SQ MT. =O= 5.0101 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y NUEVE (69) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NUMERO OCHENTA Y TRES (83) Y SERVIDUMBRE DE I PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO, (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO SESENTA Y OCHO (68) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA (70) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA (70) Y SERVIDUMBRE DE PASO DE ' DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) , PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO OCHENTA Y UNO (81).

PROPERTY: 18,716 (LOT 70)
PAGE: 62
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,714.7056 SQ MT. =O= 5.0160 CDAS.

RUSTICA: PARCELA NUMERO SETENTA (70) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON EL MAR CARIHE; POR EL SUR, CON LA PARCELA NUMERO OCHENTA Y UNO (81) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO SESENTA Y NUEVE (69) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SETENTA Y UNO (71) Y POR EL OESTE, CON EL MAR CARIHE ANTES, HOY CON LA PARCELA NUMERO SESENTA Y NUEVE (69).

PROPERTY: 18,721 (LOT 81)
PAGE: 142
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19744.2876 SQ MT. =O= 5.0235 CDAS.

RUSTICA: PARCELA NUMERO 81 RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.00 CUERDAS, EQUIVALENTES A 1 HECTAREAS, 96 AREAS Y 60 CENTIAREAS. EN LINDES POR EL NORTE, CON PARCELA #70 Y SERVIDUMBRE DE PASO 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA ANTES, HOY EN EL MAR CARIBE; POR EL SUR, CON TERRENOS DEL SR. JOSE FAS ANTES, HOY CON SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA #82 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENCEN A ESTA PARCELA ANTES, HOY #69 POR EL OESTE, CON LA PARCELA #80 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA APARCELA ANTES, HOY CON LA PARCELA #80.

PROPERTY: 18,719 (LOT 73)
PAGE: 163
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20232.7025 SQ MT. =O= 5.1478 CDAS.

RUSTICA: PARCELA NUMERO SETENTA Y TRES (73), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y DOS (72) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LAS PARCELAS NUMERO SETENTA Y UNO (71) Y SETENTA Y DOS (72); POR EL SUR, CON LAS PARCELAS NUMEROS SESENTA Y SIETE (67) Y SESENTA Y OCHO (68) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA Y CINCO (65); POR EL ESTE, CON LAS PARCELAS NUMEROS SESENTA Y CINCO (65) Y SESENTA Y SEIS (66) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO TREINTA Y SIETE (37) Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA Y OCHO (68) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO.

PROPERTY: 18,711 (LOT 65)
PAGE: 115
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 218,289.4300 SQ.MT. =O= 55.5388 CDAS.
SURVEYED AREA: 19,888.3404 SQ.MT. =O= 5.0601 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y CINCO (65) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) . CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SESENTA Y TRES (73); POR EL SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO VEINTINUEVE (29) Y POR EL OESTE, CON LAS PARCELAS NUMERO SESENTA Y OCHO (68) Y OCHENTA Y CUATRO (84).

PROPERTY: 18,783 (LOT 29)
PAGE: 247
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,750.4213 SQ MT. =O= 5.0250 CDAS.

RUSTICA: PARCELA NUMERO VEINTINUEVE (29), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y SIETE (77) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) METROS PERTENECEN A ESTA PARCELA; POR EL SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO TREINTA Y OCHO (38) Y POR EL OESTE, CON LA PARCELA NUMERO SESENTA Y CINCO (65).

PROPERTY: 18,708 (LOT 55)
PAGE: 37
BOOK: 867 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 23535.7454 SQ MT. =O= 5.9881 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y CINCO (55), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y DOS (52); POR EL ESTE, CON LA PARCELA NUMERO CINCUENTA Y CUATRO (54)

PROPERTY: 18,790 (LOT 38)
PAGE: 289
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,021.5593 SQ MT. =O= 5.0940 CDAS.

RUSTICA: PARCELA NUMERO TREINTA Y OCHO (38), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA MIMERO CUARENTA Y UNO (41); POR EL, SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NUMERO VEINTINUEVE (29).

PROPERTY: 18,713 (LOT 67)
PAGE: 127
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.000 CDAS.
SURVEYED AREA: 20,137.9900 SQ MT. =O= 5.1237 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y SIETE (67), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIIIREAS. EN LINDES POR EL NORTE, CON SERVIDUMBRE DE I PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL SUR, CON I TERRENOS DE JOSE FAS; POR EL ESTE, CON LA PARCELA NUMERO DIECISIETE (17) Y POR EL OESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO.

PROPERTY: 18,780 (LOT. 17)
PAGE: 229
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2700 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: 21562.3366 SQ MT. =O= 5.4860 CDAS.

RUSTICA: PARCELA NÚMERO DIECISIETE (17) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDES POR EL NORTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL SUR, CON TERRENO DE JOSÉ FAS; POR EL ESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NÚMERO SESENTA Y SIETE (67).

PROPERTY: 24,097 (LOT 13-B)
PAGE: 215
BOOK: 671 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 422,473.440 SQ.MT. =O= 107.489 CDAS.
SURVEYED AREA: 492,773.8943 SQ.MT. =O= 125.3751 CDAS.

RUSTICA: PREDIO DE TERRENO IDENTIFICADO CON EL NUMERO TRECE GUION "B" (13-B) EN EL PIANO DE PARCELACIÓN DE LA FINCA DENOMINADA COROZO, SITO EN EL BARRIO LLANOS COSTA, SECTOR EL COROZO DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO Y CON UNA CABIDA SUPERFICIAL DE CUATROCIENTOS VEINTIDOS MIL CUATROCIENTOS SETENTA Y TRES PUNTO CUARENTA Y CUATRO (422,473.44) METROS CUADRADOS, EQUIVALENTES A CIENTO SIETE PUNTO CUATROCIENTAS OCHENTA Y NUEVE (107.489) CUERDAS. COLINDA, AL NORTE, EN SEISCIENTOS VEINTIOCHO PUNTO NUEVE MIL SEISCIENTOS OCHENTA Y DOS (628.9682) METROS LINEALES CON CAMINO MUNICIPAL DENOMINADO CAMINO PENONES; POR EL SUR, EN CUATROCIENTOS CUARENTA Y SIETE PUNTO CERO CUARENTA (447.040) Y CIENTO SETENTA Y NUEVE PUNTO TRESCIENTOS CINCUENTA Y NUEVE (179.359) METROS LINEALES, CON PREDIO IDENTIFICADO CON EL NUMERO DOCE (12) Y CAMINO DE ACCESO DEL PIANO DE PARCELACION; AL ESTE, EN MIL TRESCIENTOS NOVENTA Y DOS PUNTO TRESCIENTOS CUARENTA Y OCHO (1,392.348) METROS LINEALES, CON PREDIO IDENTIFICADO EN EL PIANO DE PARCELACION CON EL NUMERO TRECE GUI6N "A" (13-A); Y AL OESTE, EN MIL CUATROCIENTOS VEINTIUNO PUNTO MIL OCHOCIENTOS SESENTA Y DOS (1,421.1862) METROS LINEALES CON PROPIEDAD DE ALFREDO RAMIREZ DE ARELLANO."

PROPERTY: 18,831 (LOT 22)
PAGE: 235
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 20,427.676 SQ.MT. =O= 5.1979 CDAS.
SURVEYED AREA: 20,419.7597 SQ MT =0= 5.19553 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO, PUERTO RICO. SOLAR: 22. CABIDA: 20,427.676 METROS CUADRADOS. LINDEROS: NORTE, CON LA PARCELA NÚMERO 53 DE MONTE CARLO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO. SUR, CON LA PARCELA NÚMERO 89 DE MONTE CARLO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO. ESTE, CON LA PARCELA 45 DEL FIDEICOMISO BAHÍA BONITA, INC., LA CUAL CONTIENE UNA SERVIDUMBRE DE PASO DE 5.00 METROS DE ANCHO PARA EL ESTABLECIMIENTO DE UTILIDADES PÚBLICAS Y CON LA PARCELA 46 DEL FIDEICOMISO BAHÍA BONITA, INC. OESTE, CON LA PARCELA NÚMERO 40 DE MONTE CLARO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO.
NOTE: THIS IS THE DESCRIPTION AFTER MEASUREMENT, PURSUANT TO DEED NUMBER 23, BAYAMÓN, PUERTO RICO, ON JUNE 19, 2018, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT THE KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,831, 14TH INSCRIPTION.

PROPERTY: 18,792 (LOT 44)
PAGE: 1
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 21,718.63 SQ.MT. =O= 5.5258 CDAS.
SURVEYED AREA: 21,490.5754 SQ MT =0= 5.4678 CDAS.

RÚSTICA: PARCELA MARCADA CON EL NÚMERO 44 DE LA FINCA BAHIA BONITA, RADICADA DE BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE VEINTIÚN MIL SETECIENTOS DIECIOCHO METROS, SESENTA Y TRES DECIMETROS CUADRADOS, (21,718.63 M/C). EN LINDES POR NORTE, CON LA PARCELA NÚMERO 43; POR EL SUR, CON LA PARCELA NÚMERO 45 Y CON LA PARCELA 110 QUE CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO 112 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO; Y POR EL OESTE, CON MONTE CARLO DEVELOPMENT CORPORATION. ESTA PARCELA ESTA AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 742.32 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 94.36 METROS LINEALES DE LARGO POR SU COLINDANCIA SUR.
DESCRITA FUEGO DE RECTIFICACIÓN DE CABIDA POR EL AGRIMENSOR FRANK LOZADA DÍAS, MEDIANTE LA ESCRITURA NÚMERO 29, OTORGADA EN CABO ROJO, PUERTO RICO, EL DÍA 13 DE FEBRERO DE 2004, ANTE EL NOTARIO LUIS ROBERTO SANTOS, E INSCRITO AL FOLIO 154 VUELTO DEL TOMO 841 DE CABO ROJO, FINCA NÚMERO 18,792, INSCRIPCIÓN 4TA.
ESTA PARCELA ES PARA USO AGRICOLA.

PROPERTY: 18,796 (LOT 58)
PAGE: 193
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 20,593.40 SQ.MT. =O= 5.2395 CDAS.
SURVEYED AREA: 19,553.9663 SQ MT =0= 4.9751 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 58 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE VEINTE MIL QUINIENTOS NOVENTA Y TRES METROS CUARENTA DECÍMETROS CUADRADOS (20,593.40 M/C),(EQUIVALENTES A CINCO CUERDAS CON DOS MIL TRESCIENTOS NOVENTA Y CINCO DIEZ MILÉSIMAS DE OTRA (5.2395-CDAS). RU. LINDEROS: NORTE, CON LA PARCELA #59 QUE CONTIENE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA; SUR, CON LA PARCELA #34 QUE CONTIENÈ EN SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA; ESTE, CON LA PARCELA #57; OESTE, CON LAS PARCELAS 109, 111 Y 46 LAS CUALES TODAS CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA. ESTA PARCELA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 1647.96 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 220.32 METROS LINEALES DE LARGO POR SU COLINDANCIA OESTE.
RECTIFICADA LA CABIDA POR HABER SIDO OBJETO DE MENSURA POR EL AGRIMENSOR FRANK LOZADA DIAZ, CON LICENCIA # 5787, CERTIFICADA MEDIANTE DECLARACIÓN JURADA 15300 DEL 10 DE FEBRERO DEL 2004 ANTE EL NOTARIO LUIS ROBERTO SANTOS Y ESCRITURA # 37, OTORGADA EN MAYAGÜEZ, EL DÍA 1 DE MARZO DEL 2004 ANTE EL MISMO NOTARIO. INSCRITA AL FOLIO 193 VUELTO DEL TOMO 841 DE CABO ROJO, INSCRIPCIÓN 40.

PROPERTY: 18,797 (LOT 59)
PAGE: 31
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 22,912.7218 SQ MT =0= 5.8296 CDAS.

RUSTICA: PARCELA NÚMERO CINCUENTA Y NUEVE (59) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO SESENTA (60) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y TRES DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CUENTO DOCE (112) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO VENTIDOS (22) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
ESTA PARCELA ES PARA USO AGRÍCOLA.

INSCRIPTION DATA

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

N W E S

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT
ASSOCIATES, PSC
Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-17	17 / 23
PROJECT JEB-3840		

FILE NAME : 3840-EC
PAPER SIZE: 30x42

PROPERTY: 18,798 (LOT 60)
PAGE: 202
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,706.93 SQ.MT. =O= 5.0140 CDAS.
SURVEYED AREA: SQ MT =0= CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 60 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE DIECINUEVE MIL SETECIENTOS SEIS METROS NOVENTA Y DOS DECÍMETROS CUADRADOS (19,706.92 M/C), EQUIVALENTES A 5.0140 CUERDAS. EN LINDEROS: NORTE, CON PARCELA #61 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO; SUR, CON PARCELA #59 QUE CONTIENE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA, ESTE, CON FINCA DE LOS RAMÍREZ DE ARRELLANO; OESTE, CON LAS PARCELAS 104 Y 109 LAS CUALES AMBAS CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA. ESTA FINCA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO, COMPUESTA DE 1,028.21 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 137.14 METROS LINEALES DE LARGO POR SU COLINDANCIA OESTE.

RECTIFICADA LA CABIDA POR HABER SIDO OBJETO DE MENSURA POR EL AGRIMENSOR FRANK LOZADA DIAZ, CON LICENCIA # 5787, CERTIFICADA MEDIANTE DECLARACIÓN JURADA 15301 DEL 10 DE FEBRERO DEL 2004 ANTE EL NOTARIO LUIS ROBERTO SANTOS Y ESCRITURA # 38, OTORGADA EN MAYAGÜEZ, EL DÍA 1 DE MARZO DEL 2004 ANTE EL MISMO NOTARIO. INSCRITA AL FOLIO 202 DEL TOMO 841 DE CABO ROJO, INSCRIPCIÓN 4O.

PROPERTY: 18,843 (LOT 109)
PAGE: 165
BOOK: 143 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,905.17 SQ.MT. =O= 5.5736 CDAS.
SURVEYED AREA: SQ MT =0= CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 109 DE LA FINCA BAHIA BONITA RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE 21,906.17 METROS CUADRADOS, EQUIVALENTES A 5.5735 CUERDAS. EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO 104; POR EL SUR, CON LA PARCELA NÚMERO 58 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LAS PARCELAS NÚMERO 59 Y 60 QUE CONTIENEN AMBAS PARTES DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LAS PARCELAS NÚMERO 110, 111 Y 112 LAS CUALES CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA.

ESTA PARCELA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 3,656.62 METROS CUADRADOS LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 492.47 METROS LINEALES DE LARGO POR SUS COLINDANCIAS SUR, ESTE Y OESTE PARA USO AGRÍCOLA. DICHA FINCA FUE MENSURADA POR EL AGRIMENSOR FRANK LOZADA DÍAZ EL DÍA 10 DE FEBRERO DE 2004.

PROPERTY: 18,699 (LOT 41)
PAGE: 43
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,885.9676 SQ.MT. =O= 5.3140 CDAS.
SURVEYED AREA: 20, 885.9678 SQ MT =O= 5.3140 CDAS.

RUSTICA: PARCELA NÚMERO 41, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 20,885.9676 METROS CUADRADOS, EQUIVALENTES A 5.3140 CUERDAS. EN LINDEROS: POR EL NORTE, CON CAMINO A DEDICARSE A USO PÚBLICO; POR EL SUR, CON LA PARCELA 38; POR EL ESTE, CON CAMINO A DEDICARSE A USO PÚBLICO; Y POR EL OESTE, CON LA PARCELA 37.

NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 43, ISSUED IN SAN JUAN, ON NOVEMBER 18, 2004, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, CLARIFIED BY DEED NUMBER 28, ISSUED IN CABO ROJO, PUERTO RICO, ON DECEMBER 29, 2010, BEFORE NOTARY OSVALDO ORTIZ MEDINA, AND RECORDED AT PAGE 23 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,699, 7TH INSCRIPTION.

PROPERTY: 18,814 (LOT 179)
PAGE: 133
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,559.3307 SQ.MT. =O= 5.2309 CDAS.
SURVEYED AREA: 20,559.3304 SQ.MT. =O= 5.2309 CDAS.

RUSTICA: PARCELA NÚMERO, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.2309 CUERDAS, EQUIVALENTES A 20,559.3307 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; POR EL SUR, CON LAS PARCELAS 39 Y 40; POR EL ESTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; Y POR EL OESTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 22, ISSUED IN CAGUAS, PUERTO RICO, ON AUGUST 11, 2009, BEFORE NOTARY OSVALDO ORTIZ MEDINA, AND RECORDED AT PAGE 191 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,814, 8TH INSCRIPTION.

PROPERTY: 18,815 (LOT 180)
PAGE: 139
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,529.7153 SQ.MT. =O= 5.4770 CDAS.
SURVEYED AREA: 21,702.9562 SQ.MT. =O= 5.5218 CDAS.

RUSTICA: PARCELA 180, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.477 CUERDAS, EQUIVALENTES A 21,529.7153. EN LINDES POR EL NORTE, CON LA PARCELA 57; POR EL SUR, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA 52 Y SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; Y POR EL OESTE, CON LA PARCELA 16.

NOTE: THIS IS THE DESCRIPTION AFTER RECTIFIED MEASUREMENT, ISSUED IN CABO ROJO, PUERTO RICO, ON AUGUST 10, 2009, BEFORE NOTARY OSVALDO ORTIZ MEDINA, PROPERTY NUMBER 18,815, AND RECORDED AT PAGE 194 OF VOLUME 864 OF CABO ROJO, 5TH INSCRIPTION.

PROPERTY: 18,697 (LOT 39)
PAGE: 31
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,835.769 SQ.MT. =O= 5.3012 CDAS.
SURVEYED AREA: 20,816.797 SQ.MT. =O= 5.2964 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO, PUERTO RICO, SOLAR: 39. CABIDA: 20,835.769 METROS CUADRADOS. LINDEROS: POR EL NORTE, CON LA PARCELA NÚMERO 179 DE MONTE CARLO; POR EL SUR, CON CAMINO DE ACCESO DE 14 METROS QUE LO SEPARA DE LA PARCELA 103 DE MONTE CARLO; POR EL ESTE, CON LA PARCELA NÚMERO 40 DE MONTE CARLO, PROPIEDAD DE LA SRA. VALERIE M. HERNÁNDEZ ALVARADO; Y POR EL OESTE, CON LA PARCELA NÚMERO 174 DE MONTE CARLO.

NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 22, ISSUED IN BAYAMÓN, ON JUNE 19, 2018, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,697, 13TH INSCRIPTION.

PROPERTY: 18,725 (LOT 85)
PAGE: 199
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19651.9781 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20282.1421 SQ MT. =O= 5.16 CDAS.

RUSTICA: PARCELA NÚMERO OCHENTA Y CINCO (85) RADICADA EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000) EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LAS PARCELAS NÚMERO SESENTA Y SEIS, NÚMERO SESENTA Y SIETE Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON TERRENOS DEL SEÑOR JOSÉ FAS; POR EL ESTE, CON LA PARCELA NÚMERO OCHENTA Y SEIS Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO OCHENTA Y CUATRO Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.

PROPERTY: 18,698 (LOT 40)
PAGE: 37
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,157.842 SQ.MT. =O= 5.1287 CDAS.
SURVEYED AREA: 20,157.6959 SQ MT =O= 5.1287 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO. SOLAR: 40 (MENSURADO). CABIDA: 20,157.842 METROS CUADRADOS. LINDEROS:NORTE, CON SU CAMINO DE ACCESO DE 14.00 METROS Y CON LA PARCELA 179 DE MONTE CARLO. POR EL SUR, CON CAMINO DE ACCESO DE 14.00 METROS DE ANCHO QUE LA SEPARA DE LA PARCELA 97. POR EL ESTE, CON LA PARCELA 22 PROPIEDAD DE VALERIE M. HERNANDEZ ALVARADO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO QUE LA SEPARA DE LA PARCELA 89. Y POR EL OESTE, CON LA PARCELA 39 PROPIEDAD DE VALERIE M. HERNANDEZ ALVARADO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 29, ISSUED IN BAYAMÓN, ON MAY 2, 2019, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,698, 13TH INSCRIPTION.

PROPERTY: 18,706 (LOT 53)
PAGE: 85
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,381.4850 SQ.MT. =O= 5.1856 CDAS.
SURVEYED AREA: 19,212.5906 SQ.MT. =O= 4.8882 CDAS.

RUSTICA: PARCELA NÚMERO 53, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.1856 CUERDAS, EQUIVALENTES A 20,381.4850 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON LA PARCELA 54; POR EL SUR, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO Y LA PARCELA 22; POR EL ESTE, CON TERRENOS DE RICARDO ENRIQUE CARLO DÍAZ; Y POR EL OESTE, CON LA PARCELA 52.
DESCRITA LUEGO DE RECTIFICACIÓN DE CABIDA POR MENSURA, REALIZADA POR EL INGENIERO LUIS S. BERRIOS MONTE, SEGÚN CONSTA DE LA ESCRITURA NÚMERO 22, OTORGADA EN CAGUAS, PUERTO RICO, EL DÍA 11 DE AGOSTO DE 2009, ANTE EL NOTARIO OSVALDO ORTIZ MEDINA, E INSCRITO AL FOLIO 32 VUELTO DEL TOMO 864 DE CABO ROJO, FINCA NÚMERO 18,706, INSCRIPCIÓN 8VA.

PROPERTY: 18,720 (LOT 80)
PAGE: 169
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,651.9781 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,677.9782 sq mt. =O= 5.01 CDAS.

RUSTICA: PARCELA NÚMERO 80, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS Y 60 CENTIÁREAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 70 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LA CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON TERRENOS DE JOSÉ FAS, ANTES, HOY CON LA PARCELA 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NÚMERO 81 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA 81; Y POR EL OESTE, CON LA PARCELA NÚMERO 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE. PARA USOS DE FINES AGRICOLAS.

PROPERTY: 18,695 (LOT 32)
PAGE: 19
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,149.1051 SQ. MT =O= 5.64 CDAS.

RUSTICA: PARCELA NÚMERO TREINTA Y DOS (32) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS ÁREAS (96) Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y UNO (41) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO SESENTA Y CINCO (65) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO TREINTA Y NUEVE (39) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON PARCELA NÚMERO SETENTA Y TRES (73) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.

PROPERTY: 18,844 (LOT 110)
PAGE: 13
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 17,145.1235 SQ MT =O= 4.3622 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO DIEZ (110) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CIENTO NUEVE (109) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO ONCE (111) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y CINCO (45) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,845 (LOT 111)
PAGE: 19
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 17,145.1235 SQ MT =O= 4.3622 CDAS.

RUSTICA: PARCELA DE NÚMERO CIENTO ONCE (111) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CIENTO DIEZ (110) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CINCUENTA Y OCHO (58) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO LE PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,838 (LOT 104)
PAGE: 277
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 18,526.0984 SQ MT =O= 4.7135 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO CUATRO (104) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LAS PARCELAS NÚMEROS CIENTOS DOCE (112) Y CIENTO TRECE (113) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO NUEVE (109) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DIAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y TRES (43) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,830 (LOT 19)
PAGE: 229
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 20,284.0211 SQ.MT. =O= 5.1608 CDAS.

RUSTICA: PARCELA NÚMERO DIECINUEVE (19) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO CATORCE (14) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO UNA (1) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO OCHENTA Y UNA (181) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,781 (LOT 20)
PAGE: 235
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 26,940.6211 SQ.MT. =O= 6.8544 CDAS.

RUSTICA: PARCELA NÚMERO VEINTE (20) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y SIETE (47) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO VEINTIUNO (21) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PIES PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CINCUENTA Y SIETE (57) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO DIEZ (10) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,794 (LOT 46)
PAGE: 13
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 30,321.6115 SQ MT =O= 7.7146 CDAS.

RUSTICA: PARCELA NÚMERO CUARENTA Y SEIS (46) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000) EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y CINCO (45) Y SERVIDUMBRES DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y SIETE (47) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CIENTO ONCE (111) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO (8) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES COMO PERTENECEN A ESTA PARCELA.NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,793 (LOT 45)
PAGE: 7
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 30,321.6115 SQ MT =O= 7.7146 CDAS.

RUSTICA: PARCELA NÚMERO CUARENTA Y CINCO (45) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5.00) CUERDAS, EQUIVALENTES A 1 HECTÁREAS, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDES POR EL NORTE, CON LA PARCELA CUARENTA Y CUATRO (44) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA CIENTO DIEZ (110) Y SERVIDUMBRE DE PASC DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO OCHO (8) Y SERVIDUMBRE DE PASO DIEZ (10.00) METROS ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,714 (LOT 68)
PAGE: 133
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,714.9315 SQ.MT. =O= 5.2704 CDAS.
SURVEYED AREA: 20,715.7279 SQ MT =O= 5.2704 CDAS.

RUSTICA: PARCELA NÚMERO 68, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 20,714.9315 METROS CUADRADOS, EQUIVALENTES A 5.2704 CUERDAS. EN LINDES: POR EL NORTE, CON CAMINO A DEDICARSE A USO PÚBLICO Y LA PARCELA NÚMERO 71; POR EL SUR, CON LA PARCELA NÚMERO 84; POR EL ESTE, CON LAS PARCELAS NÚMEROS 71, 73 Y 65; Y POR EL OESTE, CON CAMINO A DEDICARSE A USO PÚBLICO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 3, ISSUED IN CABO ROJO, ON JANUARY 30, 2008, BEFORE NOTARY OSVALDO ORTIZ MEDINA, CLARIFIED BY DEED NUMBER 15, ISSUED IN CABO ROJO, PUERTO RICO, ON MAY 27, 2009, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, AND RECORDED AT PAGE 56 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,714, 7TH INSCRIPTION.
NOTE:

PROPERTY: 18,724 (LOT 84)
PAGE: 193
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,691.9973 SQ.MT. =O= 5.0102 CDAS.
SURVEYED AREA: 19,694.6833 SQ MT =O= 5.0109 CDAS.

RUSTICA: PARCELA NÚMERO 84, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 19,691.9973 METROS CUADRADOS, EQUIVALENTES A 5.0102 CUERDAS, EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO 68; POR EL SUR, CON CAMINO A DEDICARSE A USO PÚBLICO; POR EL ESTE, CON LA PARCELA NÚMERO 65; Y POR EL OESTE, CON CAMINO A DEDICARSE A USO PÚBLICO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 3, ISSUED IN CABO ROJO, ON JANUARY 30, 2008, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, CLARIFIED BY DEED NUMBER 15, ISSUED IN CABO ROJO, PUERTO RICO, ON MAY 27, 2009, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, AND RECORDED AT PAGE 86 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,714, 7TH INSCRIPTION.

PROPERTY: 18,847 (LOT 113)
PAGE: 31
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 21,322.3403 SQ MT =O= 5.4250 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO TRECE (113) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO CIENTO SIETE (107) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO CUATRO (104) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO DOCE (112) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO METROS PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,816 (LOT 181)
PAGE: 145
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 36,733.6034 SQ.MT. =O= 9.3460 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO OCHENTA Y UNA (181) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO CATORCE (14) Y SERVIDUMBRE DE PASO DE DIEZ METRO DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO DIECINUEVE (19) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO OCHENTA Y DOS (182) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,720 (LOT 80)
PAGE: 169
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 19,677.9782 SQ.MT. =O= 5.0066 CDAS.

RUSTICA: PARCELA NÚMERO 80, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS Y 60 CENTIÁREAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 70 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LA CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON TERRENOS DE JOSÉ FAS, ANTES, HOY CON LA PARCELA 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NÚMERO 81 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA 81; Y POR EL OESTE, CON LA PARCELA NÚMERO 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,782 (LOT 21)
PAGE: 241
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 39,286.3110 SQ.MT. =O= 9.9955 CDAS.

RUSTICA: PARCELA NÚMERO VEINTIUNA (21) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO VEINTE Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO TREINTA Y CUATRO (34) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CINCUENTA (50) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO ONCE (11) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,846 (LOT 112)
PAGE: 25
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,334.90 SQ.MT. =O= 5.4282 CDAS.
SURVEYED AREA: 20,089.4749 SQ.MT. =O= 5.1113 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 112 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA MENSURADA DE VEINTIÚN MIL TRESCIENTOS TREINTA Y CUATRO METROS CUADRADOS CON NOVENTA CENTÍMETROS CUADRADOS (21,334.90 M.C.) EQUIVALENTES A CINCO CUERDAS CON CUATRO MIL DOSCIENTOS OCHENTA Y DOS DIEZ MILÉSIMAS DE OTRA 5.4282 CUERDAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 113; POR EL SUR, CON LA PARCELA NÚMERO 110 QUE CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO 104 Y CON LA PARCELA NÚMERO 109 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15 METROS DE ANCHO; Y POR EL OESTE, CON LA PARCELA NÚMERO 44.
DESCRITA LUEGO DE RECTIFICACIÓN DE CABIDA POR EL AGRIMENSOR FRANK LOZADA DÍAS, MEDIANTE LA ESCRITURA NÚMERO 1, OTORGADA EN MAYAGÜEZ, PUERTO RICO, EL DÍA 12 DE ENERO DE 2004, ANTE EL NOTARIO LUIS ROBERTO SANTOS, E INSCRITO AL FOLIO 70 DEL TOMO 843 DE CABO ROJO, FINCA NÚMERO 18,846, INSCRIPCIÓN 3RA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,840 (LOT 106)
PAGE: 289
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,018.333 SQ.MT. =O= 5.60 CDAS.

RUSTICA: PARCELA NÚMERO 106 RADICADA EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 19654.56 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON LA BAHÍA DE BOQUERÓN EN UNA ALINEACIÓN DE 44.88 METROS Y OTRA ALINEACIÓN DE 19.14 METROS CUADRADOS; POR EL SUR, CON UN CAMINO DE SERVIDUMBRE DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA FINCA, ESTA COLINDANCIA MIDE 62.66 METROS; POR EL ESTE, CON LA PARCELA NÚMERO 105, EN UNA DISTANCIA DE 307.90 METROS; Y POR EL OESTE, CON LA PARCELA NÚMERO 107, EN UNA DISTANCIA DE 301.04 METROS. LA COLINDANCIA SUR DE LA FINCA SE HALLA AFECTA A UNA SERVIDUMBRE DE PASO PARA USO VEHICULAR Y PEATONAL, DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA FINCA, AFECTANDO ESTA SERVIDUMBRE TODO LO LARGO DE LA COLINDANCIA SUR Y RESULTANDO EN UNA ÁREA AFECTA POR DICHA SERVIDUMBRE DE 470.03 METROS CUADRADOS, LOS CUALES FORMAN PARTE DEL ÁREA TOTAL DE LA FINCA.
ESTA ES LA DESCRIPCIÓN LUEGO DE SER MENSURADA POR EL INGENIERO FRANK LOZADA DÍAZ, SEGÚN LA ESCRITURA NÚMERO 153, OTORGADA EN BOQUERÓN, PUERTO RICO, EL DÍA 10 DE JULIO DE 2003, ANTE EL NOTARIO RAFAEL DOITTEAU CRUZ, E INSCRITA AL FOLIO 127 DEL TOMO 843 DE CABO ROJO, FINCA NÚMERO 18,840, INSCRIPCIÓN 4TA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,785 (PARCEL 31)
PAGE: 261
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,679.86 SQ.MT. =O= 5.01 CDAS.

RÚSTICA: PARCELA NÚMERO TREINTA Y UNO (31), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDEROS: NORTE, CON LA PARCELA VEINTINUEVE (#29) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LAS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; SUR, CON LA PARCELA TREINTA Y NUEVE (#39) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON TERRENOS DE JOSÉ FAS; ESTE, CON LA PARCELA SESENTA Y CUATRO (#64) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON TERRENOS DE JOSÉ FAS; OESTE, CON LA PARCELA CUARENTA Y UNO (#41) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA OCHENTA Y TRES (83). PARA USO DE FINES AGRÍCOLAS.

PROPERTY: 18,795 (PARCEL 47)
PAGE: 184
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,893.25 SQ.MT. =O= 5.32 CDAS.

RÚSTICA: PARCELA NÚMERO CUARENTA Y SIETE (47) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL **NORTE**, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL **SUR**, CON LA PARCELA NÚMERO VEINTE (20) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL **ESTE**, CON LA PARCELA NÚMERO CINCUENTA Y OCHO (58) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL **OESTE**, CON LA PARCELA NÚMERO NUEVE (9) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA. ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,787 (PARCEL 35)
PAGE: 136
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,659.25 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,653.40 SQ.MT. =O= 5.00 CDAS.

RÚSTICA: PARCELA MARCADA CON EL NÚMERO 35 DE LA FINCA BAHÍA BONITA QUE RADICA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE DIEZ Y NUEVE MIL SEISCIENTOS CINCUENTA Y NUEVE PUNTO VEINTICINCO METROS CUADRADOS (19,659.25 M.C.) EQUIVALENTES A (5.0019 CDAS.). EN LINDEROS: POR EL **NORTE**, CON SU CAMINO DE ACCESO DE 11.00 METROS DE ANCHO EL CUAL LO SEPARA DE LA PARCELA 12 DE MONTE CARLO DEVELOPMENT CORPORATION Y DE LA PARCELA 47 DE RICARDO E. CARLO DÍAZ; POR EL **SUR**, CON CARMEN CECILIA FAS; POR EL **ESTE**, CON L PARCELA NÚMERO 52 DE MONTE CARLO DEVELOPMENT CORPORATION; Y POR EL **OESTE**, CON LA PARCEL NÚMERO 36 D CARLOS J. MELÉNDEZ, ANTES MONTE CARLO DEVELOPMENT CORPORATION. LA DESCRIPCIÓN ES RESULTADO DE UNA MENSURA REALIZADA POR EL AGRIMENSOR FRANK LOZADA DÍAZ, SEGÚN CONSTA DE LA ESCRITURA NÚMERO 177, OTORGADA EN BOQUERÓN, PUERTO RICO, EL DÍA 1 DE AGOSTO DE 2003, ANTE RAFAEL DOITTEAU CRUZ, E INSCRITO AL FOLIO 136 DEL TOMO 841 DE CABO ROJO, FINCA NÚMERO 18,787, COMO NOTA MARGINAL EN LA INSCRIPCIÓN 5TA.

PROPERTY: 4,523 (PARCEL 7-B)
PAGE: 135
BOOK: 146 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 23582.37 SQ.MT. =O= 6.00 CDAS.
SURVEYED AREA: 24131.78 SQ.MT. =O= 6.12 CDAS.

RUSTICA: PORCIÓN DE TERRENO CON UNA CABIDA DE SEIS (6) CUERDAS, EQUIVALENTES A DOS (2) HECTÁREAS, TREINTA Y CINCO (35) ÁREAS, OCHENTA Y DOS (82) CENTIÁREAS Y TREINTA Y CUATRO (34) MILIÁREAS, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO. EN LINDES, POR EL NORTE, CON TERRENOS PROPIEDAD DE ENRIQUE CARLO AYMAT; POR EL SUR, CON LA CARRETERA ESTATAL NÚMERO TRESCIENTOS UNO (301) QUE DE CABO ROJO CONDUCE AL FARO; POR EL ESTE, CON PORCIÓN DE TERRENO PROPIEDAD DE BELFORD TORRES VÉLEZ, ANTES, HOY JAMES CUEVAS; Y POR EL OESTE, CON TERRENOS DE BELFORD TORRES VÉLEZ.

PROPERTY: 7,351 (PARCEL 8-B)
PAGE: 28
BOOK: 246 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,659.25 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,958.17 SQ.MT. =O= 5.08 CDAS.

RUSTICA: PORCIÓN DE TERRENO RADICADO EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, DE UNA CABIDA DE 5.00 CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS, 51 CENTIÁREA Y 95 MILIÁREAS. EN LINDEROS POR EL NORTE, CON TERRENOS DE LA FINCA PRINCIPAL, PROPIEDAD DE BELFORD TORRES VÉLEZ; POR EL SUR, CON LA CARRETERA ESTATAL #301 QUE DE CABO ROJO CONDUCE AL FARO; POR EL ESTE, CON TERRENOS PROPIEDAD DE ALICIA CARLO AYMAYT; Y POR EL OESTE, CON PORCIÓN DE TERRENO QUE MÁS ADELANTE SE DESCRIBE CON LA LETRA A, PROPIEDAD DE BELFORD TORRES VÉLEZ.

INSCRIPTION DATA

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

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www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.	SHEET NO. 18
PROJECT JEB-3840	VF-18	23

FILE NAME : 3840-EC

PAPER SIZE: 30x42

SURVEY DATA
PARCEL 48 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
19	---	217733.5866	117569.0879	---	---	To establish
20	19-20	217577.8453	117593.0066	157.57	S 08°43'52" E	To establish
21	20-21	217575.0108	117563.5252	29.62	S 84°30'30" W	To establish
22	21-22	217571.1589	117526.4553	37.27	S 84°04'03" W	To establish
23	22-23	217565.0124	117470.2144	56.58	S 83°45'47" W	To establish
24	23-24	217563.6426	117448.4916	21.77	S 86°23'30" W	To establish
25	24-25	217563.7123	117439.9763	8.52	N 89°31'51" W	To establish
26	25-26	217563.9994	117433.8215	6.16	N 87°19'44" W	To establish
27	26-27	217579.8825	117437.5291	16.31	N 13°08'21" E	To establish
28	27-28	217588.0926	117441.1008	8.95	N 23°30'41" E	To establish
29	28-29	217599.7457	117443.3895	11.88	N 11°06'42" E	To establish
30	29-30	217619.3578	117447.4590	20.03	N 11°43'21" E	To establish
31	30-31	217634.7059	117452.1566	16.05	N 17°01'04" E	To establish
32	31-32	217638.4198	117449.5655	4.53	N 34°54'08" W	To establish
33	32-33	217641.5028	117449.5804	3.08	N 00°16'38" E	To establish
34	33-34	217660.3567	117446.0959	19.17	N 10°28'16" W	To establish
35	34-35	217666.5136	117440.7298	8.17	N 41°04'28" W	To establish
36	35-36	217672.7822	117424.8336	17.09	N 68°28'42" W	To establish
37	36-37	217677.9591	117420.9095	6.50	N 37°09'45" W	To establish
38	37-38	217685.4022	117425.9833	9.01	N 34°16'53" E	To establish
39	38-39	217696.3132	117425.1460	10.94	N 04°23'17" W	To establish
40	39-40	217700.6712	117424.4799	4.41	N 08°41'25" W	To establish
41	40-41	217706.7540	117519.3294	95.04	N 86°19'50" E	PC. To establish
Center		217706.7542	117529.3294	---	---	Center coord
CURVE DATA		ANGLE 179°08'33"	RADIUS 10.00	TANGENT 1336.13	EXTERNA 1326.17	ARC LENGHT 31.27
42	41-42	217706.6048	117539.3282	20.00	S 89°34'22" E	PT. To establish
43	42-43	217725.0837	117558.7527	26.81	N 46°25'45" E	PC. To establish
Center		217657.7031	117622.8531	---	---	Center coord
CURVE DATA		ANGLE 8°15'09"	RADIUS 93.00	TANGENT 6.71	EXTERNA 0.24	ARC LENGHT 13.39
19	43-19	217733.5866	117569.0879	13.38	N 50°33'19" E	To establish

AREA = 19779.4809 sq mt. =□= 5.0324 cdas.

SURVEY DATA
PARCEL 80 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
41	---	217706.7540	117519.3294	---	---	To establish
40	41-40	217700.6712	117424.4799	95.04	S 86°19'50" W	To establish
44	40-44	217705.0292	117423.8138	4.41	N 08°41'25" W	To establish
45	44-45	217718.9633	117430.0744	15.28	N 24°11'40" E	To establish
46	45-46	217727.9973	117429.0772	9.09	N 06°17'57" W	To establish
47	46-47	217741.9569	117415.5638	19.43	N 44°04'10" W	To establish
48	47-48	217756.3058	117410.0124	15.39	N 21°09'03" W	To establish
49	48-49	217769.5636	117402.1551	15.41	N 30°39'13" W	To establish
50	49-50	217778.2256	117403.0718	8.71	N 06°02'30" E	To establish
51	50-51	217783.0326	117401.4747	5.07	N 18°22'45" W	To establish
52	51-52	217792.9832	117385.4155	18.89	N 58°13'01" W	To establish
53	52-53	217799.1023	117389.1803	7.18	N 31°36'08" E	To establish
54	53-54	217802.4514	117395.9482	7.55	N 63°40'16" E	To establish
55	54-55	217799.3756	117404.1303	8.74	S 69°23'52" E	To establish
56	55-56	217802.1519	117412.4722	8.79	N 71°35'33" E	To establish
57	56-57	217804.1240	117419.4222	7.22	N 74°09'28" E	To establish
58	57-58	217803.9504	117432.0012	12.58	S 89°12'32" E	To establish
59	58-59	217805.5945	117438.5131	6.72	N 75°49'47" E	To establish
60	59-60	217800.8540	117454.2252	16.41	S 73°12'38" E	To establish
61	60-61	217800.8610	117454.2192	0.01	N 40°36'10" W	To establish
62	61-62	217812.1371	117457.7630	11.82	N 17°26'46" E	To establish
63	62-63	217816.8432	117462.7058	6.82	N 46°24'20" E	To establish
64	63-64	217824.3807	117482.2616	20.96	N 68°55'18" E	To establish
65	64-65	217834.2820	117494.7054	15.90	N 51°29'28" E	To establish
66	65-66	217834.6743	117503.5034	8.81	N 87°26'50" E	To establish
67	66-67	217836.2455	117514.2873	10.90	N 81°42'36" E	To establish
68	67-68	217846.6088	117522.5010	13.22	N 38°23'59" E	To establish
69	68-69	217848.4560	117530.3460	8.06	N 76°45'01" E	To establish
70	69-70	217829.1953	117542.4845	22.77	S 32°13'12" E	To establish
71	70-71	217835.6587	117557.0623	15.95	N 66°05'20" E	To establish
72	71-72	217844.2717	117557.2651	8.62	N 01°20'55" E	To establish
73	72-73	217845.1571	117557.3804	0.89	N 07°25'20" E	To establish
74	73-74	217764.7031	117622.8503	103.73	S 39°08'14" E	PC. To establish
Center		217657.7031	117622.8531	---	---	Center coord
CURVE DATA		ANGLE 43°34'10"	RADIUS 107.00	TANGENT 42.76	EXTERNA 8.23	ARC LENGHT 81.37
75	74-75	217735.2270	117549.1032	79.42	S 68°12'50" W	PT. To establish
76	75-76	217716.7481	117529.6787	26.81	S 46°25'45" W	PC. To establish
Center		217706.7542	117529.3294	---	---	Center coord
CURVE DATA		ANGLE 92°00'13"	RADIUS 10.00	TANGENT 10.36	EXTERNA 4.40	ARC LENGHT 16.06
41	76-41	217706.7540	117519.3294	14.39	S 46°00'01" W	To establish

AREA = 19677.9782 sq mt. =□= 5.0066 cdas.

SURVEY DATA
PARCEL 81 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
74	---	217764.7031	117622.8503	---	---	To establish
73	74-73	217845.1571	117557.3804	103.73	N 39°08'14" W	To establish
77	73-77	217865.5077	117560.0315	20.52	N 07°25'20" E	To establish
78	77-78	217916.2489	117605.8272	68.35	N 42°04'02" E	To establish
79	78-79	217939.0203	117618.8686	26.24	N 29°48'01" E	To establish
80	79-80	217957.1405	117628.8741	20.70	N 28°54'23" E	To establish
81	80-81	217788.1925	117749.1060	207.36	S 35°26'15" E	To establish
82	81-82	217774.8101	117722.7940	29.52	S 63°02'31" W	PC. To establish
Center		217857.7046	117680.6336	---	---	Center coord
CURVE DATA		ANGLE 26°57'23"	RADIUS 93.00	TANGENT 22.29	EXTERNA 2.63	ARC LENGHT 43.75
83	82-83	217764.7046	117680.6360	43.35	S 76°31'13" W	PT. To establish
74	83-74	217764.7031	117622.8503	57.79	S 89°59'55" W	To establish

AREA = 19744.2876 sq mt. =□= 5.0235 cdas.

SURVEY DATA
PARCEL 73 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
142	---	218175.2084	118036.1525	---	---	PC. To establish
Center		218174.6848	118026.1662	---	---	Center coord
CURVE DATA		ANGLE 135°34'23"	RADIUS 10.00	TANGENT 24.49	EXTERNA 16.45	ARC LENGHT 23.66
141	142-141	218167.3204	118019.4012	18.52	S 64°47'05" W	PT. To establish
130	141-130	218130.4985	117985.5759	50.00	S 42°34'16" W	To establish
122	130-122	218047.8633	117953.9682	88.47	S 20°55'54" W	To establish
121	122-121	217985.9294	117901.9197	80.90	S 40°02'36" W	To establish
143	121-143	217958.8620	117919.9256	32.51	S 33°37'58" E	To establish
144	143-144	218000.3657	118073.9439	159.51	N 74°55'07" E	To establish
145	144-145	218003.1560	118082.1930	8.71	N 71°18'41" E	To establish
146	145-146	218184.8474	118045.0071	185.46	N 11°34'00" W	To establish
142	146-142	218175.2084	118036.1525	13.09	S 42°34'16" W	PC. To establish

AREA = 20232.7025 sq mt. =□= 5.1478 cdas.

SURVEY DATA
PARCEL 56 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
279	---	218251.6131	118734.2133	---	---	To establish
280	537-551	218488.2852	118689.1398	240.93	N 10°46'58" W	To establish
281	551-281	218501.5694	118783.0257	94.82	N 81°56'47" E	To establish
282	281-282	218261.9744	118825.9880	243.42	S 10°09'57" E	To establish
279	282-537	218251.6131	118734.2133	92.36	S 83°33'31" W	To establish

AREA = 22626.4242 sq mt. =□= 5.7568 cdas.

SURVEY DATA
PARCEL 69 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
81	---	217788.1925	117749.1060	---	---	To establish
80	81-80	217957.1405	117628.8741	207.36	N 35°26'15" W	To establish
84	80-84	217969.4327	117633.8738	13.27	N 22°08'00" E	To establish
85	84-85	217984.5918	117639.6054	16.21	N 20°42'41" E	To establish
86	85-86	217992.3280	117646.8482	10.60	N 43°06'48" E	To establish
87	86-87	218001.0531	117650.6290	9.51	N 23°25'41" E	To establish
88	87-88	218021.0256	117669.3945	27.41	N 43°12'55" E	To establish
89	88-89	218045.5451	117688.8058	31.27	N 38°22'03" E	To establish
90	89-90	218049.2824	117698.3477	10.25	N 68°36'41" E	To establish
91	90-91	218060.3346	117706.7354	13.87	N 37°11'44" E	To establish
92	91-92	218060.5389	117707.4761	0.77	N 74°34'31" E	To establish
93	92-93	217966.3496	117775.9847	116.47	S 36°01'49" E	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 2°24'12"	RADIUS 257.08	TANGENT 5.39	EXTERNA 0.06	ARC LENGHT 10.78
94	93-94	217956.6672	117771.2396	10.78	S 26°06'30" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 22°56'49"	RADIUS 257.08	TANGENT 52.18	EXTERNA 5.24	ARC LENGHT 102.96
95	94-95	217857.1913	117747.4803	102.27	S 13°25'59" W	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 2°01'49"	RADIUS 107.00	TANGENT 1.90	EXTERNA 0.02	ARC LENGHT 3.79
96	95-96	217853.4007	117747.4133	3.79	S 01°00'49" W	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 18°27'50"	RADIUS 107.00	TANGENT 17.39	EXTERNA 1.40	ARC LENGHT 34.48
97	96-97	217819.5133	117752.9221	34.33	S 09°14'00" E	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 9°56'12"	RADIUS 107.00	TANGENT 9.30	EXTERNA 0.40	ARC LENGHT 18.56
98	97-98	217802.5084	117760.2927	18.53	S 23°26'01" E	PC. To establish
Center		217798.9410	117753.6954	---	---	Center coord
CURVE DATA		ANGLE 91°26'38"	RADIUS 7.50	TANGENT 7.69	EXTERNA 3.24	ARC LENGHT 11.97
99	98-99	217792.2559	117757.0955	10.74	S 17°19'12" W	PT. To establish
81	99-81	217788.1925	117749.1060	8.96	S 63°02'31" W	To establish

AREA = 19691.5244 sq mt. =□= 5.0101 cdas.

SURVEY DATA
PARCEL 70 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
93	---	217966.3496	117775.9847	---	---	To establish
92	93-92	218060.5389	117707.4761	116.47	N 36°01'49" W	To establish
100	92-100	218063.5089	117718.2403	11.17	N 74°34'31" E	To establish
101	100-101	218072.8991	117726.3031	12.38	N 40°39'02" E	To establish
102	101-102	218073.7722	117731.1571	4.93	N 79°48'10" E	To establish
103	102-103	218086.3812	117730.8257	12.61	N 01°30'19" W	To establish
104	103-104	218096.0234	117739.1975	12.77	N 40°57'57" E	To establish
105	104-105	218107.3386	117745.0762	12.75	N 27°27'14" E	To establish
106	105-106	218122.9000	117759.2898	21.08	N 42°24'30" E	To establish
107	106-107	218133.1063	117773.3305	17.36	N 53°59'10" E	To establish
108	107-108	218146.0996	117783.2852	16.37	N 37°27'26" E	To establish
109	108-109	218182.3009	117795.9392	38.35	N 19°16'01" E	To establish
110	109-110	218202.6523	117809.2687	24.33	N 33°13'25" E	To establish
111	110-111	218202.6603	117809.3017	0.03	N 76°22'17" E	To establish
112	111-112	218202.3226	117819.3467	10.05	S 88°04'28" E	To establish
113	112-113	218204.3670	117829.7931	10.64	N 78°55'35" E	To establish
114	113-114	218216.9989	117841.2483	17.05	N 42°12'12" E	To establish
115	114-115	218231.4228	117846.0598	15.21	N 18°26'52" E	To establish
116	115-116	218055.1504	117863.6992	177.15	S 05°42'52" E	PC. To establish
Center		218045.1504	117863.6995	---	---	Center coord
CURVE DATA		ANGLE 56°56'58"	RADIUS 10.00	TANGENT 5.42	EXTERNA 1.38	ARC LENGHT 9.94
117	116-117	218050.6040	117855.3174	9.54	S 61°31'26" W	PC. To establish
Center		217989.6725	117871.3285	---	---	Center coord
CURVE DATA		ANGLE 29°16'55"	RADIUS 63.00	TANGENT 16.46	EXTERNA 2.11	ARC LENGHT 32.20
118	117-118	218034.9872	117827.5612	31.85	S 60°38'10" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 17°53'00"	RADIUS 257.08	TANGENT 40.45	EXTERNA 3.16	ARC LENGHT 80.24
119	118-119	217971.6656	117778.8089	79.92	S 37°35'36" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 1°20'30"	RADIUS 257.08	TANGENT 3.01	EXTERNA 0.02	ARC LENGHT 6.02
93	119-93	217966.3496	117775.9847	6.02	S 27°58'51" W	To establish

AREA = 19714.7056 sq mt. =□= 5.0160 cdas.

SURVEY DATA
PARCEL 71 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
116	---	218055.1504	117863.6992	---	---	PC. To establish
Center		218045.1504	117863.6995	---	---	Center coord
CURVE DATA		ANGLE 151°59'00"	RADIUS 10.00	TANGENT 40.08	EXTERNA 31.31	ARC LENGHT 26.53
120	116-120	218036.3224	117868.3970	19.41	S 14°00'36" E	PT. To establish
121	120-121	217985.9294	117901.9197	60.52	S 33°37'58" E	To establish
122	121-122	218047.8633	117953.9682	80.90	N 40°02'36" E	To establish
123	122-123	218305.1836	117895.0130	263.99	N 12°54'16" W	To establish
124	123-124	218303.9621	117892.8132	2.52	S 60°57'29" W	To establish
125	124-125	218291.4164	117884.9129	14.83	S 32°11'58" W	To establish
126	125-126	218288.5923	117881.3089	4.58	S 51°55'02" W	To establish
127	126-127	218283.8513	117878.5691	5.48	S 30°01'24" W	To establish
128	127-128	218270.5695	117864.5142	19.34	S 46°37'12" W	To establish
129	128-129	218257.1132	117854.3375	16.87	S 37°05'58" W	To establish
115	129-115	218231.4228	117846.0598	26.99	S 17°51'34" W	To establish
116	115-116	218055.1504	117863.6992	177.15	S 05°42'52" E	PC. To establish

AREA = 19757.4574 sq mt. =□= 5.0268 cdas.

SURVEY DATA
PARCEL 72 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
130	---	218130.4985	117985.5759	---	---	To establish
122	130-122	218047.8633	117953.9682	88.47	S 20°55'54" W	To establish
131	122-131	218094.3124	117943.3262	47.65	N 12°54'16" W	To establish
123	131-123	218305.1836	117895.0130	216.33	N 12°54'16" W	To establish
132	123-132	218309.0491	117901.9745	7.96	N 60°57'29" E	To establish
133	132-133	218331.7706	117916.4273	26.93	N 32°27'36" E	To establish
134	133-134	218341.1747	117930.3004	16.76	N 55°52'04" E	To establish
135	134-135	218352.6128	117942.7326	16.89	N 47°23'05" E	To establish
136	135-136	218362.7349	117950.5430	12.79	N 37°39'16" E	To establish
137	136-137	218200.9679	118022.8734	177.20	S 24°05'27" E	To establish
138	137-138	218202.4639	118025.6907	3.19	N 62°01'57" E	To establish
139	138-139	218193.8119	118034.2317	12.16	S 44°37'48" E	To establish
140	139-140	218184.6795	118025.8424	12.40	S 42°34'16" W	PC. To establish
Center		218174.6848	118026.1662	---	---	Center coord
CURVE DATA		ANGLE 135°34'23"	RADIUS 10.00	TANGENT 24.49	EXTERNA 16.45	ARC LENGHT 23.66
141	140-141	218167.3204	118019.4012	18.52	S 20°21'28" W	PT. To establish
130	141-130	218130.4985	117985.5759	50.00	S 42°34'16" W	To establish

AREA = 20122.6755 sq mt. =□= 5.1198 cdas.

SURVEY DATA
PARCEL 38 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
157	---	217842.9530	118216.3820	---	---	To establish
158	157-158	217840.8028	118222.5310	6.51	S 70°43'33" E	PC. To establish
Center		217919.1506	118249.9285	---	---	Center coord
CURVE DATA		ANGLE 38°34'54"	RADIUS 83.00	TANGENT 29.05	EXTERNA 4.94	ARC LENGHT 55.89
159	158-159	217840.8187	118277.3715	54.84	N 89°59'00" E	PT. To establish
160	159-160	217846.0910	118292.4205	15.95	N 70°41'33" E	PC. To establish
Center		217853.1692	118289.9407	---	---	Center coord
CURVE DATA		ANGLE 81°33'04"	RADIUS 7.50	TANGENT 6.47	EXTERNA 2.40	ARC LENGHT 10.68
161	160-161	217854.5821	118297.3064	9.80	N 29°55'01" E	PT. To establish
162	161-162	217971.3915	118284.3802	117.52	N 06°18'53" W	PC. To establish
Center		217982.6589	118390.7853	---	---	Center coord
CURVE DATA		ANGLE 10°40'42"	RADIUS 107.00	TANGENT 10.00	EXTERNA 0.47	ARC LENGHT 19.94
163	162-163	217991.3031	118284.1351	19.91	N 00°42'19" W	PT. To establish
164	163-164	218058.3769	118289.5715	67.29	N 04°38'02" E	PC. To establish
Center		218065.8901	118196.8755	---	---	Center coord
CURVE DATA		ANGLE 9°12'27"	RADIUS 93.00	TANGENT 7.49	EXTERNA 0.30	ARC LENGHT 14.95
151	164-151	218073.3062	118289.5793	14.93	N 00°01'48" E	PT. To establish
165	151-165	218035.8549	118178.8614	116.88	S 71°18'41" W	To establish
157	165-157	217842.9530	118216.3820	196.52	S 11°00'25" E	To establish

AREA = 20021.5593 sq mt. =□= 5.0940 cdas.

SURVEY DATA
PARCEL 29 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
145	---	218003.1560	118082.1930	---	---	To establish
144	145-144	218000.3657	118073.9439	8.71	S 71°18'41" W	To establish
167	144-167	217843.4040	118094.9288	158.36	S 07°36'54" E	To establish
168	167-168	217850.5338	118163.9130	69.35	N 84°05'57" E	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 25°10'30"	RADIUS 107.00	TANGENT 23.89	EXTERNA 2.64	ARC LENGHT 47.01
169	168-169	217845.1033	118210.2330	46.64	S 83°18'48" E	PT. To establish
157	169-157	217842.9530	118216.3820	6.51	S 70°43'33" E	To establish
165	157-165	218035.8549	118178.8614	196.52	N 11°00'25" W	To establish
145	165-145	218003.1560	118082.1930	102.05	S 71°18'41" W	To establish

AREA = 19750.4213 sq mt. =□= 5.0250 cdas.

SURVEY DATA
PARCEL 65 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
143	---	217958.8620	117919.9256	---	---	To establish
170	143-170	217911.3068	117933.4857	49.45	S 15°54'54" E	To establish
171	170-171	217825.2678	117973.4163	94.85	S 24°53'46" E	PC. To establish
Center		217825.2685	117997.9163	---	---	Center coord
CURVE DATA		ANGLE 67°46'06"	RADIUS 24.50	TANGENT 16.45	EXTERNA 5.01	ARC LENGHT 28.98
172	171-172	217847.9469	117988.6461	27.32	N 33°52'58" E	PT. To establish
173	172-173	217851.5165	117997.3787	9.43	N 67°46'01" E	PC. To establish
Center		217808.0109	118015.1624	---	---	Center coord
CURVE DATA		ANGLE 37°38'42"	RADIUS 47.00	TANGENT 16.02	EXTERNA 2.66	ARC LENGHT 30.88
174	173-174	217853.3208	118027.6529	30.33	N 86°35'22" E	PT. To establish
175	174-175	217843.7012	118062.5485	36.20	S 74°35'18" E	PC. To establish
Center		217894.7954	118076.6335	---	---	Center coord
CURVE DATA		ANGLE 21°18'45"	RADIUS 53.00	TANGENT 9.97	EXTERNA 0.93	ARC LENGHT 19.71
176	175-176	217842.0762	118082.0822	19.60	S 85°14'40" E	PT. To establish
167	176-167	217843.4040	118094.9288	12.91	N 84°05'57" E	To establish
144	167-144	218000.3657	118073.9439	158.36	N 07°36'54" W	To establish
143	144-143	217958.8620	117919.9256	159.51	S 74°55'07" W	To establish

AREA = 19888.3404 sq mt. =□= 5.0601 cdas.

SURVEY DATA
PARCEL 67 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
177	---	217764.3818	117957.7413	---	---	To establish
178	177-178	217764.1702	117957.7372	0.21	S 01°06'40" W	To establish
179	178-179	217720.5337	118190.2937	236.61	S 79°22'22" E	To establish
180	179-180	217833.9774	118198.8128	113.76	N 04°17'41" E	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 20°47'31"	RADIUS 93.00	TANGENT 17.06	EXTERNA 1.55	ARC LENGHT 33.75
181	180-181	217836.6080	118165.3523	33.56	N 85°30'17" W	PT. To establish
182	181-182	217828.1504	118083.5215	82.27	S 84°05'57" W	PC. To establish
Center		217894.7954	118076.6335	---	---	Center coord
CURVE DATA		ANGLE 21°18'45"	RADIUS 67.00	TANGENT 12.61	EXTERNA 1.18	ARC LENGHT 24.92
183	182-183	217830.2047	118058.8279	24.78	N 85°14'40" W	PT. To establish
184	183-184	217839.8243	118023.9323	36.20	N 74°35'18" W	PC. To establish
Center		217808.0109	118015.1624	---	---	Center coord
CURVE DATA		ANGLE 37°38'42"	RADIUS 33.00	TANGENT 11.25	EXTERNA 1.86	ARC LENGHT 21.68
185	184-185	217838.5574	118002.6760	21.29	S 86°35'22" W	PT. To establish
186	185-186	217834.9878	117993.9434	9.43	S 67°46'01" W	PC. To establish
Center		217825.2685	117997.9163	---	---	Center coord
CURVE DATA		ANGLE 75°26'07"	RADIUS 10.50	TANGENT 8.12	EXTERNA 2.77	ARC LENGHT 13.82
187	186-187	217823.8673	117987.5102	12.85	S 30°02'57" W	PC. To establish
Center		217815.9823	117928.9486	---	---	Center coord
CURVE DATA		ANGLE 68°30'26"	RADIUS 59.09	TANGENT 40.24	EXTERNA 12.40	ARC LENGHT 70.65
177	187-177	217764.3818	117957.7413	66.52	S 26°35'07" W	PT. To establish

AREA = 20137.9900 sq mt. =□= 5.1237 cdas.

SURVEY DATA
TAX ID: 402-007-327-05-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
332	---	218350.4323	118136.8115	---	---	To establish
331	332-331	218280.3606	118167.9504	76.68	S 23°57'35" E	To establish
334	331-334	218259.4378	118120.2150	52.12	S 66°19'54" W	To establish
335	334-335	218329.1686	118090.6453	75.74	N 22°58'47" W	To establish
336	335-336	218341.5670	118119.2250	31.15	N 66°32'53" E	To establish
337	336-337	218343.8894	118123.6280	4.98	N 62°11'25" E	To establish
332	337-332	218350.4323	118136.8115	14.72	N 63°36'18" E	To establish

AREA = 3905.4349 sq mt. =□= 0.9936 cda.

SURVEY DATA
PARCEL 17 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
179	---	217720.5337	118190.2937	---	---	To establish
189	179-189	217670.6203	118456.3027	270.65	S 79°22'22" E	To establish
190	189-190	217672.4192	118457.7762	2.33	N 39°19'20" E	To establish
191	190-191	217672.8220	118457.2844	0.64	N 50°40'40" W	To establish
192	191-192	217690.2699	118440.7126	24.06	N 43°31'29" W	To establish
193	192-193	217762.5221	118352.2166	114.24	N 50°46'13" W	PC. To establish
Center		217884.1658	118451.5320	---	---	Center coord
CURVE DATA		ANGLE 32°26'20"	RADIUS 157.04	TANGENT 45.68	EXTERNA 6.51	ARC LENGHT 88.91
194	193-194	217834.7753	118302.4639	87.73	N 34°33'03" W	PT. To establish
195	194-195	217827.6061	118282.0004	21.68	S 70°41'33" W	PC. To establish
Center		217919.1506	118249.9285	---	---	Center coord
CURVE DATA		ANGLE 38°34'54"	RADIUS 97.00	TANGENT 33.95	EXTERNA 5.77	ARC LENGHT 65.32
196	195-196	217827.5875	118217.9098	64.09	S 89°59'00" W	PT. To establish
197	196-197	217831.8880	118205.6117	13.03	N 70°43'33" W	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 4°22'59"	RADIUS 93.00	TANGENT 3.56	EXTERNA 0.07	ARC LENGHT 7.11
180	197-180	217833.9774	118198.8128	7.11	N 72°55'02" W	PT. To establish
179	180-179	217720.5337	118190.2937	113.76	S 04°17'41" W	To establish

AREA = 21562.3366 sq mt. =□= 5.4860 cdas.

SURVEY DATA
PARCEL 178 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
198	---	217736.2281	118732.1484	---	---	To establish
199	198-199	217652.0185	118669.7345	104.82	S 36°32'41" W	PC. To establish
Center		217612.0748	118633.6172	---	---	Center coord
CURVE DATA		ANGLE 96°34'58"	RADIUS 53.85	TANGENT 60.42	EXTERNA 27.09	ARC LENGHT 90.78
200	199-200	217643.3750	118589.7963	80.40	S 83°49'43" W	PT. To establish
201	200-201	217635.9445	118584.6119	9.06	S 34°54'15" W	PC. To establish
Center		217651.9663	118561.6489	---	---	Center coord
CURVE DATA		ANGLE 94°25'05"	RADIUS 28.00	TANGENT 30.25	EXTERNA 13.22	ARC LENGHT 46.14
202	201-202	217630.3056	118543.9058	41.09	S 82°06'48" W	PT. To establish
203	202-203	217653.5768	118515.4966	36.72	N 50°40'40" W	To establish
204	203-204	217652.0296	118514.2292	2.00	S 39°19'20" W	To establish
205	204-205	217675.3007	118485.8200	36.72	N 50°40'40" W	PC. To establish
Center		217680.5224	118490.0974	---	---	Center coord
CURVE DATA		ANGLE 107°27'23"	RADIUS 6.75	TANGENT 9.20	EXTERNA 4.66	ARC LENGHT 12.66
206	205-206	217686.1692	118486.3992	10.88	N 03°03'02" E	PT. To establish
207	206-207	217738.1380	118565.7512	94.86	N 56°46'43" E	PC. To establish
Center		217605.9615	118652.3155	---	---	Center coord
CURVE DATA		ANGLE 26°39'13"	RADIUS 158.00	TANGENT 37.43	EXTERNA 4.37	ARC LENGHT 73.50
208	207-208	217762.9246	118634.2439	72.84	N 70°06'20" E	PT. To establish
209	208-209	217767.1043	118670.5474	36.54	N 83°25'56" E	PC. To establish
Center		217727.3668	118675.1224	---	---	Center coord
CURVE DATA		ANGLE 49°36'55"	RADIUS 40.00	TANGENT 18.49	EXTERNA 4.07	ARC LENGHT 34.64
210	209-210	217756.5983	118702.4267	33.57	S 71°45'36" E	PT. To establish
211	210-211	217748.3504	118711.2567	12.08	S 46°57'09" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 25°50'48"	RADIUS 54.00	TANGENT 12.39	EXTERNA 1.40	ARC LENGHT 24.36
198	211-198	217736.2281	118732.1484	24.15	S 59°52'33" E	To establish

AREA = 19958.3058 sq mt. =□= 5.0779 cdas.

SURVEY DATA
PARCEL 55 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
283	---	218436.0427	118896.1205	---	---	To establish
284	283-284	218273.1892	118925.3221	165.45	S 10°09'57" E	To establish
282	284-282	218261.9744	118825.9880	99.97	S 83°33'31" W	To establish
281	282-281	218501.5694	118783.0257	243.42	N 10°09'57" W	To establish
285	281-285	218502.5647	118790.0605	7.10	N 81°56'47" E	To establish
286	285-286	218543.1932	118782.7753	41.28	N 10°09'57" W	To establish
287	286-287	218554.6097	118844.8058	63.07	N 79°34'18" E	To establish
288	287-288	218427.6543	118848.6974	127.02	S 01°45'21" E	To establish
283	288-283	218436.0427	118896.1205	48.16	N 79°58'09" E	To establish

AREA = 23535.7454 sq mt. =□= 5.9881 cdas.

SURVEY DATA
PARCEL 54 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
289	---	218433.8773	118896.5088	---	---	To establish
284	289-284	218273.1892	118925.3221	163.25	S 10°09'57" E	To establish
290	284-290	218286.7434	119045.3777	120.82	N 83°33'31" E	To establish
291	290-291	218368.7251	119022.5972	85.09	N 15°31'45" W	To establish
292	291-292	218403.5672	119021.5333	34.86	N 01°44'56" W	To establish
293	292-293	218473.2371	119021.4266	69.67	N 00°05'16" W	To establish
294	293-294	218454.0847	118913.0012	110.10	S 79°58'57" W	To establish
295	294-295	218437.3260	118916.0062	17.03	S 10°09'57" E	To establish
289	295-289	218433.8773	118896.5088	19.80	S 79°58'09" W	To establish

AREA = 21551.9387 sq mt. =□= 231983.1377 sq ft..

SURVEY DATA
PROPERTY 18,805 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
323	---	218515.1550	118219.5540	---	---	To establish
324	323-324	218528.3360	118245.8020	29.37	N 63°20'08" E	To establish
325	324-325	218536.7540	118262.3240	18.54	N 63°00'04" E	To establish
502	325-502	218548.2320	118280.5400	21.53	N 57°47'05" E	To establish
501	502-501	218355.9600	118348.4120	203.90	S 19°26'35" E	To establish
326	501-326	218334.2650	118297.4980	55.34	S 66°55'14" W	To establish
323	326-323	218515.1550	118219.5540	196.97	N 23°18'39" W	To establish

AREA = 12385.5425 sq mt. =□= 3.1512 cdas.

SURVEY DATA
PROPERTY #29,700 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
340	---	218423.4200	118051.3560	---	---	To establish
335	340-335	218329.1686	118090.6453	102.11	S 22°37'45" E	To establish
336	335-336	218341.5670	118119.2250	31.15	N 66°32'53" E	To establish
341	336-341	218442.1232	118076.1185	109.41	N 23°12'14" W	To establish
340	341-340	218423.4200	118051.3560	31.03	S 52°56'10" W	To establish

AREA = 3238.5275 sq mt. =□= 0.8240 cda.

SYM. | REVISION | BY: | DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.	SHEET NO. 19 / 23
PROJECT JEB-3840	VF-19	

FILE NAME : 3840-EC
PAPER SIZE: 30x42

GEOMETRIC TABLES
* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SURVEY DATA
PARCEL 174 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
212	---	218012.8414	118745.9881	---	---	PC. To establish
Center		218030.8995	118700.4369	---	---	Center coord
CURVE DATA		ANGLE 69°43'17"	RADIUS 49.00	TANGENT 34.13	EXTERNA 10.72	ARC LENGHT 59.63
213	212-213	217981.9130	118699.2855	56.02	S 56°29'09" W	PT. To establish
214	213-214	217982.2509	118684.9117	14.38	N 88°39'12" W	To establish
215	214-215	217751.3643	118731.6402	235.57	S 11°26'29" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 32°58'19"	RADIUS 40.00	TANGENT 11.84	EXTERNA 1.71	ARC LENGHT 23.02
216	215-216	217748.2675	118754.1305	22.70	S 82°09'35" E	PT. To establish
217	216-217	217755.6137	118802.4438	48.87	N 81°21'15" E	PC. To establish
Center		217778.3524	118798.9863	---	---	Center coord
CURVE DATA		ANGLE 104°37'35"	RADIUS 23.00	TANGENT 29.77	EXTERNA 14.62	ARC LENGHT 42.00
218	217-218	217787.4396	118820.1150	36.40	N 29°02'28" E	PT. To establish
219	218-219	217797.9280	118815.6040	11.42	N 23°16'20" W	PC. To establish
Center		217812.5467	118849.5936	---	---	Center coord
CURVE DATA		ANGLE 34°32'45"	RADIUS 37.00	TANGENT 11.51	EXTERNA 1.75	ARC LENGHT 22.31
220	219-220	217819.7800	118813.3076	21.97	N 05°59'57" W	PT. To establish
212	220-212	218012.8414	118745.9881	204.46	N 19°13'24" W	To establish

AREA = 20377.1854 sq mt. =□= 5.1845 cdas.

SURVEY DATA
PARCEL 64 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
214	---	217982.2509	118684.9117	---	---	To establish
215	214-215	217751.3643	118731.6402	235.57	S 11°26'29" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 18°43'17"	RADIUS 40.00	TANGENT 6.59	EXTERNA 0.54	ARC LENGHT 13.07
222	215-222	217758.5815	118720.8131	13.01	N 56°18'47" W	PT. To establish
223	222-223	217766.8293	118711.9832	12.08	N 46°57'09" W	PC. To establish
Center		217727.3668	118675.1224	---	---	Center coord
CURVE DATA		ANGLE 49°36'55"	RADIUS 54.00	TANGENT 24.96	EXTERNA 5.49	ARC LENGHT 46.76
224	223-224	217781.0124	118668.9461	45.31	N 71°45'36" W	PT. To establish
225	224-225	217776.8327	118632.6427	36.54	S 83°25'56" W	To establish
226	225-226	217903.8879	118580.9523	137.17	N 22°08'17" W	PC. To establish
Center		217939.2258	118569.9870	---	---	Center coord
CURVE DATA		ANGLE 88°36'28"	RADIUS 37.00	TANGENT 36.11	EXTERNA 14.70	ARC LENGHT 57.22
227	226-227	217949.3292	118605.5809	51.69	N 28°27'26" E	PT. To establish
228	227-228	217954.3421	118604.1579	5.21	N 15°50'48" W	PC. To establish
Center		217960.6226	118626.2838	---	---	Center coord
CURVE DATA		ANGLE 107°11'36"	RADIUS 23.00	TANGENT 31.19	EXTERNA 15.76	ARC LENGHT 43.03
229	228-229	217983.6163	118626.8243	37.02	N 37°45'00" E	PT. To establish
214	229-214	217982.2509	118684.9117	58.10	S 88°39'12" E	To establish

AREA = 20818.9024 sq mt. =□= 5.2969 cdas.

SURVEY DATA
PARCEL 6 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
226	---	217903.8879	118580.9523	---	---	To establish
225	226-225	217776.8327	118632.6427	137.17	S 22°08'17" E	PC. To establish
Center		217605.9615	118652.3155	---	---	Center coord
CURVE DATA		ANGLE 26°39'13"	RADIUS 172.00	TANGENT 40.74	EXTERNA 4.76	ARC LENGHT 80.01
230	225-230	217749.8498	118558.0809	79.29	S 70°06'20" W	PT. To establish
231	230-231	217731.6298	118530.2604	33.26	S 56°46'43" W	To establish
232	231-232	217918.4539	118404.2762	225.33	N 33°59'37" W	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 114°12'31"	RADIUS 23.00	TANGENT 35.56	EXTERNA 19.35	ARC LENGHT 45.85
233	232-233	217922.4164	118442.6968	38.62	N 84°06'42" E	PT. To establish
234	233-234	217892.8687	118466.4401	37.91	S 38°47'02" E	PC. To establish
Center		217916.0450	118495.2821	---	---	Center coord
CURVE DATA		ANGLE 68°27'18"	RADIUS 37.00	TANGENT 25.17	EXTERNA 7.75	ARC LENGHT 44.21
235	234-235	217880.7071	118506.2474	41.62	S 73°00'41" E	PT. To establish
226	235-226	217903.8879	118580.9523	78.22	N 72°45'40" E	To establish

AREA = 20705.5316 sq mt. =□= 5.2681 cdas.

SURVEY DATA
PARCEL 79 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
296	---	218601.5840	118563.6710	---	---	To establish
307	296-307	218597.8340	118562.5700	3.91	S 16°21'44" W	To establish
306	307-306	218527.7730	118575.9370	71.32	S 10°48'06" E	To establish
305	306-305	218525.9880	118579.2570	3.77	S 61°44'07" E	To establish
304	305-304	218521.3030	118580.2150	4.78	S 11°33'24" E	To establish
303	304-303	218518.1310	118577.7780	4.00	S 37°32'04" W	To establish
308	303-308	218437.4387	118593.2519	82.16	S 10°51'20" E	To establish
309	308-309	218428.3470	118536.2896	57.68	S 80°55'54" W	To establish
310	309-310	218578.9140	118507.5580	153.28	N 10°48'12" W	To establish
296	310-296	218601.5840	118563.6710	60.52	N 68°00'04" E	To establish

AREA = 9232.2195 sq mt. =□= 2.3489 cdas.

SURVEY DATA
PARCEL 78 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
310	---	218578.9140	118507.5580	---	---	To establish
311	310-311	218563.8841	118437.5978	71.56	S 77°52'31" W	To establish
312	311-312	218559.1980	118404.9790	32.95	S 81°49'29" W	To establish
313	312-313	218510.6980	118413.9160	49.32	S 10°26'26" E	To establish
314	313-314	218450.4027	118425.6454	61.43	S 11°00'30" E	To establish
315	314-315	218425.0060	118430.0850	25.78	S 09°54'56" E	To establish
316	315-316	218397.5679	118435.2227	27.91	S 10°36'20" E	To establish
309	316-309	218428.3470	118536.2896	105.65	N 73°03'44" E	To establish
310	309-310	218578.9140	118507.5580	153.28	N 10°48'12" W	To establish

AREA = 16552.0669 sq mt. =□= 4.2113 cdas.

SURVEY DATA
PARCEL 5 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
232	---	217918.4539	118404.2762	---	---	To establish
231	232-231	217731.6298	118530.2604	225.33	S 33°59'37" E	To establish
236	231-236	217692.9094	118471.1376	70.67	S 56°46'43" W	PC. To establish
Center		217700.4384	118466.2067	---	---	Center coord
CURVE DATA		ANGLE 72°27'04"	RADIUS 9.00	TANGENT 6.59	EXTERNA 2.16	ARC LENGHT 11.38
237	236-237	217693.4669	118460.5149	10.64	N 86°59'45" W	PT. To establish
238	237-238	217774.1413	118361.7031	127.56	N 50°46'13" W	PC. To establish
Center		217884.1658	118451.5320	---	---	Center coord
CURVE DATA		ANGLE 29°37'38"	RADIUS 142.04	TANGENT 37.56	EXTERNA 4.88	ARC LENGHT 73.45
239	238-239	217832.9335	118319.0561	72.63	N 35°57'24" W	PC. To establish
Center		217835.4584	118325.5849	---	---	Center coord
CURVE DATA		ANGLE 91°50'07"	RADIUS 7.00	TANGENT 7.23	EXTERNA 3.06	ARC LENGHT 11.22
240	239-240	217842.0647	118323.2704	10.06	N 24°46'29" E	PT. To establish
241	240-241	217859.4315	118372.8413	52.52	N 70°41'33" E	PC. To establish
Center		217897.7712	118359.4093	---	---	Center coord
CURVE DATA		ANGLE 63°41'42"	RADIUS 40.62	TANGENT 25.23	EXTERNA 7.20	ARC LENGHT 45.16
242	241-242	217892.8220	118399.7312	42.87	N 38°50'42" E	PT. To establish
243	242-243	217910.8115	118401.9393	18.12	N 06°59'51" E	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 20°00'35"	RADIUS 23.00	TANGENT 4.06	EXTERNA 0.36	ARC LENGHT 8.03
232	243-232	217918.4539	118404.2762	7.99	N 17°00'09" E	To establish

AREA = 21160.8633 sq mt. =□= 5.3839 cdas.

SURVEY DATA
PARCEL 15 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
244	---	217970.5420	118590.6383	---	---	PC. To establish
Center		217960.6226	118626.2838	---	---	Center coord
CURVE DATA		ANGLE 31°23'51"	RADIUS 37.00	TANGENT 10.40	EXTERNA 1.43	ARC LENGHT 20.28
251	244-251	217950.5192	118590.6900	20.02	S 00°08'53" E	PT. To establish
252	251-252	217945.5063	118592.1129	5.21	S 15°50'48" E	PC. To establish
Center		217939.2258	118569.9870	---	---	Center coord
CURVE DATA		ANGLE 88°36'28"	RADIUS 23.00	TANGENT 22.45	EXTERNA 9.14	ARC LENGHT 35.57
253	252-253	217917.2590	118576.8033	32.13	S 28°27'26" W	PT. To establish
254	253-254	217898.5945	118516.6530	62.98	S 72°45'40" W	To establish
249	254-249	218160.5278	118467.2904	266.54	N 10°40'21" W	To establish
250	249-250	218175.6013	118560.2963	94.22	N 80°47'39" E	To establish
244	250-244	217970.5420	118590.6383	207.29	S 08°25'01" E	To establish

AREA = 23027.7787 sq mt. =□= 5.8589 cdas.

SURVEY DATA
PARCEL 33 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
262	---	217856.2628	118321.4543	---	---	PC. To establish
Center		217863.3409	118318.9745	---	---	Center coord
CURVE DATA		ANGLE 102°59'34"	RADIUS 7.50	TANGENT 9.43	EXTERNA 4.55	ARC LENGHT 13.48
263	262-263	217862.5160	118311.5200	11.74	N 57°48'40" W	PT. To establish
264	263-264	217973.0049	118299.2933	111.16	N 06°18'53" W	PC. To establish
Center		217982.6589	118390.7853	---	---	Center coord
CURVE DATA		ANGLE 10°39'26"	RADIUS 92.00	TANGENT 8.58	EXTERNA 0.40	ARC LENGHT 17.11
265	264-265	217990.0913	118299.0860	17.09	N 00°41'41" W	PT. To establish
266	265-266	218057.1651	118304.5225	67.29	N 04°38'02" E	To establish
267	266-267	218087.3283	118304.5865	30.16	N 00°07'18" E	To establish
256	267-256	218123.4397	118391.3096	93.94	N 67°23'36" E	To establish
255	256-255	217939.4526	118405.2660	184.52	S 04°20'16" E	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 51°11'38"	RADIUS 37.00	TANGENT 17.73	EXTERNA 4.03	ARC LENGHT 33.06
268	255-268	217912.5171	118388.0436	31.97	S 32°35'40" W	PT. To establish
269	268-269	217894.5276	118385.8355	18.12	S 06°59'51" W	PC. To establish
Center		217897.7712	118359.4093	---	---	Center coord
CURVE DATA		ANGLE 63°41'42"	RADIUS 26.62	TANGENT 16.54	EXTERNA 4.72	ARC LENGHT 29.60
270	269-270	217872.6441	118368.2124	28.10	S 38°50'42" W	PT. To establish
262	270-262	217856.2628	118321.4543	49.54	S 70°41'33" W	To establish

AREA = 22020.4014 sq mt. =□= 5.6026 cdas.

SURVEY DATA
PROPERTY #18,804 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
323	---	218515.1550	118219.5540	---	---	To establish
327	323-327	218479.9200	118137.6470	89.16	S 66°43'24" W	To establish
328	327-328	218370.1060	118183.6372	119.06	S 22°43'26" E	To establish
329	328-329	218298.6580	118215.5030	78.23	S 24°02'13" E	To establish
326	329-326	218334.2650	118297.4980	89.39	N 66°31'36" E	To establish
323	326-323	218515.1550	118219.5540	196.97	N 23°18'39" W	To establish

AREA = 17705.3569 sq mt. =□= 4.5047 cdas.

SURVEY DATA
TAX ID: 402-007-327-03-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
327	---	218479.9200	118137.6470	---	---	To establish
338	327-338	218464.4977	118108.6734	32.82	S 61°58'27" W	To establish
333	338-333	218359.0227	118154.1207	114.85	S 23°18'37" E	To establish
328	333-328	218370.1060	118183.6372	31.53	N 69°25'09" E	To establish
327	328-327	218479.9200	118137.6470	119.06	N 22°43'26" W	To establish

AREA = 3753.9717 sq mt. =□= 0.9551 cda.

SURVEY DATA
TAX ID: 402-007-327-04-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
328	---	218370.1060	118183.6372	---	---	To establish
330	328-330	218298.9635	118215.3668	77.90	S 24°02'13" E	To establish
331	330-331	218280.3606	118167.9504	50.94	S 68°34'42" W	To establish
332	331-332	218350.4323	118136.8115	76.68	N 23°57'35" W	To establish
333	332-333	218359.0227	118154.1207	19.32	N 63°36'18" E	To establish
328	333-328	218370.1060	118183.6372	31.53	N 69°25'09" E	To establish

AREA = 3959.5333 sq mt. =□= 1.0074 cdas.

SURVEY DATA
TAX ID: 402-007-327-02-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
338	---	218464.4977	118108.6734	---	---	To establish
339	338-339	218449.4973	118072.9574	38.74	S 67°13'05" W	To establish
336	339-336	218341.5670	118119.2250	117.43	S 23°12'14" E	To establish
337	336-337	218343.8894	118123.6280	4.98	N 62°11'25" E	To establish
332	337-332	218350.4323	118136.8115	14.72	N 63°36'18" E	To establish
333	332-333	218359.0227	118154.1207	19.32	N 63°36'18" E	To establish
338	333-338	218464.4977	118108.6734	114.85	N 23°18'37" W	To establish

AREA = 4509.3138 sq mt. =□= 1.1473 cdas.

SURVEY DATA
PROPERTY #18,700 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
136	---	218362.7349	117950.5430	---	---	To establish
340	136-340	218423.4200	118051.3560	117.67	N 58°57'14" E	To establish
335	340-335	218329.1686	118090.6453	102.11	S 22°37'45" E	To establish
334	335-334	218259.4378	118120.2150	75.74	S 22°58'47" E	To establish
342	334-342	218229.2683	118058.1477	69.01	S 64°04'36" W	PC. To establish
Center		218163.1793	118089.1517	---	---	Center coord
CURVE DATA		ANGLE 21°05'20"	RADIUS 73.00	TANGENT 13.59	EXTERNA 1.25	ARC LENGHT 26.87
343	342-343	218213.6861	118036.4444	26.72	S 54°19'23" W	PT. To establish
138	343-138	218202.4639	118025.6907	15.54	S 43°46'43" W	To establish
137	138-137	218200.9679	118022.8734	3.19	S 62°01'57" W	To establish
136	137-136	218362.7349	117950.5430	177.20	N 24°05'27" W	To establish

AREA = 19926.7077 sq mt. =□= 5.0699 cdas.

SURVEY DATA
PARCEL 78 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
507	---	---	---	218,566.3180	118,403.4130	TO BE ESTABLISHED
508	507-508	27.307	S88°28'58"E	218,565.5950	118,430.7102	TO BE ESTABLISHED
509	508-509	13.829	N83°24'51"E	218,567.1810	118,444.4476	TO BE ESTABLISHED
510	509-510	11.603	N83°24'47"E	218,568.5120	118,455.9740	TO BE ESTABLISHED
511	510-511	374.661	S10°46'42"E	218,200.4610	118,526.0390	TO BE ESTABLISHED
512	511-512	52.600	S78°30'31"W	218,189.9820	118,474.4930	TO BE ESTABLISHED
513	512-513	93.000	N10°41'44"W	218,281.3665	118,457.2329	TO BE ESTABLISHED
507	513-507	289.990	N10°41'45"W	218,566.3180	118,403.4130	TO BE ESTABLISHED

Area: 19,772.2027 sq mt =0= 5.0306 cuerda(s).

SURVEY DATA
PARCEL 79 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
510	---	---	---	218,568.5120	118,455.9740	TO BE ESTABLISHED
514	510-514	6.220	N83°25'04"E	218,569.2250	118,462.1530	TO BE ESTABLISHED
515	514-515	33.639	N78°18'33"E	218,576.0412	118,495.0940	TO BE ESTABLISHED
516	515-516	12.879	N75°03'06"E	218,579.3633	118,507.5370	TO BE ESTABLISHED
517	516-517	26.051	S10°35'08"E	218,553.7560	118,512.3226	TO BE ESTABLISHED
518	517-518	348.196	S10°46'12"E	218,211.6938	118,577.3893	TO BE ESTABLISHED
511	518-511	52.565	S77°39'40"W	218,200.4610	118,526.0390	TO BE ESTABLISHED
519	511-519	348.591	N10°46'42"W	218,542.9019	118,460.8493	TO BE ESTABLISHED
520	519-520	20.054	N10°46'42"W	218,562.6017	118,457.0991	TO BE ESTABLISHED
510	520-510	6.016	N10°46'41"W	218,568.5120	118,455.9740	TO BE ESTABLISHED

Area: 19,659.2923 sq mt =0= 5.0019 cuerda(s).

SURVEY DATA
PARCEL 1 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
521	---	---	---	218,598.8828	118,557.5833	TO BE ESTABLISHED
522	521-522	170.225	S10°45'38"E	218,431.6510	118,589.3650	TO BE ESTABLISHED
523	522-523	14.063	S10°14'34"E	218,417.8126	118,591.8656	TO BE ESTABLISHED
524	523-524	8.068	S11°33'23"E	218,409.9086	118,593.4818	TO BE ESTABLISHED
525	524-525	192.050	S10°54'12"E	218,221.3253	118,629.8086	TO BE ESTABLISHED
518	525-518	53.297	S79°35'19"W	218,211.6938	118,577.3893	TO BE ESTABLISHED
516	518-516	374.246	N10°45'26"W	218,579.3633	118,507.5370	TO BE ESTABLISHED
526	516-526	12.861	N70°32'12"E	218,583.6486	118,519.6630	TO BE ESTABLISHED
527	526-527	22.846	N68°51'29"E	218,591.8886	118,540.9711	TO BE ESTABLISHED
528	527-528	15.556	N65°47'27"E	218,598.2676	118,555.1589	TO BE ESTABLISHED
521	528-521	2.501	N75°45'42"E	218,598.8828	118,557.5833	TO BE ESTABLISHED

Area: 20,064.1250 sq mt =0= 5.1049 cuerda(s).

SURVEY DATA
PARCEL 105 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
554	---	---	---	218,619.9384	119,444.4718	TO BE ESTABLISHED
555	554-555	24.586	S77°49'18"W	218,614.7517	119,420.4386	TO BE ESTABLISHED
556	555-556	7.500	N12°10'42"W	218,622.0830	119,418.8565	TO BE ESTABLISHED
557	556-557	38.206	S77°49'18"W	218,614.0233	119,381.5107	TO BE ESTABLISHED
558	557-558	307.900	N11°08'45"W	218,916.1162	119,321.9915	TO BE ESTABLISHED
559	558-559	23.302	N69°21'53"E	218,924.3283	119,343.7987	TO BE ESTABLISHED
560	559-560	40.699	N70°06'50"E	218,938.1721	119,382.0708	TO BE ESTABLISHED
561	560-561	54.558	S13°38'27"E	218,885.1528	119,394.9375	TO BE ESTABLISHED
ARC	561-ARC	L: 2.334	A: 35°21'57"	R: 3.782	T: 1.206	ARC DATA
562	ARC-562	2.297	S04°02'32"W	218,882.8611	119,394.7756	TO BE ESTABLISHED
563	562-563	8.278	S20°43'49"W	218,875.1188	119,391.8454	TO BE ESTABLISHED
ARC	563-ARC	L: 2.212	A: 31°41'05"	R: 4.000	T: 1.135	ARC DATA
564	ARC-564	2.184	S04°53'16"W	218,872.9426	119,391.6593	TO BE ESTABLISHED
565	564-565	95.986	S10°57'21"E	218,778.7058	119,409.9018	TO BE ESTABLISHED
554	565-554	162.487	S12°17'02"E	218,619.9384	119,444.4718	TO BE ESTABLISHED

Area: 19,364.5933 sq mt =0= 4.9269 cuerda(s).

SURVEY DATA
PROPERTY 77 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
500	---	---	---	218,397.5955	118,435.2803	TO BE ESTABLISHED
501	500-501	96.331	S64°23'31"W	218,355.9600	118,348.4120	TO BE ESTABLISHED
502	501-502	203.900	N19°26'35"W	218,548.2320	118,280.5400	TO BE ESTABLISHED
503	502-503	62.403	N69°51'08"E	218,569.7260	118,339.1240	TO BE ESTABLISHED
504	503-504	15.475	S85°02'24"E	218,568.3880	118,354.5410	TO BE ESTABLISHED
505	504-505	25.435	S88°46'20"E	218,567.8430	118,379.9700	TO BE ESTABLISHED
506	505-506	26.211	S70°55'52"E	218,559.2798	118,404.7423	TO BE ESTABLISHED
500	506-500	164.543	S10°41'45"E	218,397.5955	118,435.2803	TO BE ESTABLISHED

Area: 21,123.5259 sq mt =0= 5.3744 cuerda(s).

SURVEY DATA
PARCEL 7 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
521	---	---	---	218,598.8828	118,557.5833	TO BE ESTABLISHED
529	521-529	29.960	N60°17'17"E	218,613.7320	118,583.6040	TO BE ESTABLISHED
530	529-530	21.903	N57°45'06"E	218,625.4190	118,602.1280	TO BE ESTABLISHED
531	530-531	53.652	N47°54'55"E	218,661.3780	118,641.9460	TO BE ESTABLISHED
532	531-532	164.577	S10°51'58"E	218,499.7520	118,672.9710	TO BE ESTABLISHED
533	532-533	51.432	S10°45'07"E	218,449.2230	118,682.5660	TO BE ESTABLISHED
534	533-534	94.843	S79°20'53"W	218,431.6919	118,589.3572	TO BE ESTABLISHED
521	534-521	170.183	N10°45'38"W	218,598.8828	118,557.5833	TO BE ESTABLISHED

Area: 18,009.9359 sq mt =0= 4.5822 cuerda(s).

SURVEY DATA
PARCEL 57 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
535	---	---	---	218,239.3945	118,626.3341	TO BE ESTABLISHED
524	535-524	173.650	N10°54'19"W	218,409.9086	118,593.4818	TO BE ESTABLISHED
523	524-523	8.068	N11°33'23"W	218,417.8126	118,591.8656	TO BE ESTABLISHED
536	523-536	108.741	N79°19'54"E	218,437.9430	118,698.7273	TO BE ESTABLISHED
537	536-537	189.679	S10°46'58"E	218,251.6131	118,734.2133	TO BE ESTABLISHED
535	537-535	108.569	S83°32'17"W	218,239.3945	118,626.3341	TO BE ESTABLISHED

Area: 20,139.3584 sq mt =0= 5.1240 cuerda(s).

SURVEY DATA
PARCEL 16 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
538	---	---	---	218,213.9932	118,469.9579	TO BE ESTABLISHED
539	538-639	10.893	S80°47'39"W	218,212.2505	118,459.2051	TO BE ESTABLISHED
540	539-540	52.351	S08°53'04"E	218,160.5278	118,467.2904	TO BE ESTABLISHED
541	540-541	94.219	N80°47'39"E	218,175.6013	118,560.2963	TO BE ESTABLISHED
542	541-542	207.292	S08°25'01"E	217,970.5420	118,590.6383	TO BE ESTABLISHED
ARC	542-ARC	L: 48.947	A: 75°47'45"	R: 37.000	T: 28.802	ARC DATA
543	ARC-543	45.455	N53°26'55"E	217,997.6124	118,627.1533	TO BE ESTABLISHED
544	543-544	36.989	S88°39'13"E	217,996.7432	118,664.1324	TO BE ESTABLISHED
525	544-525	227.190	N08°41'22"W	218,221.3253	118,629.8086	TO BE ESTABLISHED
518	525-518	53.297	S79°35'19"W	218,211.6938	118,577.3893	TO BE ESTABLISHED
511	518-511	52.565	S77°39'40"W	218,200.4610	118,526.0390	TO BE ESTABLISHED
512	511-512	52.600	S78°30'31"W	218,189.9820	118,474.4930	TO BE ESTABLISHED
538	512-538	24.436	N10°41'44"W	218,213.9932	118,469.9579	TO BE ESTABLISHED

Area: 20,033.1585 sq mt =0= 5.0970 cuerda(s).

SURVEY TABLE
PARCEL 32 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
545	---	---	---	218,352.7631	118,443.7479	TO BE ESTABLISH
546	545-546	68.254	S75°49'45W	218,336.0536	118,377.5712	TO BE ESTABLISH
547	546-547	10.017	N09°46'20W	218,345.9254	118,375.8710	TO BE ESTABLISH
548	547-548	66.460	S67°37'03W	218,320.6183	118,314.4180	TO BE ESTABLISH
549	548-549	193.431	S21°18'14E	218,140.4046	118,384.6940	TO BE ESTABLISH
550	549-550	84.715	N80°47'39E	218,153.9575	118,468.3175	TO BE ESTABLISH
540	550-540	6.650	N08°53'04W	218,160.5278	118,467.2904	TO BE ESTABLISH
539	540-539	52.351	N08°53'04W	218,212.2505	118,459.2051	TO BE ESTABLISH
538	539-538	10.893	N80°47'39E	218,213.9932	118,469.9579	TO BE ESTABLISH
513	538-513	68.564	N10°41'44W	218,281.3665	118,457.2329	TO BE ESTABLISH
545	513-545	72.659	N10°41'45W	218,352.7631	118,443.7479	TO BE ESTABLISH

Area: 22,149.1063 sq mt =0= 5.6353 cuerda(s).

SURVEY TABLE
PARCEL 37 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
V1	---	---	---	218,184.8474	118,045.0071	TO BE ESTABLISH
145	V1-145	185.458	S11°34'00E	218,003.1560	118,082.1930	TO BE ESTABLISH
165	145-165	102.049	N71°18'41E	218,035.8549	118,178.8614	TO BE ESTABLISH
147	165-147	6.916	N71°18'41E	218,038.0709	118,185.4126	TO BE ESTABLISH
862	147-862	208.181	N15°17'00W	218,238.8894	118,130.5372	TO BE ESTABLISH
V2	862-V2	59.860	S63°39'36W	218,212.3297	118,076.8921	TO BE ESTABLISH
ARC	V2-V3	L: 26.869	A: 21°05'20	R: 73.000	T: 13.588	ARC DATA
V3	V2-V3	26.718	S53°06'56W	218,196.2938	118,055.5220	CHORD
V1	V3-V1	15.543	S42°34'17W	218,184.8474	118,045.0071	TO BE ESTABLISH

Area: 20,470.7412 sq mt =0= 5.2083 cuerda(s).

SURVEY TABLE
PARCEL 32 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
545	---	---	---	218,352.7631	118,443.7479	TO BE ESTABLISH
546	545-546	68.254	S75°49'45W	218,336.0536	118,377.5712	TO BE ESTABLISH
547	546-547	10.017	N09°46'20W	218,345.9254	118,375.8710	TO BE ESTABLISH
548	547-548	66.460	S67°37'03W	218,320.6183	118,314.4180	TO BE ESTABLISH
549	548-549	193.431	S21°18'14E	218,140.4046	118,384.6940	TO BE ESTABLISH
550	549-550	84.715	N80°47'39E	218,153.9575	118,468.3175	TO BE ESTABLISH
540	550-540	6.650	N08°53'04W	218,160.5278	118,467.2904	TO BE ESTABLISH
539	540-539	52.351	N08°53'04W	218,212.2505	118,459.2051	TO BE ESTABLISH
538	539-538	10.893	N80°47'39E	218,213.9932	118,469.9579	TO BE ESTABLISH
513	538-513	68.564	N10°41'44W	218,281.3665	118,457.2329	TO BE ESTABLISH
545	513-545	72.659	N10°41'45W	218,352.7631	118,443.7479	TO BE ESTABLISH

Area: 22,149.1063 sq mt =0= 5.6353 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SYM. | REVISION | BY: | DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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Phone: (787)746-5486 Fax: (787)704-6215
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO. VF-20
SHEET NO. 20 / 23
FILE NAME : 3840-EC
PAPER SIZE: 30x42

SURVEY TABLE
PARCEL 41 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
862	---	---	---	218,238.8894	118,130.5372	TO BE ESTABLISH
147	862-147	208.181	S15°17'00E	218,038.0709	118,185.4126	TO BE ESTABLISH
151	147-151	109.965	N71°18'41E	218,073.3062	118,289.5793	PC.TO BE ESTABLISH
ARC	151-152	L: 32.131	A: 19°47'43	R: 93.000	T: 16.227	ARC DATA
152	151-152	31.971	N14°28'17W	218,104.2631	118,281.5898	PT.TO BE ESTABLISH
863	152-863	177.930	N24°22'09W	218,266.3410	118,208.1734	TO BE ESTABLISH
ARC	863-864	L: 11.667	A: 89°07'46	R: 7.500	T: 7.387	ARC DATA
864	863-864	10.526	N68°56'02W	218,270.1244	118,198.3512	TO BE ESTABLISH
865	864-865	35.027	S66°30'06W	218,256.1584	118,166.2291	TO BE ESTABLISH
ARC	865-866	L: 14.531	A: 2°50'29	R: 293.001	T: 7.267	ARC DATA
866	865-866	14.529	S65°04'51W	218,250.0365	118,153.0523	TO BE ESTABLISH
862	866-862	25.123	S63°39'36W	218,238.8894	118,130.5372	TO BE ESTABLISH

Area: 20,885.9678 sq mt =0= 5.3140 cuerda(s).

SURVEY TABLE
PARCEL 38 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
867	---	---	---	218,278.2040	118,224.1830	TO BE ESTABLISH
267	867-267	207.119	S22°50'33E	218,087.3283	118,304.5865	TO BE ESTABLISH
256	267-256	93.941	N67°23'36E	218,123.4397	118,391.3096	TO BE ESTABLISH
549	256-549	18.209	N21°18'14W	218,140.4046	118,384.6940	TO BE ESTABLISH
548	549-548	193.431	N21°18'14W	218,320.6183	118,314.4180	TO BE ESTABLISH
867	548-867	99.706	S64°49'28W	218,278.2040	118,224.1830	TO BE ESTABLISH

Area: 20,255.2677 sq mt =0= 5.1535 cuerda(s).

SURVEY TABLE
PARCEL 181 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
629	---	---	---	218,565.6901	118,822.1400	TO BE ESTABLISH
625	629-625	226.278	N03°47'57W	218,791.4713	118,807.1472	TO BE ESTABLISH
630	625-630	34.404	S69°04'11W	218,779.1810	118,775.0130	TO BE ESTABLISH
631	630-631	73.470	S59°41'00W	218,742.0950	118,711.5900	TO BE ESTABLISH
632	631-632	49.422	S50°09'18W	218,710.4300	118,673.6450	TO BE ESTABLISH
633	632-633	43.216	S46°48'15W	218,680.8490	118,642.1400	TO BE ESTABLISH
531	633-531	19.472	S00°34'15W	218,661.3780	118,641.9460	TO BE ESTABLISH
532	531-532	164.577	S10°51'58E	218,499.7520	118,672.9710	TO BE ESTABLISH
634	532-634	100.775	N81°09'41E	218,515.2364	118,772.5491	TO BE ESTABLISH
635	634-635	40.644	N10°09'57W	218,555.2427	118,765.3755	TO BE ESTABLISH
629	635-629	57.718	N79°34'18E	218,565.6901	118,822.1400	TO BE ESTABLISH

Area: 36,733.6034 sq mt =0= 9.3460 cuerda(s).

SURVEY TABLE
PARCEL 19 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
625	---	---	---	218,791.4713	118,807.1472	TO BE ESTABLISH
625	625-625	---	South	218,791.4713	118,807.1472	TO BE ESTABLISH
626	625-626	24.968	N69°19'53E	218,800.2840	118,830.5080	TO BE ESTABLISH
627	626-627	38.889	N67°05'42E	218,815.4200	118,866.3310	TO BE ESTABLISH
623	627-623	24.020	N81°08'23E	218,819.1197	118,890.0640	TO BE ESTABLISH
624	623-624	239.260	S04°41'52E	218,580.6635	118,909.6598	TO BE ESTABLISH
628	624-628	51.049	S80°49'26W	218,572.5226	118,859.2637	TO BE ESTABLISH
629	628-629	37.747	S79°34'18W	218,565.6901	118,822.1400	TO BE ESTABLISH
625	629-625	226.278	N03°47'57W	218,791.4713	118,807.1472	TO BE ESTABLISH

Area: 20,284.0211 sq mt =0= 5.1608 cuerda(s).

SURVEY TABLE
PARCEL 20 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
604	---	---	---	218,837.8260	119,005.4090	TO BE ESTABLISH
619	604-619	24.344	S73°55'46W	218,831.0870	118,982.0160	TO BE ESTABLISH
620	619-620	29.136	S86°18'16W	218,829.2090	118,952.9410	TO BE ESTABLISH
621	620-621	24.714	S85°47'18W	218,827.3940	118,928.2940	TO BE ESTABLISH
622	621-622	32.323	S77°04'55W	218,820.1680	118,896.7890	TO BE ESTABLISH
623	622-623	6.806	S81°08'23W	218,819.1197	118,890.0640	TO BE ESTABLISH
624	623-624	239.260	S04°41'52E	218,580.6635	118,909.6598	TO BE ESTABLISH
603	624-603	110.035	N80°04'03E	218,599.6433	119,018.0454	TO BE ESTABLISH
604	603-604	238.518	N03°02'13W	218,837.8260	119,005.4090	TO BE ESTABLISH

Area: 26,940.6211 sq mt =0= 6.8544 cuerda(s).

SURVEY TABLE
PARCEL 21 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
601	---	---	---	218,594.5120	119,181.3645	TO BE ESTABLISH
602	601-602	164.862	S77°55'49W	218,560.0386	119,020.1466	TO BE ESTABLISH
603	602-603	39.660	N03°02'13W	218,599.6433	119,018.0454	TO BE ESTABLISH
604	603-604	238.518	N03°02'13W	218,837.8260	119,005.4090	TO BE ESTABLISH
605	604-605	4.783	N73°55'46E	218,839.1500	119,010.0050	TO BE ESTABLISH
606	605-606	30.394	N83°57'23E	218,842.3500	119,040.2300	TO BE ESTABLISH
607	606-607	36.537	N81°16'10E	218,847.8960	119,076.3440	TO BE ESTABLISH
608	607-608	23.229	S89°26'24E	218,847.6690	119,099.5720	TO BE ESTABLISH
609	608-609	17.177	N68°01'15E	218,854.0980	119,115.5010	TO BE ESTABLISH
610	609-610	14.336	N72°31'14E	218,858.4040	119,129.1751	TO BE ESTABLISH
601	610-601	269.003	S11°11'13E	218,594.5120	119,181.3645	TO BE ESTABLISH

Area: 39,286.3110 sq mt =0= 9.9955 cuerda(s).

SURVEY TABLE
PARCEL 108 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
615	---	---	---	218,584.5332	119,250.2115	TO BE ESTABLISH
647	615-647	65.603	S78°49'21W	218,571.8160	119,185.8530	TO BE ESTABLISH
610	647-610	292.139	N11°11'13W	218,858.4040	119,129.1751	TO BE ESTABLISH
648	610-648	24.574	N72°31'14E	218,865.7850	119,152.6140	TO BE ESTABLISH
649	648-649	31.556	N70°32'57E	218,876.2930	119,182.3690	TO BE ESTABLISH
617	649-617	9.240	N80°08'19E	218,877.8755	119,191.4724	TO BE ESTABLISH
616	617-616	66.461	S10°43'22E	218,812.5750	119,203.8380	TO BE ESTABLISH
615	616-615	232.709	S11°29'41E	218,584.5332	119,250.2115	TO BE ESTABLISH

Area: 19,213.4915 sq mt =0= 4.8884 cuerda(s).

SURVEY TABLE
PARCEL 107 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
612	---	---	---	218,598.5200	119,311.5550	TO BE ESTABLISH
615	612-615	62.918	S77°09'21W	218,584.5332	119,250.2115	TO BE ESTABLISH
616	615-616	232.709	N11°29'41W	218,812.5750	119,203.8380	TO BE ESTABLISH
617	616-617	66.461	N10°43'22W	218,877.8755	119,191.4724	TO BE ESTABLISH
618	617-618	29.443	N80°08'19E	218,882.9180	119,220.4800	TO BE ESTABLISH
611	618-611	32.967	N73°25'59E	218,892.3180	119,252.0780	TO BE ESTABLISH
612	611-612	299.758	S11°26'40E	218,598.5200	119,311.5550	TO BE ESTABLISH

Area: 18,788.0102 sq mt =0= 4.7802 cuerda(s).

SURVEY TABLE
PROPERTY 18,829 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
628	---	---	---	218,572.5226	118,859.2637	TO BE ESTABLISH
624	628-624	51.049	N80°49'26E	218,580.6635	118,909.6598	TO BE ESTABLISH
603	624-603	110.035	N80°04'03E	218,599.6433	119,018.0454	TO BE ESTABLISH
602	603-602	39.660	S03°02'13E	218,560.0386	119,020.1466	TO BE ESTABLISH
293	602-293	86.811	S00°50'42E	218,473.2371	119,021.4266	TO BE ESTABLISH
294	293-294	110.104	S79°58'57W	218,454.0847	118,913.0012	TO BE ESTABLISH
680	294-680	50.585	S80°09'59W	218,445.4452	118,863.1591	TO BE ESTABLISH
628	680-628	127.137	N01°45'21W	218,572.5226	118,859.2637	TO BE ESTABLISH

Area: 20,229.2849 sq mt =0= 5.1469 cuerda(s).

SURVEY TABLE
PARCEL 53 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
647	---	---	---	218,571.8160	119,185.8530	TO BE ESTABLISH
601	647-601	23.136	N11°11'13W	218,594.5120	119,181.3645	TO BE ESTABLISH
602	601-602	164.862	S77°55'49W	218,560.0386	119,020.1466	TO BE ESTABLISH
293	602-293	86.811	S00°50'42E	218,473.2371	119,021.4266	TO BE ESTABLISH
292	293-292	69.670	S00°05'16E	218,403.5672	119,021.5333	TO BE ESTABLISH
899	292-899	87.539	N79°52'09E	218,418.9651	119,107.7072	TO BE ESTABLISH
900	899-900	142.131	N20°21'43E	218,552.2150	119,157.1620	TO BE ESTABLISH
901	900-901	12.136	N05°07'45W	218,564.3024	119,156.0770	TO BE ESTABLISH
647	901-647	30.709	N75°50'16E	218,571.8160	119,185.8530	TO BE ESTABLISH

Area: 19,212.5906 sq mt =0= 4.8882 cuerda(s).

SURVEY TABLE
PARCEL 113 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
899	---	---	---	218,418.9651	119,107.7072	TO BE ESTABLISH
900	899-900	142.131	N20°21'43E	218,552.2150	119,157.1620	TO BE ESTABLISH
957	900-957	97.835	N79°36'10E	218,569.8713	119,253.3902	TO BE ESTABLISH
958	957-958	37.973	N76°42'45E	218,578.5988	119,290.3463	TO BE ESTABLISH
903	958-903	125.060	S11°36'19E	218,456.0950	119,315.5042	TO BE ESTABLISH
904	903-904	109.864	S79°52'09W	218,436.7701	119,207.3528	TO BE ESTABLISH
899	904-899	101.224	S79°52'09W	218,418.9651	119,107.7072	TO BE ESTABLISH

Area: 21,322.3403 sq mt =0= 5.4250 cuerda(s).

SURVEY TABLE
PARCEL 62 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
843	---	---	---	218,486.0569	119,483.1852	TO BE ESTABLISH
842	843-842	77.819	N14°34'55W	218,561.3696	119,463.5929	TO BE ESTABLISH
841	842-841	61.412	N13°28'29W	218,621.0912	119,449.2829	TO BE ESTABLISH
554	841-554	4.947	S76°31'31W	218,619.9384	119,444.4718	TO BE ESTABLISH
555	554-555	24.586	S77°49'18W	218,614.7517	119,420.4386	TO BE ESTABLISH
937	555-937	7.165	S12°10'42E	218,607.7484	119,421.9501	TO BE ESTABLISH
938	937-938	38.212	S77°21'03W	218,599.3807	119,384.6653	TO BE ESTABLISH
939	938-939	9.217	S79°37'57W	218,597.7219	119,375.5986	TO BE ESTABLISH
940	939-940	72.366	S77°10'11W	218,581.6521	119,305.0399	TO BE ESTABLISH
941	940-941	125.664	S13°33'16E	218,459.4878	119,334.4919	TO BE ESTABLISH
843	941-843	151.048	N79°52'09E	218,486.0569	119,483.1852	TO BE ESTABLISH

Area: 19,527.7895 sq mt =0= 4.9684 cuerda(s).

SURVEY TABLE
PARCEL 44 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
962	---	---	---	218,192.1686	119,113.6097	TO BE ESTABLISH
656	962-656	42.816	S21°13'25W	218,152.2568	119,098.1099	TO BE ESTABLISH
655	656-655	14.829	S69°59'58W	218,147.1850	119,084.1757	TO BE ESTABLISH
290	655-290	144.851	N15°32'10W	218,286.7434	119,045.3777	TO BE ESTABLISH
291	290-291	85.088	N15°31'45W	218,368.7251	119,022.5972	TO BE ESTABLISH
292	291-292	34.858	N01°44'56W	218,403.5672	119,021.5333	TO BE ESTABLISH
899	292-899	87.539	N79°52'09E	218,418.9651	119,107.7072	TO BE ESTABLISH
960	899-960	202.142	S15°15'07E	218,223.9428	119,160.8837	TO BE ESTABLISH
963	960-963	18.150	S73°53'12W	218,218.9055	119,143.4465	TO BE ESTABLISH
ARC	963-962	L: 41.445	A: 51°30'01	R: 46.109	T: 22.240	ARC DATA
962	963-962	40.064	S48°08'11W	218,192.1686	119,113.6097	TO BE ESTABLISH

Area: 21,490.5754 sq mt =0= 5.4678 cuerda(s).

SURVEY TABLE
PARCEL 112 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
959	---	---	---	218,235.2629	119,197.9341	TO BE ESTABLISH
960	959-960	38.741	S73°00'37W	218,223.9428	119,160.8837	TO BE ESTABLISH
899	960-899	202.142	N15°15'07W	218,418.9651	119,107.7072	TO BE ESTABLISH
904	899-904	101.224	N79°52'09E	218,436.7701	119,207.3528	TO BE ESTABLISH
870	904-870	181.768	S14°27'11E	218,260.7546	119,252.7192	TO BE ESTABLISH
885	870-885	39.473	S13°37'38E	218,222.3930	119,262.0191	TO BE ESTABLISH
ARC	885-961	L: 32.137	A: 24°15'34	R: 75.901	T: 16.313	ARC DATA
961	885-961	31.898	N64°15'10W	218,236.2494	119,233.2882	TO BE ESTABLISH
ARC	961-959	L: 35.760	A: 29°25'33	R: 69.629	T: 18.283	ARC DATA
959	961-959	35.368	S88°24'07W	218,235.2629	119,197.9341	TO BE ESTABLISH

Area: 20,089.4749 sq mt =0= 5.1113 cuerda(s).

SURVEY TABLE
PARCEL 104 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
902	---	---	---	218,395.6115	119,326.4366	TO BE ESTABLISH
903	902-903	61.464	N10°14'44W	218,456.0950	119,315.5042	TO BE ESTABLISH
904	903-904	109.864	S79°52'09W	218,436.7701	119,207.3528	TO BE ESTABLISH
870	904-870	181.768	S14°27'11E	218,260.7546	119,252.7192	TO BE ESTABLISH
871	870-871	96.470	N77°46'55E	218,281.1707	119,347.0042	TO BE ESTABLISH
905	871-905	0.524	N13°45'27W	218,281.6792	119,346.8797	TO BE ESTABLISH
902	905-902	115.752	N10°10'21W	218,395.6115	119,326.4366	TO BE ESTABLISH

Area: 18,526.0984 sq mt =0= 4.7135 cuerda(s).

SURVEY TABLE
PARCEL 61 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
843	---	---	---	218,486.0569	119,483.1852	TO BE ESTABLISH
941	843-941	151.048	S79°52'09W	218,459.4878	119,334.4919	TO BE ESTABLISH
956	941-956	127.532	S09°26'24E	218,333.6833	119,355.4092	TO BE ESTABLISH
844	956-844	162.838	N81°09'19E	218,358.7208	119,516.3112	TO BE ESTABLISH
843	844-843	131.574	N14°34'55W	218,486.0569	119,483.1852	TO BE ESTABLISH

Area: 20,290.0349 sq mt =0= 5.1623 cuerda(s).

SURVEY TABLE
PARCEL 60 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
952	---	---	---	218,207.5428	119,397.5613	TO BE ESTABLISH
953	952-953	56.455	N25°12'37W	218,258.6202	119,373.5149	TO BE ESTABLISH
954	953-954	10.121	N26°33'53W	218,267.6731	119,368.9886	TO BE ESTABLISH
955	954-955	11.988	N12°43'29W	218,279.3663	119,366.3481	TO BE ESTABLISH
956	955-956	55.408	N11°23'11W	218,333.6833	119,355.4092	TO BE ESTABLISH
844	956-844	162.838	N81°09'19E	218,358.7208	119,516.3112	TO BE ESTABLISH
845	844-845	19.855	S14°34'55E	218,339.5054	119,521.3100	TO BE ESTABLISH
846	845-846	104.763	S14°23'31E	218,238.0300	119,547.3491	TO BE ESTABLISH
952	846-952	152.859	S78°29'43W	218,207.5428	119,397.5613	TO BE ESTABLISH

Area: 20,727.1922 sq mt =0= 5.2736 cuerda(s).

SURVEY TABLE
PARCEL 180 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
946	---	---	---	218,189.4099	118,744.6436	TO BE ESTABLISH
537	946-537	63.072	N09°31'08W	218,251.6131	118,734.2133	TO BE ESTABLISH
535	537-535	108.569	S83°32'17W	218,239.3945	118,626.3341	TO BE ESTABLISH
525	535-525	18.400	S10°53'04E	218,221.3253	118,629.8086	TO BE ESTABLISH
544	525-544	227.190	S08°41'22E	217,996.7432	118,664.1324	TO BE ESTABLISH
947	544-947	35.529	S88°32'50E	217,995.8425	118,699.6503	TO BE ESTABLISH
ARC	947-948	L: 65.921	A: 107°54'51	R: 35.000	T: 48.097	ARC DATA
948	947-948	56.600	N37°23'28E	218,040.8119	118,734.0210	TO BE ESTABLISH
949	948-949	34.039	N16°33'58W	218,073.4378	118,724.3159	TO BE ESTABLISH
ARC	949-950	L: 16.393	A: 25°23'08	R: 37.000	T: 8.333	ARC DATA
950	949-950	16.260	N03°52'23W	218,089.6602	118,723.2176	TO BE ESTABLISH
951	950-951	79.095	N08°49'11E	218,167.8200	118,735.3447	TO BE ESTABLISH
ARC	951-946	L: 23.760	A: 28°57'52	R: 47.000	T: 12.139	ARC DATA
946	951-946	23.507	N23°18'06E	218,189.4099	118,744.6436	TO BE ESTABLISH

Area: 21,702.9562 sq mt =0= 5.5218 cuerda(s).

SURVEY TABLE
PROPERTY 53 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
284	---	---	---	218,273.1892	118,925.3221	TO BE ESTABLISH
537	284-537	192.323	S83°33'31W	218,251.6131	118,734.2133	TO BE ESTABLISH
946	537-946	63.072	S09°31'08E	218,189.4099	118,744.6436	TO BE ESTABLISH
ARC	946-965	L: 23.760	A: 28°57'52	R: 47.000	T: 12.139	ARC DATA
965	946-965	23.507	N52°15'58E	218,203.7963	118,763.2347	TO BE ESTABLISH
ARC	965-966	L: 47.519	A: 57°55'43	R: 47.000	T: 26.014	ARC DATA
966	965-966	45.521	S84°17'15E	218,199.2654	118,808.5294	TO BE ESTABLISH
967	966-967	86.219	S55°19'24E	218,150.2117	118,879.4335	TO BE ESTABLISH
ARC	967-968	L: 22.767	A: 5°04'33	R: 256.996	T: 11.391	ARC DATA
968	967-968	22.760	S52°47'08E	218,136.4466	118,897.5587	TO BE ESTABLISH
969	968-969	45.568	S50°14'51E	218,107.3070	118,932.5922	TO BE ESTABLISH
970	969-970	30.811	S50°14'51E	218,087.6045	118,956.2799	TO BE ESTABLISH
ARC	970-942	L: 7.954	A: 45°34'23	R: 10.000	T: 4.201	ARC DATA
942	970-942	7.746	S73°02'03E	218,085.3442	118,963.6887	TO BE ESTABLISH
655	942-655	135.430	N62°49'50E	218,147.1850	119,084.1757	TO BE ESTABLISH
290	655-290	144.851	N15°32'10W	218,286.7434	119,045.3777	TO BE ESTABLISH
284	290-284	120.818	S83°33'31W	218,273.1892	118,925.3221	TO BE ESTABLISH

Area: 40,666.1093 sq mt =0= 10.3466 cuerda(s).

SURVEY TABLE
PARCEL 85 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
178	---	---	---	217,764.1702	117,957.7372	TO BE ESTABLISH
579	178-579	143.729	S01°06'02W	217,620.4679	117,954.9770	TO BE ESTABLISH
580	579-580	25.268	N81°55'15E	217,624.0191	117,979.9943	TO BE ESTABLISH
581	580-581	28.895	N83°08'53E	217,627.4665	118,008.6832	TO BE ESTABLISH
582	581-582	27.335	N83°08'52E	217,630.7279	118,035.8231	TO BE ESTABLISH
583	582-583	25.686	N83°08'52E	217,633.7924	118,061.3254	TO BE ESTABLISH
584	583-584	7.759	N83°08'53E	217,634.7181	118,069.0294	TO BE ESTABLISH
585	584-585	10.943	N02°06'38E	217,645.6541	118,069.4324	TO BE ESTABLISH
586	585-586	0.398	N07°56'48E	217,646.0481	118,069.4874	TO BE ESTABLISH
587	586-587	33.051	N02°06'24E	217,679.0770	118,070.7022	TO BE ESTABLISH
588	587-588	124.072	N86°34'40E	217,686.4835	118,194.5533	TO BE ESTABLISH
179	588-179	34.316	N07°07'50W	217,720.5337	118,190.2937	TO BE ESTABLISH
178	179-178	236.615	N79°22'22W	217,764.1702	117,957.7372	TO BE ESTABLISH

Area: 20,282.1421 sq mt =0= 5.1603 cuerda(s).

SURVEY TABLE
PARCEL 179 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
858	---	---	---	218,097.0721	118,923.0042	TO BE ESTABLISH
891	858-891	44.742	N50°14'51W	218,125.6832	118,888.6061	TO BE ESTABLISH
ARC	891-892	L: 21.527	A: 5°04'33	R: 242.996	T: 10.770	ARC DATA
892	891-892	21.520	N52°47'08W	218,138.6984	118,871.4682	TO BE ESTABLISH
893	892-893	86.219	N55°19'24W	218,187.7521	118,800.5642	TO BE ESTABLISH
ARC	893-894	L: 66.729	A: 115°51'25	R: 33.000	T: 52.665	ARC DATA
894	893-894	55.928	S66°44'53W	218,165.6734	118,749.1792	TO BE ESTABLISH
888	894-888	79.095	S08°49'11W	218,087.5137	118,737.0520	TO BE ESTABLISH
857	888-857	160.933	S56°52'22E	217,999.5638	118,871.8264	TO BE ESTABLISH
858	857-858	110.123	N27°41'35E	218,097.0721	118,923.0042	TO BE ESTABLISH

Area: 20,559.3304 sq mt =0= 5.2309 cuerda(s).

SURVEY TABLE
PARCEL 39 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
220	---	---	---	217,819.7800	118,813.3076	PT.TO BE ESTABLISH
ARC	220-886	L: 22.251	A: 33°59'44	R: 37.502	T: 11.464	ARC DATA
886	220-886	21.926	N28°42'24E	217,839.0111	118,823.8393	TO BE ESTABLISH
887	886-887	86.240	N45°49'15E	217,899.1121	118,885.6876	TO BE ESTABLISH
ARC	887-856	L: 17.702	A: 27°24'42	R: 37.000	T: 9.024	ARC DATA
856	887-856	17.533	N59°31'36E	217,908.0038	118,900.7989	TO BE ESTABLISH
857	856-857	96.035	N17°33'32W	217,999.5638	118,871.8264	TO BE ESTABLISH
888	857-888	160.933	N56°52'22W	218,087.5137	118,737.0520	TO BE ESTABLISH
ARC	888-889	L: 10.190	A: 25°23'08	R: 23.000	T: 5.180	ARC DATA
889	888-889	10.107	S03°52'23E	218,077.4295	118,737.7348	TO BE ESTABLISH
890	889-890	34.039	S16°33'58E	218,044.8036	118,747.4398	TO BE ESTABLISH
ARC	890-212	L: 32.606	A: 38°32'39	R: 48.469	T: 16.947	ARC DATA
212	890-212	31.995	S02°36'02W	218,012.8414	118,745.9881	PC.TO BE ESTABLISH
220	212-220	204.462	S19°13'24E	217,819.7800	118,813.3076	PT.TO BE ESTABLISH

Area: 20,816.7973 sq mt =0= 5.2964 cuerda(s).

SURVEY TABLE
PARCEL 40 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
850	---	---	---	217,956.9024	119,048.7791	TO BE ESTABLISH
851	850-851	31.668	S15°21'54W	217,926.3666	119,040.3883	TO BE ESTABLISH
ARC	851-852	L: 40.492	A: 82°51'30	R: 28.000	T: 24.711	ARC DATA
852	851-852	37.055	S56°47'39W	217,906.0735	119,009.3842	TO BE ESTABLISH
853	852-853	14.231	N81°46'36W	217,908.1090	118,995.2995	TO BE ESTABLISH
ARC	853-854	L: 49.291	A: 10°11'43	R: 277.003	T: 24.711	ARC DATA
854	853-854	49.226	N86°52'28W	217,910.7929	118,946.1472	TO BE ESTABLISH
855	854-855	35.969	S88°01'40W	217,909.5550	118,910.1996	TO BE ESTABLISH
ARC	855-856	L: 9.554	A: 14°47'43	R: 37.000	T: 4.804	ARC DATA
856	855-856	9.528	S80°37'49W	217,908.0038	118,900.7989	TO BE ESTABLISH
857	856-857	96.035	N17°33'32W	217,999.5638	118,871.8264	TO BE ESTABLISH
858	857-858	110.123	N27°41'35E	218,097.0721	118,923.0042	TO BE ESTABLISH
859	858-859	31.637	S50°14'51E	218,076.8411	118,947.3273	TO BE ESTABLISH
ARC	859-860	L: 7.954	A: 45°34'23	R: 10.000	T: 4.201	ARC DATA
860	859-860	7.746	S27°27'40E	218,069.9679	118,950.8993	TO BE ESTABLISH
861	860-861	141.342	S38°37'47E	217,959.5520	119,039.1366	TO BE ESTABLISH
850	861-850	10.000	S74°38'06E	217,956.9024	119,048.7791	TO BE ESTABLISH

Area: 20,157.6959 sq mt =0= 5.1287 cuerda(s).

SURVEY TABLE
PARCEL 22 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
850	---	---	---	217,956.9024	119,048.7791	TO BE ESTABLISH
861	850-861	10.000	N74°38'06W	217,959.5520	119,039.1366	TO BE ESTABLISH
860	861-860	141.342	N38°37'47W	218,069.9679	118,950.8993	TO BE ESTABLISH
ARC	860-942	L: 31.416	A: 180°00'00	TR2,86005068,120,999,980.000		ARC DATA
942	860-942	20.000	N39°45'09E	218,085.3442	118,963.6887	TO BE ESTABLISH
655	942-655	135.430	N62°49'50E	218,147.1850	119,084.1757	TO BE ESTABLISH
943	655-943	0.069	S15°31'39E	218,147.1190	119,084.1940	TO BE ESTABLISH
654	943-654	89.993	S15°34'32E	218,060.4310	119,108.3580	TO BE ESTABLISH
653	654-653	23.000	S15°34'07E	218,038.2750	119,114.5310	TO BE ESTABLISH
652	653-652	75.214	S15°35'51E	217,965.8305	119,134.7546	TO BE ESTABLISH
651	652-651	6.399	S15°33'10E	217,959.6659	119,136.4703	TO BE ESTABLISH
944	651-944	65.190	S81°57'20W	217,950.5432	119,071.9213	TO BE ESTABLISH
945	944-945	10.000	N74°38'06W	217,953.1929	119,062.2788	TO BE ESTABLISH
ARC	945-850	L: 47.324	A: 271°08'46	R: 10.000	T: 9.802	ARC DATA
850	945-850	14.000	N74°38'06W	217,956.9024	119,048.7791	TO BE ESTABLISH

Area: 20,419.7597 sq mt =0= 5.1953 cuerda(s).

SURVEY TABLE
PARCEL 45 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
650	---	---	---	217,989.6023	119,226.7937	TO BE ESTABLISH
651	650-651	95.155	S71°39'47W	217,959.6659	119,136.4703	TO BE ESTABLISH
652	651-652	6.399	N15°33'10W	217,965.8305	119,134.7546	TO BE ESTABLISH
653	652-653	75.214	N15°35'51W	218,038.2750	119,114.5310	TO BE ESTABLISH
654	653-654	23.000	N15°34'07W	218,060.4310	119,108.3580	TO BE ESTABLISH
655	654-655	90.061	N15°34'32W	218,147.1850	119,084.1757	TO BE ESTABLISH
656	655-656	14.829	N69°59'58E	218,152.2568	119,098.1099	TO BE ESTABLISH
639	656-639	15.550	S70°18'45E	218,147.0183	119,112.7506	TO BE ESTABLISH
638	639-638	73.028	S66°14'11E	218,117.5904	119,179.5874	TO BE ESTABLISH
637	638-637	29.479	S87°16'31E	218,116.1891	119,209.0329	TO BE ESTABLISH
ARC	637-636	L: 60.251	A: 48°12'32	R: 71.607	T: 32.038	ARC DATA
636	637-636	58.489	S45°59'18E	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-650	L: 102.576	A: 102°58'11	R: 57.077	T: 71.716	ARC DATA
650	636-650	89.319	S15°47'23W	217,989.6023	119,226.7937	TO BE ESTABLISH

Area: 20,887.0094 sq mt =0= 5.3142 cuerda(s).

SURVEY TABLE
TAX ID: 402-019-327-70-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
848	---	---	---	218,019.0411	119,598.4856	TO BE ESTABLISH
906	848-906	107.220	N63°32'06W	218,066.8235	119,502.5017	TO BE ESTABLISH
907	906-907	193.977	S15°55'04W	217,880.2839	119,449.3019	TO BE ESTABLISH
908	907-908	175.465	N89°13'06E	217,882.6776	119,624.7505	TO BE ESTABLISH
908	908-908	---	South	217,882.6776	119,624.7505	TO BE ESTABLISH
848	908-848	138.870	N10°54'08W	218,019.0411	119,598.4856	TO BE ESTABLISH

Area: 22,217.2462 sq mt =0= 5.6527 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

N W E S

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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Phone: (787)746-5486 Fax: (787)704-6215
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024		21
PROJECT JEB-3840	VF-21	23

PAPER SIZE: 30x42

FILE NAME : 3840-EC

SURVEY TABLE
PARCEL 110 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
636	---	---	---	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-637	L: 60.251	A: 48°12'31	R: 71.608	T: 32.038	ARC DATA
637	636-637	58.489	N45°59'18W	218,116.1891	119,209.0329	TO BE ESTABLISH
638	637-638	29.479	N87°16'31W	218,117.5904	119,179.5874	TO BE ESTABLISH
639	638-639	73.028	N66°14'11W	218,147.0183	119,112.7506	TO BE ESTABLISH
640	639-640	57.022	N20°12'55E	218,200.5274	119,132.4543	TO BE ESTABLISH
ARC	640-641	L: 109.196	A: 42°23'11	R: 147.606	T: 57.232	ARC DATA
641	640-641	106.723	N80°25'24E	218,218.2829	119,237.6900	TO BE ESTABLISH
642	641-642	39.125	S51°18'24E	218,193.8236	119,268.2274	TO BE ESTABLISH
643	642-643	9.210	S38°53'21E	218,186.6549	119,274.0096	TO BE ESTABLISH
644	643-644	18.420	S38°06'28E	218,172.1613	119,285.3773	TO BE ESTABLISH
645	644-645	27.629	S36°48'21E	218,150.0393	119,301.9301	TO BE ESTABLISH
646	645-646	27.629	S35°14'35E	218,127.4742	119,317.8735	TO BE ESTABLISH
636	646-636	84.587	S52°07'55W	218,075.5506	119,251.0980	TO BE ESTABLISH

Area: 17,145.1235 sq mt =0= 4.3622 cuerda(s).

SURVEY TABLE
PARCEL 109 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
870	---	---	---	218,260.7546	119,252.7192	TO BE ESTABLISH
871	870-871	96.470	N77°46'55E	218,281.1707	119,347.0042	TO BE ESTABLISH
872	871-872	19.025	S13°45'39E	218,262.6921	119,351.5296	TO BE ESTABLISH
873	872-873	12.478	S25°46'11E	218,251.4548	119,356.9546	TO BE ESTABLISH
874	873-874	114.028	S26°13'00E	218,149.1569	119,407.3285	TO BE ESTABLISH
ARC	874-875	L: 35.611	A: 34°04'30	R: 59.879	T: 18.350	ARC DATA
875	874-875	35.089	S43°12'36E	218,123.5824	119,431.3530	TO BE ESTABLISH
876	875-876	18.158	S50°11'40E	218,111.9577	119,445.3028	TO BE ESTABLISH
ARC	876-877	L: 6.619	A: 70°16'08	R: 5.397	T: 3.798	ARC DATA
877	876-877	6.212	S03°34'35W	218,105.7578	119,444.9153	TO BE ESTABLISH
878	877-878	45.694	S39°29'40W	218,070.4960	119,415.8534	TO BE ESTABLISH
ARC	878-879	L: 6.835	A: 83°19'30	R: 4.700	T: 4.182	ARC DATA
879	878-879	6.248	S82°52'30W	218,069.7210	119,409.6535	TO BE ESTABLISH
880	879-880	82.757	N49°44'53W	218,123.1949	119,346.4922	TO BE ESTABLISH
881	880-881	22.783	N48°26'50W	218,138.3072	119,329.4426	TO BE ESTABLISH
882	881-882	20.153	N37°58'18W	218,154.1943	119,317.0428	TO BE ESTABLISH
883	882-883	37.046	N37°20'58W	218,183.6437	119,294.5683	TO BE ESTABLISH
884	883-884	36.195	N37°36'22W	218,212.3181	119,272.4813	TO BE ESTABLISH
885	884-885	14.525	N46°04'50W	218,222.3930	119,262.0191	TO BE ESTABLISH
870	885-870	39.473	N13°37'38W	218,260.7546	119,252.7192	TO BE ESTABLISH

Area: 17,266.7672 sq mt =0= 4.3931 cuerda(s).

SURVEY TABLE
PARCEL 59 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
952	---	---	---	218,207.5428	119,397.5613	TO BE ESTABLISH
ARC	952-964	L: 121.269	A: 31°01'45	R: 223.924	T: 62.161	ARC DATA
964	952-964	119.792	S38°16'38E	218,113.5030	119,471.7687	TO BE ESTABLISH
932	964-932	28.910	S37°54'20W	218,090.6927	119,454.0078	TO BE ESTABLISH
931	932-931	53.813	S63°47'39E	218,066.9290	119,502.2897	TO BE ESTABLISH
848	931-848	107.457	S63°32'06E	218,019.0411	119,598.4856	TO BE ESTABLISH
847	848-847	80.476	N10°54'08W	218,098.0647	119,583.2649	TO BE ESTABLISH
846	847-846	144.500	N14°23'31W	218,238.0300	119,547.3491	TO BE ESTABLISH
952	846-952	152.859	S78°29'43W	218,207.5428	119,397.5613	TO BE ESTABLISH

Area: 22,912.7218 sq mt =0= 5.8296 cuerda(s).

SURVEY TABLE
PARCEL 111 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
868	---	---	---	217,946.3944	119,341.4304	TO BE ESTABLISH
ARC	868-869	L: 125.681	A: 24°20'16	R: 295.878	T: 63.803	ARC DATA
869	868-869	124.738	N25°31'27E	218,058.9584	119,395.1788	TO BE ESTABLISH
646	869-646	103.298	N48°26'58W	218,127.4742	119,317.8735	TO BE ESTABLISH
636	646-636	84.587	S52°07'55W	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-650	L: 102.576	A: 102°58'11	R: 57.077	T: 71.716	ARC DATA
650	636-650	89.319	S15°47'23W	217,989.6023	119,226.7937	TO BE ESTABLISH
868	650-868	122.509	S69°20'53E	217,946.3944	119,341.4304	TO BE ESTABLISH

Area: 17,515.1883 sq mt =0= 4.4563 cuerda(s).

SURVEY TABLE
PARCEL 46 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
868	---	---	---	217,946.3944	119,341.4304	TO BE ESTABLISH
895	868-895	279.148	S26°29'47W	217,696.5670	119,216.8910	TO BE ESTABLISH
896	895-896	29.546	S83°59'40W	217,693.4758	119,187.5072	TO BE ESTABLISH
897	896-897	181.772	N02°26'17E	217,875.0828	119,195.2398	TO BE ESTABLISH
898	897-898	38.509	S38°29'50W	217,844.9438	119,171.2686	TO BE ESTABLISH
651	898-651	119.884	N16°52'26W	217,959.6659	119,136.4703	TO BE ESTABLISH
650	651-650	95.155	N71°39'47E	217,989.6023	119,226.7937	TO BE ESTABLISH
868	650-868	122.509	S69°20'53E	217,946.3944	119,341.4304	TO BE ESTABLISH

Area: 30,321.6115 sq mt =0= 7.7146 cuerda(s).

SURVEY TABLE
PARCEL 58 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
906	---	---	---	218,066.8235	119,502.5017	TO BE ESTABLISH
931	906-931	0.237	N63°32'35W	218,066.9290	119,502.2897	TO BE ESTABLISH
932	931-932	53.813	N63°47'39W	218,090.6927	119,454.0078	TO BE ESTABLISH
933	932-933	30.198	S44°09'47W	218,069.0299	119,432.9689	TO BE ESTABLISH
934	933-934	24.067	S35°10'51W	218,049.3593	119,419.1026	TO BE ESTABLISH
935	934-935	15.381	S35°10'50W	218,036.7874	119,410.2405	TO BE ESTABLISH
936	935-936	28.193	S30°24'39W	218,012.4733	119,395.9692	TO BE ESTABLISH
910	936-910	120.110	S27°48'20W	217,906.2315	119,339.9412	TO BE ESTABLISH
909	910-909	126.532	S62°50'30E	217,848.4759	119,452.5230	TO BE ESTABLISH
907	909-907	31.971	N05°46'57W	217,880.2839	119,449.3019	TO BE ESTABLISH
906	907-906	193.977	N15°55'04E	218,066.8235	119,502.5017	TO BE ESTABLISH

Area: 19,553.9663 sq mt =0= 4.9751 cuerda(s).

SURVEY TABLE
PARCEL 34 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
909	---	---	---	217,848.4759	119,452.5230	TO BE ESTABLISH
910	909-910	126.532	N62°50'30W	217,906.2315	119,339.9412	TO BE ESTABLISH
911	910-911	226.890	S27°06'10W	217,704.2563	119,236.5732	TO BE ESTABLISH
912	911-912	5.562	S24°15'34W	217,699.1852	119,234.2878	TO BE ESTABLISH
913	912-913	1.058	S53°07'58E	217,698.5502	119,235.1346	TO BE ESTABLISH
914	913-914	55.737	N84°21'24E	217,704.0311	119,290.6011	TO BE ESTABLISH
915	914-915	24.982	N84°21'24E	217,706.4877	119,315.4622	TO BE ESTABLISH
916	915-916	40.331	N80°38'12E	217,713.0493	119,355.2556	TO BE ESTABLISH
917	916-917	13.169	N76°31'19E	217,716.1186	119,368.0615	TO BE ESTABLISH
918	917-918	8.930	N58°34'14E	217,720.7752	119,375.6815	TO BE ESTABLISH
919	918-919	1.620	N51°20'27E	217,721.7871	119,376.9464	TO BE ESTABLISH
920	919-920	56.508	N42°41'36E	217,763.3203	119,415.2633	TO BE ESTABLISH
921	920-921	44.877	N42°24'51E	217,796.4526	119,445.5323	TO BE ESTABLISH
922	921-922	3.569	N44°37'57W	217,798.9922	119,443.0250	TO BE ESTABLISH
923	922-923	0.018	N13°04'59E	217,799.0100	119,443.0291	TO BE ESTABLISH
924	923-924	6.315	N49°28'17W	217,803.1137	119,438.2291	TO BE ESTABLISH
925	924-925	3.691	N27°28'47E	217,806.3880	119,439.9321	TO BE ESTABLISH
926	925-926	6.740	N42°21'26E	217,811.3687	119,444.4734	TO BE ESTABLISH
927	926-927	15.231	S51°49'34E	217,801.9555	119,456.4468	TO BE ESTABLISH
928	927-928	1.730	N47°30'54E	217,803.1241	119,457.7228	TO BE ESTABLISH
929	928-929	11.225	N08°31'01W	217,814.2257	119,456.0603	TO BE ESTABLISH
930	929-930	1.437	N08°30'57W	217,815.6466	119,455.8475	TO BE ESTABLISH
909	930-909	32.997	N05°46'57W	217,848.4759	119,452.5230	TO BE ESTABLISH

Area: 25,149.7093 sq mt =0= 6.3988 cuerda(s).

SURVEY TABLE
PARCEL 13-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
657	---	---	---	218,280.1690	120,265.6959	TO BE ESTABLISH
ARC	657-658	L: 88.637	A: 17°20'21	R: 292.895	T: 44.660	ARC DATA
658	657-658	88.300	N45°33'09W	218,342.0014	120,202.6596	TO BE ESTABLISH
ARC	658-659	L: 190.171	A: 55°24'51	R: 196.628	T: 103.263	ARC DATA
659	658-659	182.845	N47°52'19W	218,464.6519	120,067.0526	TO BE ESTABLISH
660	659-660	97.256	N56°05'50W	218,518.8998	119,986.3317	TO BE ESTABLISH
661	660-661	50.863	N36°40'28W	218,559.6943	119,955.9529	TO BE ESTABLISH
662	661-662	62.590	N19°26'24W	218,618.7160	119,935.1217	TO BE ESTABLISH
663	662-663	52.546	N22°19'43W	218,667.3221	119,915.1585	TO BE ESTABLISH
664	663-664	29.430	N01°44'40E	218,696.7386	119,916.0544	TO BE ESTABLISH
665	664-665	53.094	S87°50'12W	218,694.7345	119,862.9983	TO BE ESTABLISH
666	665-666	55.304	N48°24'26W	218,731.4467	119,821.6378	TO BE ESTABLISH
667	666-667	8.750	N18°02'50W	218,739.7664	119,818.9269	TO BE ESTABLISH
668	667-668	66.065	N13°18'48W	218,804.0561	119,803.7135	TO BE ESTABLISH
669	668-669	34.471	N60°38'11W	218,820.9592	119,773.6709	TO BE ESTABLISH
670	669-670	30.579	S81°15'27W	218,816.3115	119,743.4475	TO BE ESTABLISH
671	670-671	321.447	S08°44'33E	218,498.5997	119,792.3055	TO BE ESTABLISH
672	671-672	413.025	S08°18'14E	218,089.9044	119,851.9550	TO BE ESTABLISH
673	672-673	132.743	S28°23'46W	217,973.1332	119,788.8275	TO BE ESTABLISH
674	673-674	55.597	S34°43'40W	217,927.4402	119,757.1552	TO BE ESTABLISH
675	674-675	189.711	S35°58'50W	217,773.9228	119,645.6977	TO BE ESTABLISH
676	675-676	712.597	S09°50'04E	217,071.7969	119,767.4088	TO BE ESTABLISH
677	676-677	110.350	S45°54'22E	216,995.0118	119,846.6621	TO BE ESTABLISH
678	677-678	457.491	N03°58'36E	217,451.4010	119,878.3880	TO BE ESTABLISH
679	678-679	411.730	N39°57'04E	217,767.0298	120,142.7745	TO BE ESTABLISH
657	679-657	527.657	N13°28'16E	218,280.1690	120,265.6959	TO BE ESTABLISH

Area: 492,773.8943 sq mt =0= 125.3751 cuerda(s).

SURVEY TABLE
PARCEL 13-A (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
657	---	---	---	218,280.1690	120,265.6959	TO BE ESTABLISH
679	657-679	527.657	S13°28'16W	217,767.0298	120,142.7745	TO BE ESTABLISH
678	679-678	411.730	S39°57'04W	217,451.4010	119,878.3880	TO BE ESTABLISH
677	678-677	457.491	S03°58'36W	216,995.0118	119,846.6621	TO BE ESTABLISH
681	677-681	258.130	S43°38'58E	216,808.2347	120,024.8349	TO BE ESTABLISH
682	681-682	154.562	S53°54'21E	216,717.1800	120,149.7290	TO BE ESTABLISH
683	682-683	1,416.992	N12°57'37E	218,098.0756	120,467.5259	TO BE ESTABLISH
684	683-684	84.817	N81°18'16E	218,110.8984	120,551.3678	TO BE ESTABLISH
685	684-685	137.125	N47°15'38W	218,203.9607	120,450.6566	TO BE ESTABLISH
686	685-686	75.255	N63°41'00W	218,237.3237	120,383.2012	TO BE ESTABLISH
ARC	686-687	L: 62.408	A: 25°43'04	R: 139.036	T: 31.738	ARC DATA
687	686-687	61.885	N79°48'58W	218,248.2656	120,322.2912	TO BE ESTABLISH
ARC	687-657	L: 65.102	A: 12°44'07	R: 292.895	T: 32.686	ARC DATA
657	687-657	64.968	N60°35'22W	218,280.1690	120,265.6959	TO BE ESTABLISH

Area: 464,921.2499 sq mt =0= 118.2887 cuerda(s).

SURVEY TABLE
PROPERTY 14,608 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
999	---	---	---	220,294.4970	125,060.3590	TO BE ESTABLISH
998	999-998	9.848	N68°58'59E	220,298.0290	125,069.5520	TO BE ESTABLISH
997	998-997	30.717	N74°31'15E	220,306.2270	125,099.1550	TO BE ESTABLISH
1287	997-1287	7.686	N73°48'14E	220,308.3709	125,106.5363	TO BE ESTABLISH
1288	1287-1288	84.894	S15°44'31E	220,226.6611	125,129.5684	TO BE ESTABLISH
1289	1288-1289	73.559	S74°11'19W	220,206.6183	125,058.7921	TO BE ESTABLISH
1001	1289-1001	27.579	N00°31'02E	220,234.1960	125,059.0410	TO BE ESTABLISH
1000	1001-1000	17.844	N01°34'25E	220,252.0330	125,059.5310	TO BE ESTABLISH
999	1000-999	42.472	N01°07'01E	220,294.4970	125,060.3590	TO BE ESTABLISH

Area: 5,164.4563 sq mt =0= 1.3140 cuerda(s).

SURVEY TABLE
PARCEL 68 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
576	---	---	---	217,823.9054	117,766.2327	TO BE ESTABLISH
170	576-170	188.713	N62°25'35E	217,911.3068	117,933.4857	TO BE ESTABLISH
143	170-143	49.451	N15°54'54W	217,958.8620	117,919.9256	TO BE ESTABLISH
121	143-121	32.509	N33°37'58W	217,985.9294	117,901.9197	TO BE ESTABLISH
120	121-120	60.525	N33°37'38W	218,036.3224	117,868.3970	TO BE ESTABLISH
ARC	120-577	L: 10.797	A: 63°05'58	R: 9.804	T: 6.019	ARC DATA
577	120-577	10.259	N87°15'53W	218,036.8121	117,858.1496	TO BE ESTABLISH
ARC	577-578	L: 26.628	A: 25°53'23	R: 58.930	T: 13.545	ARC DATA
578	577-578	26.402	S58°51'53W	218,023.1605	117,835.5505	TO BE ESTABLISH
ARC	578-579	L: 186.762	A: 43°53'23	R: 243.808	T: 98.232	ARC DATA
579	578-579	182.229	S23°58'30W	217,856.6536	117,761.5038	TO BE ESTABLISH
ARC	579-576	L: 33.265	A: 20°29'38	R: 93.000	T: 16.812	ARC DATA
576	579-576	33.088	S08°13'01E	217,823.9054	117,766.2327	TO BE ESTABLISH

Area: 20,708.2307 sq mt =0= 5.2687 cuerda(s).

SURVEY TABLE
PARCEL 84 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
171	---	---	---	217,825.2678	117,973.4163	TO BE ESTABLISH
ARC	171-571	L: 3.327	A: 5°38'40	R: 33.772	T: 1.665	ARC DATA
571	571-572	3.326	S04°19'06E	217,821.9516	117,973.6667	TO BE ESTABLISH
ARC	571-572	L: 69.038	A: 87°43'36	R: 45.090	T: 43.336	ARC DATA
572	571-572	62.490	S36°11'47W	217,771.5226	117,936.7631	TO BE ESTABLISH
573	572-573	66.095	S80°03'36W	217,760.1134	117,871.6605	TO BE ESTABLISH
ARC	573-574	L: 104.952	A: 64°39'33	R: 93.000	T: 58.859	ARC DATA
574	573-574	99.471	N67°36'38W	217,798.0018	117,779.6883	TO BE ESTABLISH
575	574-575	2.011	N35°16'52W	217,799.6434	117,778.5268	TO BE ESTABLISH
ARC	576-577	L: 27.297	A: 16°49'02	R: 93.000	T: 13.747	ARC DATA
576	575-576	27.199	N26°52'21W	217,823.9054	117,766.2327	TO BE ESTABLISH
170	576-170	188.713	N62°24'35E	217,911.3068	117,933.4857	TO BE ESTABLISH
171	170-171	94.853	S24°53'46E	217,825.2678	117,973.4163	TO BE ESTABLISH

Area: 19,699.1112 sq mt =0= 5.0120 cuerda(s).

SURVEY TABLE
PARCEL 7-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1310	---	---	---	217,386.5550	122,234.0880	TO BE ESTABLISHED
718	1310-718	37.889	N76°08'48"E	217,395.6270	122,270.8750	TO BE ESTABLISHED
717	718-717	648.827	N08°52'29"E	218,036.6860	122,370.9710	TO BE ESTABLISHED
716	717-716	68.943	S45°51'10"W	217,988.6670	122,321.5010	TO BE ESTABLISHED
1310	716-1310	608.424	S08°15'37"W	217,386.5550	122,234.0880	TO BE ESTABLISHED

Area: 24,131.7812 sq mt =0= 6.1398 cuerda(s).

SURVEY TABLE
PARCEL 8-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
720	---	---	---	218,007.7560	122,405.8370	TO BE ESTABLISHED
721	720-721	34.062	S84°40'34"E	218,004.5956	122,439.7516	TO BE ESTABLISHED
1311	721-1311	598.436	S09°20'49"W	217,414.1045	122,342.5587	TO BE ESTABLISHED
719	1311-719	34.983	S75°44'28"W	217,405.4880	122,308.6530	TO BE ESTABLISHED
720	719-720	610.059	N09°09'59"E	218,007.7560	122,405.8370	TO BE ESTABLISHED

Area: 19,958.1697 sq mt =0= 5.0779 cuerda(s).

SURVEY TABLE
TAX ID: 402-000-005-54-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1312	---	---	---	217,072.9158	119,267.1821	TO BE ESTABLISHED
1313	1312-1313	232.762	N01°54'32"W	217,305.5484	119,259.4287	TO BE ESTABLISHED
1314	1313-1314	444.955	N89°06'23"E	217,312.4883	119,704.3298	TO BE ESTABLISHED
1315	1314-1315	217.174	S10°40'58"E	217,099.0785	119,744.5870	TO BE ESTABLISHED
1316	1315-1316	106.144	S87°38'23"W	217,094.7070	119,638.5329	TO BE ESTABLISHED
1317	1316-1317	124.253	N01°24'33"W	217,218.9227	119,635.4772	TO BE ESTABLISHED
1318	1317-1318	99.512	S88°53'17"W	217,216.9915	119,535.9842	TO BE ESTABLISHED
1319	1318-1319	140.014	S01°56'47"E	217,077.0580	119,540.7394	TO BE ESTABLISHED
1312	1319-1312	273.589	S89°07'57"W	217,072.9158	119,267.1821	TO BE ESTABLISHED

Area: 92,045.3210 sq mt =0= 23.4188 cuerda(s).

SURVEY TABLE
TAX ID: 403-000-002-16-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
716	---	---	---	217,988.6670	122,321.5010	TO BE ESTABLISHED
1320	716-1320	112.843	S45°27'36"W	217,909.5183	122,241.0713	TO BE ESTABLISHED
1321	1320-1321	4.740	S25°37'26"E	217,905.2446	122,243.1212	TO BE ESTABLISHED
1322	1321-1322	13.782	S14°32'23"E	217,891.9038	122,246.5812	TO BE ESTABLISHED
1323	1322-1323	11.441	S03°14'02"E	217,880.4813	122,247.2266	TO BE ESTABLISHED
1324	1323-1324	40.694	S09°18'42"W	217,840.3234	122,240.6421	TO BE ESTABLISHED
1325	1324-1325	66.352	S09°18'59"W	217,774.8466	122,229.9008	TO BE ESTABLISHED
1326	1325-1326	105.652	S09°40'25"W	217,670.6965	122,212.1476	TO BE ESTABLISHED
1327	1326-1327	6.410	S08°20'09"W	217,664.3546	122,211.2184	TO BE ESTABLISHED
1328	1327-1328	36.996	S07°53'13"W	217,627.7090	122,206.1419	TO BE ESTABLISHED
1329	1328-1329	24.043	S81°42'30"E	217,624.2417	122,229.9339	TO BE ESTABLISHED
1330	1329-1330	10.278	N08°11'15"E	217,634.4149	122,231.3977	TO BE ESTABLISHED
1331	1330-1331	5.251	S80°44'57"E	217,633.5708	122,236.5804	TO BE ESTABLISHED
1332	1331-1332	12.781	S81°09'13"E	217,631.6053	122,249.2091	TO BE ESTABLISHED
1333	1332-1333	2.807	S81°09'18"E	217,631.1737	122,251.9826	TO BE ESTABLISHED
1334	1333-1334	6.424	S07°36'54"W	217,624.8060	122,251.1313	TO BE ESTABLISHED
1335	1334-1335	3.615	S07°36'47"W	217,621.2224	122,250.6523	TO BE ESTABLISHED
1336	1335-1336	16.424	S81°42'31"E	217,618.8540	122,266.9042	TO BE ESTABLISHED
1337	1336-1337	0.925	S81°42'23"E	217,618.7206	122,267.8194	TO BE ESTABLISHED
716	1337-716	373.821	N08°15'23"E	217,988.6670	122,321.5010	TO BE ESTABLISHED

Area: 20,071.5734 sq mt =0= 5.1068 cuerda(s).

SURVEY TABLE
TAX ID: 402-027-327-22-000 (AS SURVEYED)

LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
---	---	---	217,764.3346	117,957.7711	TO BE ESTABLISHED
1338-579	143.894	S01°06'46"W	217,620.4679	117,954.9770	TO BE ESTABLISHED
579-1339	20.325	S82°35'37"W	217,617.8480	117,934.8220	TO BE ESTABLISHED
1339-1340	96.679	S83°00'35"W	217,606.0820	117,838.8620	TO BE ESTABLISHED
1340-1341	18.158	S82°59'08"W	217,603.8645	117,820.8396	TO BE ESTABLISHED
1341-1342	152.199	N04°35'44"W	217,755.5738	117,808.6451	TO BE ESTABLISHED
1342-1343	L: 67.181	A: 35°58'25"	R: 107.000	T: 34.739	ARC DATA
1342-1343	66.083	S81°57'12"E	217,746.3236	117,874.0772	TO BE ESTABLISHED
1343-1344	66.095	N80°03'36"E	217,757.7328	117,939.1798	TO BE ESTABLISHED
1344-1338	L: 19.821	A: 19°13'10"	R: 59.090	T: 10.005	ARC DATA
1344-1338	19.729	N70°27'00"E	217,764.3346	117,957.7711	TO BE ESTABLISHED

Area: 19,671.4617 sq mt =0= 5.0050 cuerda(s).

SURVEY TABLE
TAX ID: 402-026-327-19-000/402-027-327-21-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1342	---	---	---	217,755.5738	117,808.6451	TO BE ESTABLISHED
1341	1342-1341	152.199	S04°35'44"E	217,603.8645	117,820.8396	TO BE ESTABLISHED
1345	1341-1345	49.619	S82°59'08"W	217,597.8050	117,771.5920	TO BE ESTABLISHED
1346	1345-1346	33.183	S82°38'10"W	217,593.5520	117,738.6830	TO BE ESTABLISHED
1347	1346-1347	24.369	S83°55'27"W	217,590.9727	117,714.4512	TO BE ESTABLISHED
1348	1347-1348	162.735	N11°02'19"W	217,750.6970	117,683.2920	TO BE ESTABLISHED
ARC	1348-1349	L: 47.715	A: 25°33'01"	R: 107.000	T: 24.261	ARC DATA
1349	1348-1349	47.321	N75°49'07"E	217,762.2902	117,729.1704	TO BE ESTABLISHED
1350	1349-1350	42.710	N63°02'37"E	217,781.6510	117,767.2397	TO BE ESTABLISHED
ARC	1350-1351	L: 9.800	A: 74°51'54"	R: 7.500	T: 5.741	ARC DATA
1351	1350-1351	9.117	S79°31'27"E	217,779.9933	117,776.2051	TO BE ESTABLISHED
ARC	1351-1342	L: 40.851	A: 21°52'30"	R: 107.000	T: 20.678	ARC DATA
1342	1351-1342	40.604	S53°01'45"E	217,755.5738	117,808.6451	TO BE ESTABLISHED

Area: 19,717.2213 sq mt =0= 5.0166 cuerda(s).

SURVEY TABLE
PARCEL 31 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1348	---	---	---	217,750.6970	117,683.2920	TO BE ESTABLISHED
1347	1348-1347	162.735	S11°02'19"E	217,590.9727	117,714.4512	TO BE ESTABLISHED
1352	1347-1352	52.895	S83°55'27"W	217,585.3740	117,661.8530	TO BE ESTABLISHED
1353	1352-1353	17.801	S84°13'56"W	217,583.5850	117,644.1420	TO BE ESTABLISHED
1354	1353-1354	21.425	S82°12'26"W	217,580.6800	117,622.9150	TO BE ESTABLISHED
1355	1354-1355	30.021	S84°30'35"W	217,577.8077	117,593.0315	TO BE ESTABLISHED
1356	1355-1356	157.567	N08°43'47"W	217,733.5496	117,569.1169	TO BE ESTABLISHED
ARC	1356-1357	L: 57.325	A: 35°19'01"	R: 93.000	T: 29.606	ARC DATA
1357	1356-1357	56.422	N72°20'30"E	217,750.6647	117,622.8801	TO BE ESTABLISHED
1358	1357-1358	57.786	East	217,750.6647	117,680.6658	TO BE ESTABLISHED
ARC	1358-1348	L: 2.626	A: 1°24'23"	R: 107.000	T: 1.313	ARC DATA
1348	1358-1348	2.626	N89°17'49"E	217,750.6970	117,683.2920	TO BE ESTABLISHED

Area: 19,679.8355 sq mt =0= 5.0071 cuerda(s).

SURVEY TABLE
PARCEL 47 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
896	---	---	---	217,693.4758	119,187.5072	TO BE ESTABLISHED
897	896-897	181.772	N02°26'17"E	217,875.0828	119,195.2398	TO BE ESTABLISHED
898	897-898	38.509	S38°29'50"W	217,844.9438	119,171.2686	TO BE ESTABLISHED
1359	898-1359	164.633	S46°30'19"W	217,731.6286	119,051.8376	TO BE ESTABLISHED
1360	1359-1360	149.694	South	217,581.9348	119,051.8376	TO BE ESTABLISHED
1361	1360-1361	11.820	N42°35'48"E	217,590.6357	119,059.8376	TO BE ESTABLISHED
1362	1361-1362	93.722	N42°35'48"E	217,659.6276	119,123.2717	TO BE ESTABLISHED
ARC	1362-896	L: 73.987	A: 38°26'05"	R: 110.295	T: 38.446	ARC DATA
896	1362-896	72.608	N62°12'49"E	217,693.4758	119,187.5072	TO BE ESTABLISHED

Area: 20,893.2509 sq mt =0= 5.3158 cuerda(s).

SURVEY TABLE
PARCEL 35 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1363	---	---	---	217,691.6527	119,269.9228	TO BE ESTABLISHED
1364	1363-1364	80.324	S83°15'39"W	217,682.2268	119,190.1540	TO BE ESTABLISHED
ARC	1364-1365	L: 68.691	A: 41°25'42"	R: 95.000	T: 35.924	ARC DATA
1365	1364-1365	67.204	S62°32'48"W	217,651.2441	119,130.5179	TO BE ESTABLISHED
1366	1365-1366	238.858	S30°52'38"E	217,446.2395	119,253.0998	TO BE ESTABLISHED
1367	1366-1367	14.346	N01°43'58"W	217,460.5790	119,252.6660	TO BE ESTABLISHED
1368	1367-1368	83.392	N00°59'47"W	217,543.9580	119,251.2160	TO BE ESTABLISHED
1369	1368-1369	36.552	S85°58'38"E	217,541.3939	119,287.6775	TO BE ESTABLISHED
1363	1369-1363	151.304	N06°44'20"W	217,691.6527	119,269.9228	TO BE ESTABLISHED

Area: 19,653.4048 sq mt =0= 5.0004 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

N W E S

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
16 Cordova St. | Terralinda | Caguas, PR 00727
Phone: (787)746-5486 Fax: (787)704-6215
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC.NO. 12972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024		22 / 23
PROJECT JEB-3840	VF-22	

FILE NAME : 3840-EC

PAPER SIZE: 30x42

SURVEY TABLE

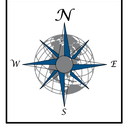
GROUPED PARCEL (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
684	---	---	---	218,110.8984	120,551.3678	TO BE ESTABLISH
688	684-688	170.508	N74°56'54E	218,155.1780	120,716.0260	TO BE ESTABLISH
689	688-689	23.095	S00°22'47E	218,132.0840	120,716.1790	TO BE ESTABLISH
690	689-690	119.513	S03°06'05E	218,012.7460	120,722.6450	TO BE ESTABLISH
691	690-691	59.936	S00°09'14E	217,952.8100	120,722.8060	TO BE ESTABLISH
692	691-692	18.222	S07°53'19E	217,934.7600	120,725.3070	TO BE ESTABLISH
693	692-693	246.575	S07°04'13W	217,690.0600	120,694.9570	TO BE ESTABLISH
694	693-694	184.394	N87°45'57E	217,697.2480	120,879.2110	TO BE ESTABLISH
695	694-695	70.152	N01°24'18W	217,767.3790	120,877.4910	TO BE ESTABLISH
696	695-696	80.336	N02°25'01W	217,847.6440	120,874.1030	TO BE ESTABLISH
697	696-697	25.149	N63°09'43E	217,858.9980	120,896.5430	TO BE ESTABLISH
698	697-698	10.602	S76°21'02E	217,856.4960	120,906.8460	TO BE ESTABLISH
699	698-699	18.967	S72°43'23E	217,850.8630	120,924.9570	TO BE ESTABLISH
700	699-700	245.648	S74°29'26E	217,785.1770	121,161.6600	TO BE ESTABLISH
701	700-701	83.762	S19°39'47E	217,706.2990	121,189.8450	TO BE ESTABLISH
702	701-702	12.144	N85°45'51E	217,707.1960	121,201.9560	TO BE ESTABLISH
703	702-703	142.996	N86°31'49E	217,715.8500	121,344.6900	TO BE ESTABLISH
704	703-704	154.032	N65°37'40E	217,779.4130	121,484.9950	TO BE ESTABLISH
705	704-705	19.301	N00°42'23E	217,798.7130	121,485.2330	TO BE ESTABLISH
706	705-706	268.341	N57°17'25E	217,943.7200	121,711.0200	TO BE ESTABLISH
707	706-707	7.298	N85°35'28E	217,944.2810	121,718.2960	TO BE ESTABLISH
708	707-708	18.980	S23°34'29W	217,926.8850	121,710.7050	TO BE ESTABLISH
709	708-709	132.790	S18°33'09W	217,800.9960	121,668.4550	TO BE ESTABLISH
710	709-710	66.115	S68°28'33E	217,776.7390	121,729.9590	TO BE ESTABLISH
711	710-711	100.099	N86°13'08E	217,783.3400	121,829.8400	TO BE ESTABLISH
712	711-712	120.001	N03°23'48E	217,903.1300	121,836.9500	TO BE ESTABLISH
713	712-713	174.593	S77°37'42E	217,865.7230	122,007.4890	TO BE ESTABLISH
714	713-714	161.339	S79°48'45E	217,837.1870	122,166.2840	TO BE ESTABLISH
715	714-715	113.192	N45°57'23E	217,915.8790	122,247.6480	TO BE ESTABLISH
716	715-716	103.694	N45°24'58E	217,988.6670	122,321.5010	TO BE ESTABLISH
717	716-717	68.943	N45°51'10E	218,036.6860	122,370.9710	TO BE ESTABLISH
718	717-718	648.827	S08°52'29W	217,395.6270	122,270.8750	TO BE ESTABLISH
719	718-719	39.044	N75°22'15E	217,405.4880	122,308.6530	TO BE ESTABLISH
720	719-720	610.059	N09°09'59E	218,007.7560	122,405.8370	TO BE ESTABLISH
721	720-721	34.062	S84°40'34E	218,004.5956	122,439.7516	TO BE ESTABLISH
722	721-722	76.854	N09°29'46E	218,080.3970	122,452.4310	TO BE ESTABLISH
723	722-723	61.506	S67°33'06W	218,056.9110	122,395.5860	TO BE ESTABLISH
724	723-724	252.072	N12°09'01W	218,303.3360	122,342.5310	TO BE ESTABLISH
725	724-725	11.849	N24°56'35W	218,314.0800	122,337.5340	TO BE ESTABLISH
726	725-726	295.769	N85°58'37E	218,434.4890	122,607.6840	TO BE ESTABLISH
727	726-727	24.008	N53°39'22E	218,448.7170	122,627.0220	TO BE ESTABLISH
728	727-728	33.048	N45°29'56E	218,471.8810	122,650.5930	TO BE ESTABLISH
729	728-729	16.368	N14°43'39E	218,487.7110	122,654.7540	TO BE ESTABLISH
730	729-730	205.454	N06°52'06W	218,691.6910	122,630.1840	TO BE ESTABLISH
731	730-731	31.235	N80°35'09W	218,696.8000	122,599.3700	TO BE ESTABLISH
732	731-732	306.135	S89°35'52W	218,694.6510	122,293.2430	TO BE ESTABLISH
733	732-733	181.527	N03°10'38W	218,875.8990	122,283.1820	TO BE ESTABLISH
734	733-734	102.119	N83°39'33E	218,887.1771	122,384.6762	TO BE ESTABLISH
735	734-735	158.114	N03°08'24W	219,045.0541	122,376.0156	TO BE ESTABLISH
736	735-736	108.391	S67°56'13W	219,004.3396	122,275.5616	TO BE ESTABLISH
737	736-737	119.054	S03°23'41E	218,885.4942	122,282.6115	TO BE ESTABLISH
738	737-738	28.148	S84°28'16W	218,882.7821	122,254.5941	TO BE ESTABLISH
739	738-739	22.062	S05°31'45E	218,860.8232	122,256.7198	TO BE ESTABLISH
740	739-740	757.412	S84°29'41W	218,788.1589	121,502.8012	TO BE ESTABLISH
741	740-741	79.026	N05°32'09W	218,866.8165	121,495.1776	TO BE ESTABLISH
742	741-742	27.297	S45°58'18W	218,847.8451	121,475.5515	TO BE ESTABLISH
743	742-743	18.304	N70°53'57W	218,853.8346	121,458.2555	TO BE ESTABLISH
744	743-744	7.750	S63°18'15W	218,850.3531	121,451.3319	TO BE ESTABLISH
745	744-745	14.351	S46°46'37W	218,840.5253	121,440.8748	TO BE ESTABLISH
746	745-746	27.612	S77°55'18W	218,834.7474	121,413.8739	TO BE ESTABLISH
747	746-747	18.795	N78°14'14W	218,838.5789	121,395.4737	TO BE ESTABLISH
748	747-748	12.612	N32°27'29W	218,849.2205	121,388.7052	TO BE ESTABLISH
749	748-749	15.289	S75°47'17W	218,845.4670	121,373.8845	TO BE ESTABLISH
750	749-750	4.671	S13°00'42W	218,840.9162	121,372.8329	TO BE ESTABLISH
751	750-751	31.438	West	218,840.9162	121,341.3953	TO BE ESTABLISH
752	751-752	37.912	N31°54'46W	218,873.0980	121,321.3539	TO BE ESTABLISH
753	752-753	29.245	N68°40'39W	218,883.7318	121,294.1112	TO BE ESTABLISH
754	753-754	39.053	N84°21'39W	218,887.5692	121,255.2476	TO BE ESTABLISH
755	754-755	10.221	N28°15'44W	218,896.5718	121,250.4079	TO BE ESTABLISH
756	755-756	6.339	S83°46'20W	218,895.8842	121,244.1066	TO BE ESTABLISH
757	756-757	4.280	S65°56'20W	218,894.1391	121,240.1983	TO BE ESTABLISH
758	757-758	16.775	S33°59'52W	218,880.2313	121,230.8181	TO BE ESTABLISH
759	758-759	19.338	S44°20'52W	218,866.4026	121,217.3008	TO BE ESTABLISH
760	759-760	16.061	N71°09'47W	218,871.5884	121,202.0997	TO BE ESTABLISH
761	760-761	35.290	S64°21'35W	218,856.3179	121,170.2850	TO BE ESTABLISH
762	761-762	27.245	N89°29'37W	218,856.5588	121,143.0412	TO BE ESTABLISH
763	762-763	14.010	N52°58'06W	218,864.9964	121,131.8569	TO BE ESTABLISH
764	763-764	10.909	S66°47'10W	218,860.6965	121,121.8311	TO BE ESTABLISH
765	764-765	23.285	N73°36'14W	218,867.2693	121,099.4931	TO BE ESTABLISH
766	765-766	11.972	S86°45'21W	218,866.5918	121,087.5406	TO BE ESTABLISH
767	766-767	32.650	N53°12'39W	218,886.1449	121,061.3932	TO BE ESTABLISH
768	767-768	16.370	N01°52'06E	218,902.5060	121,061.9268	TO BE ESTABLISH
769	768-769	10.763	N87°06'56W	218,903.0476	121,051.1779	TO BE ESTABLISH
770	769-770	8.499	S43°45'12W	218,896.9088	121,045.3007	TO BE ESTABLISH
771	770-771	18.650	S83°14'07W	218,894.7120	121,026.7805	TO BE ESTABLISH
772	771-772	4.148	S68°16'44W	218,893.1769	121,022.9271	TO BE ESTABLISH
773	772-773	6.690	S55°19'11W	218,889.3702	121,017.4254	TO BE ESTABLISH
774	773-774	6.921	S53°43'56W	218,885.2761	121,011.8454	TO BE ESTABLISH
775	774-775	8.397	S09°20'57W	218,876.9912	121,010.4814	TO BE ESTABLISH
776	775-776	11.088	S70°34'17W	218,873.3031	121,000.0252	TO BE ESTABLISH
777	776-777	9.840	S49°19'17W	218,866.8891	120,992.5627	TO BE ESTABLISH
778	777-778	17.973	N79°19'49W	218,870.2168	120,974.9002	TO BE ESTABLISH
779	778-779	2.959	N50°24'41W	218,872.1026	120,972.6198	TO BE ESTABLISH
780	779-780	7.055	N75°35'40W	218,873.8577	120,965.7870	TO BE ESTABLISH
781	780-781	6.382	N81°10'52W	218,874.8361	120,959.4807	TO BE ESTABLISH
782	781-782	26.336	N85°24'29W	218,876.9445	120,933.2288	TO BE ESTABLISH
783	782-783	12.177	S28°47'30W	218,866.2726	120,927.3639	TO BE ESTABLISH
784	783-784	20.841	N87°31'57W	218,867.1698	120,906.5426	TO BE ESTABLISH
785	784-785	18.569	N56°59'20W	218,877.2862	120,890.9714	TO BE ESTABLISH
786	785-786	16.435	N70°55'31W	218,882.6571	120,875.4391	TO BE ESTABLISH
787	786-787	35.496	S85°36'44W	218,879.9414	120,840.0474	TO BE ESTABLISH
788	787-788	38.377	N81°13'38W	218,885.7946	120,802.1191	TO BE ESTABLISH
789	788-789	10.394	N00°37'05E	218,896.1878	120,802.2312	TO BE ESTABLISH
790	789-790	35.034	N56°45'37W	218,915.3917	120,772.9289	TO BE ESTABLISH
791	790-791	42.274	N84°08'12W	218,919.7101	120,730.8763	TO BE ESTABLISH
792	791-792	40.016	S78°34'12W	218,911.7801	120,691.6535	TO BE ESTABLISH
793	792-793	44.845	S67°39'26W	218,894.7324	120,650.1750	TO BE ESTABLISH
794	793-794	49.963	N86°29'28W	218,897.7904	120,600.3062	TO BE ESTABLISH
795	794-795	140.131	N79°06'41W	218,924.2611	120,462.6978	TO BE ESTABLISH
796	795-796	32.174	N79°34'14W	218,930.0854	120,431.0553	TO BE ESTABLISH
797	796-797	17.834	N67°08'30W	218,937.0130	120,414.6222	TO BE ESTABLISH
798	797-798	24.983	N74°07'21W	218,943.8479	120,390.5923	TO BE ESTABLISH
799	798-799	26.643	N30°13'03W	218,966.8705	120,377.1833	TO BE ESTABLISH
800	799-800	21.049	N88°48'49W	218,967.3064	120,356.1389	TO BE ESTABLISH
801	800-801	29.170	N48°52'51W	218,986.4892	120,334.1641	TO BE ESTABLISH
802	801-802	39.148	N82°07'59W	218,991.8476	120,295.3842	TO BE ESTABLISH
803	802-803	32.187	S67°53'28W	218,979.7336	120,265.5641	TO BE ESTABLISH
804	803-804	4.336	S47°36'11W	218,976.8100	120,262.3620	TO BE ESTABLISH
805	804-805	15.903	S17°12'18W	218,961.6186	120,257.6580	TO BE ESTABLISH
806	805-806	54.793	S64°34'52W	218,938.0995	120,208.1689	TO BE ESTABLISH
807	806-807	55.377	S87°39'42W	218,935.8400	120,152.8379	TO BE ESTABLISH
808	807-808	41.768	N54°46'30W	218,959.9315	120,118.7176	TO BE ESTABLISH
809	808-809	64.925	N41°23'38W	219,008.6368	120,075.7874	TO BE ESTABLISH
810	809-810	44.027	N74°50'25W	219,020.1502	120,033.2924	TO BE ESTABLISH
811	810-811	53.909	N84°56'08W	219,024.9092	119,979.5942	TO BE ESTABLISH
812	811-812	29.026	N70°52'08W	219,034.4219	119,952.1714	TO BE ESTABLISH
813	812-813	45.162	S74°24'11W	219,022.2794	119,908.6728	TO BE ESTABLISH
814	813-814	92.253	S82°20'40W	219,009.9896	119,817.2421	TO BE ESTABLISH
815	814-815	2.495	S44°40'50W	219,008.2156	119,815.4878	TO BE ESTABLISH
816	815-816	27.687	S80°32'30W	219,003.6658	119,788.1775	TO BE ESTABLISH
817	816-817	7.789	N25°14'04W	219,010.7116	119,784.8568	TO BE ESTABLISH
818	817-818	23.443	S58°51'36W	218,998.5886	119,764.7919	TO BE ESTABLISH
819	818-819	7.090	S05°20'30W	218,991.5296	119,764.1319	TO BE ESTABLISH
820	819-820	12.282	S30°56'40W	218,980.9954	119,757.8162	TO BE ESTABLISH
821	820-821	1.456	S41°43'20E	218,979.9086	119,758.7852	TO BE ESTABLISH
822	821-822	30.325	S37°20'08W	218,955.7973	119,740.3937	TO BE ESTABLISH
823	822-823	8.939	N80°24'14W	218,957.2875	119,731.5795	TO BE ESTABLISH
824	823-824	5.895	S20°55'27W	218,951.7815	119,729.4743	TO BE ESTABLISH
825	824-825	33.623	S61°57'53W	218,935.9780	119,699.7965	TO BE ESTABLISH
826	825-826	7.856	N50°30'07W	218,940.9750	119,693.7343	TO BE ESTABLISH
827	826-827	2.520	S30°29'03W	218,938.8031	119,692.4557	TO BE ESTABLISH
828	827-828	28.569	N67°34'27W	218,949.7019	119,666.0471	TO BE ESTABLISH
829	828-829	19.550	S87°43'47W	218,948.9274	119,646.5123	TO BE ESTABLISH
830	829-830	8.498	S67°14'51W	218,945.6407	119,638.6752	TO BE ESTABLISH
831	830-831	7.719	S09°53'34E	218,938.0364	119,640.0014	TO BE ESTABLISH
832	831-832	66.714	S61°46'20W	218,906.4821	119,581.2215	TO BE ESTABLISH
833	832-833	0.231	S31°43'08E	218,906.2854	119,581.3431	TO BE ESTABLISH
834	833-834	2.062	S68°11'48W	218,905.5194	119,579.4283	TO BE ESTABLISH
835	834-835	7.026	S61°46'20W	218,902.1961	119,573.2375	TO BE ESTABLISH
836	835-836	0.789	N26°53'03W	218,902.9001	119,572.8806	TO BE ESTABLISH
837	836-837	32.265	S68°11'48W	218,890.9162	119,542.9238	TO BE ESTABLISH
838	837-838	42.474	S82°27'12W	218,885.3380	119,500.8176	TO BE ESTABLISH
839	838-839	7.493	North	218,892.8310	119,500.8176	TO BE ESTABLISH
840	839-840	62.271	S78°31'54W	218,880.4497	119,439.7895	TO BE ESTABLISH
564	840-564	48.712	S81°08'05W	218,872.9426	119,391.6593	TO BE ESTABLISH
565	564-565	95.986	S10°57'21E	218,778.7058	119,409.9018	TO BE ESTABLISH
841	565-841	162.460	S14°01'43E	218,621.0912	119,449.2829	TO BE ESTABLISH
842	841-842	61.412	S13°28'29E	218,561.3696	119,463.5929	TO BE ESTABLISH
843	842-843	77.819	S14°34'55E	218,486.0569	119,483.1852	TO BE ESTABLISH
844	843-844	131.574	S14°34'55E	218,358.7208	119,516.3112	TO BE ESTABLISH
845	844-845	19.855	S14°34'55E	218,339.5054	119,521.3100	TO BE ESTABLISH
846	845-846	104.763	S14°23'31E	218,238.0300	119,547.3491	TO BE ESTABLISH
847	846-847	144.500	S14°23'31E	218,098.0647	119,583.2649	TO BE ESTABLISH
848	847-848	80.476	S10°54'08E	218,019.0411	119,598.4856	TO BE ESTABLISH
675	848-675	249.624	S10°54'08E	217,773.9228	119,645.6977	TO BE ESTABLISH
674	675-674	189.711	N35°58'50E	217,927.4402	119,757.1552	TO BE ESTABLISH
673	674-673	55.597	N34°43'40E	217,973.1332	119,788.8275	TO BE ESTABLISH
672	673-672	132.743	N28°23'46E	218,089.9044	119,851.9550	TO BE ESTABLISH
671	672-671	413.025	N08°18'14W	218,498.5997	119,792.3055	TO BE ESTABLISH
849	671-849	166.445	N08°44'33W	218,663.1108	119,767.0068	TO BE ESTABLISH
670	849-670	155.002	N08°44'33W	218,816.3115	119,743.4475	TO BE ESTABLISH
669	670-669	30.579	N81°15'27E	218,820.9592	119,773.6709	TO BE ESTABLISH
668	669-668	34.471	S60°38'11E	218,804.0561	119,803.7135	TO BE ESTABLISH
667	668-667	66.065	S13°18'48E	218,739.7664	119,818.9269	TO BE ESTABLISH
666	667-666	8.750	S18°02'50E	218,731.4467	119,821.6378	TO BE ESTABLISH
665	666-665	55.304	S48°24'26E	218,694.7345	119,862.9983	TO BE ESTABLISH
664	665-664	53.094	N87°50'12E	218,696.7386	119,916.0544	TO BE ESTABLISH
663	664-663	29.430	S01°44'40W	218,667.3221	119,915.1585	TO BE ESTABLISH
662	663-662	52.546	S22°19'43E	218,618.7160	119,935.1217	TO BE ESTABLISH
661	662-661	62.590	S19°26'24E	218,559.6943	119,955.9529	TO BE ESTABLISH
660	661-660	50.863	S36°40'28E	218,518.8998	119,986.3317	TO BE ESTABLISH
659	660-659	97.256	S56°05'50E	218,464.6519	120,067.0526	TO BE ESTABLISH
ARC	659-658	L: 190.171	A: 55°24'51	R: 196.628	T: 103.263	ARC DATA
658	659-658	182.845	S47°52'19E	218,342.0014	120,202.6596	TO BE ESTABLISH
ARC	658-657	L: 88.637	A: 17°20'21	R: 292.895	T: 44.660	ARC DATA
657	658-657	88.300	S45°33'09E	218,280.1690	120,265.6959	TO BE ESTABLISH
ARC	657-687	L: 65.102	A: 12°44'07	R: 292.895	T: 32.686	ARC DATA
687	657-687	64.968	S60°35'22E	218,248.2656	120,322.2912	TO BE ESTABLISH
ARC	687-686	L: 62.408	A: 25°43'04	R: 139.036	T: 31.738	ARC DATA
686	687-686	61.885	S79°48'58E	218,237.3237	120,383.2012	TO BE ESTABLISH
685	686-685	75.255	S63°41'00E	218,203.9607	120,450.6566	TO BE ESTABLISH
684	685-684	137.125	S47°15'38E	218,110.8984	120,551.3678	TO BE ESTABLISH

Area: 2,689,262.2584 sq mt =0= 684.2218 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1



REVISION | BY: | DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER E. BIDOT ASSOCIATES, PSC

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
Ave. Juan Ponce de León #1607
Phone: (787)746-4484, Fax: (787)704-0215
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERÓN BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1

PLOT SCALE : 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE, MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17 OF THE FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT FULL AND COMPLETE WITHOUT THE ATTACHED RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OF DELETIONS TO SURVEY MAPS BY PERSONS OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LICNO. 13972

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO. VF-23	SHEET NO. 23 / 23
PROJECT JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840 - EC

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:24,000

500 250 0 500 Meters

Water Courses - Existing Condition

Esencia - Cabo Rojo, PR

N
W E
S

Date: 5/15/2024

PMG AND ASSOCIATES

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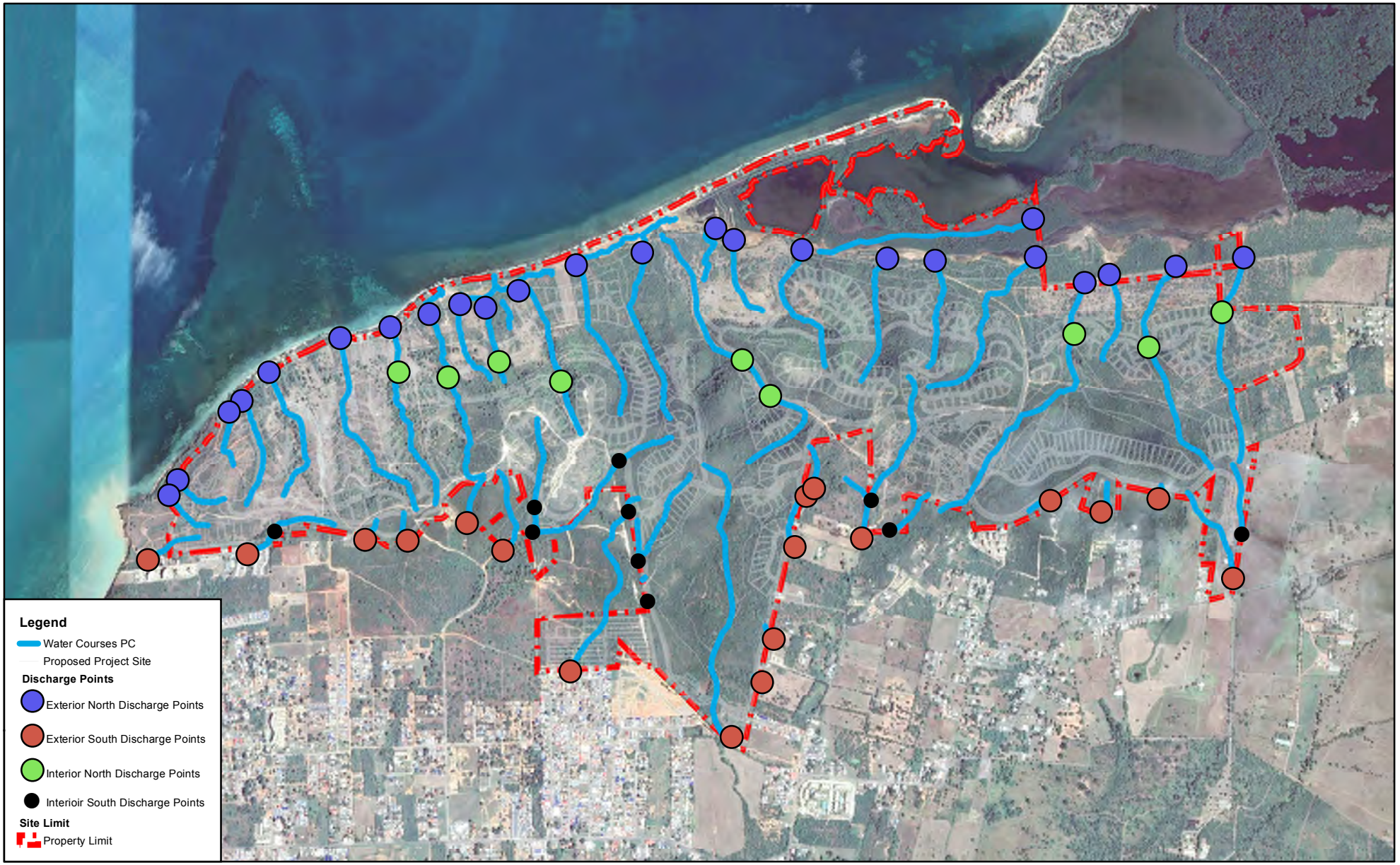


Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:24,000

500 250 0 500 Meters

Water Courses - Proposed Condition

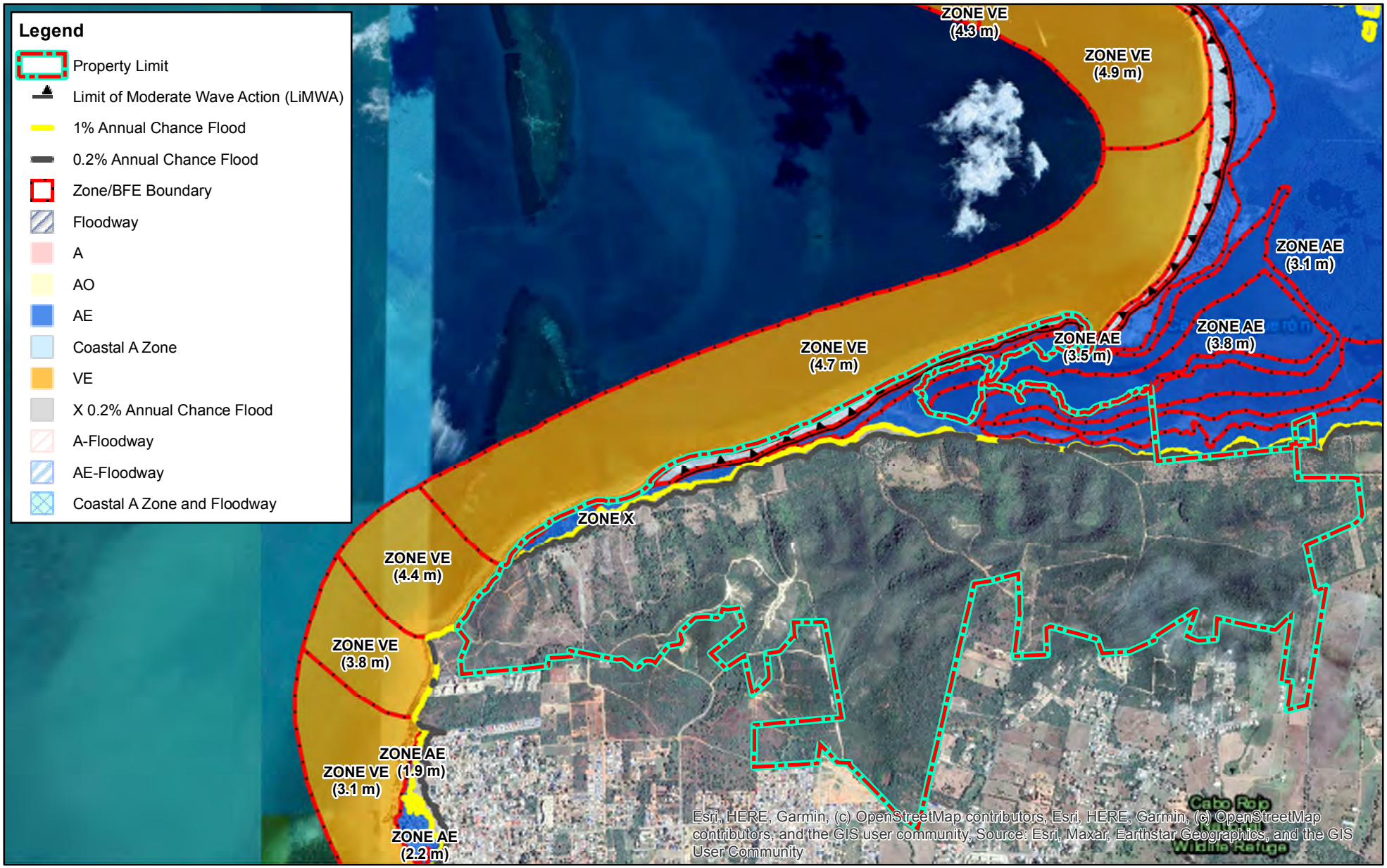
Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMG AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_WaterCoursesLFP_(10_2)_Comp.mxd



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:30,000

600 300 0 600 Meters

FEMA's Advisory Base Flood Elevation Map (ABFE)

(General Project Site)

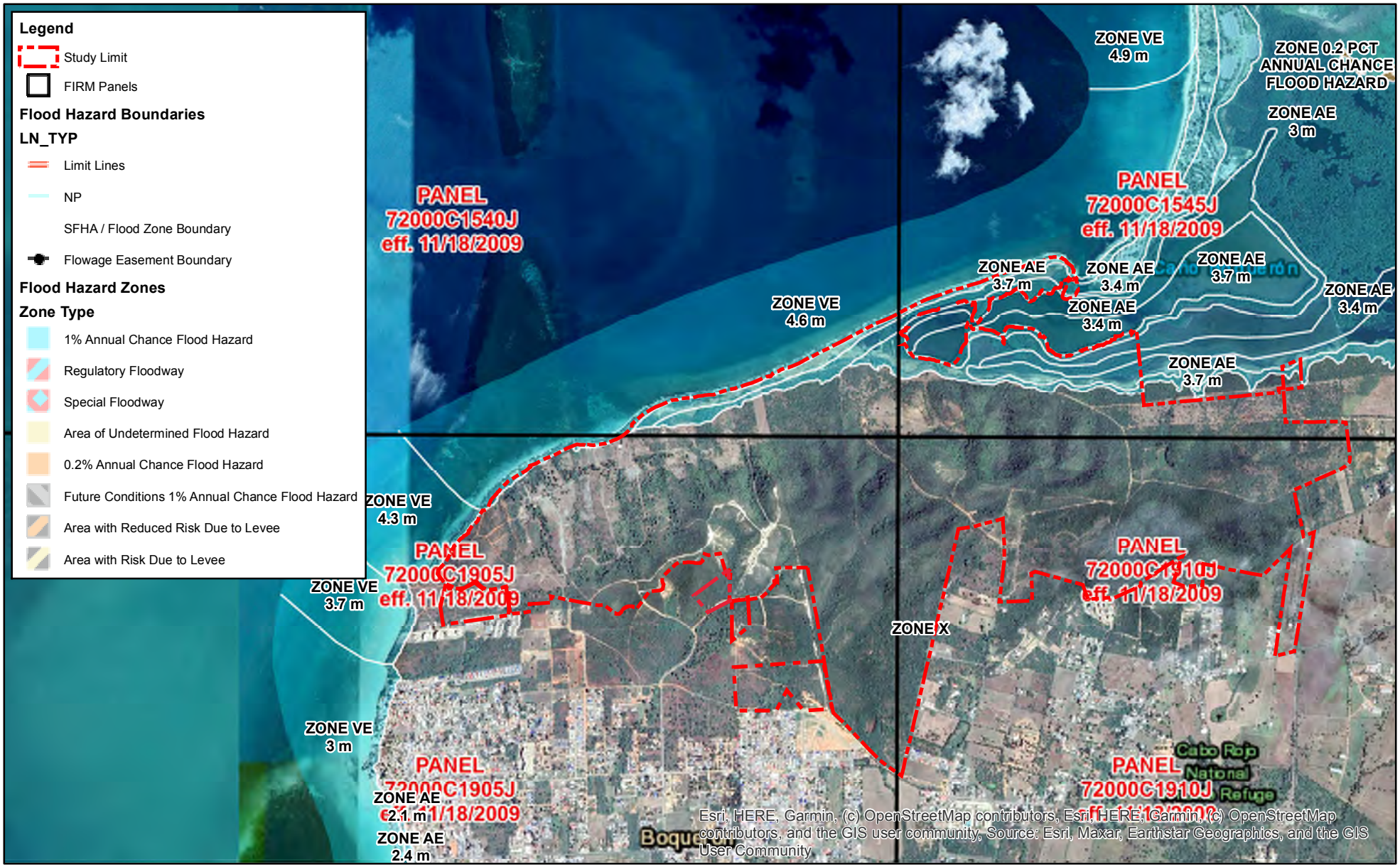
Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMC AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_FloodMap-ABFE_(10_2).mxd



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:30,000

600 300 0 600 Meters

FEMA Flood Insurance Rate Map (FIRM)

Escencia - Cabo Rojo, PR

N W E S

Date: 12/19/2023

PMG AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_FloodMap-FIRM(10_2).mxd

NOAA Atlas 14, Volume 3, Version 4
Location name: Boquerón, Puerto Rico, PRI*
Latitude: 17.9973°, Longitude: -67.187°
Elevation: 41 m**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

AMS-based point precipitation frequency estimates with 90% confidence intervals (in millimeters)[1]

Duration	Annual exceedance probability (1/years)								
	1/2	1/5	1/10	1/25	1/50	1/100	1/200	1/500	1/1000
5-min	13 (12-14)	16 (15-17)	18 (16-19)	20 (18-21)	21 (20-23)	22 (21-25)	24 (22-26)	26 (24-29)	27 (25-31)
10-min	18 (17-19)	22 (20-23)	24 (22-26)	27 (25-29)	29 (27-31)	31 (29-34)	33 (30-36)	35 (32-39)	37 (34-42)
15-min	23 (21-24)	28 (26-30)	31 (29-33)	34 (32-37)	37 (34-40)	39 (37-43)	42 (39-46)	45 (41-50)	48 (44-54)
30-min	37 (34-39)	44 (42-47)	49 (46-53)	55 (51-59)	59 (55-64)	63 (59-69)	67 (62-74)	72 (66-81)	76 (70-86)
60-min	54 (51-58)	66 (62-70)	73 (68-78)	82 (76-88)	88 (82-95)	94 (87-102)	99 (92-109)	107 (99-120)	113 (104-127)
2-hr	69 (64-74)	86 (80-92)	97 (90-103)	110 (102-119)	120 (111-131)	131 (119-144)	141 (128-157)	154 (139-174)	164 (147-187)
3-hr	72 (67-78)	92 (85-99)	105 (97-113)	123 (112-134)	136 (123-150)	150 (134-167)	164 (145-185)	183 (159-210)	198 (170-230)
6-hr	81 (74-89)	109 (99-119)	129 (116-141)	155 (138-172)	176 (154-198)	197 (170-226)	220 (187-256)	252 (210-300)	278 (228-336)
12-hr	90 (80-101)	127 (113-143)	157 (138-177)	201 (173-229)	237 (200-274)	277 (228-327)	320 (259-386)	384 (301-474)	437 (334-549)
24-hr	103 (91-117)	154 (136-174)	195 (171-221)	257 (221-293)	309 (263-356)	367 (307-427)	432 (355-509)	528 (423-631)	609 (478-736)
2-day	124 (110-141)	182 (161-207)	230 (201-262)	301 (258-345)	361 (305-418)	427 (354-502)	500 (407-597)	609 (483-742)	701 (545-866)
3-day	128 (114-146)	188 (167-213)	236 (207-267)	304 (263-348)	362 (309-420)	429 (357-505)	503 (408-600)	612 (486-745)	704 (548-870)
4-day	133 (118-151)	195 (173-219)	242 (213-273)	308 (268-350)	364 (312-422)	431 (360-507)	505 (410-603)	615 (488-749)	708 (550-875)
7-day	154 (139-174)	221 (198-248)	271 (241-303)	338 (298-381)	395 (344-448)	454 (391-521)	518 (441-609)	618 (517-757)	715 (577-883)
10-day	174 (156-195)	245 (220-274)	296 (265-331)	366 (324-409)	420 (369-473)	478 (416-543)	539 (464-618)	639 (541-764)	720 (602-892)
20-day	239 (218-264)	323 (294-357)	382 (345-423)	459 (411-510)	518 (461-578)	579 (511-650)	641 (561-725)	731 (631-835)	801 (685-924)
30-day	290 (265-319)	388 (353-427)	454 (412-501)	539 (485-597)	603 (539-672)	668 (593-749)	734 (647-829)	823 (716-939)	896 (773-1030)
45-day	363 (334-396)	474 (435-517)	547 (500-597)	637 (579-698)	703 (636-773)	768 (692-850)	834 (746-928)	922 (817-1034)	988 (869-1116)
60-day	425 (392-462)	550 (506-599)	631 (578-687)	728 (664-796)	799 (725-876)	869 (784-957)	938 (842-1037)	1028 (916-1147)	1097 (971-1231)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of annual maxima series (AMS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and annual exceedance probability) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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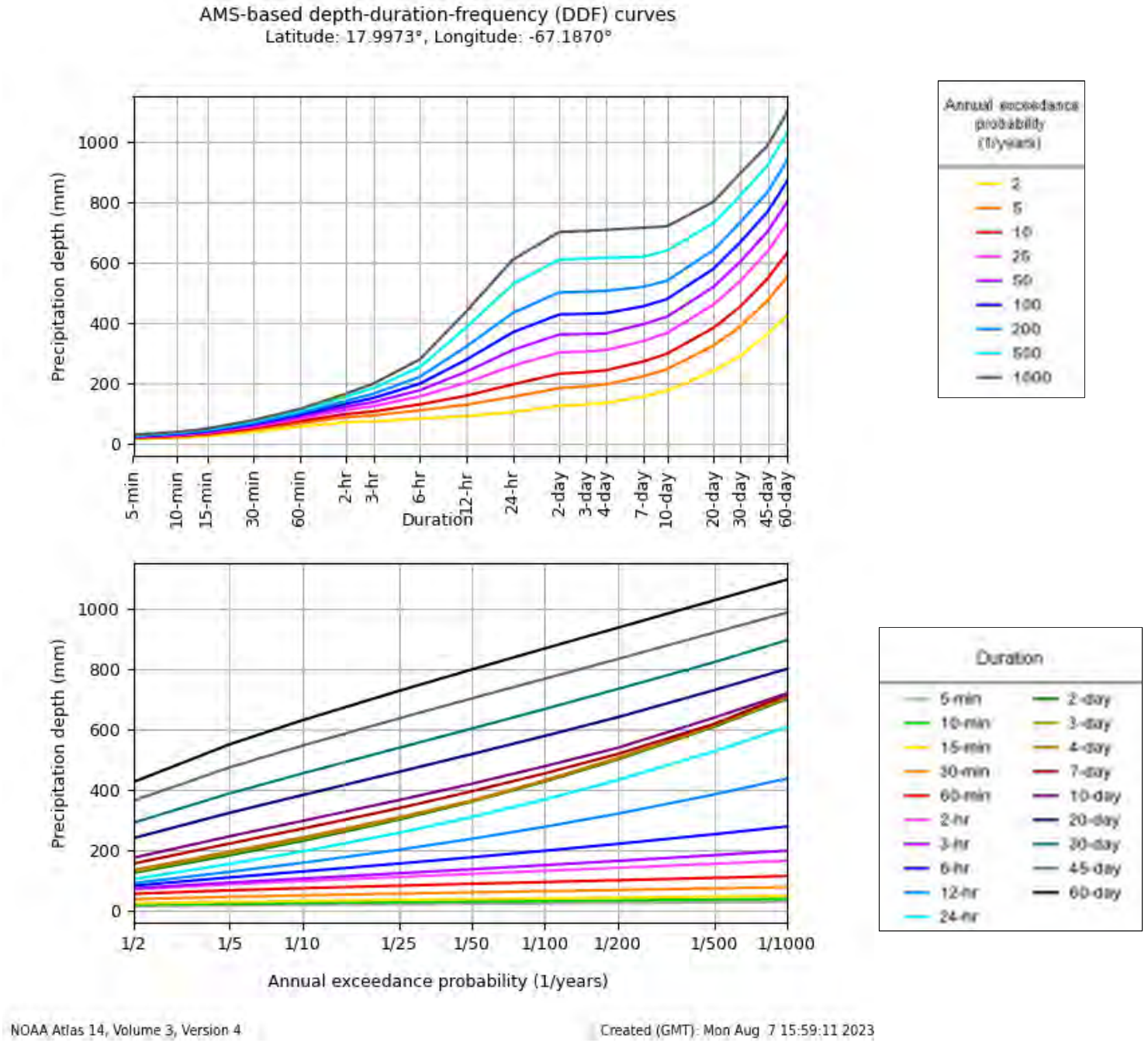
PF graphical



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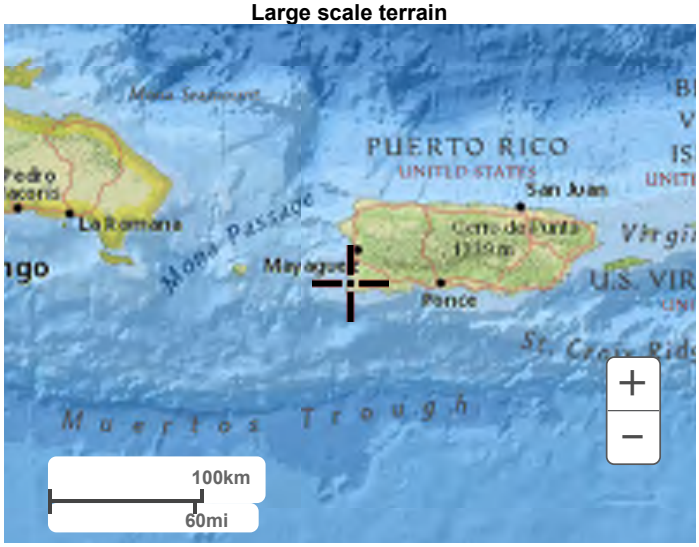
Maps & aerials

Small scale terrain

Large scale terrain



Large scale map

Large scale aerial

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

Disclaimer

NOAA Atlas 14, Volume 3, Version 4
Location name: Boquerón, Puerto Rico, PRI*
Latitude: 17.9973°, Longitude: -67.187°
Elevation: 41 m**
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POINT PRECIPITATION FREQUENCY ESTIMATES

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NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

AMS-based point precipitation frequency estimates with 90% confidence intervals (in millimeters/hour)[1]

Duration	Annual exceedance probability (1/years)								
	1/2	1/5	1/10	1/25	1/50	1/100	1/200	1/500	1/1000
5-min	**157** (147-167)	**190** (177-203)	**211** (197-226)	**235** (219-253)	**252** (236-273)	**269** (251-294)	**287** (265-315)	**309** (284-344)	**327** (298-367)
10-min	**107** (100-114)	**130** (121-139)	**144** (134-154)	**160** (150-173)	**173** (161-186)	**184** (171-201)	**196** (181-215)	**212** (194-235)	**223** (204-251)
15-min	**92** (86-98)	**111** (104-119)	**123** (115-132)	**137** (128-148)	**148** (138-160)	**158** (147-172)	**168** (155-184)	**181** (166-201)	**191** (174-215)
30-min	**73** (69-78)	**89** (83-95)	**99** (92-106)	**110** (103-118)	**118** (110-128)	**126** (117-138)	**134** (124-148)	**145** (133-161)	**153** (140-172)
60-min	**54** (51-58)	**66** (62-70)	**73** (68-78)	**82** (76-88)	**88** (82-95)	**94** (87-102)	**99** (92-109)	**107** (99-120)	**113** (104-127)
2-hr	**34** (32-37)	**43** (40-46)	**48** (45-52)	**55** (51-60)	**60** (56-66)	**65** (60-72)	**70** (64-78)	**77** (69-87)	**82** (73-94)
3-hr	**24** (22-26)	**31** (28-33)	**35** (32-38)	**41** (37-45)	**45** (41-50)	**50** (45-56)	**54** (48-62)	**61** (53-70)	**66** (57-77)
6-hr	**14** (12-15)	**18** (17-20)	**21** (19-24)	**26** (23-29)	**29** (26-33)	**33** (28-38)	**37** (31-43)	**42** (35-50)	**46** (38-56)
12-hr	**7** (7-8)	**11** (9-12)	**13** (11-15)	**17** (14-19)	**20** (17-23)	**23** (19-27)	**27** (21-32)	**32** (25-39)	**36** (28-46)
24-hr	**4** (4-5)	**6** (6-7)	**8** (7-9)	**11** (9-12)	**13** (11-15)	**15** (13-18)	**18** (15-21)	**22** (18-26)	**25** (20-31)
2-day	**3** (2-3)	**4** (3-4)	**5** (4-5)	**6** (5-7)	**8** (6-9)	**9** (7-10)	**10** (8-12)	**13** (10-15)	**15** (11-18)
3-day	**2** (2-2)	**3** (2-3)	**3** (3-4)	**4** (4-5)	**5** (4-6)	**6** (5-7)	**7** (6-8)	**9** (7-10)	**10** (8-12)
4-day	**1** (1-2)	**2** (2-2)	**3** (2-3)	**3** (3-4)	**4** (3-4)	**4** (4-5)	**5** (4-6)	**6** (5-8)	**7** (6-9)
7-day	**1** (1-1)	**1** (1-1)	**2** (1-2)	**2** (2-2)	**2** (2-3)	**3** (2-3)	**3** (3-4)	**4** (3-5)	**4** (3-5)
10-day	**1** (1-1)	**1** (1-1)	**1** (1-1)	**2** (1-2)	**2** (2-2)	**2** (2-2)	**2** (2-3)	**3** (2-3)	**3** (3-4)
20-day	**0** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-2)	**2** (1-2)	**2** (1-2)
30-day	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)
45-day	**0** (0-0)	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)
60-day	**0** (0-0)	**0** (0-0)	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of annual maxima series (AMS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and annual exceedance probability) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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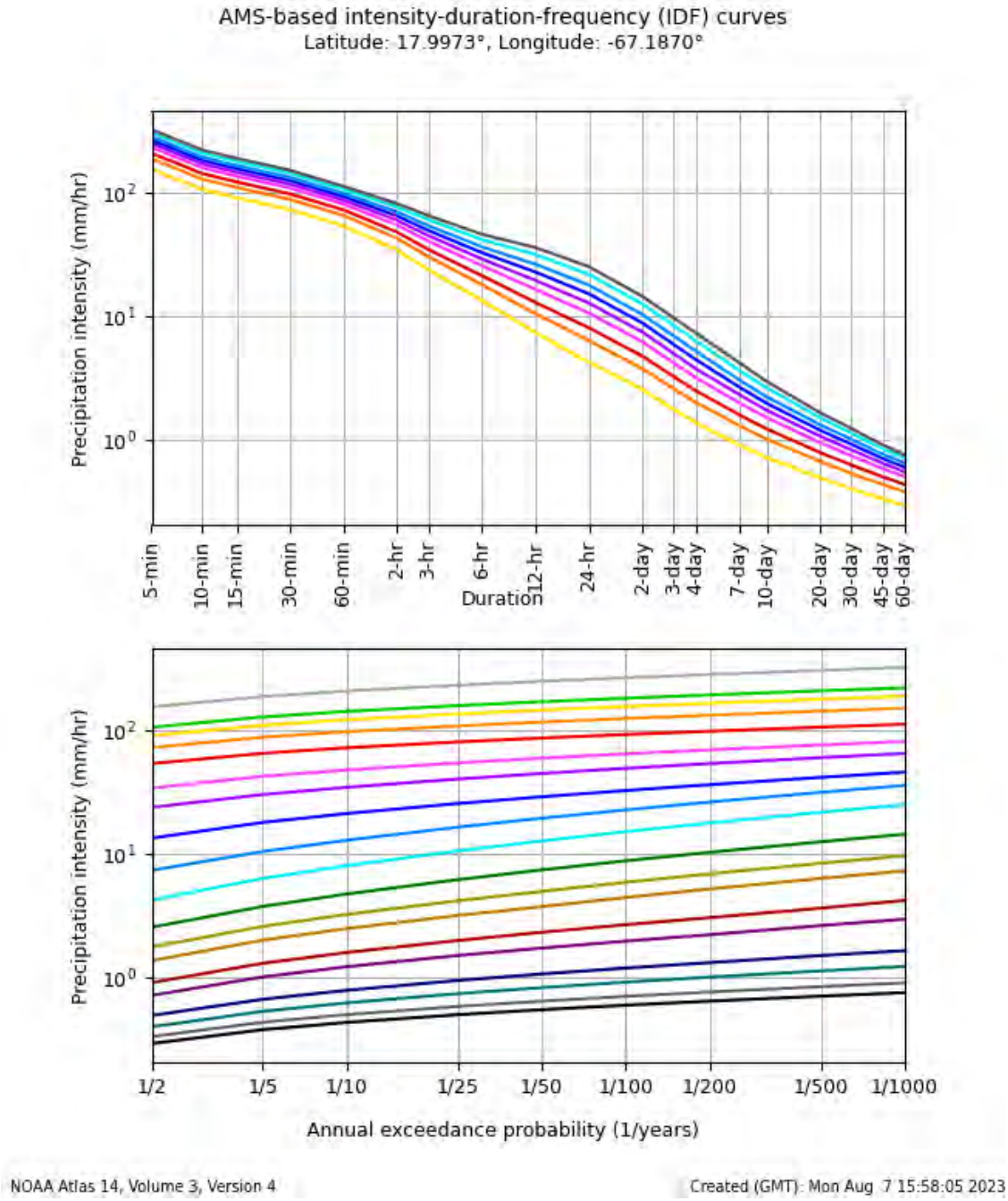
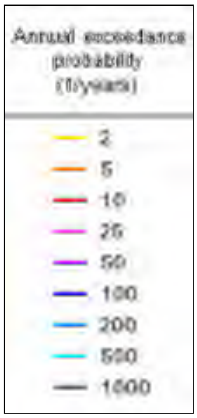
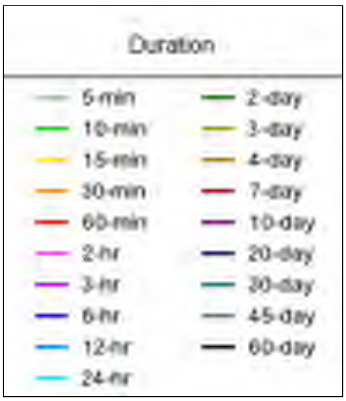
PF graphical







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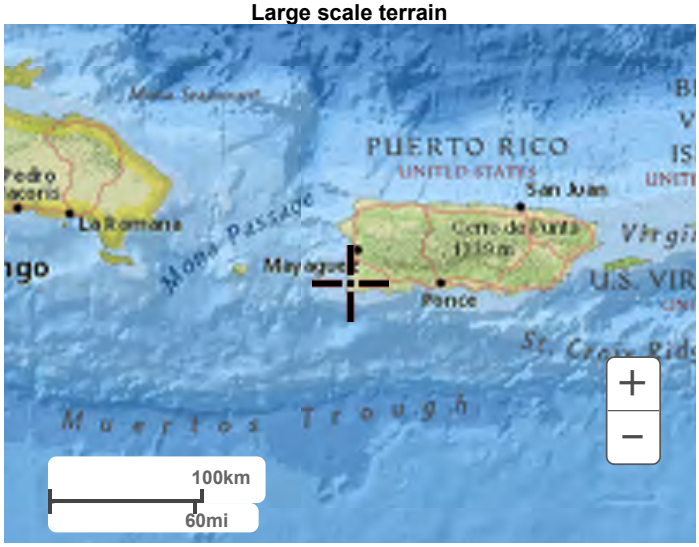
Maps & aerials

Small scale terrain

Large scale terrain



Large scale map

Large scale aerial

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US Department of Commerce
National Oceanic and Atmospheric Administration
National Weather Service
National Water Center
1325 East West Highway
Silver Spring, MD 20910
Questions?: HDSC.Questions@noaa.gov

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Legend

- Property Limit
- Proposed Project Site

Discharge Nodes

- Exterior Discharge Nodes
- Interior Discharge Nodes

USGS Quadrangles: rd_sp83, cs_sp83

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:8,000

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Watershed Areas - Proposed Condition

Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMC AND ASSOCIATES

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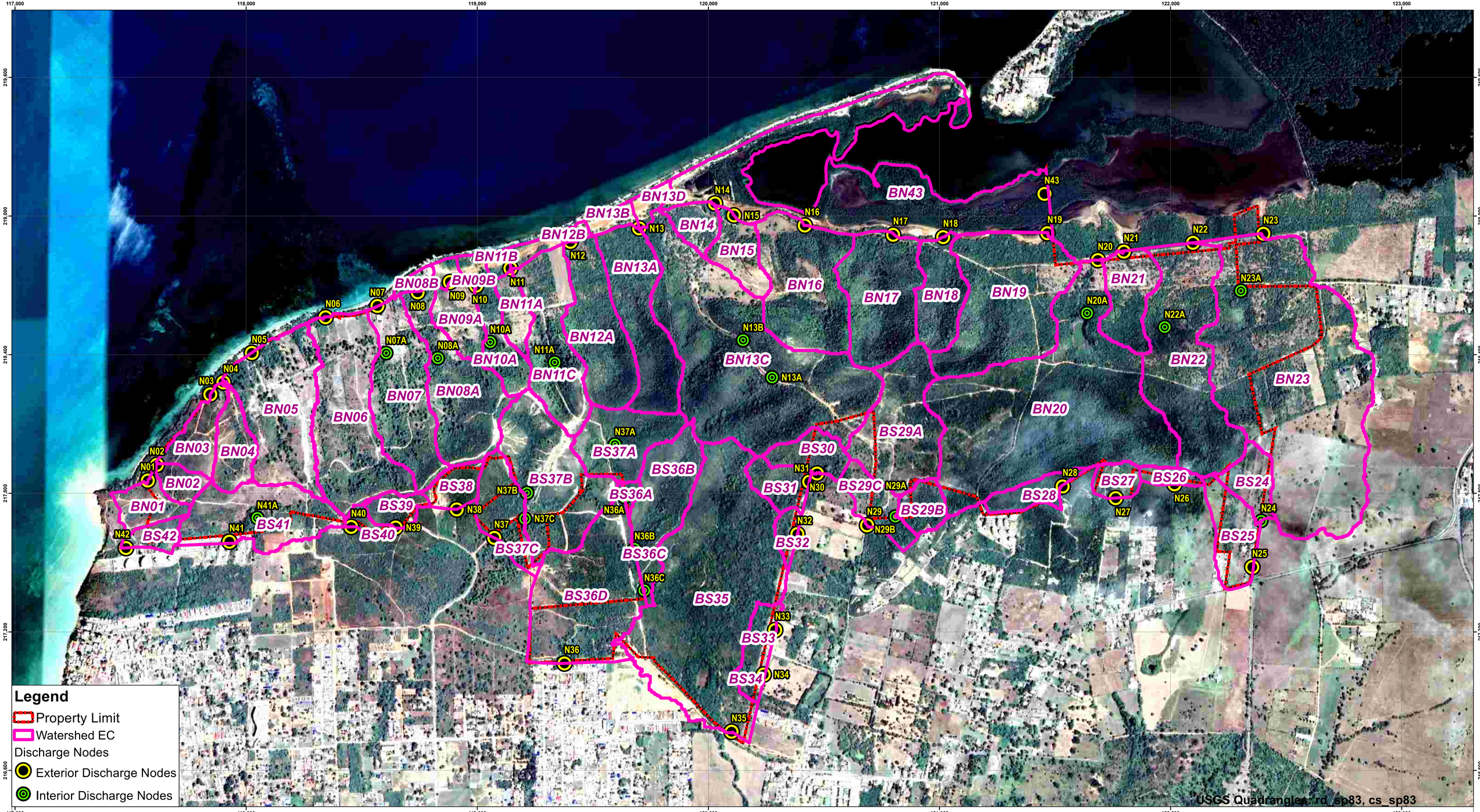

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Watershed Areas - Existing Condition

Esencia - Cabo Rojo, PR

N
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S

Date: 5/17/2024

PMG AND ASSOCIATES

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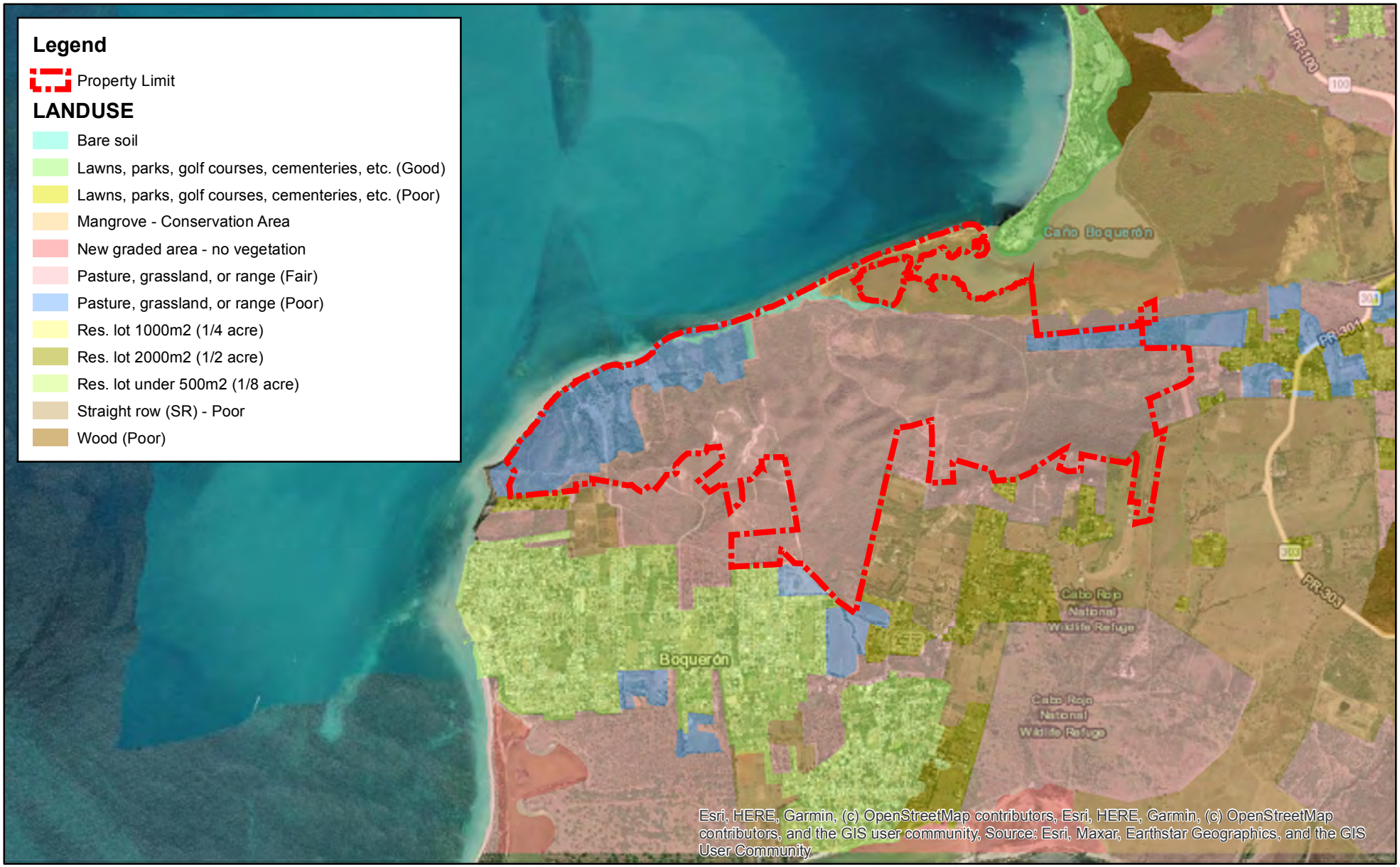

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Land Cover Map

Escencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMG AND ASSOCIATES

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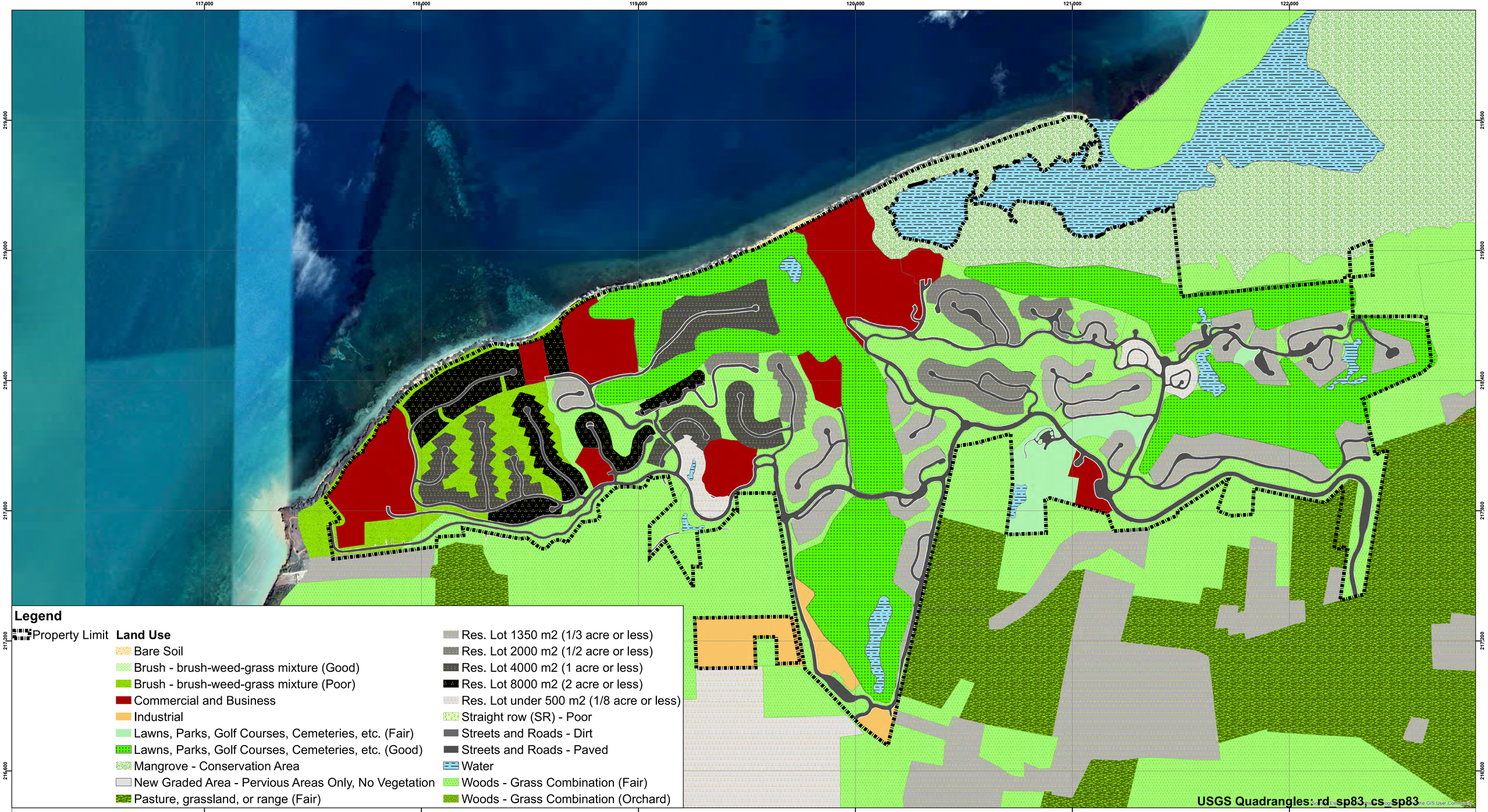

Legend

Property Limit

Land Use

- Bare Soil
- Brush - brush-weed-grass mixture (Good)
- Brush - brush-weed-grass mixture (Poor)
- Commercial and Business
- Industrial
- Lawns, Parks, Golf Courses, Cemeteries, etc. (Fair)
- Lawns, Parks, Golf Courses, Cemeteries, etc. (Good)
- Mangrove - Conservation Area
- New Graded Area - Pervious Areas Only, No Vegetation
- Pasture, grassland, or range (Fair)
- Res. Lot 1350 m2 (1/3 acre or less)
- Res. Lot 2000 m2 (1/2 acre or less)
- Res. Lot 4000 m2 (1 acre or less)
- Res. Lot 8000 m2 (2 acre or less)
- Res. Lot under 500 m2 (1/8 acre or less)
- Straight row (SR) - Poor
- Streets and Roads - Dirt
- Streets and Roads - Paved
- Water
- Woods - Grass Combination (Fair)
- Woods - Grass Combination (Orchard)

USGS Quadrangles: rd_sp83_cs_sp83

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:8,000

500 250 0 500 Meters

Land Cover Map - PC

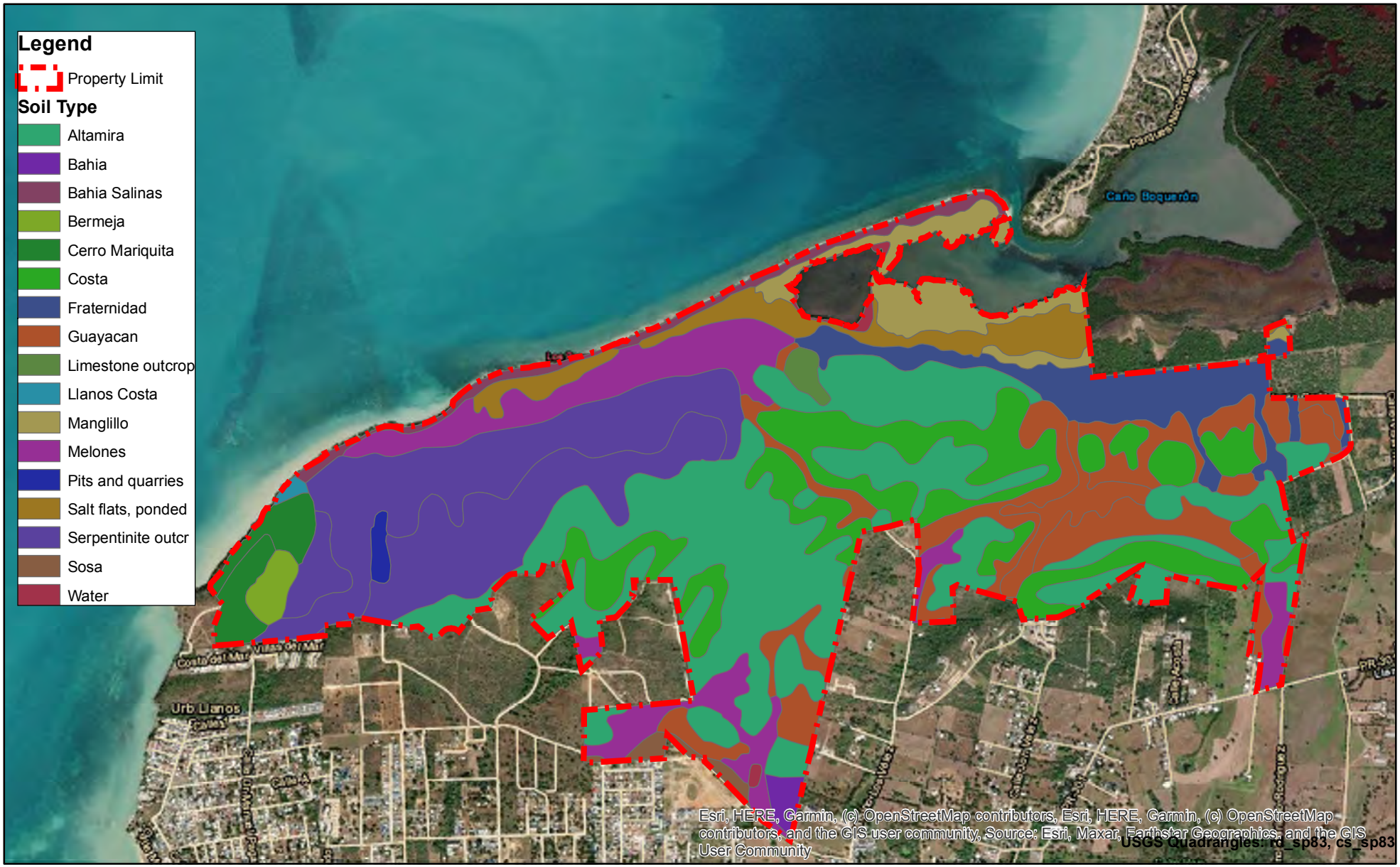
Esencia - Cabo Rojo, PR

N W E S

Date: 8/13/2024

PMG AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_LandUse_PC_22x33_(10_2).mxd



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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Soil Type Map

Escencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMG AND ASSOCIATES

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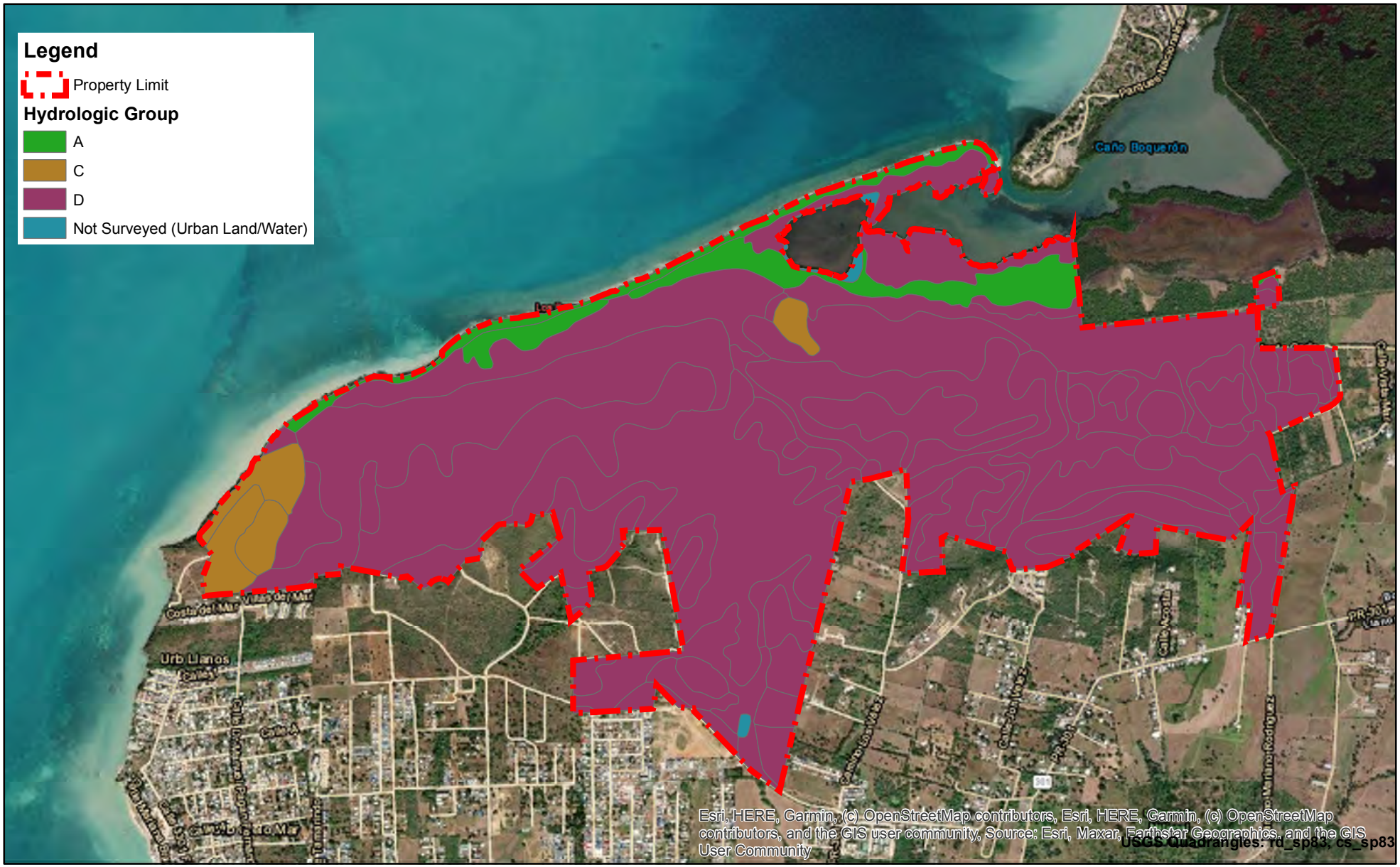

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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500 250 0 500 Meters

Soil Type Map

Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMG AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_SType(10_2).mxd

United States Department of Agriculture

NRCS

Natural Resources Conservation Service

A product of the National Cooperative Soil Survey, a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local participants

Custom Soil Resource Report for San German Area, Southwestern Puerto Rico

Esencia - Cabo Rojo Development

May 15, 2024

Preface

Soil surveys contain information that affects land use planning in survey areas. They highlight soil limitations that affect various land uses and provide information about the properties of the soils in the survey areas. Soil surveys are designed for many different users, including farmers, ranchers, foresters, agronomists, urban planners, community officials, engineers, developers, builders, and home buyers. Also, conservationists, teachers, students, and specialists in recreation, waste disposal, and pollution control can use the surveys to help them understand, protect, or enhance the environment.

Various land use regulations of Federal, State, and local governments may impose special restrictions on land use or land treatment. Soil surveys identify soil properties that are used in making various land use or land treatment decisions. The information is intended to help the land users identify and reduce the effects of soil limitations on various land uses. The landowner or user is responsible for identifying and complying with existing laws and regulations.

Although soil survey information can be used for general farm, local, and wider area planning, onsite investigation is needed to supplement this information in some cases. Examples include soil quality assessments (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) and certain conservation and engineering applications. For more detailed information, contact your local USDA Service Center (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) or your NRCS State Soil Scientist (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Great differences in soil properties can occur within short distances. Some soils are seasonally wet or subject to flooding. Some are too unstable to be used as a foundation for buildings or roads. Clayey or wet soils are poorly suited to use as septic tank absorption fields. A high water table makes a soil poorly suited to basements or underground installations.

The National Cooperative Soil Survey is a joint effort of the United States Department of Agriculture and other Federal agencies, State agencies including the Agricultural Experiment Stations, and local agencies. The Natural Resources Conservation Service (NRCS) has leadership for the Federal part of the National Cooperative Soil Survey.

Information about soils is updated periodically. Updated information is available through the NRCS Web Soil Survey, the site for official soil survey information.

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How Soil Surveys Are Made

Soil surveys are made to provide information about the soils and miscellaneous areas in a specific area. They include a description of the soils and miscellaneous areas and their location on the landscape and tables that show soil properties and limitations affecting various uses. Soil scientists observed the steepness, length, and shape of the slopes; the general pattern of drainage; the kinds of crops and native plants; and the kinds of bedrock. They observed and described many soil profiles. A soil profile is the sequence of natural layers, or horizons, in a soil. The profile extends from the surface down into the unconsolidated material in which the soil formed or from the surface down to bedrock. The unconsolidated material is devoid of roots and other living organisms and has not been changed by other biological activity.

Currently, soils are mapped according to the boundaries of major land resource areas (MLRAs). MLRAs are geographically associated land resource units that share common characteristics related to physiography, geology, climate, water resources, soils, biological resources, and land uses (USDA, 2006). Soil survey areas typically consist of parts of one or more MLRA.

The soils and miscellaneous areas in a survey area occur in an orderly pattern that is related to the geology, landforms, relief, climate, and natural vegetation of the area. Each kind of soil and miscellaneous area is associated with a particular kind of landform or with a segment of the landform. By observing the soils and miscellaneous areas in the survey area and relating their position to specific segments of the landform, a soil scientist develops a concept, or model, of how they were formed. Thus, during mapping, this model enables the soil scientist to predict with a considerable degree of accuracy the kind of soil or miscellaneous area at a specific location on the landscape.

Commonly, individual soils on the landscape merge into one another as their characteristics gradually change. To construct an accurate soil map, however, soil scientists must determine the boundaries between the soils. They can observe only a limited number of soil profiles. Nevertheless, these observations, supplemented by an understanding of the soil-vegetation-landscape relationship, are sufficient to verify predictions of the kinds of soil in an area and to determine the boundaries.

Soil scientists recorded the characteristics of the soil profiles that they studied. They noted soil color, texture, size and shape of soil aggregates, kind and amount of rock fragments, distribution of plant roots, reaction, and other features that enable them to identify soils. After describing the soils in the survey area and determining their properties, the soil scientists assigned the soils to taxonomic classes (units). Taxonomic classes are concepts. Each taxonomic class has a set of soil characteristics with precisely defined limits. The classes are used as a basis for comparison to classify soils systematically. Soil taxonomy, the system of taxonomic classification used in the United States, is based mainly on the kind and character of soil properties and the arrangement of horizons within the profile. After the soil

scientists classified and named the soils in the survey area, they compared the individual soils with similar soils in the same taxonomic class in other areas so that they could confirm data and assemble additional data based on experience and research.

The objective of soil mapping is not to delineate pure map unit components; the objective is to separate the landscape into landforms or landform segments that have similar use and management requirements. Each map unit is defined by a unique combination of soil components and/or miscellaneous areas in predictable proportions. Some components may be highly contrasting to the other components of the map unit. The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The delineation of such landforms and landform segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, onsite investigation is needed to define and locate the soils and miscellaneous areas.

Soil scientists make many field observations in the process of producing a soil map. The frequency of observation is dependent upon several factors, including scale of mapping, intensity of mapping, design of map units, complexity of the landscape, and experience of the soil scientist. Observations are made to test and refine the soil-landscape model and predictions and to verify the classification of the soils at specific locations. Once the soil-landscape model is refined, a significantly smaller number of measurements of individual soil properties are made and recorded. These measurements may include field measurements, such as those for color, depth to bedrock, and texture, and laboratory measurements, such as those for content of sand, silt, clay, salt, and other components. Properties of each soil typically vary from one point to another across the landscape.

Observations for map unit components are aggregated to develop ranges of characteristics for the components. The aggregated values are presented. Direct measurements do not exist for every property presented for every map unit component. Values for some properties are estimated from combinations of other properties.

While a soil survey is in progress, samples of some of the soils in the area generally are collected for laboratory analyses and for engineering tests. Soil scientists interpret the data from these analyses and tests as well as the field-observed characteristics and the soil properties to determine the expected behavior of the soils under different uses. Interpretations for all of the soils are field tested through observation of the soils in different uses and under different levels of management. Some interpretations are modified to fit local conditions, and some new interpretations are developed to meet local needs. Data are assembled from other sources, such as research information, production records, and field experience of specialists. For example, data on crop yields under defined levels of management are assembled from farm records and from field or plot experiments on the same kinds of soil.

Predictions about soil behavior are based not only on soil properties but also on such variables as climate and biological activity. Soil conditions are predictable over long periods of time, but they are not predictable from year to year. For example, soil scientists can predict with a fairly high degree of accuracy that a given soil will have a high water table within certain depths in most years, but they cannot predict that a high water table will always be at a specific level in the soil on a specific date.

After soil scientists located and identified the significant natural bodies of soil in the survey area, they drew the boundaries of these bodies on aerial photographs and

identified each as a specific map unit. Aerial photographs show trees, buildings, fields, roads, and rivers, all of which help in locating boundaries accurately.

Soil Map

The soil map section includes the soil map for the defined area of interest, a list of soil map units on the map and extent of each map unit, and cartographic symbols displayed on the map. Also presented are various metadata about data used to produce the map, and a description of each soil map unit.

Custom Soil Resource Report
Soil Map

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: San German Area, Southwestern Puerto Rico
Survey Area Data: Version 15, Sep 13, 2023

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Jan 23, 2022—Mar 1, 2022

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
AgF	Aguilita silty clay loam, 20 to 60 percent slopes	7.4	0.4%
AtD	Altamira gravelly clay, 2 to 20 percent slopes	430.3	25.6%
AtF	Altamira gravelly clay, 20 to 60 percent slopes	212.8	12.7%
BhB	Bahia Salinas sand, 0 to 5 percent slopes, rarely flooded	38.4	2.3%
BmC	Bermeja-Cerro Mariquita complex, 5 to 12 percent slopes	11.6	0.7%
BmD	Bermeja-Cerro Mariquita complex, 12 to 20 percent slopes	23.1	1.4%
BmF	Bermeja-Cerro Mariquita complex, 20 to 60 percent slopes	24.8	1.5%
CgD	Casabe clay, 5 to 20 percent slopes	149.5	8.9%
CgF	Casabe clay, 20 to 60 percent slopes	130.7	7.8%
FrB	Fraternidad clay, 2 to 5 perecent slopes	94.0	5.6%
GyB	Guayacan clay, 0 to 5 percent slopes	1.4	0.1%
GyC	Guayacan clay, 5 to 12 percent slopes	53.5	3.2%
GyD	Guayacan clay, 12 to 20 percent slopes	141.6	8.4%
LnA	Llanos Costa loam, 0 to 2 percent slopes	2.8	0.2%
MDA	Manglillo, Boqueron and Serrano soils, very frequently flooded	53.9	3.2%
MnC	Melones clay, 2 to 12 percent slopes	134.6	8.0%
Pt	Pits and Quarries	5.6	0.3%
Sa	Salt flats, ponded	61.2	3.6%
SsB	Sosa sandy loam, 2 to 5 percent slopes	8.5	0.5%
SsC	Sosa sandy loam, 5 to 12 percent slopes	7.5	0.4%
TfA	Teresa clay, ponded	7.0	0.4%
Ua	Urban land	0.8	0.0%

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
W	Water	54.5	3.2%
Totals for Area of Interest		**1,681.8**	**100.0%**

Map Unit Descriptions

The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it was impractical to make enough observations to identify all the soils and miscellaneous areas on the landscape.

The presence of minor components in a map unit in no way diminishes the usefulness or accuracy of the data. The objective of mapping is not to delineate pure taxonomic classes but rather to separate the landscape into landforms or landform segments that have similar use and management requirements. The delineation of such segments on the map provides sufficient information for the development of resource plans. If intensive use of small areas is planned, however, onsite investigation is needed to define and locate the soils and miscellaneous areas.

An identifying symbol precedes the map unit name in the map unit descriptions. Each description includes general facts about the unit and gives important soil properties and qualities.

Soils that have profiles that are almost alike make up a *soil series*. Except for differences in texture of the surface layer, all the soils of a series have major horizons that are similar in composition, thickness, and arrangement.

Soils of one series can differ in texture of the surface layer, slope, stoniness, salinity, degree of erosion, and other characteristics that affect their use. On the basis of such differences, a soil series is divided into *soil phases*. Most of the areas shown on the detailed soil maps are phases of soil series. The name of a soil phase commonly indicates a feature that affects use or management. For example, Alpha silt loam, 0 to 2 percent slopes, is a phase of the Alpha series.

Some map units are made up of two or more major soils or miscellaneous areas. These map units are complexes, associations, or undifferentiated groups.

A *complex* consists of two or more soils or miscellaneous areas in such an intricate pattern or in such small areas that they cannot be shown separately on the maps. The pattern and proportion of the soils or miscellaneous areas are somewhat similar in all areas. Alpha-Beta complex, 0 to 6 percent slopes, is an example.

An *association* is made up of two or more geographically associated soils or miscellaneous areas that are shown as one unit on the maps. Because of present or anticipated uses of the map units in the survey area, it was not considered practical or necessary to map the soils or miscellaneous areas separately. The pattern and relative proportion of the soils or miscellaneous areas are somewhat similar. Alpha-Beta association, 0 to 2 percent slopes, is an example.

An *undifferentiated group* is made up of two or more soils or miscellaneous areas that could be mapped individually but are mapped as one unit because similar interpretations can be made for use and management. The pattern and proportion of the soils or miscellaneous areas in a mapped area are not uniform. An area can be made up of only one of the major soils or miscellaneous areas, or it can be made up of all of them. Alpha and Beta soils, 0 to 2 percent slopes, is an example.

Some surveys include *miscellaneous areas*. Such areas have little or no soil material and support little or no vegetation. Rock outcrop is an example.

San German Area, Southwestern Puerto Rico

AgF—Aguilita silty clay loam, 20 to 60 percent slopes

Map Unit Setting

National map unit symbol: c78h
Elevation: 160 to 1,310 feet
Mean annual precipitation: 14 to 70 inches
Mean annual air temperature: 67 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Aguilita and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Aguilita

Setting

Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope, toeslope
Landform position (three-dimensional): Head slope, nose slope, side slope, base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Colluvium and residuum weathered from soft limestone bedrock

Typical profile

Ap - 0 to 6 inches: silty clay loam
Bk - 6 to 23 inches: clay loam
C - 23 to 60 inches: loam

Properties and qualities

Slope: 20 to 60 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 91 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 3.0 mmhos/cm)
Sodium adsorption ratio, maximum: 15.0
Available water supply, 0 to 60 inches: Moderate (about 6.6 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Limestone outcrop, ustic soil moisture regime

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (three-dimensional): Side slope
Hydric soil rating: No

San german

Percent of map unit: 10 percent
Landform: Hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope, footslope
Landform position (three-dimensional): Crest, head slope, side slope, nose slope
Down-slope shape: Concave, convex
Across-slope shape: Linear
Hydric soil rating: No

AtD—Altamira gravelly clay, 2 to 20 percent slopes

Map Unit Setting

National map unit symbol: 1qxh5
Elevation: 80 to 1,310 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Altamira and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Altamira

Setting

Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 8 inches: very gravelly clay
Bk1 - 8 to 14 inches: very gravelly clay
C1 - 14 to 43 inches: very gravelly clay loam
C2 - 43 to 54 inches: gravelly loam
Cr - 54 to 79 inches: weathered bedrock

Properties and qualities

Slope: 2 to 20 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.2 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4c
Hydrologic Soil Group: B
Hydric soil rating: No

Minor Components

Costa

Percent of map unit: 15 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, side slope, crest
Down-slope shape: Concave, convex
Across-slope shape: Linear, convex
Hydric soil rating: No

AtF—Altamira gravelly clay, 20 to 60 percent slopes

Map Unit Setting

National map unit symbol: 1qxh6
Elevation: 80 to 1,310 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Altamira and similar soils: 85 percent
Minor components: 15 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Altamira

Setting

Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Residuum weathered from limestone

Typical profile

Ap - 0 to 8 inches: very gravelly clay
Bk1 - 8 to 14 inches: very gravelly clay
C1 - 14 to 43 inches: very gravelly clay loam
C2 - 43 to 54 inches: gravelly loam
Cr - 54 to 79 inches: weathered bedrock

Properties and qualities

Slope: 20 to 60 percent
Depth to restrictive feature: 40 to 60 inches to paralithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.01 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 80 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.2 mmhos/cm)
Sodium adsorption ratio, maximum: 13.0
Available water supply, 0 to 60 inches: Moderate (about 8.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6e
Hydrologic Soil Group: B
Forage suitability group: Unnamed (G271XZ000PR)
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Minor Components

Costa

Percent of map unit: 15 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, side slope, crest
Down-slope shape: Concave, convex
Across-slope shape: Linear, convex
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

BhB—Bahia Salinas sand, 0 to 5 percent slopes, rarely flooded

Map Unit Setting

National map unit symbol: 1hh8x
Elevation: 0 to 150 feet
Mean annual precipitation: 18 to 31 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Bahia salinas and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bahia Salinas

Setting

Landform: Beaches
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, rise
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Beach sand derived from volcanic rock and/or marine deposits derived from volcanic rock

Typical profile

A - 0 to 6 inches: sand
C - 6 to 28 inches: sand

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Excessively drained
Capacity of the most limiting layer to transmit water (Ksat): Very high (19.98 to 39.96 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: Rare
Frequency of ponding: None
Calcium carbonate, maximum content: 50 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 10.0
Available water supply, 0 to 60 inches: Very low (about 1.1 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A
Hydric soil rating: No

Minor Components

Guayabo

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

Bahia

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: No

BmC—Bermeja-Cerro Mariquita complex, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1vlny
Elevation: 160 to 980 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Bermeja and similar soils: 70 percent
Cerro mariquita and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bermeja

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

A - 0 to 2 inches: extremely cobbly sandy loam

Bw - 2 to 8 inches: extremely paragravelly sandy clay loam
Cr - 8 to 27 inches: extremely paragravelly clay, weathered bedrock
R - 27 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Cerro Mariquita

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

Ap - 0 to 2 inches: gravelly clay loam
Bt - 2 to 13 inches: extremely paragravelly clay
Cr - 13 to 23 inches: weathered bedrock
R - 23 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: 11 to 18 inches to paralithic bedrock; 15 to 25 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s

Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Casabe

Percent of map unit: 10 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainbase, lower third of mountainflank, side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

BmD—Bermeja-Cerro Mariquita complex, 12 to 20 percent slopes

Map Unit Setting

National map unit symbol: 1vlnx
Elevation: 160 to 1,310 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Bermeja and similar soils: 70 percent
Cerro mariquita and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bermeja

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

A - 0 to 2 inches: extremely cobbly sandy loam
Bw - 2 to 8 inches: extremely paragravelly sandy clay loam
Cr - 8 to 27 inches: extremely paragravelly clay, weathered bedrock
R - 27 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 0.71 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Cerro Mariquita

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

Ap - 0 to 2 inches: gravelly clay loam
Bt - 2 to 13 inches: extremely paragravelly clay
Cr - 13 to 23 inches: weathered bedrock
R - 23 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: 11 to 18 inches to paralithic bedrock; 15 to 25 inches to lithic bedrock
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 6s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Casabe

Percent of map unit: 10 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainbase, lower third of mountainflank, side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

BmF—Bermeja-Cerro Mariquita complex, 20 to 60 percent slopes

Map Unit Setting

National map unit symbol: 1vlp0
Elevation: 160 to 1,310 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Bermeja and similar soils: 70 percent
Cerro mariquita and similar soils: 20 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Bermeja

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, summit, shoulder
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Convex
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

A - 0 to 2 inches: extremely cobbly sandy loam
Bw - 2 to 8 inches: extremely paragravelly sandy clay loam
Cr - 8 to 27 inches: extremely paragravelly clay, weathered bedrock
R - 27 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 60 percent

Depth to restrictive feature: 8 to 20 inches to paralithic bedrock; 20 to 35 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Description of Cerro Mariquita

Setting

Landform: Ridges, mountain slopes, hills
Landform position (two-dimensional): Backslope, shoulder, summit
Landform position (three-dimensional): Mountainflank, mountaintop, crest, side slope, head slope
Down-slope shape: Convex
Across-slope shape: Linear
Parent material: Colluvium derived from rhyolite and/or colluvium derived from chert and/or residuum weathered from basalt

Typical profile

Ap - 0 to 2 inches: gravelly clay loam
Bt - 2 to 13 inches: extremely paragravelly clay
Cr - 13 to 23 inches: weathered bedrock
R - 23 to 35 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 60 percent
Depth to restrictive feature: 11 to 18 inches to paralithic bedrock; 15 to 25 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 1.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Casabe

Percent of map unit: 10 percent
Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainbase, lower third of mountainflank, side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Hydric soil rating: No

CgD—Casabe clay, 5 to 20 percent slopes

Map Unit Setting

National map unit symbol: 2180t
Elevation: 30 to 820 feet
Mean annual precipitation: 16 to 35 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Casabe and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Casabe

Setting

Landform: Hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum that weathered from serpentinite bedrock

Typical profile

A - 0 to 7 inches: clay
Bt - 7 to 16 inches: clay
Cr - 16 to 38 inches: weathered bedrock
R - 38 to 48 inches: unweathered bedrock

Properties and qualities

Slope: 5 to 20 percent
Depth to restrictive feature: 9 to 17 inches to paralithic bedrock; 14 to 41 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 4s
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Serpentinite outcrop, aridic

Percent of map unit: 10 percent
Landform: Hillslopes, mountain slopes
Hydric soil rating: No

CgF—Casabe clay, 20 to 60 percent slopes

Map Unit Setting

National map unit symbol: 25xr7
Elevation: 30 to 820 feet
Mean annual precipitation: 16 to 35 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Casabe and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Casabe

Setting

Landform: Mountain slopes, hillslopes
Landform position (two-dimensional): Backslope
Landform position (three-dimensional): Mountainbase, lower third of mountainflank, side slope, crest
Down-slope shape: Linear
Across-slope shape: Convex
Parent material: Residuum that weathered from serpentinite bedrock

Typical profile

A - 0 to 7 inches: clay
Bt - 7 to 16 inches: clay
Cr - 16 to 38 inches: weathered bedrock
R - 38 to 48 inches: unweathered bedrock

Properties and qualities

Slope: 20 to 60 percent
Depth to restrictive feature: 9 to 17 inches to paralithic bedrock; 14 to 41 inches to lithic bedrock
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Very low (about 0.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7e
Hydrologic Soil Group: D
Hydric soil rating: No

Minor Components

Serpentinite outcrop, aridic

Percent of map unit: 10 percent
Landform: Hillslopes, mountain slopes
Landform position (three-dimensional): Mountainflank, side slope
Hydric soil rating: No

FrB—Fraternidad clay, 2 to 5 perecent slopes

Map Unit Setting

National map unit symbol: 2yq8y
Elevation: 0 to 160 feet
Mean annual precipitation: 20 to 63 inches
Mean annual air temperature: 71 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Fraternidad and similar soils: 80 percent
Minor components: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Fraternidad

Setting

Landform: Fan skirts
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip, talf
Down-slope shape: Convex, linear
Across-slope shape: Concave, linear

Parent material: Clayey alluvium derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 13 inches: clay
ABss - 13 to 17 inches: clay
Bkss1 - 17 to 42 inches: clay
Bkss2 - 42 to 80 inches: clay

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Moderately well drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: About 34 to 43 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 8 percent
Gypsum, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Moderate (about 6.9 inches)

Interpretive groups

Land capability classification (irrigated): 2s
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Cartagena

Percent of map unit: 5 percent
Landform: Fan skirts
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip, talf
Down-slope shape: Concave, linear
Across-slope shape: Linear
Hydric soil rating: No

Paso seco

Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, rise
Down-slope shape: Linear
Across-slope shape: Convex, linear
Hydric soil rating: No

Poncena

Percent of map unit: 5 percent
Landform: Terraces
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, rise
Down-slope shape: Concave, convex, linear
Across-slope shape: Linear

Hydric soil rating: No

Santa isabel

Percent of map unit: 5 percent
Landform: Valleys, fan skirts
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave, linear
Across-slope shape: Linear
Hydric soil rating: No

GyB—Guayacan clay, 0 to 5 percent slopes

Map Unit Setting

National map unit symbol: 1vlnr
Elevation: 20 to 50 feet
Mean annual precipitation: 18 to 31 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Guayacan and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Guayacan

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 8 inches: clay
B - 8 to 12 inches: clay
B - 12 to 26 inches: clay
B - 26 to 45 inches: gravelly loam
C - 45 to 59 inches: loam
C - 59 to 76 inches: very gravelly silt loam
C - 76 to 91 inches: loam

Properties and qualities

Slope: 0 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium

Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G271XZ000PR)
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Minor Components

Altamira

Percent of map unit: 5 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Guayacan, steeper slope

Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

GyC—Guayacan clay, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1vlnm
Elevation: 20 to 50 feet
Mean annual precipitation: 18 to 31 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Farmland of statewide importance, if irrigated

Map Unit Composition

Guayacan and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Guayacan

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 8 inches: clay
B - 8 to 12 inches: clay
B - 12 to 26 inches: clay
B - 26 to 45 inches: gravelly loam
C - 45 to 59 inches: loam
C - 59 to 76 inches: very gravelly silt loam
C - 76 to 91 inches: loam

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3c
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G271XZ000PR)
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Minor Components

Guayacan

Percent of map unit: 5 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex

Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Altamira

Percent of map unit: 5 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

GyD—Guayacan clay, 12 to 20 percent slopes

Map Unit Setting

National map unit symbol: 1vlnp
Elevation: 20 to 50 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Guayacan and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Guayacan

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Parent material: Residuum weathered from limestone

Typical profile

A - 0 to 8 inches: clay
B - 8 to 12 inches: clay
B - 12 to 26 inches: clay
B - 26 to 45 inches: gravelly loam
C - 45 to 59 inches: loam
C - 59 to 76 inches: very gravelly silt loam
C - 76 to 91 inches: loam

Properties and qualities

Slope: 12 to 20 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained

Runoff class: High
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 95 percent
Maximum salinity: Nonsaline (0.0 to 1.0 mmhos/cm)
Sodium adsorption ratio, maximum: 12.0
Available water supply, 0 to 60 inches: Moderate (about 7.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3c
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G271XZ000PR)
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Minor Components

Costa

Percent of map unit: 5 percent
Landform: Hillslopes, ridges
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, side slope, crest
Down-slope shape: Concave, convex
Across-slope shape: Linear, convex
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Pitahaya

Percent of map unit: 3 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, side slope, crest
Down-slope shape: Convex, linear
Across-slope shape: Convex, linear
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Altamira

Percent of map unit: 2 percent
Landform: Ridges, hillslopes
Landform position (two-dimensional): Summit, shoulder, backslope
Landform position (three-dimensional): Head slope, crest, side slope
Down-slope shape: Convex
Across-slope shape: Linear
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

LnA—Llanos Costa loam, 0 to 2 percent slopes

Map Unit Setting

National map unit symbol: c78m
Elevation: 30 to 160 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Llanos costa and similar soils: 75 percent
Minor components: 25 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Llanos Costa

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Mountainbase, base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, convex
Parent material: Gravelly alluvium derived from basalt and/or gravelly alluvium derived from chert

Typical profile

Ap - 0 to 9 inches: loam
Bt - 9 to 15 inches: gravelly clay loam
Bt - 15 to 43 inches: gravelly clay
Bt - 43 to 78 inches: very gravelly sandy clay loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Very low
Capacity of the most limiting layer to transmit water (Ksat): Moderately low to moderately high (0.14 to 1.42 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Available water supply, 0 to 60 inches: Moderate (about 6.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 2c
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G271XZ000PR)
Other vegetative classification: Unnamed (G271XZ000PR)

Hydric soil rating: No

Minor Components

Maguayo

Percent of map unit: 25 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

MDA—Manglillo, Boqueron and Serrano soils, very frequently flooded

Map Unit Setting

National map unit symbol: c7b5
Elevation: 0 to 20 feet
Mean annual precipitation: 18 to 31 inches
Mean annual air temperature: 70 to 87 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Manglillo and similar soils: 50 percent
Boqueron and similar soils: 30 percent
Serrano and similar soils: 20 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Manglillo

Setting

Landform: Salt marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Organic material and/or marine deposits

Typical profile

Oa - 0 to 5 inches: muck
Oi - 5 to 24 inches: mucky peat
C - 24 to 43 inches: mucky loam
Cg - 43 to 60 inches: sandy loam

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Runoff class: Negligible

Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 14.17 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.8 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

Description of Boqueron

Setting

Landform: Tidal flats, marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave
Across-slope shape: Linear
Parent material: Marine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Oa - 0 to 2 inches: muck
A - 2 to 4 inches: silty clay
C - 4 to 8 inches: mucky clay loam
C - 8 to 55 inches: silty clay
C - 55 to 79 inches: clay

Properties and qualities

Slope: 0 to 1 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Very poorly drained
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Available water supply, 0 to 60 inches: High (about 10.7 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7w
Hydrologic Soil Group: C/D
Hydric soil rating: Yes

Description of Serrano

Setting

Landform: Tidal flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Moderately fine material over coarse textured alluvial sediments

Typical profile

A - 0 to 3 inches: sandy loam
Bwg - 3 to 14 inches: loam
C - 14 to 65 inches: very gravelly loam

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Moderately high to very high (1.42 to 14.17 in/hr)
Depth to water table: About 0 to 12 inches
Frequency of flooding: Frequent
Frequency of ponding: None
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 40.0
Available water supply, 0 to 60 inches: Very low (about 2.9 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 7s
Hydrologic Soil Group: A/D
Hydric soil rating: Yes

MnC—Melones clay, 2 to 12 percent slopes

Map Unit Setting

National map unit symbol: 1qs80
Elevation: 20 to 160 feet
Mean annual precipitation: 16 to 50 inches
Mean annual air temperature: 70 to 88 degrees F
Frost-free period: 365 days
Farmland classification: Prime farmland if irrigated

Map Unit Composition

Melones and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Melones

Setting

Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, rise
Down-slope shape: Concave, convex
Across-slope shape: Concave, linear

Parent material: Fluviomarine deposits derived from limestone and/or fluviomarine deposits derived from volcanic rock

Typical profile

Ap - 0 to 7 inches: clay
Btss - 7 to 18 inches: clay
Btk - 18 to 46 inches: clay
Bt - 46 to 66 inches: clay
Bt - 66 to 70 inches: gravelly sandy clay
2C - 70 to 79 inches: clay

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 30 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 16.0 mmhos/cm)
Sodium adsorption ratio, maximum: 35.0
Available water supply, 0 to 60 inches: Moderate (about 9.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3c
Hydrologic Soil Group: C
Hydric soil rating: No

Minor Components

Guayacan

Percent of map unit: 2 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear, convex
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Maguayo

Percent of map unit: 2 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope, footslope
Landform position (three-dimensional): Base slope
Down-slope shape: Convex, linear
Across-slope shape: Linear
Hydric soil rating: No

Llanos costa

Percent of map unit: 1 percent
Landform: Alluvial fans
Landform position (two-dimensional): Toeslope, footslope

Landform position (three-dimensional): Mountainbase, base slope
Down-slope shape: Concave, linear
Across-slope shape: Linear, convex
Other vegetative classification: Unnamed (G271XZ000PR)
Hydric soil rating: No

Pt—Pits and Quarries

Map Unit Composition

Pits and quarries: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Pits And Quarries

Setting

Landform: Mountain slopes, hillslopes

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

Sa—Salt flats, ponded

Map Unit Setting

National map unit symbol: 1hjt6
Elevation: 0 to 10 feet
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Salt flats, ponded: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Salt Flats, Ponded

Setting

Landform: Tidal marshes, tidal flats

Properties and qualities

Slope: 0 to 1 percent
Runoff class: Negligible
Frequency of flooding: Frequent
Frequency of ponding: Frequent

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Forage suitability group: Unnamed (G273XZ000PR)

Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: Yes

SsB—Sosa sandy loam, 2 to 5 percent slopes

Map Unit Setting

National map unit symbol: c7b1
Elevation: 0 to 150 feet
Mean annual precipitation: 18 to 66 inches
Mean annual air temperature: 66 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Sosa and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sosa

Setting

Landform: Marine terraces
Landform position (two-dimensional): Footslope
Landform position (three-dimensional): Tread
Down-slope shape: Convex, linear
Across-slope shape: Linear
Parent material: Loamy marine deposits and/or clayey marine deposits

Typical profile

Ap - 0 to 5 inches: sandy loam
A - 5 to 12 inches: sandy loam
BA - 12 to 20 inches: sandy clay
Bt1 - 20 to 33 inches: sandy clay
Bt2 - 33 to 63 inches: sandy clay loam

Properties and qualities

Slope: 2 to 5 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G273XZ000PR)
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

Minor Components

Guayabo

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

Bahia

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

SsC—Sosa sandy loam, 5 to 12 percent slopes

Map Unit Setting

National map unit symbol: c7b2
Elevation: 0 to 150 feet
Mean annual precipitation: 18 to 66 inches
Mean annual air temperature: 66 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Sosa and similar soils: 90 percent
Minor components: 10 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Sosa

Setting

Landform: Marine terraces
Landform position (two-dimensional): Footslope
Down-slope shape: Convex, linear
Across-slope shape: Linear

Parent material: Loamy marine deposits and/or clayey marine deposits

Typical profile

Ap - 0 to 5 inches: sandy loam
A - 5 to 12 inches: sandy loam
BA - 12 to 20 inches: sandy clay
Bt1 - 20 to 33 inches: sandy clay
Bt2 - 33 to 63 inches: sandy clay loam

Properties and qualities

Slope: 5 to 12 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Well drained
Runoff class: Medium
Capacity of the most limiting layer to transmit water (Ksat): Moderately low (0.01 to 0.14 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: None
Calcium carbonate, maximum content: 2 percent
Maximum salinity: Nonsaline to very slightly saline (0.0 to 2.0 mmhos/cm)
Sodium adsorption ratio, maximum: 2.0
Available water supply, 0 to 60 inches: Low (about 5.0 inches)

Interpretive groups

Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 3s
Hydrologic Soil Group: C
Forage suitability group: Unnamed (G273XZ000PR)
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

Minor Components

Guayabo

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

Bahia

Percent of map unit: 5 percent
Landform: Coastal plains
Landform position (two-dimensional): Toeslope
Down-slope shape: Linear
Across-slope shape: Linear
Other vegetative classification: Unnamed (G273XZ000PR)
Hydric soil rating: No

TfA—Teresa clay, ponded

Map Unit Setting

National map unit symbol: c7b4
Elevation: 0 to 20 feet
Mean annual precipitation: 18 to 66 inches
Mean annual air temperature: 66 to 89 degrees F
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition

Teresa, ponded, and similar soils: 95 percent
Minor components: 5 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Teresa, Ponded

Setting

Landform: Valley floors, alluvial flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Linear
Across-slope shape: Linear
Parent material: Marine deposits derived from igneous, metamorphic and sedimentary rock

Typical profile

Ap - 0 to 10 inches: clay
Bss - 10 to 38 inches: clay
Bssz - 38 to 44 inches: clay
Bsszg - 44 to 78 inches: clay
Bzg - 78 to 85 inches: clay

Properties and qualities

Slope: 0 to 2 percent
Depth to restrictive feature: More than 80 inches
Drainage class: Somewhat poorly drained
Runoff class: Negligible
Capacity of the most limiting layer to transmit water (Ksat): Very low to moderately low (0.00 to 0.01 in/hr)
Depth to water table: More than 80 inches
Frequency of flooding: None
Frequency of ponding: Occasional
Calcium carbonate, maximum content: 3 percent
Maximum salinity: Moderately saline to strongly saline (8.0 to 18.0 mmhos/cm)
Sodium adsorption ratio, maximum: 30.0
Available water supply, 0 to 60 inches: High (about 10.2 inches)

Interpretive groups

Land capability classification (irrigated): None specified

Land capability classification (nonirrigated): 6w
Hydrologic Soil Group: D
Hydric soil rating: Yes

Minor Components

Manglillo
Percent of map unit: 3 percent
Landform: Salt marshes
Landform position (two-dimensional): Toeslope
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Serrano
Percent of map unit: 1 percent
Landform: Tidal flats
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf
Down-slope shape: Linear
Across-slope shape: Linear
Hydric soil rating: Yes

Boqueron
Percent of map unit: 1 percent
Landform: Tidal flats, marshes
Landform position (two-dimensional): Toeslope
Landform position (three-dimensional): Talf, dip
Down-slope shape: Concave
Across-slope shape: Linear
Hydric soil rating: Yes

Ua—Urban land

Map Unit Setting
National map unit symbol: 2yg1h
Frost-free period: 365 days
Farmland classification: Not prime farmland

Map Unit Composition
Urban land: 100 percent
Estimates are based on observations, descriptions, and transects of the mapunit.

Description of Urban Land

Interpretive groups
Land capability classification (irrigated): None specified
Land capability classification (nonirrigated): 8
Hydric soil rating: No

W—Water

Map Unit Composition

Water: 100 percent

Estimates are based on observations, descriptions, and transects of the mapunit.

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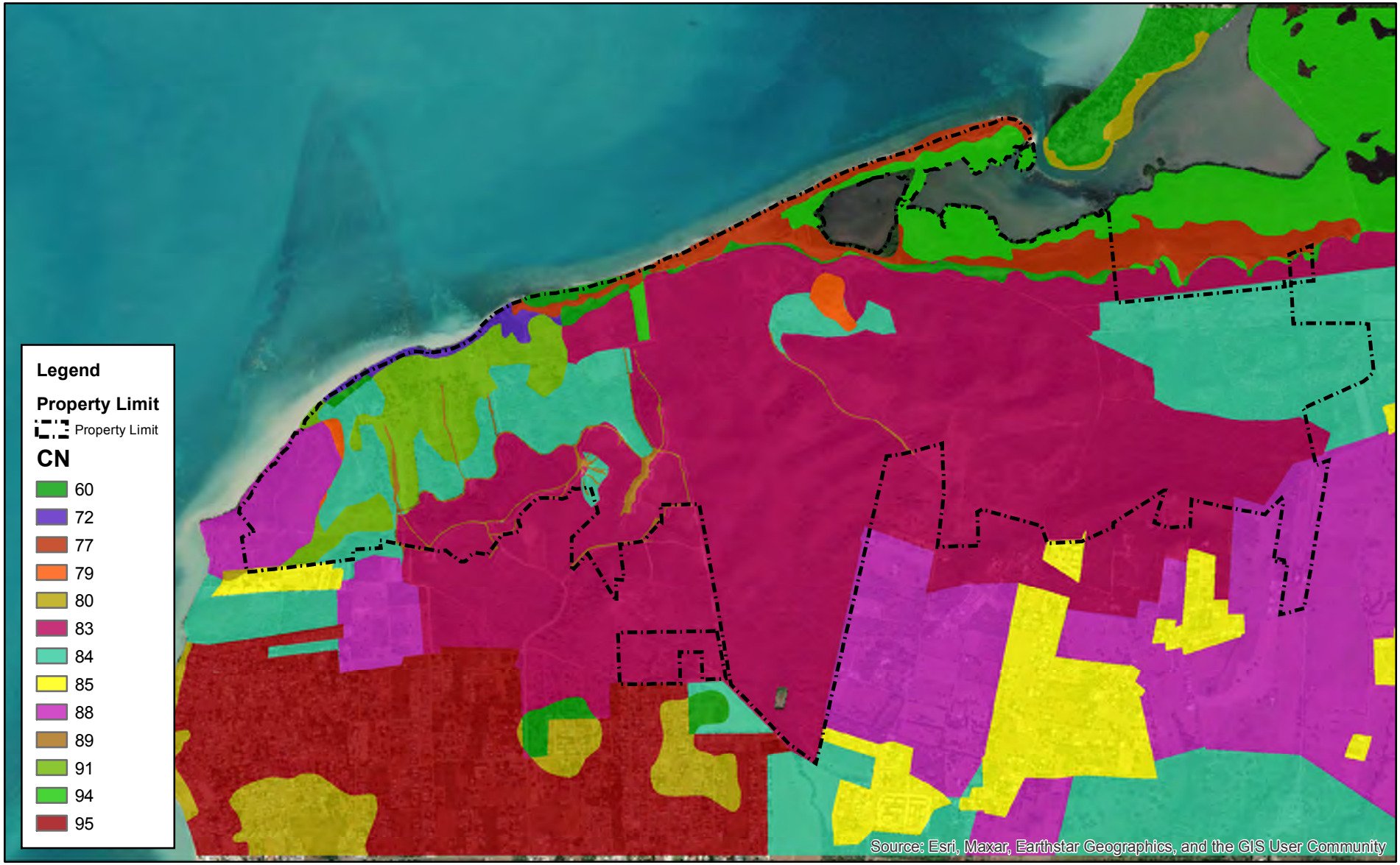

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:25,000

500 250 0 500 Meters

Curve Number Classification Map

Escencia - Cabo Rojo, PR

N W E S

Date: 8/13/2024

PMG AND ASSOCIATES

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117,000 118,000 119,000 120,000 121,000 122,000 123,000

219,600 219,000 219,400 217,800 217,200 216,600

Legend

Property Limit

Property Limit

CN Values

- 30
- 39
- 48
- 60
- 76
- 77
- 80
- 81
- 82
- 83
- 84
- 86
- 89
- 92
- 93
- 94
- 95
- 96
- 98
- 100

USGS Quadrangles: rd_sp83, cs_sp83

1:8,000

500 250 0 500 Meters

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

Curve Number Classification Map - Proposed Condition

Esencia - Cabo Rojo, PR

N W E S

Date: 8/13/2024

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Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:8,000

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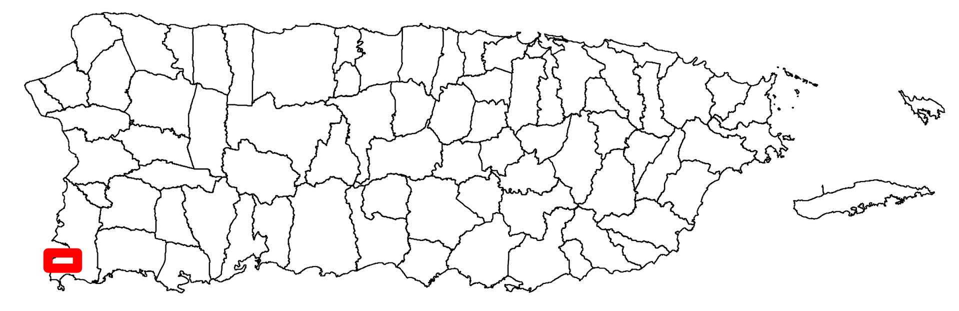

Suggested Detention Basins Areas - PC

Esencia - Cabo Rojo, PR

N W E S

Date: 8/13/2024

PMG AND ASSOCIATES

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Basins: 47		CN & Tc Calculations	EC	ESCENCIA	Cabo Rojo, PR		
Basin Name	**AREA (ac)**	**Area (Ha)**	**Slope (%)**	**CN Total**	**LFP (ft)**	**CN**	**Tc (min)**	**Tc ICPR (min)**
BN01	11.24	4.55	18.95	88	1098.21	88	6	6
BN02	6.73	2.73	26.23	88	794.93	88	4	6
BN03	13.79	5.58	29.01	88	275.63	88	2	6
BN04	14.07	5.69	22.94	87	1637.19	87	8	8
BN05	49.44	20.01	11.88	85	2612.82	85	17	17
BN06	57.62	23.32	15.96	87	3278.38	87	16	16
BN07	42.04	17.01	15.27	86	3030.52	86	16	16
BN08	40.74	16.49	20.87	84	2802.60	84	14	14
BN09	13.67	5.53	9.48	89	814.00	89	6	6
BN10	14.13	5.72	21.05	83	1583.55	83	9	9
BN11	8.74	3.54	14.56	83	813.97	83	6	6
BN12	36.97	14.96	23.06	85	2509.19	85	12	12
BN13	36.58	14.80	24.35	83	2799.95	83	13	13
BN14	38.68	15.65	23.34	83	2745.52	83	13	13
BN15	112.62	45.58	30.28	83	5116.68	83	19	19
BN16	21.31	8.62	11.98	83	2085.85	83	15	15
BN17	14.22	5.76	15.23	81	1531.90	81	11	11
BN18	48.43	19.60	28.75	83	2090.41	83	10	10
BN19	41.64	16.85	30.74	83	1614.54	83	8	8
BN20	20.97	8.49	30.75	83	1499.19	83	7	7
BN21	65.29	26.42	19.54	82	2873.95	82	16	16
BN22	144.30	58.40	20.63	83	4945.40	83	23	23
BN23	20.01	8.10	9.93	84	1330.38	84	11	11
BN24	68.54	27.74	13.66	84	3577.30	84	21	21
BN25	164.97	66.76	13.23	85	5152.19	85	27	27
BS26	11.79	4.77	12.27	88	845.78	88	6	6
BS27	3.84	1.56	14.85	88	280.62	88	2	6
BS28	9.16	3.71	28.68	83	332.10	83	2	6
BS29	9.02	3.65	20.52	83	652.24	83	5	6
BS30	13.23	5.35	15.08	83	946.06	83	7	7
BS31	41.59	16.83	18.86	83	2295.41	83	13	13
BS32	11.71	4.74	21.70	83	645.03	83	4	6
BS33	10.75	4.35	20.63	83	1071.31	83	7	7
BS34	4.50	1.82	17.79	86	435.18	86	3	6
BS35	4.25	1.72	6.26	85	489.30	85	6	6
BS36	7.08	2.87	5.62	85	909.71	85	11	11
BS37	126.32	51.12	11.95	82	4523.13	82	29	29
BS38	3.94	1.59	17.70	83	548.93	83	4	6
BS39	26.78	10.84	21.53	83	1611.89	83	9	9
BS40	1.74	0.71	12.90	83	298.69	83	3	6
BS41	25.65	10.38	20.10	83	1250.91	83	8	8
BS42	50.67	20.51	19.97	84	1518.56	84	9	9
BS43	8.89	3.60	21.32	83	248.50	83	2	6
BS44	7.42	3.00	19.51	83	582.53	83	4	6
BS45	3.53	1.43	15.63	83	340.98	83	3	6
BS46	37.28	15.09	15.49	87	1385.05	87	8	8
BS47	6.16	2.49	16.93	87	527.72	87	4	6

Basins: 72	CN & Tc Calculations	PC	ESENCIA	Cabo Rojo, PR		
Basin Name	**AREA (ac)**	**Area (Ha)**	**Slope (%)**	**LFP (ft)**	**CN Total**	**Tc (min)**	**Tc ICPR (min)**
BN01	3.76	1.52	18.93	766.93	82	5.54	6.00
BN02	3.63	1.47	26.26	871.75	94	3.27	6.00
BN03	6.72	2.72	28.89	912.89	94	3.23	6.00
BN04	3.81	1.54	23.01	1597.11	92	6.21	6.21
BN05	11.93	4.83	11.86	2186.81	92	11.12	11.12
BN06	11.80	4.78	15.88	3143.27	92	12.85	12.85
BN07A	7.34	2.97	18.11	2379.04	91	10.06	10.06
BN07B	2.96	1.20	5.30	671.56	93	6.19	6.19
BN08A	11.78	4.77	24.44	1865.45	91	7.13	7.13
BN08B	3.55	1.44	6.63	988.94	95	6.84	6.84
BN08C	0.86	0.35	4.50	635.11	85	8.83	8.83
BN09A	4.58	1.85	9.47	1294.52	89	9.28	9.28
BN09B	2.54	1.03	2.17	687.11	53	33.01	33.01
BN10A	3.49	1.41	27.16	344.78	86	2.13	6.00
BN10B	2.35	0.95	9.98	798.33	78	8.93	8.93
BN10C	1.88	0.76	2.47	513.75	39	35.34	35.34
BN11A	3.42	1.38	14.70	448.33	89	3.19	6.00
BN11B	1.87	0.75	2.73	434.32	39	29.39	29.39
BN11C	5.84	2.37	32.74	650.52	89	2.88	6.00
BN11D	5.25	2.13	16.36	1661.45	88	8.96	8.96
BN11E	2.95	1.19	2.45	601.15	39	40.24	40.24
BN12A	5.69	2.30	24.37	2406.59	87	10.25	10.25
BN12B	0.98	0.40	2.83	397.31	55	17.73	17.73
BN13A	7.32	2.96	23.37	3487.57	86	14.61	14.61
BN13B	2.17	0.88	2.01	738.75	44	45.79	45.79
BN13C	6.77	2.74	31.33	1699.34	85	7.36	7.36
BN13D	5.25	2.12	38.59	696.52	83	3.48	6.00
BN13E	9.31	3.77	23.34	2280.74	85	10.78	10.78
BN13F	1.35	0.55	1.60	839.90	68	30.76	30.76
BN14	8.59	3.48	4.15	1050.39	95	9.08	9.08
BN15	4.16	1.68	15.27	1297.83	94	5.89	6.00
BN16	9.86	3.99	28.75	2121.10	88	8.22	8.22
BN17	10.18	4.12	30.74	1998.00	87	7.87	7.87
BN18	3.55	1.44	30.74	1777.62	84	7.97	7.97
BN19	18.23	7.38	19.56	2924.57	83	15.39	15.39
BN20A	12.06	4.88	21.78	3747.93	85	16.61	16.61
BN20B	4.08	1.65	8.14	837.93	85	8.20	8.20
BN21	7.94	3.21	9.90	1364.17	83	11.75	11.75
BN22A	7.52	3.04	10.03	2091.60	84	15.89	15.89
BN22B	11.62	4.70	5.22	1376.41	83	16.30	16.30
BN23A	20.83	8.43	9.70	2311.98	84	17.51	17.51
BN23B	14.81	5.99	5.00	806.30	81	11.59	11.59
BN43	51.53	20.85	1.13	3348.75	81	76.16	76.16
BS24	2.87	1.16	12.31	1060.93	84	8.33	8.33
BS25	5.30	2.15	12.16	1510.86	84	11.13	11.13
BS26	1.44	0.58	26.75	211.68	81	1.72	6.00
BS27	5.29	2.14	26.97	425.75	82	2.90	6.00
BS28	1.51	0.61	27.91	499.87	85	2.93	6.00

Basins: 72		CN & Tc Calculations		PC	ESENCIA	Cabo Rojo, PR	
Basin Name	**AREA (ac)**	**Area (Ha)**	**Slope (%)**	**LFP (ft)**	**CN Total**	**Tc (min)**	**Tc ICPR (min)**
BS29A	9.70	3.92	18.85	2117.42	85	11.31	11.31
BS29B	2.84	1.15	20.50	790.75	82	5.46	6.00
BS29C	2.93	1.19	15.08	1015.65	83	7.52	7.52
BS30	4.85	1.96	18.06	661.65	81	5.21	6.00
BS31	0.60	0.24	16.44	461.45	87	3.33	6.00
BS32	1.29	0.52	18.44	377.62	85	2.88	6.00
BS33	1.49	0.60	6.86	247.24	88	3.01	6.00
BS34	0.95	0.39	5.99	305.64	85	4.26	6.00
BS35	37.63	15.23	12.45	4480.77	84	26.24	26.24
BS36A	7.17	2.90	20.45	1420.24	85	7.89	7.89
BS36B	0.28	0.12	12.23	237.30	87	2.27	6.00
BS36C	0.64	0.26	20.78	600.39	87	3.66	6.00
BS36D	0.32	0.13	14.93	53.08	90	0.55	6.00
BS36E	26.88	10.88	9.44	2845.01	86	19.53	19.53
BS37A	3.89	1.57	18.40	870.21	90	4.65	6.00
BS37B	6.09	2.46	20.64	1641.80	93	6.41	6.41
BS37C	12.29	4.97	22.15	1808.20	82	10.17	10.17
BS37D	7.87	3.18	16.30	1291.80	82	9.06	9.06
BS38	5.20	2.11	21.76	686.32	82	4.73	6.00
BS39	4.43	1.79	20.69	398.95	83	3.04	6.00
BS40	1.70	0.69	16.13	362.40	83	3.19	6.00
BS41A	4.30	1.74	16.03	1067.22	86	6.84	6.84
BS41B	3.19	1.29	14.82	489.99	84	4.09	6.00
BS42	2.14	0.87	16.92	849.84	82	6.36	6.36

Simple Basin: EC-BN01

Scenario:	38701-EC
Node:	EC-N01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.5000 ha
Curve Number:	88.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN01	100yr-12hr-10%	1.437	0.7667	27.7	23.9	4.5000	88.0	0.00	0.00
EC-BN01	100yr-12hr-90%	1.101	12.0000	27.7	23.9	4.5000	88.0	0.00	0.00
EC-BN01	100yr-24hr-10%	1.374	0.5167	36.7	32.9	4.5000	88.0	0.00	0.00
EC-BN01	100yr-24hr-90%	1.207	24.0000	36.7	32.9	4.5000	88.0	0.00	0.00
EC-BN01	100yr-6hr-10%	1.491	0.6833	19.7	16.1	4.5000	88.0	0.00	0.00
EC-BN01	100yr-6hr-90%	0.982	5.8500	19.7	16.1	4.5000	88.0	0.00	0.00
EC-BN01	10yr-12hr-10%	0.723	0.7667	15.7	12.2	4.5000	88.0	0.00	0.00
EC-BN01	10yr-12hr-90%	0.609	12.0000	15.7	12.2	4.5000	88.0	0.00	0.00
EC-BN01	10yr-24hr-10%	0.638	1.0000	19.5	15.9	4.5000	88.0	0.00	0.00
EC-BN01	10yr-24hr-90%	0.630	24.0000	19.5	15.9	4.5000	88.0	0.00	0.00
EC-BN01	10yr-6hr-10%	0.890	0.6833	12.9	9.5	4.5000	88.0	0.00	0.00
EC-BN01	10yr-6hr-90%	0.624	6.0000	12.9	9.5	4.5000	88.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN01	25yr-12hr-10%	0.986	0.7667	20.1	16.5	4.5000	88.0	0.00	0.00
EC-BN01	25yr-12hr-90%	0.790	12.0000	20.1	16.5	4.5000	88.0	0.00	0.00
EC-BN01	25yr-24hr-10%	0.891	1.0000	25.7	22.0	4.5000	88.0	0.00	0.00
EC-BN01	25yr-24hr-90%	0.839	24.0000	25.7	22.0	4.5000	88.0	0.00	0.00
EC-BN01	25yr-6hr-10%	1.121	0.6833	15.5	12.0	4.5000	88.0	0.00	0.00
EC-BN01	25yr-6hr-90%	0.761	5.8667	15.5	12.0	4.5000	88.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN01 [cm]	100yr-12hr-10%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN01 [m3]	100yr-12hr-10%	12465	0	10773	0	0	0	1692
EC-BN01 [ha-m]	100yr-12hr-10%	1.25	0.00	1.08	0.00	0.00	0.00	0.17
EC-BN01 [cm]	100yr-12hr-90%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN01 [m3]	100yr-12hr-90%	12465	0	10773	0	0	0	1692
EC-BN01 [ha-m]	100yr-12hr-90%	1.25	0.00	1.08	0.00	0.00	0.00	0.17
EC-BN01 [cm]	100yr-24hr-10%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN01 [m3]	100yr-24hr-10%	16515	0	14783	0	0	0	1732
EC-BN01 [ha-m]	100yr-24hr-10%	1.65	0.00	1.48	0.00	0.00	0.00	0.17
EC-BN01 [cm]	100yr-24hr-90%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN01 [m3]	100yr-24hr-90%	16515	0	14783	0	0	0	1732
EC-BN01 [ha-m]	100yr-24hr-90%	1.65	0.00	1.48	0.00	0.00	0.00	0.17
EC-BN01 [cm]	100yr-6hr-10%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN01 [m3]	100yr-6hr-10%	8865	0	7235	0	0	0	1630

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN01 [ha-m]	100yr-6hr-10%	0.89	0.00	0.72	0.00	0.00	0.00	0.16
EC-BN01 [cm]	100yr-6hr-90%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN01 [m3]	100yr-6hr-90%	8865	0	7235	0	0	0	1630
EC-BN01 [ha-m]	100yr-6hr-90%	0.89	0.00	0.72	0.00	0.00	0.00	0.16
EC-BN01 [cm]	10yr-12hr-10%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN01 [m3]	10yr-12hr-10%	7065	0	5487	0	0	0	1578
EC-BN01 [ha-m]	10yr-12hr-10%	0.71	0.00	0.55	0.00	0.00	0.00	0.16
EC-BN01 [cm]	10yr-12hr-90%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN01 [m3]	10yr-12hr-90%	7065	0	5487	0	0	0	1578
EC-BN01 [ha-m]	10yr-12hr-90%	0.71	0.00	0.55	0.00	0.00	0.00	0.16
EC-BN01 [cm]	10yr-24hr-10%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN01 [m3]	10yr-24hr-10%	8775	0	7148	0	0	0	1627
EC-BN01 [ha-m]	10yr-24hr-10%	0.88	0.00	0.71	0.00	0.00	0.00	0.16
EC-BN01 [cm]	10yr-24hr-90%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN01 [m3]	10yr-24hr-90%	8775	0	7148	0	0	0	1627
EC-BN01 [ha-m]	10yr-24hr-90%	0.88	0.00	0.71	0.00	0.00	0.00	0.16
EC-BN01 [cm]	10yr-6hr-10%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN01 [m3]	10yr-6hr-10%	5805	0	4279	0	0	0	1526
EC-BN01 [ha-m]	10yr-6hr-10%	0.58	0.00	0.43	0.00	0.00	0.00	0.15
EC-BN01 [cm]	10yr-6hr-90%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN01 [m3]	10yr-6hr-90%	5805	0	4279	0	0	0	1526
EC-BN01 [ha-m]	10yr-6hr-90%	0.58	0.00	0.43	0.00	0.00	0.00	0.15
EC-BN01 [cm]	25yr-12hr-10%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN01 [m3]	25yr-12hr-10%	9045	0	7411	0	0	0	1634

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN01 [ha-m]	25yr-12hr-10%	0.90	0.00	0.74	0.00	0.00	0.00	0.16
EC-BN01 [cm]	25yr-12hr-90%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN01 [m3]	25yr-12hr-90%	9045	0	7411	0	0	0	1634
EC-BN01 [ha-m]	25yr-12hr-90%	0.90	0.00	0.74	0.00	0.00	0.00	0.16
EC-BN01 [cm]	25yr-24hr-10%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN01 [m3]	25yr-24hr-10%	11565	0	9885	0	0	0	1680
EC-BN01 [ha-m]	25yr-24hr-10%	1.16	0.00	0.99	0.00	0.00	0.00	0.17
EC-BN01 [cm]	25yr-24hr-90%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN01 [m3]	25yr-24hr-90%	11565	0	9885	0	0	0	1680
EC-BN01 [ha-m]	25yr-24hr-90%	1.16	0.00	0.99	0.00	0.00	0.00	0.17
EC-BN01 [cm]	25yr-6hr-10%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN01 [m3]	25yr-6hr-10%	6975	0	5401	0	0	0	1574
EC-BN01 [ha-m]	25yr-6hr-10%	0.70	0.00	0.54	0.00	0.00	0.00	0.16
EC-BN01 [cm]	25yr-6hr-90%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN01 [m3]	25yr-6hr-90%	6975	0	5401	0	0	0	1574
EC-BN01 [ha-m]	25yr-6hr-90%	0.70	0.00	0.54	0.00	0.00	0.00	0.16

Simple Basin: EC-BN02

Scenario:	38701-EC
Node:	EC-N02
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.7000 ha
Curve Number:	88.0

% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN02	100yr-12hr-10%	0.862	0.7667	27.7	23.9	2.7000	88.0	0.00	0.00
EC-BN02	100yr-12hr-90%	0.661	12.0000	27.7	23.9	2.7000	88.0	0.00	0.00
EC-BN02	100yr-24hr-10%	0.824	0.5167	36.7	32.9	2.7000	88.0	0.00	0.00
EC-BN02	100yr-24hr-90%	0.724	24.0000	36.7	32.9	2.7000	88.0	0.00	0.00
EC-BN02	100yr-6hr-10%	0.895	0.6833	19.7	16.1	2.7000	88.0	0.00	0.00
EC-BN02	100yr-6hr-90%	0.589	5.8500	19.7	16.1	2.7000	88.0	0.00	0.00
EC-BN02	10yr-12hr-10%	0.434	0.7667	15.7	12.2	2.7000	88.0	0.00	0.00
EC-BN02	10yr-12hr-90%	0.366	12.0000	15.7	12.2	2.7000	88.0	0.00	0.00
EC-BN02	10yr-24hr-10%	0.383	1.0000	19.5	15.9	2.7000	88.0	0.00	0.00
EC-BN02	10yr-24hr-90%	0.378	24.0000	19.5	15.9	2.7000	88.0	0.00	0.00
EC-BN02	10yr-6hr-10%	0.534	0.6833	12.9	9.5	2.7000	88.0	0.00	0.00
EC-BN02	10yr-6hr-90%	0.375	6.0000	12.9	9.5	2.7000	88.0	0.00	0.00
EC-BN02	25yr-12hr-10%	0.592	0.7667	20.1	16.5	2.7000	88.0	0.00	0.00
EC-BN02	25yr-12hr-90%	0.474	12.0000	20.1	16.5	2.7000	88.0	0.00	0.00
EC-BN02	25yr-24hr-10%	0.535	1.0000	25.7	22.0	2.7000	88.0	0.00	0.00
EC-BN02	25yr-24hr-90%	0.503	24.0000	25.7	22.0	2.7000	88.0	0.00	0.00
EC-BN02	25yr-6hr-10%	0.672	0.6833	15.5	12.0	2.7000	88.0	0.00	0.00
EC-BN02	25yr-6hr-90%	0.457	5.8667	15.5	12.0	2.7000	88.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN02 [cm]	100yr-12hr-10%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN02 [m3]	100yr-12hr-10%	7479	0	6464	0	0	0	1015
EC-BN02 [ha-m]	100yr-12hr-10%	0.75	0.00	0.65	0.00	0.00	0.00	0.10
EC-BN02 [cm]	100yr-12hr-90%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN02 [m3]	100yr-12hr-90%	7479	0	6464	0	0	0	1015
EC-BN02 [ha-m]	100yr-12hr-90%	0.75	0.00	0.65	0.00	0.00	0.00	0.10
EC-BN02 [cm]	100yr-24hr-10%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN02 [m3]	100yr-24hr-10%	9909	0	8870	0	0	0	1039
EC-BN02 [ha-m]	100yr-24hr-10%	0.99	0.00	0.89	0.00	0.00	0.00	0.10
EC-BN02 [cm]	100yr-24hr-90%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN02 [m3]	100yr-24hr-90%	9909	0	8870	0	0	0	1039
EC-BN02 [ha-m]	100yr-24hr-90%	0.99	0.00	0.89	0.00	0.00	0.00	0.10
EC-BN02 [cm]	100yr-6hr-10%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN02 [m3]	100yr-6hr-10%	5319	0	4341	0	0	0	978
EC-BN02 [ha-m]	100yr-6hr-10%	0.53	0.00	0.43	0.00	0.00	0.00	0.10
EC-BN02 [cm]	100yr-6hr-90%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN02 [m3]	100yr-6hr-90%	5319	0	4341	0	0	0	978
EC-BN02 [ha-m]	100yr-6hr-90%	0.53	0.00	0.43	0.00	0.00	0.00	0.10
EC-BN02 [cm]	10yr-12hr-10%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN02 [m3]	10yr-12hr-10%	4239	0	3292	0	0	0	947
EC-BN02 [ha-m]	10yr-12hr-10%	0.42	0.00	0.33	0.00	0.00	0.00	0.09
EC-BN02 [cm]	10yr-12hr-90%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN02 [m3]	10yr-12hr-90%	4239	0	3292	0	0	0	947
EC-BN02	10yr-12hr-9	0.42	0.00	0.33	0.00	0.00	0.00	0.09

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN02 [cm]	10yr-24hr-10%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN02 [m3]	10yr-24hr-10%	5265	0	4289	0	0	0	976
EC-BN02 [ha-m]	10yr-24hr-10%	0.53	0.00	0.43	0.00	0.00	0.00	0.10
EC-BN02 [cm]	10yr-24hr-90%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN02 [m3]	10yr-24hr-90%	5265	0	4289	0	0	0	976
EC-BN02 [ha-m]	10yr-24hr-90%	0.53	0.00	0.43	0.00	0.00	0.00	0.10
EC-BN02 [cm]	10yr-6hr-10%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN02 [m3]	10yr-6hr-10%	3483	0	2568	0	0	0	915
EC-BN02 [ha-m]	10yr-6hr-10%	0.35	0.00	0.26	0.00	0.00	0.00	0.09
EC-BN02 [cm]	10yr-6hr-90%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN02 [m3]	10yr-6hr-90%	3483	0	2568	0	0	0	915
EC-BN02 [ha-m]	10yr-6hr-90%	0.35	0.00	0.26	0.00	0.00	0.00	0.09
EC-BN02 [cm]	25yr-12hr-10%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN02 [m3]	25yr-12hr-10%	5427	0	4447	0	0	0	980
EC-BN02 [ha-m]	25yr-12hr-10%	0.54	0.00	0.44	0.00	0.00	0.00	0.10
EC-BN02 [cm]	25yr-12hr-90%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN02 [m3]	25yr-12hr-90%	5427	0	4447	0	0	0	980
EC-BN02 [ha-m]	25yr-12hr-90%	0.54	0.00	0.44	0.00	0.00	0.00	0.10
EC-BN02 [cm]	25yr-24hr-10%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN02 [m3]	25yr-24hr-10%	6939	0	5931	0	0	0	1008
EC-BN02 [ha-m]	25yr-24hr-10%	0.69	0.00	0.59	0.00	0.00	0.00	0.10
EC-BN02 [cm]	25yr-24hr-90%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN02 [m3]	25yr-24hr-90%	6939	0	5931	0	0	0	1008
EC-BN02	25yr-24hr-9	0.69	0.00	0.59	0.00	0.00	0.00	0.10

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN02 [cm]	25yr-6hr-10 %	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN02 [m3]	25yr-6hr-10 %	4185	0	3240	0	0	0	945
EC-BN02 [ha-m]	25yr-6hr-10 %	0.42	0.00	0.32	0.00	0.00	0.00	0.09
EC-BN02 [cm]	25yr-6hr-90 %	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN02 [m3]	25yr-6hr-90 %	4185	0	3240	0	0	0	945
EC-BN02 [ha-m]	25yr-6hr-90 %	0.42	0.00	0.32	0.00	0.00	0.00	0.09

Simple Basin: EC-BN03

Scenario:	38701-EC
Node:	EC-N03
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.6000 ha
Curve Number:	88.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN03	100yr-12hr-10%	1.788	0.7667	27.7	23.9	5.6000	88.0	0.00	0.00
EC-BN03	100yr-12hr-90%	1.370	12.0000	27.7	23.9	5.6000	88.0	0.00	0.00
EC-BN03	100yr-24hr-10%	1.710	0.5167	36.7	32.9	5.6000	88.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN03	100yr-24hr-90%	1.502	24.0000	36.7	32.9	5.6000	88.0	0.00	0.00
EC-BN03	100yr-6hr-10%	1.856	0.6833	19.7	16.1	5.6000	88.0	0.00	0.00
EC-BN03	100yr-6hr-90%	1.222	5.8500	19.7	16.1	5.6000	88.0	0.00	0.00
EC-BN03	10yr-12hr-10%	0.900	0.7667	15.7	12.2	5.6000	88.0	0.00	0.00
EC-BN03	10yr-12hr-90%	0.758	12.0000	15.7	12.2	5.6000	88.0	0.00	0.00
EC-BN03	10yr-24hr-10%	0.794	1.0000	19.5	15.9	5.6000	88.0	0.00	0.00
EC-BN03	10yr-24hr-90%	0.784	24.0000	19.5	15.9	5.6000	88.0	0.00	0.00
EC-BN03	10yr-6hr-10%	1.108	0.6833	12.9	9.5	5.6000	88.0	0.00	0.00
EC-BN03	10yr-6hr-90%	0.777	6.0000	12.9	9.5	5.6000	88.0	0.00	0.00
EC-BN03	25yr-12hr-10%	1.227	0.7667	20.1	16.5	5.6000	88.0	0.00	0.00
EC-BN03	25yr-12hr-90%	0.984	12.0000	20.1	16.5	5.6000	88.0	0.00	0.00
EC-BN03	25yr-24hr-10%	1.109	1.0000	25.7	22.0	5.6000	88.0	0.00	0.00
EC-BN03	25yr-24hr-90%	1.044	24.0000	25.7	22.0	5.6000	88.0	0.00	0.00
EC-BN03	25yr-6hr-10%	1.395	0.6833	15.5	12.0	5.6000	88.0	0.00	0.00
EC-BN03	25yr-6hr-90%	0.947	5.8667	15.5	12.0	5.6000	88.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN03 [cm]	100yr-12hr-10%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN03 [m3]	100yr-12hr-10%	15512	0	13406	0	0	0	2106
EC-BN03 [ha-m]	100yr-12hr-10%	1.55	0.00	1.34	0.00	0.00	0.00	0.21
EC-BN03 [cm]	100yr-12hr-90%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BN03 [m3]	100yr-12hr-90%	15512	0	13406	0	0	0	2106

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN03 [ha-m]	100yr-12hr-90%	1.55	0.00	1.34	0.00	0.00	0.00	0.21
EC-BN03 [cm]	100yr-24hr-10%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN03 [m3]	100yr-24hr-10%	20552	0	18396	0	0	0	2156
EC-BN03 [ha-m]	100yr-24hr-10%	2.06	0.00	1.84	0.00	0.00	0.00	0.22
EC-BN03 [cm]	100yr-24hr-90%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BN03 [m3]	100yr-24hr-90%	20552	0	18396	0	0	0	2156
EC-BN03 [ha-m]	100yr-24hr-90%	2.06	0.00	1.84	0.00	0.00	0.00	0.22
EC-BN03 [cm]	100yr-6hr-10%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN03 [m3]	100yr-6hr-10%	11032	0	9004	0	0	0	2028
EC-BN03 [ha-m]	100yr-6hr-10%	1.10	0.00	0.90	0.00	0.00	0.00	0.20
EC-BN03 [cm]	100yr-6hr-90%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BN03 [m3]	100yr-6hr-90%	11032	0	9004	0	0	0	2028
EC-BN03 [ha-m]	100yr-6hr-90%	1.10	0.00	0.90	0.00	0.00	0.00	0.20
EC-BN03 [cm]	10yr-12hr-10%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN03 [m3]	10yr-12hr-10%	8792	0	6829	0	0	0	1963
EC-BN03 [ha-m]	10yr-12hr-10%	0.88	0.00	0.68	0.00	0.00	0.00	0.20
EC-BN03 [cm]	10yr-12hr-90%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BN03 [m3]	10yr-12hr-90%	8792	0	6829	0	0	0	1963
EC-BN03 [ha-m]	10yr-12hr-90%	0.88	0.00	0.68	0.00	0.00	0.00	0.20
EC-BN03 [cm]	10yr-24hr-10%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN03 [m3]	10yr-24hr-10%	10920	0	8895	0	0	0	2025
EC-BN03 [ha-m]	10yr-24hr-10%	1.09	0.00	0.89	0.00	0.00	0.00	0.20
EC-BN03 [cm]	10yr-24hr-90%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BN03 [m3]	10yr-24hr-90%	10920	0	8895	0	0	0	2025

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN03 [ha-m]	10yr-24hr-90%	1.09	0.00	0.89	0.00	0.00	0.00	0.20
EC-BN03 [cm]	10yr-6hr-10%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN03 [m3]	10yr-6hr-10%	7224	0	5326	0	0	0	1898
EC-BN03 [ha-m]	10yr-6hr-10%	0.72	0.00	0.53	0.00	0.00	0.00	0.19
EC-BN03 [cm]	10yr-6hr-90%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BN03 [m3]	10yr-6hr-90%	7224	0	5326	0	0	0	1898
EC-BN03 [ha-m]	10yr-6hr-90%	0.72	0.00	0.53	0.00	0.00	0.00	0.19
EC-BN03 [cm]	25yr-12hr-10%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN03 [m3]	25yr-12hr-10%	11256	0	9223	0	0	0	2033
EC-BN03 [ha-m]	25yr-12hr-10%	1.13	0.00	0.92	0.00	0.00	0.00	0.20
EC-BN03 [cm]	25yr-12hr-90%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BN03 [m3]	25yr-12hr-90%	11256	0	9223	0	0	0	2033
EC-BN03 [ha-m]	25yr-12hr-90%	1.13	0.00	0.92	0.00	0.00	0.00	0.20
EC-BN03 [cm]	25yr-24hr-10%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN03 [m3]	25yr-24hr-10%	14392	0	12301	0	0	0	2091
EC-BN03 [ha-m]	25yr-24hr-10%	1.44	0.00	1.23	0.00	0.00	0.00	0.21
EC-BN03 [cm]	25yr-24hr-90%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BN03 [m3]	25yr-24hr-90%	14392	0	12301	0	0	0	2091
EC-BN03 [ha-m]	25yr-24hr-90%	1.44	0.00	1.23	0.00	0.00	0.00	0.21
EC-BN03 [cm]	25yr-6hr-10%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN03 [m3]	25yr-6hr-10%	8680	0	6721	0	0	0	1959
EC-BN03 [ha-m]	25yr-6hr-10%	0.87	0.00	0.67	0.00	0.00	0.00	0.20
EC-BN03 [cm]	25yr-6hr-90%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BN03 [m3]	25yr-6hr-90%	8680	0	6721	0	0	0	1959

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN03 [ha-m]	25yr-6hr-90 %	0.87	0.00	0.67	0.00	0.00	0.00	0.20

Simple Basin: EC-BN04

Scenario: 38701-EC
Node: EC-N04
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 5.7000 ha
Curve Number: 87.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN04	100yr-12hr-10%	1.790	0.7667	27.7	23.7	5.7000	87.0	0.00	0.00
EC-BN04	100yr-12hr-90%	1.391	12.0000	27.7	23.7	5.7000	87.0	0.00	0.00
EC-BN04	100yr-24hr-10%	1.671	0.5333	36.7	32.6	5.7000	87.0	0.00	0.00
EC-BN04	100yr-24hr-90%	1.529	24.0000	36.7	32.6	5.7000	87.0	0.00	0.00
EC-BN04	100yr-6hr-10%	1.854	0.7000	19.7	15.8	5.7000	87.0	0.00	0.00
EC-BN04	100yr-6hr-90%	1.238	5.8833	19.7	15.8	5.7000	87.0	0.00	0.00
EC-BN04	10yr-12hr-10%	0.884	0.7833	15.7	11.9	5.7000	87.0	0.00	0.00
EC-BN04	10yr-12hr-90%	0.766	12.0000	15.7	11.9	5.7000	87.0	0.00	0.00
EC-BN04	10yr-24hr-	0.785	1.0167	19.5	15.6	5.7000	87.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BN04	10yr-24hr-90%	0.796	24.0000	19.5	15.6	5.7000	87.0	0.00	0.00
EC-BN04	10yr-6hr-10%	1.091	0.7167	12.9	9.3	5.7000	87.0	0.00	0.00
EC-BN04	10yr-6hr-90%	0.784	6.0000	12.9	9.3	5.7000	87.0	0.00	0.00
EC-BN04	25yr-12hr-10%	1.217	0.7833	20.1	16.2	5.7000	87.0	0.00	0.00
EC-BN04	25yr-12hr-90%	0.997	12.0000	20.1	16.2	5.7000	87.0	0.00	0.00
EC-BN04	25yr-24hr-10%	1.106	1.0167	25.7	21.7	5.7000	87.0	0.00	0.00
EC-BN04	25yr-24hr-90%	1.061	24.0000	25.7	21.7	5.7000	87.0	0.00	0.00
EC-BN04	25yr-6hr-10%	1.382	0.7000	15.5	11.7	5.7000	87.0	0.00	0.00
EC-BN04	25yr-6hr-90%	0.958	6.0000	15.5	11.7	5.7000	87.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN04 [cm]	100yr-12hr-10%	27.7	0.0	23.7	0.0	0.0	0.0	4.0
EC-BN04 [m3]	100yr-12hr-10%	15789	0	13482	0	0	0	2307
EC-BN04 [ha-m]	100yr-12hr-10%	1.58	0.00	1.35	0.00	0.00	0.00	0.23
EC-BN04 [cm]	100yr-12hr-90%	27.7	0.0	23.7	0.0	0.0	0.0	4.0
EC-BN04 [m3]	100yr-12hr-90%	15789	0	13482	0	0	0	2307
EC-BN04 [ha-m]	100yr-12hr-90%	1.58	0.00	1.35	0.00	0.00	0.00	0.23
EC-BN04 [cm]	100yr-24hr-10%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BN04 [m3]	100yr-24hr-10%	20919	0	18559	0	0	0	2360
EC-BN04 [ha-m]	100yr-24hr-10%	2.09	0.00	1.86	0.00	0.00	0.00	0.24
EC-BN04 [cm]	100yr-24hr-90%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BN04	100yr-24hr-	20919	0	18559	0	0	0	2360

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	90%							
EC-BN04 [ha-m]	100yr-24hr-90%	2.09	0.00	1.86	0.00	0.00	0.00	0.24
EC-BN04 [cm]	100yr-6hr-10%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BN04 [m3]	100yr-6hr-10%	11229	0	9008	0	0	0	2221
EC-BN04 [ha-m]	100yr-6hr-10%	1.12	0.00	0.90	0.00	0.00	0.00	0.22
EC-BN04 [cm]	100yr-6hr-90%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BN04 [m3]	100yr-6hr-90%	11229	0	9008	0	0	0	2221
EC-BN04 [ha-m]	100yr-6hr-90%	1.12	0.00	0.90	0.00	0.00	0.00	0.22
EC-BN04 [cm]	10yr-12hr-10%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BN04 [m3]	10yr-12hr-10%	8949	0	6802	0	0	0	2147
EC-BN04 [ha-m]	10yr-12hr-10%	0.89	0.00	0.68	0.00	0.00	0.00	0.21
EC-BN04 [cm]	10yr-12hr-90%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BN04 [m3]	10yr-12hr-90%	8949	0	6802	0	0	0	2147
EC-BN04 [ha-m]	10yr-12hr-90%	0.89	0.00	0.68	0.00	0.00	0.00	0.21
EC-BN04 [cm]	10yr-24hr-10%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BN04 [m3]	10yr-24hr-10%	11115	0	8898	0	0	0	2217
EC-BN04 [ha-m]	10yr-24hr-10%	1.11	0.00	0.89	0.00	0.00	0.00	0.22
EC-BN04 [cm]	10yr-24hr-90%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BN04 [m3]	10yr-24hr-90%	11115	0	8898	0	0	0	2217
EC-BN04 [ha-m]	10yr-24hr-90%	1.11	0.00	0.89	0.00	0.00	0.00	0.22
EC-BN04 [cm]	10yr-6hr-10%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BN04 [m3]	10yr-6hr-10%	7353	0	5281	0	0	0	2072
EC-BN04 [ha-m]	10yr-6hr-10%	0.74	0.00	0.53	0.00	0.00	0.00	0.21
EC-BN04 [cm]	10yr-6hr-90%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BN04	10yr-6hr-90	7353	0	5281	0	0	0	2072

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BN04 [ha-m]	10yr-6hr-90 %	0.74	0.00	0.53	0.00	0.00	0.00	0.21
EC-BN04 [cm]	25yr-12hr-10%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BN04 [m3]	25yr-12hr-10%	11457	0	9231	0	0	0	2226
EC-BN04 [ha-m]	25yr-12hr-10%	1.15	0.00	0.92	0.00	0.00	0.00	0.22
EC-BN04 [cm]	25yr-12hr-90%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BN04 [m3]	25yr-12hr-90%	11457	0	9231	0	0	0	2226
EC-BN04 [ha-m]	25yr-12hr-90%	1.15	0.00	0.92	0.00	0.00	0.00	0.22
EC-BN04 [cm]	25yr-24hr-10%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BN04 [m3]	25yr-24hr-10%	14649	0	12358	0	0	0	2291
EC-BN04 [ha-m]	25yr-24hr-10%	1.46	0.00	1.24	0.00	0.00	0.00	0.23
EC-BN04 [cm]	25yr-24hr-90%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BN04 [m3]	25yr-24hr-90%	14649	0	12358	0	0	0	2291
EC-BN04 [ha-m]	25yr-24hr-90%	1.46	0.00	1.24	0.00	0.00	0.00	0.23
EC-BN04 [cm]	25yr-6hr-10 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BN04 [m3]	25yr-6hr-10 %	8835	0	6693	0	0	0	2142
EC-BN04 [ha-m]	25yr-6hr-10 %	0.88	0.00	0.67	0.00	0.00	0.00	0.21
EC-BN04 [cm]	25yr-6hr-90 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BN04 [m3]	25yr-6hr-90 %	8835	0	6693	0	0	0	2142
EC-BN04 [ha-m]	25yr-6hr-90 %	0.88	0.00	0.67	0.00	0.00	0.00	0.21

Simple Basin: EC-BN05

Scenario: 38701-EC
Node: EC-N05
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 17.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 20.0000 ha
Curve Number: 85.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN05	100yr-12hr-10%	5.947	0.8833	27.7	23.0	20.0000	85.0	0.00	0.00
EC-BN05	100yr-12hr-90%	4.739	12.0167	27.7	23.0	20.0000	85.0	0.00	0.00
EC-BN05	100yr-24hr-10%	5.630	1.0667	36.7	31.9	20.0000	85.0	0.00	0.00
EC-BN05	100yr-24hr-90%	5.313	24.0000	36.7	31.9	20.0000	85.0	0.00	0.00
EC-BN05	100yr-6hr-10%	6.090	0.8500	19.7	15.2	20.0000	85.0	0.00	0.00
EC-BN05	100yr-6hr-90%	4.281	6.0000	19.7	15.2	20.0000	85.0	0.00	0.00
EC-BN05	10yr-12hr-10%	2.896	1.1000	15.7	11.4	20.0000	85.0	0.00	0.00
EC-BN05	10yr-12hr-90%	2.583	12.0167	15.7	11.4	20.0000	85.0	0.00	0.00
EC-BN05	10yr-24hr-10%	2.526	1.1000	19.5	15.0	20.0000	85.0	0.00	0.00
EC-BN05	10yr-24hr-90%	2.743	24.0000	19.5	15.0	20.0000	85.0	0.00	0.00
EC-BN05	10yr-6hr-10%	3.529	0.9333	12.9	8.8	20.0000	85.0	0.00	0.00
EC-BN05	10yr-6hr-90%	2.678	6.0000	12.9	8.8	20.0000	85.0	0.00	0.00
EC-BN05	25yr-12hr-10%	3.981	1.0667	20.1	15.6	20.0000	85.0	0.00	0.00
EC-BN05	25yr-12hr-90%	3.379	12.0167	20.1	15.6	20.0000	85.0	0.00	0.00
EC-BN05	25yr-24hr-	3.641	1.0833	25.7	21.1	20.0000	85.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BN05	25yr-24hr-90%	3.674	24.0000	25.7	21.1	20.0000	85.0	0.00	0.00
EC-BN05	25yr-6hr-10%	4.498	0.9000	15.5	11.2	20.0000	85.0	0.00	0.00
EC-BN05	25yr-6hr-90%	3.294	6.0000	15.5	11.2	20.0000	85.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN05 [cm]	100yr-12hr-10%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN05 [m3]	100yr-12hr-10%	55400	0	46032	0	0	0	9368
EC-BN05 [ha-m]	100yr-12hr-10%	5.54	0.00	4.60	0.00	0.00	0.00	0.94
EC-BN05 [cm]	100yr-12hr-90%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN05 [m3]	100yr-12hr-90%	55400	0	46032	0	0	0	9368
EC-BN05 [ha-m]	100yr-12hr-90%	5.54	0.00	4.60	0.00	0.00	0.00	0.94
EC-BN05 [cm]	100yr-24hr-10%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN05 [m3]	100yr-24hr-10%	73400	0	63786	0	0	0	9614
EC-BN05 [ha-m]	100yr-24hr-10%	7.34	0.00	6.38	0.00	0.00	0.00	0.96
EC-BN05 [cm]	100yr-24hr-90%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN05 [m3]	100yr-24hr-90%	73400	0	63786	0	0	0	9614
EC-BN05 [ha-m]	100yr-24hr-90%	7.34	0.00	6.38	0.00	0.00	0.00	0.96
EC-BN05 [cm]	100yr-6hr-10%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN05 [m3]	100yr-6hr-10%	39400	0	30438	0	0	0	8962
EC-BN05 [ha-m]	100yr-6hr-10%	3.94	0.00	3.04	0.00	0.00	0.00	0.90
EC-BN05 [cm]	100yr-6hr-90%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN05	100yr-6hr-9	39400	0	30438	0	0	0	8962

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN05 [ha-m]	100yr-6hr-90%	3.94	0.00	3.04	0.00	0.00	0.00	0.90
EC-BN05 [cm]	10yr-12hr-10%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN05 [m3]	10yr-12hr-10%	31400	0	22778	0	0	0	8622
EC-BN05 [ha-m]	10yr-12hr-10%	3.14	0.00	2.28	0.00	0.00	0.00	0.86
EC-BN05 [cm]	10yr-12hr-90%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN05 [m3]	10yr-12hr-90%	31400	0	22778	0	0	0	8622
EC-BN05 [ha-m]	10yr-12hr-90%	3.14	0.00	2.28	0.00	0.00	0.00	0.86
EC-BN05 [cm]	10yr-24hr-10%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN05 [m3]	10yr-24hr-10%	39000	0	30052	0	0	0	8948
EC-BN05 [ha-m]	10yr-24hr-10%	3.90	0.00	3.01	0.00	0.00	0.00	0.89
EC-BN05 [cm]	10yr-24hr-90%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN05 [m3]	10yr-24hr-90%	39000	0	30052	0	0	0	8948
EC-BN05 [ha-m]	10yr-24hr-90%	3.90	0.00	3.01	0.00	0.00	0.00	0.89
EC-BN05 [cm]	10yr-6hr-10%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN05 [m3]	10yr-6hr-10%	25800	0	17520	0	0	0	8280
EC-BN05 [ha-m]	10yr-6hr-10%	2.58	0.00	1.75	0.00	0.00	0.00	0.83
EC-BN05 [cm]	10yr-6hr-90%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN05 [m3]	10yr-6hr-90%	25800	0	17520	0	0	0	8280
EC-BN05 [ha-m]	10yr-6hr-90%	2.58	0.00	1.75	0.00	0.00	0.00	0.83
EC-BN05 [cm]	25yr-12hr-10%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN05 [m3]	25yr-12hr-10%	40200	0	31210	0	0	0	8990
EC-BN05 [ha-m]	25yr-12hr-10%	4.02	0.00	3.12	0.00	0.00	0.00	0.90
EC-BN05 [cm]	25yr-12hr-90%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN05	25yr-12hr-9	40200	0	31210	0	0	0	8990

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN05 [ha-m]	25yr-12hr-90%	4.02	0.00	3.12	0.00	0.00	0.00	0.90
EC-BN05 [cm]	25yr-24hr-10%	25.7	0.0	21.1	0.0	0.0	0.0	4.6
EC-BN05 [m3]	25yr-24hr-10%	51400	0	42111	0	0	0	9289
EC-BN05 [ha-m]	25yr-24hr-10%	5.14	0.00	4.21	0.00	0.00	0.00	0.93
EC-BN05 [cm]	25yr-24hr-90%	25.7	0.0	21.1	0.0	0.0	0.0	4.6
EC-BN05 [m3]	25yr-24hr-90%	51400	0	42111	0	0	0	9289
EC-BN05 [ha-m]	25yr-24hr-90%	5.14	0.00	4.21	0.00	0.00	0.00	0.93
EC-BN05 [cm]	25yr-6hr-10%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN05 [m3]	25yr-6hr-10%	31000	0	22399	0	0	0	8601
EC-BN05 [ha-m]	25yr-6hr-10%	3.10	0.00	2.24	0.00	0.00	0.00	0.86
EC-BN05 [cm]	25yr-6hr-90%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN05 [m3]	25yr-6hr-90%	31000	0	22399	0	0	0	8601
EC-BN05 [ha-m]	25yr-6hr-90%	3.10	0.00	2.24	0.00	0.00	0.00	0.86

Simple Basin: EC-BN06

Scenario:	38701-EC
Node:	EC-N06
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	23.3000 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN06	100yr-12hr-10%	7.188	0.8500	27.7	23.6	23.3000	87.0	0.00	0.00
EC-BN06	100yr-12hr-90%	5.569	12.0167	27.7	23.6	23.3000	87.0	0.00	0.00
EC-BN06	100yr-24hr-10%	6.741	1.0500	36.7	32.6	23.3000	87.0	0.00	0.00
EC-BN06	100yr-24hr-90%	6.216	24.0000	36.7	32.6	23.3000	87.0	0.00	0.00
EC-BN06	100yr-6hr-10%	7.383	0.8000	19.7	15.8	23.3000	87.0	0.00	0.00
EC-BN06	100yr-6hr-90%	5.043	6.0000	19.7	15.8	23.3000	87.0	0.00	0.00
EC-BN06	10yr-12hr-10%	3.548	1.0667	15.7	11.9	23.3000	87.0	0.00	0.00
EC-BN06	10yr-12hr-90%	3.064	12.0167	15.7	11.9	23.3000	87.0	0.00	0.00
EC-BN06	10yr-24hr-10%	3.125	1.0833	19.5	15.6	23.3000	87.0	0.00	0.00
EC-BN06	10yr-24hr-90%	3.232	24.0000	19.5	15.6	23.3000	87.0	0.00	0.00
EC-BN06	10yr-6hr-10%	4.349	0.8833	12.9	9.3	23.3000	87.0	0.00	0.00
EC-BN06	10yr-6hr-90%	3.188	6.0000	12.9	9.3	23.3000	87.0	0.00	0.00
EC-BN06	25yr-12hr-10%	4.852	0.8833	20.1	16.2	23.3000	87.0	0.00	0.00
EC-BN06	25yr-12hr-90%	3.988	12.0167	20.1	16.2	23.3000	87.0	0.00	0.00
EC-BN06	25yr-24hr-10%	4.429	1.0667	25.7	21.7	23.3000	87.0	0.00	0.00
EC-BN06	25yr-24hr-90%	4.312	24.0000	25.7	21.7	23.3000	87.0	0.00	0.00
EC-BN06	25yr-6hr-10%	5.496	0.8500	15.5	11.7	23.3000	87.0	0.00	0.00
EC-BN06	25yr-6hr-90%	3.901	6.0000	15.5	11.7	23.3000	87.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total	Total	Total Runoff	Total ET	Total Initial	Total	Change Soil

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN06 [cm]	100yr-12hr-10%	27.7	0.0	23.6	0.0	0.0	0.0	4.1
EC-BN06 [m3]	100yr-12hr-10%	64541	0	55093	0	0	0	9448
EC-BN06 [ha-m]	100yr-12hr-10%	6.45	0.00	5.51	0.00	0.00	0.00	0.94
EC-BN06 [cm]	100yr-12hr-90%	27.7	0.0	23.6	0.0	0.0	0.0	4.1
EC-BN06 [m3]	100yr-12hr-90%	64541	0	55093	0	0	0	9448
EC-BN06 [ha-m]	100yr-12hr-90%	6.45	0.00	5.51	0.00	0.00	0.00	0.94
EC-BN06 [cm]	100yr-24hr-10%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BN06 [m3]	100yr-24hr-10%	85511	0	75842	0	0	0	9669
EC-BN06 [ha-m]	100yr-24hr-10%	8.55	0.00	7.58	0.00	0.00	0.00	0.97
EC-BN06 [cm]	100yr-24hr-90%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BN06 [m3]	100yr-24hr-90%	85511	0	75842	0	0	0	9669
EC-BN06 [ha-m]	100yr-24hr-90%	8.55	0.00	7.58	0.00	0.00	0.00	0.97
EC-BN06 [cm]	100yr-6hr-10%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BN06 [m3]	100yr-6hr-10%	45901	0	36813	0	0	0	9088
EC-BN06 [ha-m]	100yr-6hr-10%	4.59	0.00	3.68	0.00	0.00	0.00	0.91
EC-BN06 [cm]	100yr-6hr-90%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BN06 [m3]	100yr-6hr-90%	45901	0	36813	0	0	0	9088
EC-BN06 [ha-m]	100yr-6hr-90%	4.59	0.00	3.68	0.00	0.00	0.00	0.91
EC-BN06 [cm]	10yr-12hr-10%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BN06 [m3]	10yr-12hr-10%	36581	0	27797	0	0	0	8784
EC-BN06 [ha-m]	10yr-12hr-10%	3.66	0.00	2.78	0.00	0.00	0.00	0.88
EC-BN06 [cm]	10yr-12hr-90%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BN06 [m3]	10yr-12hr-90%	36581	0	27797	0	0	0	8784
EC-BN06 [ha-m]	10yr-12hr-90%	3.66	0.00	2.78	0.00	0.00	0.00	0.88

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN06 [cm]	10yr-24hr-10%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BN06 [m3]	10yr-24hr-10%	45435	0	36360	0	0	0	9075
EC-BN06 [ha-m]	10yr-24hr-10%	4.54	0.00	3.64	0.00	0.00	0.00	0.91
EC-BN06 [cm]	10yr-24hr-90%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BN06 [m3]	10yr-24hr-90%	45435	0	36360	0	0	0	9075
EC-BN06 [ha-m]	10yr-24hr-90%	4.54	0.00	3.64	0.00	0.00	0.00	0.91
EC-BN06 [cm]	10yr-6hr-10%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BN06 [m3]	10yr-6hr-10%	30057	0	21579	0	0	0	8478
EC-BN06 [ha-m]	10yr-6hr-10%	3.01	0.00	2.16	0.00	0.00	0.00	0.85
EC-BN06 [cm]	10yr-6hr-90%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BN06 [m3]	10yr-6hr-90%	30057	0	21579	0	0	0	8478
EC-BN06 [ha-m]	10yr-6hr-90%	3.01	0.00	2.16	0.00	0.00	0.00	0.85
EC-BN06 [cm]	25yr-12hr-10%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BN06 [m3]	25yr-12hr-10%	46833	0	37721	0	0	0	9112
EC-BN06 [ha-m]	25yr-12hr-10%	4.68	0.00	3.77	0.00	0.00	0.00	0.91
EC-BN06 [cm]	25yr-12hr-90%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BN06 [m3]	25yr-12hr-90%	46833	0	37721	0	0	0	9112
EC-BN06 [ha-m]	25yr-12hr-90%	4.68	0.00	3.77	0.00	0.00	0.00	0.91
EC-BN06 [cm]	25yr-24hr-10%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BN06 [m3]	25yr-24hr-10%	59881	0	50503	0	0	0	9378
EC-BN06 [ha-m]	25yr-24hr-10%	5.99	0.00	5.05	0.00	0.00	0.00	0.94
EC-BN06 [cm]	25yr-24hr-90%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BN06 [m3]	25yr-24hr-90%	59881	0	50503	0	0	0	9378
EC-BN06 [ha-m]	25yr-24hr-90%	5.99	0.00	5.05	0.00	0.00	0.00	0.94

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN06 [cm]	25yr-6hr-10 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BN06 [m3]	25yr-6hr-10 %	36115	0	27349	0	0	0	8766
EC-BN06 [ha-m]	25yr-6hr-10 %	3.61	0.00	2.73	0.00	0.00	0.00	0.88
EC-BN06 [cm]	25yr-6hr-90 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BN06 [m3]	25yr-6hr-90 %	36115	0	27349	0	0	0	8766
EC-BN06 [ha-m]	25yr-6hr-90 %	3.61	0.00	2.73	0.00	0.00	0.00	0.88

Simple Basin: EC-BN07

Scenario:	38701-EC
Node:	EC-N07
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	17.0000 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN07	100yr-12hr-10%	5.157	0.8500	27.7	23.3	17.0000	86.0	0.00	0.00
EC-BN07	100yr-12hr-90%	4.052	12.0167	27.7	23.3	17.0000	86.0	0.00	0.00
EC-BN07	100yr-24hr-10%	4.856	1.0500	36.7	32.2	17.0000	86.0	0.00	0.00
EC-BN07	100yr-24h	4.527	24.0000	36.7	32.2	17.0000	86.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	r-90%								
EC-BN07	100yr-6hr-10%	5.287	0.8167	19.7	15.5	17.0000	86.0	0.00	0.00
EC-BN07	100yr-6hr-90%	3.660	6.0000	19.7	15.5	17.0000	86.0	0.00	0.00
EC-BN07	10yr-12hr-10%	2.526	1.0833	15.7	11.7	17.0000	86.0	0.00	0.00
EC-BN07	10yr-12hr-90%	2.219	12.0167	15.7	11.7	17.0000	86.0	0.00	0.00
EC-BN07	10yr-24hr-10%	2.217	1.0833	19.5	15.3	17.0000	86.0	0.00	0.00
EC-BN07	10yr-24hr-90%	2.346	24.0000	19.5	15.3	17.0000	86.0	0.00	0.00
EC-BN07	10yr-6hr-10%	3.090	0.9000	12.9	9.0	17.0000	86.0	0.00	0.00
EC-BN07	10yr-6hr-90%	2.302	6.0000	12.9	9.0	17.0000	86.0	0.00	0.00
EC-BN07	25yr-12hr-10%	3.457	0.9000	20.1	15.9	17.0000	86.0	0.00	0.00
EC-BN07	25yr-12hr-90%	2.895	12.0167	20.1	15.9	17.0000	86.0	0.00	0.00
EC-BN07	25yr-24hr-10%	3.167	1.0667	25.7	21.4	17.0000	86.0	0.00	0.00
EC-BN07	25yr-24hr-90%	3.136	24.0000	25.7	21.4	17.0000	86.0	0.00	0.00
EC-BN07	25yr-6hr-10%	3.920	0.8667	15.5	11.5	17.0000	86.0	0.00	0.00
EC-BN07	25yr-6hr-90%	2.824	6.0000	15.5	11.5	17.0000	86.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN07 [cm]	100yr-12hr-10%	27.7	0.0	23.3	0.0	0.0	0.0	4.4
EC-BN07 [m3]	100yr-12hr-10%	47090	0	39644	0	0	0	7446
EC-BN07 [ha-m]	100yr-12hr-10%	4.71	0.00	3.96	0.00	0.00	0.00	0.74
EC-BN07 [cm]	100yr-12hr-90%	27.7	0.0	23.3	0.0	0.0	0.0	4.4
EC-BN07 [m3]	100yr-12hr-90%	47090	0	39644	0	0	0	7446
EC-BN07	100yr-12hr-	4.71	0.00	3.96	0.00	0.00	0.00	0.74

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	90%							
EC-BN07 [cm]	100yr-24hr-10%	36.7	0.0	32.2	0.0	0.0	0.0	4.5
EC-BN07 [m3]	100yr-24hr-10%	62390	0	54752	0	0	0	7638
EC-BN07 [ha-m]	100yr-24hr-10%	6.24	0.00	5.48	0.00	0.00	0.00	0.76
EC-BN07 [cm]	100yr-24hr-90%	36.7	0.0	32.2	0.0	0.0	0.0	4.5
EC-BN07 [m3]	100yr-24hr-90%	62390	0	54752	0	0	0	7638
EC-BN07 [ha-m]	100yr-24hr-90%	6.24	0.00	5.48	0.00	0.00	0.00	0.76
EC-BN07 [cm]	100yr-6hr-10%	19.7	0.0	15.5	0.0	0.0	0.0	4.2
EC-BN07 [m3]	100yr-6hr-10%	33490	0	26352	0	0	0	7138
EC-BN07 [ha-m]	100yr-6hr-10%	3.35	0.00	2.64	0.00	0.00	0.00	0.71
EC-BN07 [cm]	100yr-6hr-90%	19.7	0.0	15.5	0.0	0.0	0.0	4.2
EC-BN07 [m3]	100yr-6hr-90%	33490	0	26352	0	0	0	7138
EC-BN07 [ha-m]	100yr-6hr-90%	3.35	0.00	2.64	0.00	0.00	0.00	0.71
EC-BN07 [cm]	10yr-12hr-10%	15.7	0.0	11.7	0.0	0.0	0.0	4.0
EC-BN07 [m3]	10yr-12hr-10%	26690	0	19810	0	0	0	6880
EC-BN07 [ha-m]	10yr-12hr-10%	2.67	0.00	1.98	0.00	0.00	0.00	0.69
EC-BN07 [cm]	10yr-12hr-90%	15.7	0.0	11.7	0.0	0.0	0.0	4.0
EC-BN07 [m3]	10yr-12hr-90%	26690	0	19810	0	0	0	6880
EC-BN07 [ha-m]	10yr-12hr-90%	2.67	0.00	1.98	0.00	0.00	0.00	0.69
EC-BN07 [cm]	10yr-24hr-10%	19.5	0.0	15.3	0.0	0.0	0.0	4.2
EC-BN07 [m3]	10yr-24hr-10%	33150	0	26023	0	0	0	7127
EC-BN07 [ha-m]	10yr-24hr-10%	3.32	0.00	2.60	0.00	0.00	0.00	0.71
EC-BN07 [cm]	10yr-24hr-90%	19.5	0.0	15.3	0.0	0.0	0.0	4.2
EC-BN07 [m3]	10yr-24hr-90%	33150	0	26023	0	0	0	7127
EC-BN07	10yr-24hr-9	3.32	0.00	2.60	0.00	0.00	0.00	0.71

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN07 [cm]	10yr-6hr-10 %	12.9	0.0	9.0	0.0	0.0	0.0	3.9
EC-BN07 [m3]	10yr-6hr-10 %	21930	0	15308	0	0	0	6622
EC-BN07 [ha-m]	10yr-6hr-10 %	2.19	0.00	1.53	0.00	0.00	0.00	0.66
EC-BN07 [cm]	10yr-6hr-90 %	12.9	0.0	9.0	0.0	0.0	0.0	3.9
EC-BN07 [m3]	10yr-6hr-90 %	21930	0	15308	0	0	0	6622
EC-BN07 [ha-m]	10yr-6hr-90 %	2.19	0.00	1.53	0.00	0.00	0.00	0.66
EC-BN07 [cm]	25yr-12hr-10%	20.1	0.0	15.9	0.0	0.0	0.0	4.2
EC-BN07 [m3]	25yr-12hr-10%	34170	0	27012	0	0	0	7158
EC-BN07 [ha-m]	25yr-12hr-10%	3.42	0.00	2.70	0.00	0.00	0.00	0.72
EC-BN07 [cm]	25yr-12hr-90%	20.1	0.0	15.9	0.0	0.0	0.0	4.2
EC-BN07 [m3]	25yr-12hr-90%	34170	0	27012	0	0	0	7158
EC-BN07 [ha-m]	25yr-12hr-90%	3.42	0.00	2.70	0.00	0.00	0.00	0.72
EC-BN07 [cm]	25yr-24hr-10%	25.7	0.0	21.4	0.0	0.0	0.0	4.3
EC-BN07 [m3]	25yr-24hr-10%	43690	0	36304	0	0	0	7386
EC-BN07 [ha-m]	25yr-24hr-10%	4.37	0.00	3.63	0.00	0.00	0.00	0.74
EC-BN07 [cm]	25yr-24hr-90%	25.7	0.0	21.4	0.0	0.0	0.0	4.3
EC-BN07 [m3]	25yr-24hr-90%	43690	0	36304	0	0	0	7386
EC-BN07 [ha-m]	25yr-24hr-90%	4.37	0.00	3.63	0.00	0.00	0.00	0.74
EC-BN07 [cm]	25yr-6hr-10 %	15.5	0.0	11.5	0.0	0.0	0.0	4.0
EC-BN07 [m3]	25yr-6hr-10 %	26350	0	19486	0	0	0	6864
EC-BN07 [ha-m]	25yr-6hr-10 %	2.64	0.00	1.95	0.00	0.00	0.00	0.69
EC-BN07 [cm]	25yr-6hr-90 %	15.5	0.0	11.5	0.0	0.0	0.0	4.0
EC-BN07 [m3]	25yr-6hr-90 %	26350	0	19486	0	0	0	6864
EC-BN07	25yr-6hr-90	2.64	0.00	1.95	0.00	0.00	0.00	0.69

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	%							

Simple Basin: EC-BN08

Scenario: 38701-EC
Node: EC-N08
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 14.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 16.5000 ha
Curve Number: 84.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN08	100yr-12hr-10%	4.861	0.8333	27.7	22.7	16.5000	84.0	0.00	0.00
EC-BN08	100yr-12hr-90%	3.930	12.0000	27.7	22.7	16.5000	84.0	0.00	0.00
EC-BN08	100yr-24hr-10%	4.605	1.0500	36.7	31.5	16.5000	84.0	0.00	0.00
EC-BN08	100yr-24hr-90%	4.386	24.0000	36.7	31.5	16.5000	84.0	0.00	0.00
EC-BN08	100yr-6hr-10%	4.973	0.8000	19.7	14.9	16.5000	84.0	0.00	0.00
EC-BN08	100yr-6hr-90%	3.515	6.0000	19.7	14.9	16.5000	84.0	0.00	0.00
EC-BN08	10yr-12hr-10%	2.339	1.0667	15.7	11.1	16.5000	84.0	0.00	0.00
EC-BN08	10yr-12hr-90%	2.133	12.0167	15.7	11.1	16.5000	84.0	0.00	0.00
EC-BN08	10yr-24hr-10%	2.045	1.0833	19.5	14.7	16.5000	84.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN08	10yr-24hr-90%	2.257	24.0000	19.5	14.7	16.5000	84.0	0.00	0.00
EC-BN08	10yr-6hr-10%	2.857	0.9000	12.9	8.5	16.5000	84.0	0.00	0.00
EC-BN08	10yr-6hr-90%	2.190	6.0000	12.9	8.5	16.5000	84.0	0.00	0.00
EC-BN08	25yr-12hr-10%	3.228	1.0500	20.1	15.3	16.5000	84.0	0.00	0.00
EC-BN08	25yr-12hr-90%	2.796	12.0167	20.1	15.3	16.5000	84.0	0.00	0.00
EC-BN08	25yr-24hr-10%	2.965	1.0667	25.7	20.7	16.5000	84.0	0.00	0.00
EC-BN08	25yr-24hr-90%	3.029	24.0000	25.7	20.7	16.5000	84.0	0.00	0.00
EC-BN08	25yr-6hr-10%	3.653	0.8667	15.5	10.9	16.5000	84.0	0.00	0.00
EC-BN08	25yr-6hr-90%	2.699	6.0000	15.5	10.9	16.5000	84.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN08 [cm]	100yr-12hr-10%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN08 [m3]	100yr-12hr-10%	45705	0	37390	0	0	0	8315
EC-BN08 [ha-m]	100yr-12hr-10%	4.57	0.00	3.74	0.00	0.00	0.00	0.83
EC-BN08 [cm]	100yr-12hr-90%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN08 [m3]	100yr-12hr-90%	45705	0	37390	0	0	0	8315
EC-BN08 [ha-m]	100yr-12hr-90%	4.57	0.00	3.74	0.00	0.00	0.00	0.83
EC-BN08 [cm]	100yr-24hr-10%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN08 [m3]	100yr-24hr-10%	60555	0	51985	0	0	0	8570
EC-BN08 [ha-m]	100yr-24hr-10%	6.06	0.00	5.20	0.00	0.00	0.00	0.86
EC-BN08 [cm]	100yr-24hr-90%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN08 [m3]	100yr-24hr-90%	60555	0	51985	0	0	0	8570

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN08 [ha-m]	100yr-24hr-90%	6.06	0.00	5.20	0.00	0.00	0.00	0.86
EC-BN08 [cm]	100yr-6hr-10%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN08 [m3]	100yr-6hr-10%	32505	0	24591	0	0	0	7914
EC-BN08 [ha-m]	100yr-6hr-10%	3.25	0.00	2.46	0.00	0.00	0.00	0.79
EC-BN08 [cm]	100yr-6hr-90%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN08 [m3]	100yr-6hr-90%	32505	0	24591	0	0	0	7914
EC-BN08 [ha-m]	100yr-6hr-90%	3.25	0.00	2.46	0.00	0.00	0.00	0.79
EC-BN08 [cm]	10yr-12hr-10%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN08 [m3]	10yr-12hr-10%	25905	0	18319	0	0	0	7586
EC-BN08 [ha-m]	10yr-12hr-10%	2.59	0.00	1.83	0.00	0.00	0.00	0.76
EC-BN08 [cm]	10yr-12hr-90%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN08 [m3]	10yr-12hr-90%	25905	0	18319	0	0	0	7586
EC-BN08 [ha-m]	10yr-12hr-90%	2.59	0.00	1.83	0.00	0.00	0.00	0.76
EC-BN08 [cm]	10yr-24hr-10%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN08 [m3]	10yr-24hr-10%	32175	0	24275	0	0	0	7900
EC-BN08 [ha-m]	10yr-24hr-10%	3.22	0.00	2.43	0.00	0.00	0.00	0.79
EC-BN08 [cm]	10yr-24hr-90%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN08 [m3]	10yr-24hr-90%	32175	0	24275	0	0	0	7900
EC-BN08 [ha-m]	10yr-24hr-90%	3.22	0.00	2.43	0.00	0.00	0.00	0.79
EC-BN08 [cm]	10yr-6hr-10%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN08 [m3]	10yr-6hr-10%	21285	0	14024	0	0	0	7261
EC-BN08 [ha-m]	10yr-6hr-10%	2.13	0.00	1.40	0.00	0.00	0.00	0.73
EC-BN08 [cm]	10yr-6hr-90%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN08 [m3]	10yr-6hr-90%	21285	0	14024	0	0	0	7261

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN08 [ha-m]	10yr-6hr-90 %	2.13	0.00	1.40	0.00	0.00	0.00	0.73
EC-BN08 [cm]	25yr-12hr-10%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN08 [m3]	25yr-12hr-10%	33165	0	25224	0	0	0	7941
EC-BN08 [ha-m]	25yr-12hr-10%	3.32	0.00	2.52	0.00	0.00	0.00	0.79
EC-BN08 [cm]	25yr-12hr-90%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN08 [m3]	25yr-12hr-90%	33165	0	25224	0	0	0	7941
EC-BN08 [ha-m]	25yr-12hr-90%	3.32	0.00	2.52	0.00	0.00	0.00	0.79
EC-BN08 [cm]	25yr-24hr-10%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN08 [m3]	25yr-24hr-10%	42405	0	34169	0	0	0	8236
EC-BN08 [ha-m]	25yr-24hr-10%	4.24	0.00	3.42	0.00	0.00	0.00	0.82
EC-BN08 [cm]	25yr-24hr-90%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN08 [m3]	25yr-24hr-90%	42405	0	34169	0	0	0	8236
EC-BN08 [ha-m]	25yr-24hr-90%	4.24	0.00	3.42	0.00	0.00	0.00	0.82
EC-BN08 [cm]	25yr-6hr-10 %	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN08 [m3]	25yr-6hr-10 %	25575	0	18009	0	0	0	7566
EC-BN08 [ha-m]	25yr-6hr-10 %	2.56	0.00	1.80	0.00	0.00	0.00	0.76
EC-BN08 [cm]	25yr-6hr-90 %	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN08 [m3]	25yr-6hr-90 %	25575	0	18009	0	0	0	7566
EC-BN08 [ha-m]	25yr-6hr-90 %	2.56	0.00	1.80	0.00	0.00	0.00	0.76

Simple Basin: EC-BN09

Scenario: 38701-EC
Node: EC-N09
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min

Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 5.5000 ha
Curve Number: 89.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN09	100yr-12hr-10%	1.793	0.5333	27.7	24.3	5.5000	89.0	0.00	0.00
EC-BN09	100yr-12hr-90%	1.349	12.0000	27.7	24.3	5.5000	89.0	0.00	0.00
EC-BN09	100yr-24hr-10%	1.721	0.5167	36.7	33.2	5.5000	89.0	0.00	0.00
EC-BN09	100yr-24hr-90%	1.477	24.0000	36.7	33.2	5.5000	89.0	0.00	0.00
EC-BN09	100yr-6hr-10%	1.850	0.6833	19.7	16.4	5.5000	89.0	0.00	0.00
EC-BN09	100yr-6hr-90%	1.205	5.8500	19.7	16.4	5.5000	89.0	0.00	0.00
EC-BN09	10yr-12hr-10%	0.909	0.7667	15.7	12.5	5.5000	89.0	0.00	0.00
EC-BN09	10yr-12hr-90%	0.749	12.0000	15.7	12.5	5.5000	89.0	0.00	0.00
EC-BN09	10yr-24hr-10%	0.798	1.0000	19.5	16.2	5.5000	89.0	0.00	0.00
EC-BN09	10yr-24hr-90%	0.773	24.0000	19.5	16.2	5.5000	89.0	0.00	0.00
EC-BN09	10yr-6hr-10%	1.117	0.6833	12.9	9.8	5.5000	89.0	0.00	0.00
EC-BN09	10yr-6hr-90%	0.769	6.0000	12.9	9.8	5.5000	89.0	0.00	0.00
EC-BN09	25yr-12hr-10%	1.229	0.7667	20.1	16.8	5.5000	89.0	0.00	0.00
EC-BN09	25yr-12hr-90%	0.970	12.0000	20.1	16.8	5.5000	89.0	0.00	0.00
EC-BN09	25yr-24hr-10%	1.106	1.0000	25.7	22.3	5.5000	89.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN09	25yr-24hr-90%	1.028	24.0000	25.7	22.3	5.5000	89.0	0.00	0.00
EC-BN09	25yr-6hr-10%	1.398	0.6833	15.5	12.3	5.5000	89.0	0.00	0.00
EC-BN09	25yr-6hr-90%	0.937	5.8667	15.5	12.3	5.5000	89.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN09 [cm]	100yr-12hr-10%	27.7	0.0	24.3	0.0	0.0	0.0	3.4
EC-BN09 [m3]	100yr-12hr-10%	15235	0	13344	0	0	0	1891
EC-BN09 [ha-m]	100yr-12hr-10%	1.52	0.00	1.33	0.00	0.00	0.00	0.19
EC-BN09 [cm]	100yr-12hr-90%	27.7	0.0	24.3	0.0	0.0	0.0	3.4
EC-BN09 [m3]	100yr-12hr-90%	15235	0	13344	0	0	0	1891
EC-BN09 [ha-m]	100yr-12hr-90%	1.52	0.00	1.33	0.00	0.00	0.00	0.19
EC-BN09 [cm]	100yr-24hr-10%	36.7	0.0	33.2	0.0	0.0	0.0	3.5
EC-BN09 [m3]	100yr-24hr-10%	20185	0	18253	0	0	0	1932
EC-BN09 [ha-m]	100yr-24hr-10%	2.02	0.00	1.83	0.00	0.00	0.00	0.19
EC-BN09 [cm]	100yr-24hr-90%	36.7	0.0	33.2	0.0	0.0	0.0	3.5
EC-BN09 [m3]	100yr-24hr-90%	20185	0	18253	0	0	0	1932
EC-BN09 [ha-m]	100yr-24hr-90%	2.02	0.00	1.83	0.00	0.00	0.00	0.19
EC-BN09 [cm]	100yr-6hr-10%	19.7	0.0	16.4	0.0	0.0	0.0	3.3
EC-BN09 [m3]	100yr-6hr-10%	10835	0	9008	0	0	0	1827
EC-BN09 [ha-m]	100yr-6hr-10%	1.08	0.00	0.90	0.00	0.00	0.00	0.18
EC-BN09 [cm]	100yr-6hr-90%	19.7	0.0	16.4	0.0	0.0	0.0	3.3
EC-BN09 [m3]	100yr-6hr-90%	10835	0	9008	0	0	0	1827

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN09 [ha-m]	100yr-6hr-90%	1.08	0.00	0.90	0.00	0.00	0.00	0.18
EC-BN09 [cm]	10yr-12hr-10%	15.7	0.0	12.5	0.0	0.0	0.0	3.2
EC-BN09 [m3]	10yr-12hr-10%	8635	0	6861	0	0	0	1774
EC-BN09 [ha-m]	10yr-12hr-10%	0.86	0.00	0.69	0.00	0.00	0.00	0.18
EC-BN09 [cm]	10yr-12hr-90%	15.7	0.0	12.5	0.0	0.0	0.0	3.2
EC-BN09 [m3]	10yr-12hr-90%	8635	0	6861	0	0	0	1774
EC-BN09 [ha-m]	10yr-12hr-90%	0.86	0.00	0.69	0.00	0.00	0.00	0.18
EC-BN09 [cm]	10yr-24hr-10%	19.5	0.0	16.2	0.0	0.0	0.0	3.3
EC-BN09 [m3]	10yr-24hr-10%	10725	0	8900	0	0	0	1825
EC-BN09 [ha-m]	10yr-24hr-10%	1.07	0.00	0.89	0.00	0.00	0.00	0.18
EC-BN09 [cm]	10yr-24hr-90%	19.5	0.0	16.2	0.0	0.0	0.0	3.3
EC-BN09 [m3]	10yr-24hr-90%	10725	0	8900	0	0	0	1825
EC-BN09 [ha-m]	10yr-24hr-90%	1.07	0.00	0.89	0.00	0.00	0.00	0.18
EC-BN09 [cm]	10yr-6hr-10%	12.9	0.0	9.8	0.0	0.0	0.0	3.1
EC-BN09 [m3]	10yr-6hr-10%	7095	0	5375	0	0	0	1720
EC-BN09 [ha-m]	10yr-6hr-10%	0.71	0.00	0.54	0.00	0.00	0.00	0.17
EC-BN09 [cm]	10yr-6hr-90%	12.9	0.0	9.8	0.0	0.0	0.0	3.1
EC-BN09 [m3]	10yr-6hr-90%	7095	0	5375	0	0	0	1720
EC-BN09 [ha-m]	10yr-6hr-90%	0.71	0.00	0.54	0.00	0.00	0.00	0.17
EC-BN09 [cm]	25yr-12hr-10%	20.1	0.0	16.8	0.0	0.0	0.0	3.3
EC-BN09 [m3]	25yr-12hr-10%	11055	0	9223	0	0	0	1832
EC-BN09 [ha-m]	25yr-12hr-10%	1.11	0.00	0.92	0.00	0.00	0.00	0.18
EC-BN09 [cm]	25yr-12hr-90%	20.1	0.0	16.8	0.0	0.0	0.0	3.3
EC-BN09 [m3]	25yr-12hr-90%	11055	0	9223	0	0	0	1832

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN09 [ha-m]	25yr-12hr-90%	1.11	0.00	0.92	0.00	0.00	0.00	0.18
EC-BN09 [cm]	25yr-24hr-10%	25.7	0.0	22.3	0.0	0.0	0.0	3.4
EC-BN09 [m3]	25yr-24hr-10%	14135	0	12256	0	0	0	1879
EC-BN09 [ha-m]	25yr-24hr-10%	1.41	0.00	1.23	0.00	0.00	0.00	0.19
EC-BN09 [cm]	25yr-24hr-90%	25.7	0.0	22.3	0.0	0.0	0.0	3.4
EC-BN09 [m3]	25yr-24hr-90%	14135	0	12256	0	0	0	1879
EC-BN09 [ha-m]	25yr-24hr-90%	1.41	0.00	1.23	0.00	0.00	0.00	0.19
EC-BN09 [cm]	25yr-6hr-10%	15.5	0.0	12.3	0.0	0.0	0.0	3.2
EC-BN09 [m3]	25yr-6hr-10%	8525	0	6755	0	0	0	1770
EC-BN09 [ha-m]	25yr-6hr-10%	0.85	0.00	0.68	0.00	0.00	0.00	0.18
EC-BN09 [cm]	25yr-6hr-90%	15.5	0.0	12.3	0.0	0.0	0.0	3.2
EC-BN09 [m3]	25yr-6hr-90%	8525	0	6755	0	0	0	1770
EC-BN09 [ha-m]	25yr-6hr-90%	0.85	0.00	0.68	0.00	0.00	0.00	0.18

Simple Basin: EC-BN10

Scenario:	38701-EC
Node:	EC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN10	100yr-12hr-10%	1.673	0.8000	27.7	22.3	5.7000	83.0	0.00	0.00
EC-BN10	100yr-12hr-90%	1.371	12.0000	27.7	22.3	5.7000	83.0	0.00	0.00
EC-BN10	100yr-24hr-10%	1.587	1.0167	36.7	31.2	5.7000	83.0	0.00	0.00
EC-BN10	100yr-24hr-90%	1.516	24.0000	36.7	31.2	5.7000	83.0	0.00	0.00
EC-BN10	100yr-6hr-10%	1.715	0.7167	19.7	14.6	5.7000	83.0	0.00	0.00
EC-BN10	100yr-6hr-90%	1.209	6.0000	19.7	14.6	5.7000	83.0	0.00	0.00
EC-BN10	10yr-12hr-10%	0.796	1.0333	15.7	10.8	5.7000	83.0	0.00	0.00
EC-BN10	10yr-12hr-90%	0.741	12.0000	15.7	10.8	5.7000	83.0	0.00	0.00
EC-BN10	10yr-24hr-10%	0.701	1.0333	19.5	14.4	5.7000	83.0	0.00	0.00
EC-BN10	10yr-24hr-90%	0.778	24.0000	19.5	14.4	5.7000	83.0	0.00	0.00
EC-BN10	10yr-6hr-10%	0.973	0.8667	12.9	8.3	5.7000	83.0	0.00	0.00
EC-BN10	10yr-6hr-90%	0.751	6.0000	12.9	8.3	5.7000	83.0	0.00	0.00
EC-BN10	25yr-12hr-10%	1.101	1.0333	20.1	15.0	5.7000	83.0	0.00	0.00
EC-BN10	25yr-12hr-90%	0.974	12.0000	20.1	15.0	5.7000	83.0	0.00	0.00
EC-BN10	25yr-24hr-10%	1.019	1.0333	25.7	20.4	5.7000	83.0	0.00	0.00
EC-BN10	25yr-24hr-90%	1.046	24.0000	25.7	20.4	5.7000	83.0	0.00	0.00
EC-BN10	25yr-6hr-10%	1.246	0.7333	15.5	10.6	5.7000	83.0	0.00	0.00
EC-BN10	25yr-6hr-90%	0.927	6.0000	15.5	10.6	5.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN10 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN10	100yr-12hr-	15789	0	12729	0	0	0	3060

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	10%							
EC-BN10 [ha-m]	100yr-12hr-10%	1.58	0.00	1.27	0.00	0.00	0.00	0.31
EC-BN10 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN10 [m3]	100yr-12hr-90%	15789	0	12729	0	0	0	3060
EC-BN10 [ha-m]	100yr-12hr-90%	1.58	0.00	1.27	0.00	0.00	0.00	0.31
EC-BN10 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN10 [m3]	100yr-24hr-10%	20919	0	17758	0	0	0	3161
EC-BN10 [ha-m]	100yr-24hr-10%	2.09	0.00	1.78	0.00	0.00	0.00	0.32
EC-BN10 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN10 [m3]	100yr-24hr-90%	20919	0	17758	0	0	0	3161
EC-BN10 [ha-m]	100yr-24hr-90%	2.09	0.00	1.78	0.00	0.00	0.00	0.32
EC-BN10 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN10 [m3]	100yr-6hr-10%	11229	0	8326	0	0	0	2903
EC-BN10 [ha-m]	100yr-6hr-10%	1.12	0.00	0.83	0.00	0.00	0.00	0.29
EC-BN10 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN10 [m3]	100yr-6hr-90%	11229	0	8326	0	0	0	2903
EC-BN10 [ha-m]	100yr-6hr-90%	1.12	0.00	0.83	0.00	0.00	0.00	0.29
EC-BN10 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN10 [m3]	10yr-12hr-10%	8949	0	6174	0	0	0	2775
EC-BN10 [ha-m]	10yr-12hr-10%	0.89	0.00	0.62	0.00	0.00	0.00	0.28
EC-BN10 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN10 [m3]	10yr-12hr-90%	8949	0	6174	0	0	0	2775
EC-BN10 [ha-m]	10yr-12hr-90%	0.89	0.00	0.62	0.00	0.00	0.00	0.28
EC-BN10 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN10	10yr-24hr-1	11115	0	8218	0	0	0	2897

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN10 [ha-m]	10yr-24hr-10%	1.11	0.00	0.82	0.00	0.00	0.00	0.29
EC-BN10 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN10 [m3]	10yr-24hr-90%	11115	0	8218	0	0	0	2897
EC-BN10 [ha-m]	10yr-24hr-90%	1.11	0.00	0.82	0.00	0.00	0.00	0.29
EC-BN10 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN10 [m3]	10yr-6hr-10%	7353	0	4704	0	0	0	2649
EC-BN10 [ha-m]	10yr-6hr-10%	0.74	0.00	0.47	0.00	0.00	0.00	0.26
EC-BN10 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN10 [m3]	10yr-6hr-90%	7353	0	4704	0	0	0	2649
EC-BN10 [ha-m]	10yr-6hr-90%	0.74	0.00	0.47	0.00	0.00	0.00	0.26
EC-BN10 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN10 [m3]	25yr-12hr-10%	11457	0	8544	0	0	0	2913
EC-BN10 [ha-m]	25yr-12hr-10%	1.15	0.00	0.85	0.00	0.00	0.00	0.29
EC-BN10 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN10 [m3]	25yr-12hr-90%	11457	0	8544	0	0	0	2913
EC-BN10 [ha-m]	25yr-12hr-90%	1.15	0.00	0.85	0.00	0.00	0.00	0.29
EC-BN10 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN10 [m3]	25yr-24hr-10%	14649	0	11620	0	0	0	3029
EC-BN10 [ha-m]	25yr-24hr-10%	1.46	0.00	1.16	0.00	0.00	0.00	0.30
EC-BN10 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN10 [m3]	25yr-24hr-90%	14649	0	11620	0	0	0	3029
EC-BN10 [ha-m]	25yr-24hr-90%	1.46	0.00	1.16	0.00	0.00	0.00	0.30
EC-BN10 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN10	25yr-6hr-10	8835	0	6068	0	0	0	2767

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BN10 [ha-m]	25yr-6hr-10 %	0.88	0.00	0.61	0.00	0.00	0.00	0.28
EC-BN10 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN10 [m3]	25yr-6hr-90 %	8835	0	6068	0	0	0	2767
EC-BN10 [ha-m]	25yr-6hr-90 %	0.88	0.00	0.61	0.00	0.00	0.00	0.28

Simple Basin: EC-BN11

Scenario:	38701-EC
Node:	EC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.5000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN11	100yr-12hr-10%	1.036	0.7667	27.7	22.3	3.5000	83.0	0.00	0.00
EC-BN11	100yr-12hr-90%	0.844	12.0000	27.7	22.3	3.5000	83.0	0.00	0.00
EC-BN11	100yr-24hr-10%	0.981	1.0000	36.7	31.1	3.5000	83.0	0.00	0.00
EC-BN11	100yr-24hr-90%	0.930	24.0000	36.7	31.1	3.5000	83.0	0.00	0.00
EC-BN11	100yr-6hr-10%	1.062	0.6833	19.7	14.6	3.5000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN11	100yr-6hr-90%	0.743	6.0000	19.7	14.6	3.5000	83.0	0.00	0.00
EC-BN11	10yr-12hr-10%	0.493	1.0167	15.7	10.8	3.5000	83.0	0.00	0.00
EC-BN11	10yr-12hr-90%	0.457	12.0000	15.7	10.8	3.5000	83.0	0.00	0.00
EC-BN11	10yr-24hr-10%	0.436	1.0167	19.5	14.4	3.5000	83.0	0.00	0.00
EC-BN11	10yr-24hr-90%	0.478	24.0000	19.5	14.4	3.5000	83.0	0.00	0.00
EC-BN11	10yr-6hr-10%	0.601	0.8500	12.9	8.2	3.5000	83.0	0.00	0.00
EC-BN11	10yr-6hr-90%	0.462	6.0000	12.9	8.2	3.5000	83.0	0.00	0.00
EC-BN11	25yr-12hr-10%	0.683	0.7833	20.1	15.0	3.5000	83.0	0.00	0.00
EC-BN11	25yr-12hr-90%	0.600	12.0000	20.1	15.0	3.5000	83.0	0.00	0.00
EC-BN11	25yr-24hr-10%	0.632	1.0167	25.7	20.4	3.5000	83.0	0.00	0.00
EC-BN11	25yr-24hr-90%	0.642	24.0000	25.7	20.4	3.5000	83.0	0.00	0.00
EC-BN11	25yr-6hr-10%	0.774	0.7000	15.5	10.6	3.5000	83.0	0.00	0.00
EC-BN11	25yr-6hr-90%	0.570	6.0000	15.5	10.6	3.5000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN11 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN11 [m3]	100yr-12hr-10%	9695	0	7808	0	0	0	1887
EC-BN11 [ha-m]	100yr-12hr-10%	0.97	0.00	0.78	0.00	0.00	0.00	0.19
EC-BN11 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN11 [m3]	100yr-12hr-90%	9695	0	7808	0	0	0	1887
EC-BN11 [ha-m]	100yr-12hr-90%	0.97	0.00	0.78	0.00	0.00	0.00	0.19
EC-BN11 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN11 [m3]	100yr-24hr-10%	12845	0	10893	0	0	0	1952
EC-BN11 [ha-m]	100yr-24hr-10%	1.28	0.00	1.09	0.00	0.00	0.00	0.20
EC-BN11 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BN11 [m3]	100yr-24hr-90%	12845	0	10893	0	0	0	1952
EC-BN11 [ha-m]	100yr-24hr-90%	1.28	0.00	1.09	0.00	0.00	0.00	0.20
EC-BN11 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN11 [m3]	100yr-6hr-10%	6895	0	5107	0	0	0	1788
EC-BN11 [ha-m]	100yr-6hr-10%	0.69	0.00	0.51	0.00	0.00	0.00	0.18
EC-BN11 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN11 [m3]	100yr-6hr-90%	6895	0	5107	0	0	0	1788
EC-BN11 [ha-m]	100yr-6hr-90%	0.69	0.00	0.51	0.00	0.00	0.00	0.18
EC-BN11 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN11 [m3]	10yr-12hr-10%	5495	0	3787	0	0	0	1708
EC-BN11 [ha-m]	10yr-12hr-10%	0.55	0.00	0.38	0.00	0.00	0.00	0.17
EC-BN11 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN11 [m3]	10yr-12hr-90%	5495	0	3787	0	0	0	1708
EC-BN11 [ha-m]	10yr-12hr-90%	0.55	0.00	0.38	0.00	0.00	0.00	0.17
EC-BN11 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN11 [m3]	10yr-24hr-10%	6825	0	5041	0	0	0	1784
EC-BN11 [ha-m]	10yr-24hr-10%	0.68	0.00	0.50	0.00	0.00	0.00	0.18
EC-BN11 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN11 [m3]	10yr-24hr-90%	6825	0	5041	0	0	0	1784
EC-BN11 [ha-m]	10yr-24hr-90%	0.68	0.00	0.50	0.00	0.00	0.00	0.18
EC-BN11 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN11 [m3]	10yr-6hr-10 %	4515	0	2885	0	0	0	1630
EC-BN11 [ha-m]	10yr-6hr-10 %	0.45	0.00	0.29	0.00	0.00	0.00	0.16
EC-BN11 [cm]	10yr-6hr-90 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BN11 [m3]	10yr-6hr-90 %	4515	0	2885	0	0	0	1630
EC-BN11 [ha-m]	10yr-6hr-90 %	0.45	0.00	0.29	0.00	0.00	0.00	0.16
EC-BN11 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN11 [m3]	25yr-12hr-10%	7035	0	5241	0	0	0	1794
EC-BN11 [ha-m]	25yr-12hr-10%	0.70	0.00	0.52	0.00	0.00	0.00	0.18
EC-BN11 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN11 [m3]	25yr-12hr-90%	7035	0	5241	0	0	0	1794
EC-BN11 [ha-m]	25yr-12hr-90%	0.70	0.00	0.52	0.00	0.00	0.00	0.18
EC-BN11 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN11 [m3]	25yr-24hr-10%	8995	0	7128	0	0	0	1867
EC-BN11 [ha-m]	25yr-24hr-10%	0.90	0.00	0.71	0.00	0.00	0.00	0.19
EC-BN11 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN11 [m3]	25yr-24hr-90%	8995	0	7128	0	0	0	1867
EC-BN11 [ha-m]	25yr-24hr-90%	0.90	0.00	0.71	0.00	0.00	0.00	0.19
EC-BN11 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN11 [m3]	25yr-6hr-10 %	5425	0	3722	0	0	0	1703
EC-BN11 [ha-m]	25yr-6hr-10 %	0.54	0.00	0.37	0.00	0.00	0.00	0.17
EC-BN11 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN11 [m3]	25yr-6hr-90 %	5425	0	3722	0	0	0	1703
EC-BN11 [ha-m]	25yr-6hr-90 %	0.54	0.00	0.37	0.00	0.00	0.00	0.17

Simple Basin: EC-BN12

Scenario:	38701-EC
Node:	EC-N12
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.0000 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN12	100yr-12hr-10%	4.526	0.8167	27.7	23.0	15.0000	85.0	0.00	0.00
EC-BN12	100yr-12hr-90%	3.609	12.0000	27.7	23.0	15.0000	85.0	0.00	0.00
EC-BN12	100yr-24hr-10%	4.263	1.0333	36.7	31.9	15.0000	85.0	0.00	0.00
EC-BN12	100yr-24hr-90%	4.004	24.0000	36.7	31.9	15.0000	85.0	0.00	0.00
EC-BN12	100yr-6hr-10%	4.648	0.7500	19.7	15.2	15.0000	85.0	0.00	0.00
EC-BN12	100yr-6hr-90%	3.220	6.0000	19.7	15.2	15.0000	85.0	0.00	0.00
EC-BN12	10yr-12hr-10%	2.190	1.0500	15.7	11.4	15.0000	85.0	0.00	0.00
EC-BN12	10yr-12hr-90%	1.969	12.0000	15.7	11.4	15.0000	85.0	0.00	0.00
EC-BN12	10yr-24hr-10%	1.930	1.0500	19.5	15.0	15.0000	85.0	0.00	0.00
EC-BN12	10yr-24hr-90%	2.069	24.0000	19.5	15.0	15.0000	85.0	0.00	0.00
EC-BN12	10yr-6hr-10%	2.681	0.8833	12.9	8.8	15.0000	85.0	0.00	0.00
EC-BN12	10yr-6hr-90%	2.018	6.0000	12.9	8.8	15.0000	85.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN12	25yr-12hr-10%	3.017	0.8333	20.1	15.6	15.0000	85.0	0.00	0.00
EC-BN12	25yr-12hr-90%	2.574	12.0000	20.1	15.6	15.0000	85.0	0.00	0.00
EC-BN12	25yr-24hr-10%	2.771	1.0500	25.7	21.0	15.0000	85.0	0.00	0.00
EC-BN12	25yr-24hr-90%	2.770	24.0000	25.7	21.0	15.0000	85.0	0.00	0.00
EC-BN12	25yr-6hr-10%	3.417	0.7667	15.5	11.2	15.0000	85.0	0.00	0.00
EC-BN12	25yr-6hr-90%	2.480	6.0000	15.5	11.2	15.0000	85.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN12 [cm]	100yr-12hr-10%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN12 [m3]	100yr-12hr-10%	41550	0	34497	0	0	0	7053
EC-BN12 [ha-m]	100yr-12hr-10%	4.16	0.00	3.45	0.00	0.00	0.00	0.71
EC-BN12 [cm]	100yr-12hr-90%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN12 [m3]	100yr-12hr-90%	41550	0	34497	0	0	0	7053
EC-BN12 [ha-m]	100yr-12hr-90%	4.16	0.00	3.45	0.00	0.00	0.00	0.71
EC-BN12 [cm]	100yr-24hr-10%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN12 [m3]	100yr-24hr-10%	55050	0	47802	0	0	0	7248
EC-BN12 [ha-m]	100yr-24hr-10%	5.51	0.00	4.78	0.00	0.00	0.00	0.72
EC-BN12 [cm]	100yr-24hr-90%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN12 [m3]	100yr-24hr-90%	55050	0	47802	0	0	0	7248
EC-BN12 [ha-m]	100yr-24hr-90%	5.51	0.00	4.78	0.00	0.00	0.00	0.72
EC-BN12 [cm]	100yr-6hr-10%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN12 [m3]	100yr-6hr-10%	29550	0	22811	0	0	0	6739

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN12 [ha-m]	100yr-6hr-10%	2.96	0.00	2.28	0.00	0.00	0.00	0.67
EC-BN12 [cm]	100yr-6hr-90%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN12 [m3]	100yr-6hr-90%	29550	0	22811	0	0	0	6739
EC-BN12 [ha-m]	100yr-6hr-90%	2.96	0.00	2.28	0.00	0.00	0.00	0.67
EC-BN12 [cm]	10yr-12hr-10%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN12 [m3]	10yr-12hr-10%	23550	0	17070	0	0	0	6480
EC-BN12 [ha-m]	10yr-12hr-10%	2.35	0.00	1.71	0.00	0.00	0.00	0.65
EC-BN12 [cm]	10yr-12hr-90%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN12 [m3]	10yr-12hr-90%	23550	0	17070	0	0	0	6480
EC-BN12 [ha-m]	10yr-12hr-90%	2.35	0.00	1.71	0.00	0.00	0.00	0.65
EC-BN12 [cm]	10yr-24hr-10%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN12 [m3]	10yr-24hr-10%	29250	0	22521	0	0	0	6729
EC-BN12 [ha-m]	10yr-24hr-10%	2.93	0.00	2.25	0.00	0.00	0.00	0.67
EC-BN12 [cm]	10yr-24hr-90%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN12 [m3]	10yr-24hr-90%	29250	0	22521	0	0	0	6729
EC-BN12 [ha-m]	10yr-24hr-90%	2.93	0.00	2.25	0.00	0.00	0.00	0.67
EC-BN12 [cm]	10yr-6hr-10%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN12 [m3]	10yr-6hr-10%	19350	0	13130	0	0	0	6220
EC-BN12 [ha-m]	10yr-6hr-10%	1.93	0.00	1.31	0.00	0.00	0.00	0.62
EC-BN12 [cm]	10yr-6hr-90%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN12 [m3]	10yr-6hr-90%	19350	0	13130	0	0	0	6220
EC-BN12 [ha-m]	10yr-6hr-90%	1.93	0.00	1.31	0.00	0.00	0.00	0.62
EC-BN12 [cm]	25yr-12hr-10%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN12 [m3]	25yr-12hr-10%	30150	0	23390	0	0	0	6760

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN12 [ha-m]	25yr-12hr-10%	3.02	0.00	2.34	0.00	0.00	0.00	0.68
EC-BN12 [cm]	25yr-12hr-90%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN12 [m3]	25yr-12hr-90%	30150	0	23390	0	0	0	6760
EC-BN12 [ha-m]	25yr-12hr-90%	3.02	0.00	2.34	0.00	0.00	0.00	0.68
EC-BN12 [cm]	25yr-24hr-10%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BN12 [m3]	25yr-24hr-10%	38550	0	31559	0	0	0	6991
EC-BN12 [ha-m]	25yr-24hr-10%	3.86	0.00	3.16	0.00	0.00	0.00	0.70
EC-BN12 [cm]	25yr-24hr-90%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BN12 [m3]	25yr-24hr-90%	38550	0	31559	0	0	0	6991
EC-BN12 [ha-m]	25yr-24hr-90%	3.86	0.00	3.16	0.00	0.00	0.00	0.70
EC-BN12 [cm]	25yr-6hr-10%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN12 [m3]	25yr-6hr-10%	23250	0	16786	0	0	0	6464
EC-BN12 [ha-m]	25yr-6hr-10%	2.33	0.00	1.68	0.00	0.00	0.00	0.65
EC-BN12 [cm]	25yr-6hr-90%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN12 [m3]	25yr-6hr-90%	23250	0	16786	0	0	0	6464
EC-BN12 [ha-m]	25yr-6hr-90%	2.33	0.00	1.68	0.00	0.00	0.00	0.65

Simple Basin: EC-BN13

Scenario:	38701-EC
Node:	EC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	13.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.8000 ha
Curve Number:	83.0

% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN13	100yr-12hr-10%	4.301	0.8333	27.7	22.4	14.8000	83.0	0.00	0.00
EC-BN13	100yr-12hr-90%	3.529	12.0000	27.7	22.4	14.8000	83.0	0.00	0.00
EC-BN13	100yr-24hr-10%	4.088	1.0500	36.7	31.2	14.8000	83.0	0.00	0.00
EC-BN13	100yr-24hr-90%	3.935	24.0000	36.7	31.2	14.8000	83.0	0.00	0.00
EC-BN13	100yr-6hr-10%	4.394	0.7833	19.7	14.6	14.8000	83.0	0.00	0.00
EC-BN13	100yr-6hr-90%	3.139	6.0000	19.7	14.6	14.8000	83.0	0.00	0.00
EC-BN13	10yr-12hr-10%	2.052	1.0667	15.7	10.8	14.8000	83.0	0.00	0.00
EC-BN13	10yr-12hr-90%	1.906	12.0000	15.7	10.8	14.8000	83.0	0.00	0.00
EC-BN13	10yr-24hr-10%	1.790	1.0667	19.5	14.4	14.8000	83.0	0.00	0.00
EC-BN13	10yr-24hr-90%	2.017	24.0000	19.5	14.4	14.8000	83.0	0.00	0.00
EC-BN13	10yr-6hr-10%	2.504	0.9000	12.9	8.3	14.8000	83.0	0.00	0.00
EC-BN13	10yr-6hr-90%	1.946	6.0000	12.9	8.3	14.8000	83.0	0.00	0.00
EC-BN13	25yr-12hr-10%	2.847	1.0500	20.1	15.0	14.8000	83.0	0.00	0.00
EC-BN13	25yr-12hr-90%	2.505	12.0000	20.1	15.0	14.8000	83.0	0.00	0.00
EC-BN13	25yr-24hr-10%	2.613	1.0500	25.7	20.4	14.8000	83.0	0.00	0.00
EC-BN13	25yr-24hr-90%	2.713	24.0000	25.7	20.4	14.8000	83.0	0.00	0.00
EC-BN13	25yr-6hr-10%	3.213	0.8667	15.5	10.7	14.8000	83.0	0.00	0.00
EC-BN13	25yr-6hr-90%	2.405	6.0000	15.5	10.7	14.8000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN13 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN13 [m3]	100yr-12hr-10%	40996	0	33097	0	0	0	7899
EC-BN13 [ha-m]	100yr-12hr-10%	4.10	0.00	3.31	0.00	0.00	0.00	0.79
EC-BN13 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN13 [m3]	100yr-12hr-90%	40996	0	33097	0	0	0	7899
EC-BN13 [ha-m]	100yr-12hr-90%	4.10	0.00	3.31	0.00	0.00	0.00	0.79
EC-BN13 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN13 [m3]	100yr-24hr-10%	54316	0	46173	0	0	0	8143
EC-BN13 [ha-m]	100yr-24hr-10%	5.43	0.00	4.62	0.00	0.00	0.00	0.81
EC-BN13 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN13 [m3]	100yr-24hr-90%	54316	0	46173	0	0	0	8143
EC-BN13 [ha-m]	100yr-24hr-90%	5.43	0.00	4.62	0.00	0.00	0.00	0.81
EC-BN13 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN13 [m3]	100yr-6hr-10%	29156	0	21650	0	0	0	7506
EC-BN13 [ha-m]	100yr-6hr-10%	2.92	0.00	2.16	0.00	0.00	0.00	0.75
EC-BN13 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN13 [m3]	100yr-6hr-90%	29156	0	21650	0	0	0	7506
EC-BN13 [ha-m]	100yr-6hr-90%	2.92	0.00	2.16	0.00	0.00	0.00	0.75
EC-BN13 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN13 [m3]	10yr-12hr-10%	23236	0	16054	0	0	0	7182
EC-BN13 [ha-m]	10yr-12hr-10%	2.32	0.00	1.61	0.00	0.00	0.00	0.72
EC-BN13 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN13 [m3]	10yr-12hr-90%	23236	0	16054	0	0	0	7182
EC-BN13	10yr-12hr-9	2.32	0.00	1.61	0.00	0.00	0.00	0.72

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN13 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN13 [m3]	10yr-24hr-10%	28860	0	21367	0	0	0	7493
EC-BN13 [ha-m]	10yr-24hr-10%	2.89	0.00	2.14	0.00	0.00	0.00	0.75
EC-BN13 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN13 [m3]	10yr-24hr-90%	28860	0	21367	0	0	0	7493
EC-BN13 [ha-m]	10yr-24hr-90%	2.89	0.00	2.14	0.00	0.00	0.00	0.75
EC-BN13 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN13 [m3]	10yr-6hr-10%	19092	0	12231	0	0	0	6861
EC-BN13 [ha-m]	10yr-6hr-10%	1.91	0.00	1.22	0.00	0.00	0.00	0.69
EC-BN13 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN13 [m3]	10yr-6hr-90%	19092	0	12231	0	0	0	6861
EC-BN13 [ha-m]	10yr-6hr-90%	1.91	0.00	1.22	0.00	0.00	0.00	0.69
EC-BN13 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN13 [m3]	25yr-12hr-10%	29748	0	22215	0	0	0	7533
EC-BN13 [ha-m]	25yr-12hr-10%	2.97	0.00	2.22	0.00	0.00	0.00	0.75
EC-BN13 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN13 [m3]	25yr-12hr-90%	29748	0	22215	0	0	0	7533
EC-BN13 [ha-m]	25yr-12hr-90%	2.97	0.00	2.22	0.00	0.00	0.00	0.75
EC-BN13 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN13 [m3]	25yr-24hr-10%	38036	0	30214	0	0	0	7822
EC-BN13 [ha-m]	25yr-24hr-10%	3.80	0.00	3.02	0.00	0.00	0.00	0.78
EC-BN13 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN13 [m3]	25yr-24hr-90%	38036	0	30214	0	0	0	7822
EC-BN13	25yr-24hr-9	3.80	0.00	3.02	0.00	0.00	0.00	0.78

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN13 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN13 [m3]	25yr-6hr-10 %	22940	0	15778	0	0	0	7162
EC-BN13 [ha-m]	25yr-6hr-10 %	2.29	0.00	1.58	0.00	0.00	0.00	0.72
EC-BN13 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN13 [m3]	25yr-6hr-90 %	22940	0	15778	0	0	0	7162
EC-BN13 [ha-m]	25yr-6hr-90 %	2.29	0.00	1.58	0.00	0.00	0.00	0.72

Simple Basin: EC-BN14

Scenario:	38701-EC
Node:	EC-N14
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	13.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN14	100yr-12hr-10%	4.563	0.8333	27.7	22.4	15.7000	83.0	0.00	0.00
EC-BN14	100yr-12hr-90%	3.744	12.0000	27.7	22.4	15.7000	83.0	0.00	0.00
EC-BN14	100yr-24hr-10%	4.336	1.0500	36.7	31.2	15.7000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN14	100yr-24hr-90%	4.174	24.0000	36.7	31.2	15.7000	83.0	0.00	0.00
EC-BN14	100yr-6hr-10%	4.661	0.7833	19.7	14.6	15.7000	83.0	0.00	0.00
EC-BN14	100yr-6hr-90%	3.330	6.0000	19.7	14.6	15.7000	83.0	0.00	0.00
EC-BN14	10yr-12hr-10%	2.176	1.0667	15.7	10.8	15.7000	83.0	0.00	0.00
EC-BN14	10yr-12hr-90%	2.022	12.0000	15.7	10.8	15.7000	83.0	0.00	0.00
EC-BN14	10yr-24hr-10%	1.899	1.0667	19.5	14.4	15.7000	83.0	0.00	0.00
EC-BN14	10yr-24hr-90%	2.140	24.0000	19.5	14.4	15.7000	83.0	0.00	0.00
EC-BN14	10yr-6hr-10%	2.656	0.9000	12.9	8.3	15.7000	83.0	0.00	0.00
EC-BN14	10yr-6hr-90%	2.064	6.0000	12.9	8.3	15.7000	83.0	0.00	0.00
EC-BN14	25yr-12hr-10%	3.020	1.0500	20.1	15.0	15.7000	83.0	0.00	0.00
EC-BN14	25yr-12hr-90%	2.657	12.0000	20.1	15.0	15.7000	83.0	0.00	0.00
EC-BN14	25yr-24hr-10%	2.772	1.0500	25.7	20.4	15.7000	83.0	0.00	0.00
EC-BN14	25yr-24hr-90%	2.878	24.0000	25.7	20.4	15.7000	83.0	0.00	0.00
EC-BN14	25yr-6hr-10%	3.408	0.8667	15.5	10.7	15.7000	83.0	0.00	0.00
EC-BN14	25yr-6hr-90%	2.551	6.0000	15.5	10.7	15.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN14 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN14 [m3]	100yr-12hr-10%	43489	0	35110	0	0	0	8379
EC-BN14 [ha-m]	100yr-12hr-10%	4.35	0.00	3.51	0.00	0.00	0.00	0.84
EC-BN14 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN14 [m3]	100yr-12hr-90%	43489	0	35110	0	0	0	8379

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN14 [ha-m]	100yr-12hr-90%	4.35	0.00	3.51	0.00	0.00	0.00	0.84
EC-BN14 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN14 [m3]	100yr-24hr-10%	57619	0	48981	0	0	0	8638
EC-BN14 [ha-m]	100yr-24hr-10%	5.76	0.00	4.90	0.00	0.00	0.00	0.86
EC-BN14 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN14 [m3]	100yr-24hr-90%	57619	0	48981	0	0	0	8638
EC-BN14 [ha-m]	100yr-24hr-90%	5.76	0.00	4.90	0.00	0.00	0.00	0.86
EC-BN14 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN14 [m3]	100yr-6hr-10%	30929	0	22966	0	0	0	7963
EC-BN14 [ha-m]	100yr-6hr-10%	3.09	0.00	2.30	0.00	0.00	0.00	0.80
EC-BN14 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN14 [m3]	100yr-6hr-90%	30929	0	22966	0	0	0	7963
EC-BN14 [ha-m]	100yr-6hr-90%	3.09	0.00	2.30	0.00	0.00	0.00	0.80
EC-BN14 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN14 [m3]	10yr-12hr-10%	24649	0	17030	0	0	0	7619
EC-BN14 [ha-m]	10yr-12hr-10%	2.46	0.00	1.70	0.00	0.00	0.00	0.76
EC-BN14 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN14 [m3]	10yr-12hr-90%	24649	0	17030	0	0	0	7619
EC-BN14 [ha-m]	10yr-12hr-90%	2.46	0.00	1.70	0.00	0.00	0.00	0.76
EC-BN14 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN14 [m3]	10yr-24hr-10%	30615	0	22667	0	0	0	7948
EC-BN14 [ha-m]	10yr-24hr-10%	3.06	0.00	2.27	0.00	0.00	0.00	0.79
EC-BN14 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN14 [m3]	10yr-24hr-90%	30615	0	22667	0	0	0	7948

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN14 [ha-m]	10yr-24hr-90%	3.06	0.00	2.27	0.00	0.00	0.00	0.79
EC-BN14 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN14 [m3]	10yr-6hr-10%	20253	0	12975	0	0	0	7278
EC-BN14 [ha-m]	10yr-6hr-10%	2.03	0.00	1.30	0.00	0.00	0.00	0.73
EC-BN14 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN14 [m3]	10yr-6hr-90%	20253	0	12975	0	0	0	7278
EC-BN14 [ha-m]	10yr-6hr-90%	2.03	0.00	1.30	0.00	0.00	0.00	0.73
EC-BN14 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN14 [m3]	25yr-12hr-10%	31557	0	23566	0	0	0	7991
EC-BN14 [ha-m]	25yr-12hr-10%	3.16	0.00	2.36	0.00	0.00	0.00	0.80
EC-BN14 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN14 [m3]	25yr-12hr-90%	31557	0	23566	0	0	0	7991
EC-BN14 [ha-m]	25yr-12hr-90%	3.16	0.00	2.36	0.00	0.00	0.00	0.80
EC-BN14 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN14 [m3]	25yr-24hr-10%	40349	0	32051	0	0	0	8298
EC-BN14 [ha-m]	25yr-24hr-10%	4.03	0.00	3.21	0.00	0.00	0.00	0.83
EC-BN14 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN14 [m3]	25yr-24hr-90%	40349	0	32051	0	0	0	8298
EC-BN14 [ha-m]	25yr-24hr-90%	4.03	0.00	3.21	0.00	0.00	0.00	0.83
EC-BN14 [cm]	25yr-6hr-10%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN14 [m3]	25yr-6hr-10%	24335	0	16737	0	0	0	7598
EC-BN14 [ha-m]	25yr-6hr-10%	2.43	0.00	1.67	0.00	0.00	0.00	0.76
EC-BN14 [cm]	25yr-6hr-90%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN14 [m3]	25yr-6hr-90%	24335	0	16737	0	0	0	7598

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN14 [ha-m]	25yr-6hr-90 %	2.43	0.00	1.67	0.00	0.00	0.00	0.76

Simple Basin: EC-BN15

Scenario: 38701-EC
Node: EC-N15
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 19.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 45.6000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN15	100yr-12hr-10%	12.998	1.0000	27.7	22.4	45.6000	83.0	0.00	0.00
EC-BN15	100yr-12hr-90%	10.643	12.0167	27.7	22.4	45.6000	83.0	0.00	0.00
EC-BN15	100yr-24hr-10%	12.395	1.1000	36.7	31.2	45.6000	83.0	0.00	0.00
EC-BN15	100yr-24hr-90%	12.012	24.0000	36.7	31.2	45.6000	83.0	0.00	0.00
EC-BN15	100yr-6hr-10%	13.272	0.9167	19.7	14.6	45.6000	83.0	0.00	0.00
EC-BN15	100yr-6hr-90%	9.606	6.0000	19.7	14.6	45.6000	83.0	0.00	0.00
EC-BN15	10yr-12hr-10%	6.226	1.1500	15.7	10.8	45.6000	83.0	0.00	0.00
EC-BN15	10yr-12hr-90%	5.738	12.0333	15.7	10.8	45.6000	83.0	0.00	0.00
EC-BN15	10yr-24hr-	5.368	1.1500	19.5	14.4	45.6000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BN15	10yr-24hr-90%	6.149	24.0167	19.5	14.4	45.6000	83.0	0.00	0.00
EC-BN15	10yr-6hr-10%	7.545	0.9833	12.9	8.3	45.6000	83.0	0.00	0.00
EC-BN15	10yr-6hr-90%	5.937	6.0167	12.9	8.3	45.6000	83.0	0.00	0.00
EC-BN15	25yr-12hr-10%	8.676	1.1000	20.1	15.0	45.6000	83.0	0.00	0.00
EC-BN15	25yr-12hr-90%	7.548	12.0167	20.1	15.0	45.6000	83.0	0.00	0.00
EC-BN15	25yr-24hr-10%	7.876	1.1167	25.7	20.4	45.6000	83.0	0.00	0.00
EC-BN15	25yr-24hr-90%	8.276	24.0167	25.7	20.4	45.6000	83.0	0.00	0.00
EC-BN15	25yr-6hr-10%	9.706	0.9500	15.5	10.7	45.6000	83.0	0.00	0.00
EC-BN15	25yr-6hr-90%	7.345	6.0000	15.5	10.7	45.6000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN15 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN15 [m3]	100yr-12hr-10%	126312	0	101924	0	0	0	24388
EC-BN15 [ha-m]	100yr-12hr-10%	12.63	0.00	10.19	0.00	0.00	0.00	2.44
EC-BN15 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN15 [m3]	100yr-12hr-90%	126312	0	101924	0	0	0	24388
EC-BN15 [ha-m]	100yr-12hr-90%	12.63	0.00	10.19	0.00	0.00	0.00	2.44
EC-BN15 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN15 [m3]	100yr-24hr-10%	167352	0	142193	0	0	0	25159
EC-BN15 [ha-m]	100yr-24hr-10%	16.74	0.00	14.22	0.00	0.00	0.00	2.52
EC-BN15 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN15	100yr-24hr-	167352	0	142193	0	0	0	25159

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	90%							
EC-BN15 [ha-m]	100yr-24hr-90%	16.74	0.00	14.22	0.00	0.00	0.00	2.52
EC-BN15 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN15 [m3]	100yr-6hr-10%	89832	0	66672	0	0	0	23160
EC-BN15 [ha-m]	100yr-6hr-10%	8.98	0.00	6.67	0.00	0.00	0.00	2.32
EC-BN15 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN15 [m3]	100yr-6hr-90%	89832	0	66672	0	0	0	23160
EC-BN15 [ha-m]	100yr-6hr-90%	8.98	0.00	6.67	0.00	0.00	0.00	2.32
EC-BN15 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN15 [m3]	10yr-12hr-10%	71592	0	49438	0	0	0	22154
EC-BN15 [ha-m]	10yr-12hr-10%	7.16	0.00	4.94	0.00	0.00	0.00	2.22
EC-BN15 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN15 [m3]	10yr-12hr-90%	71592	0	49438	0	0	0	22154
EC-BN15 [ha-m]	10yr-12hr-90%	7.16	0.00	4.94	0.00	0.00	0.00	2.22
EC-BN15 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN15 [m3]	10yr-24hr-10%	88920	0	65801	0	0	0	23119
EC-BN15 [ha-m]	10yr-24hr-10%	8.89	0.00	6.58	0.00	0.00	0.00	2.31
EC-BN15 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN15 [m3]	10yr-24hr-90%	88920	0	65801	0	0	0	23119
EC-BN15 [ha-m]	10yr-24hr-90%	8.89	0.00	6.58	0.00	0.00	0.00	2.31
EC-BN15 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN15 [m3]	10yr-6hr-10%	58824	0	37666	0	0	0	21158
EC-BN15 [ha-m]	10yr-6hr-10%	5.88	0.00	3.77	0.00	0.00	0.00	2.12
EC-BN15 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN15	10yr-6hr-90	58824	0	37666	0	0	0	21158

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BN15 [ha-m]	10yr-6hr-90 %	5.88	0.00	3.77	0.00	0.00	0.00	2.12
EC-BN15 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN15 [m3]	25yr-12hr-10%	91656	0	68414	0	0	0	23242
EC-BN15 [ha-m]	25yr-12hr-10%	9.17	0.00	6.84	0.00	0.00	0.00	2.32
EC-BN15 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN15 [m3]	25yr-12hr-90%	91656	0	68414	0	0	0	23242
EC-BN15 [ha-m]	25yr-12hr-90%	9.17	0.00	6.84	0.00	0.00	0.00	2.32
EC-BN15 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN15 [m3]	25yr-24hr-10%	117192	0	93046	0	0	0	24146
EC-BN15 [ha-m]	25yr-24hr-10%	11.72	0.00	9.30	0.00	0.00	0.00	2.41
EC-BN15 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN15 [m3]	25yr-24hr-90%	117192	0	93046	0	0	0	24146
EC-BN15 [ha-m]	25yr-24hr-90%	11.72	0.00	9.30	0.00	0.00	0.00	2.41
EC-BN15 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN15 [m3]	25yr-6hr-10 %	70680	0	48588	0	0	0	22092
EC-BN15 [ha-m]	25yr-6hr-10 %	7.07	0.00	4.86	0.00	0.00	0.00	2.21
EC-BN15 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN15 [m3]	25yr-6hr-90 %	70680	0	48588	0	0	0	22092
EC-BN15 [ha-m]	25yr-6hr-90 %	7.07	0.00	4.86	0.00	0.00	0.00	2.21

Simple Basin: EC-BN16

Scenario: 38701-EC
Node: EC-N16
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 15.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.6000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN16	100yr-12hr-10%	2.482	0.8667	27.7	22.4	8.6000	83.0	0.00	0.00
EC-BN16	100yr-12hr-90%	2.037	12.0167	27.7	22.4	8.6000	83.0	0.00	0.00
EC-BN16	100yr-24hr-10%	2.363	1.0667	36.7	31.2	8.6000	83.0	0.00	0.00
EC-BN16	100yr-24hr-90%	2.281	24.0000	36.7	31.2	8.6000	83.0	0.00	0.00
EC-BN16	100yr-6hr-10%	2.536	0.8500	19.7	14.6	8.6000	83.0	0.00	0.00
EC-BN16	100yr-6hr-90%	1.820	6.0000	19.7	14.6	8.6000	83.0	0.00	0.00
EC-BN16	10yr-12hr-10%	1.186	1.0833	15.7	10.8	8.6000	83.0	0.00	0.00
EC-BN16	10yr-12hr-90%	1.100	12.0167	15.7	10.8	8.6000	83.0	0.00	0.00
EC-BN16	10yr-24hr-10%	1.030	1.0833	19.5	14.4	8.6000	83.0	0.00	0.00
EC-BN16	10yr-24hr-90%	1.168	24.0000	19.5	14.4	8.6000	83.0	0.00	0.00
EC-BN16	10yr-6hr-10%	1.445	0.9167	12.9	8.3	8.6000	83.0	0.00	0.00
EC-BN16	10yr-6hr-90%	1.127	6.0000	12.9	8.3	8.6000	83.0	0.00	0.00
EC-BN16	25yr-12hr-10%	1.649	1.0667	20.1	15.0	8.6000	83.0	0.00	0.00
EC-BN16	25yr-12hr-90%	1.446	12.0167	20.1	15.0	8.6000	83.0	0.00	0.00
EC-BN16	25yr-24hr-	1.507	1.0833	25.7	20.4	8.6000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BN16	25yr-24hr-90%	1.572	24.0000	25.7	20.4	8.6000	83.0	0.00	0.00
EC-BN16	25yr-6hr-10%	1.857	0.9000	15.5	10.7	8.6000	83.0	0.00	0.00
EC-BN16	25yr-6hr-90%	1.394	6.0000	15.5	10.7	8.6000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN16 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN16 [m3]	100yr-12hr-10%	23822	0	19221	0	0	0	4601
EC-BN16 [ha-m]	100yr-12hr-10%	2.38	0.00	1.92	0.00	0.00	0.00	0.46
EC-BN16 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN16 [m3]	100yr-12hr-90%	23822	0	19221	0	0	0	4601
EC-BN16 [ha-m]	100yr-12hr-90%	2.38	0.00	1.92	0.00	0.00	0.00	0.46
EC-BN16 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN16 [m3]	100yr-24hr-10%	31562	0	26815	0	0	0	4747
EC-BN16 [ha-m]	100yr-24hr-10%	3.16	0.00	2.68	0.00	0.00	0.00	0.47
EC-BN16 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN16 [m3]	100yr-24hr-90%	31562	0	26815	0	0	0	4747
EC-BN16 [ha-m]	100yr-24hr-90%	3.16	0.00	2.68	0.00	0.00	0.00	0.47
EC-BN16 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN16 [m3]	100yr-6hr-10%	16942	0	12573	0	0	0	4369
EC-BN16 [ha-m]	100yr-6hr-10%	1.69	0.00	1.26	0.00	0.00	0.00	0.44
EC-BN16 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN16	100yr-6hr-9	16942	0	12573	0	0	0	4369

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN16	100yr-6hr-90%	1.69	0.00	1.26	0.00	0.00	0.00	0.44
[ha-m]								
EC-BN16	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
[cm]								
EC-BN16	10yr-12hr-10%	13502	0	9323	0	0	0	4179
[m3]								
EC-BN16	10yr-12hr-10%	1.35	0.00	0.93	0.00	0.00	0.00	0.42
[ha-m]								
EC-BN16	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
[cm]								
EC-BN16	10yr-12hr-90%	13502	0	9323	0	0	0	4179
[m3]								
EC-BN16	10yr-12hr-90%	1.35	0.00	0.93	0.00	0.00	0.00	0.42
[ha-m]								
EC-BN16	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
[cm]								
EC-BN16	10yr-24hr-10%	16770	0	12409	0	0	0	4361
[m3]								
EC-BN16	10yr-24hr-10%	1.68	0.00	1.24	0.00	0.00	0.00	0.44
[ha-m]								
EC-BN16	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
[cm]								
EC-BN16	10yr-24hr-90%	16770	0	12409	0	0	0	4361
[m3]								
EC-BN16	10yr-24hr-90%	1.68	0.00	1.24	0.00	0.00	0.00	0.44
[ha-m]								
EC-BN16	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
[cm]								
EC-BN16	10yr-6hr-10%	11094	0	7103	0	0	0	3991
[m3]								
EC-BN16	10yr-6hr-10%	1.11	0.00	0.71	0.00	0.00	0.00	0.40
[ha-m]								
EC-BN16	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
[cm]								
EC-BN16	10yr-6hr-90%	11094	0	7103	0	0	0	3991
[m3]								
EC-BN16	10yr-6hr-90%	1.11	0.00	0.71	0.00	0.00	0.00	0.40
[ha-m]								
EC-BN16	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
[cm]								
EC-BN16	25yr-12hr-10%	17286	0	12902	0	0	0	4384
[m3]								
EC-BN16	25yr-12hr-10%	1.73	0.00	1.29	0.00	0.00	0.00	0.44
[ha-m]								
EC-BN16	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
[cm]								
EC-BN16	25yr-12hr-9	17286	0	12902	0	0	0	4384

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN16 [ha-m]	25yr-12hr-90%	1.73	0.00	1.29	0.00	0.00	0.00	0.44
EC-BN16 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN16 [m3]	25yr-24hr-10%	22102	0	17547	0	0	0	4555
EC-BN16 [ha-m]	25yr-24hr-10%	2.21	0.00	1.75	0.00	0.00	0.00	0.46
EC-BN16 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN16 [m3]	25yr-24hr-90%	22102	0	17547	0	0	0	4555
EC-BN16 [ha-m]	25yr-24hr-90%	2.21	0.00	1.75	0.00	0.00	0.00	0.46
EC-BN16 [cm]	25yr-6hr-10%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN16 [m3]	25yr-6hr-10%	13330	0	9163	0	0	0	4167
EC-BN16 [ha-m]	25yr-6hr-10%	1.33	0.00	0.92	0.00	0.00	0.00	0.42
EC-BN16 [cm]	25yr-6hr-90%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN16 [m3]	25yr-6hr-90%	13330	0	9163	0	0	0	4167
EC-BN16 [ha-m]	25yr-6hr-90%	1.33	0.00	0.92	0.00	0.00	0.00	0.42

Simple Basin: EC-BN17

Scenario:	38701-EC
Node:	EC-N17
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.8000 ha
Curve Number:	81.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN17	100yr-12hr-10%	1.632	0.8167	27.7	21.7	5.8000	81.0	0.00	0.00
EC-BN17	100yr-12hr-90%	1.380	12.0000	27.7	21.7	5.8000	81.0	0.00	0.00
EC-BN17	100yr-24hr-10%	1.563	1.0333	36.7	30.5	5.8000	81.0	0.00	0.00
EC-BN17	100yr-24hr-90%	1.536	24.0000	36.7	30.5	5.8000	81.0	0.00	0.00
EC-BN17	100yr-6hr-10%	1.662	0.7500	19.7	14.0	5.8000	81.0	0.00	0.00
EC-BN17	100yr-6hr-90%	1.214	6.0000	19.7	14.0	5.8000	81.0	0.00	0.00
EC-BN17	10yr-12hr-10%	0.765	1.0667	15.7	10.3	5.8000	81.0	0.00	0.00
EC-BN17	10yr-12hr-90%	0.737	12.0000	15.7	10.3	5.8000	81.0	0.00	0.00
EC-BN17	10yr-24hr-10%	0.664	1.0500	19.5	13.8	5.8000	81.0	0.00	0.00
EC-BN17	10yr-24hr-90%	0.781	24.0000	19.5	13.8	5.8000	81.0	0.00	0.00
EC-BN17	10yr-6hr-10%	0.932	0.9000	12.9	7.8	5.8000	81.0	0.00	0.00
EC-BN17	10yr-6hr-90%	0.745	6.0000	12.9	7.8	5.8000	81.0	0.00	0.00
EC-BN17	25yr-12hr-10%	1.074	1.0500	20.1	14.4	5.8000	81.0	0.00	0.00
EC-BN17	25yr-12hr-90%	0.974	12.0000	20.1	14.4	5.8000	81.0	0.00	0.00
EC-BN17	25yr-24hr-10%	0.985	1.0500	25.7	19.8	5.8000	81.0	0.00	0.00
EC-BN17	25yr-24hr-90%	1.055	24.0000	25.7	19.8	5.8000	81.0	0.00	0.00
EC-BN17	25yr-6hr-10%	1.206	0.8833	15.5	10.1	5.8000	81.0	0.00	0.00
EC-BN17	25yr-6hr-90%	0.925	6.0000	15.5	10.1	5.8000	81.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total	Total	Total Runoff	Total ET	Total Initial	Total	Change Soil

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN17 [cm]	100yr-12hr-10%	27.7	0.0	21.7	0.0	0.0	0.0	6.0
EC-BN17 [m3]	100yr-12hr-10%	16066	0	12581	0	0	0	3485
EC-BN17 [ha-m]	100yr-12hr-10%	1.61	0.00	1.26	0.00	0.00	0.00	0.35
EC-BN17 [cm]	100yr-12hr-90%	27.7	0.0	21.7	0.0	0.0	0.0	6.0
EC-BN17 [m3]	100yr-12hr-90%	16066	0	12581	0	0	0	3485
EC-BN17 [ha-m]	100yr-12hr-90%	1.61	0.00	1.26	0.00	0.00	0.00	0.35
EC-BN17 [cm]	100yr-24hr-10%	36.7	0.0	30.5	0.0	0.0	0.0	6.2
EC-BN17 [m3]	100yr-24hr-10%	21286	0	17674	0	0	0	3612
EC-BN17 [ha-m]	100yr-24hr-10%	2.13	0.00	1.77	0.00	0.00	0.00	0.36
EC-BN17 [cm]	100yr-24hr-90%	36.7	0.0	30.5	0.0	0.0	0.0	6.2
EC-BN17 [m3]	100yr-24hr-90%	21286	0	17674	0	0	0	3612
EC-BN17 [ha-m]	100yr-24hr-90%	2.13	0.00	1.77	0.00	0.00	0.00	0.36
EC-BN17 [cm]	100yr-6hr-10%	19.7	0.0	14.0	0.0	0.0	0.0	5.7
EC-BN17 [m3]	100yr-6hr-10%	11426	0	8138	0	0	0	3288
EC-BN17 [ha-m]	100yr-6hr-10%	1.14	0.00	0.81	0.00	0.00	0.00	0.33
EC-BN17 [cm]	100yr-6hr-90%	19.7	0.0	14.0	0.0	0.0	0.0	5.7
EC-BN17 [m3]	100yr-6hr-90%	11426	0	8138	0	0	0	3288
EC-BN17 [ha-m]	100yr-6hr-90%	1.14	0.00	0.81	0.00	0.00	0.00	0.33
EC-BN17 [cm]	10yr-12hr-10%	15.7	0.0	10.3	0.0	0.0	0.0	5.4
EC-BN17 [m3]	10yr-12hr-10%	9106	0	5978	0	0	0	3128
EC-BN17 [ha-m]	10yr-12hr-10%	0.91	0.00	0.60	0.00	0.00	0.00	0.31
EC-BN17 [cm]	10yr-12hr-90%	15.7	0.0	10.3	0.0	0.0	0.0	5.4
EC-BN17 [m3]	10yr-12hr-90%	9106	0	5978	0	0	0	3128
EC-BN17 [ha-m]	10yr-12hr-90%	0.91	0.00	0.60	0.00	0.00	0.00	0.31

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN17 [cm]	10yr-24hr-10%	19.5	0.0	13.8	0.0	0.0	0.0	5.7
EC-BN17 [m3]	10yr-24hr-10%	11310	0	8029	0	0	0	3281
EC-BN17 [ha-m]	10yr-24hr-10%	1.13	0.00	0.80	0.00	0.00	0.00	0.33
EC-BN17 [cm]	10yr-24hr-90%	19.5	0.0	13.8	0.0	0.0	0.0	5.7
EC-BN17 [m3]	10yr-24hr-90%	11310	0	8029	0	0	0	3281
EC-BN17 [ha-m]	10yr-24hr-90%	1.13	0.00	0.80	0.00	0.00	0.00	0.33
EC-BN17 [cm]	10yr-6hr-10%	12.9	0.0	7.8	0.0	0.0	0.0	5.1
EC-BN17 [m3]	10yr-6hr-10%	7482	0	4510	0	0	0	2972
EC-BN17 [ha-m]	10yr-6hr-10%	0.75	0.00	0.45	0.00	0.00	0.00	0.30
EC-BN17 [cm]	10yr-6hr-90%	12.9	0.0	7.8	0.0	0.0	0.0	5.1
EC-BN17 [m3]	10yr-6hr-90%	7482	0	4510	0	0	0	2972
EC-BN17 [ha-m]	10yr-6hr-90%	0.75	0.00	0.45	0.00	0.00	0.00	0.30
EC-BN17 [cm]	25yr-12hr-10%	20.1	0.0	14.4	0.0	0.0	0.0	5.7
EC-BN17 [m3]	25yr-12hr-10%	11658	0	8357	0	0	0	3301
EC-BN17 [ha-m]	25yr-12hr-10%	1.17	0.00	0.84	0.00	0.00	0.00	0.33
EC-BN17 [cm]	25yr-12hr-90%	20.1	0.0	14.4	0.0	0.0	0.0	5.7
EC-BN17 [m3]	25yr-12hr-90%	11658	0	8357	0	0	0	3301
EC-BN17 [ha-m]	25yr-12hr-90%	1.17	0.00	0.84	0.00	0.00	0.00	0.33
EC-BN17 [cm]	25yr-24hr-10%	25.7	0.0	19.8	0.0	0.0	0.0	5.9
EC-BN17 [m3]	25yr-24hr-10%	14906	0	11460	0	0	0	3446
EC-BN17 [ha-m]	25yr-24hr-10%	1.49	0.00	1.15	0.00	0.00	0.00	0.34
EC-BN17 [cm]	25yr-24hr-90%	25.7	0.0	19.8	0.0	0.0	0.0	5.9
EC-BN17 [m3]	25yr-24hr-90%	14906	0	11460	0	0	0	3446
EC-BN17 [ha-m]	25yr-24hr-90%	1.49	0.00	1.15	0.00	0.00	0.00	0.34

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN17 [cm]	25yr-6hr-10 %	15.5	0.0	10.1	0.0	0.0	0.0	5.4
EC-BN17 [m3]	25yr-6hr-10 %	8990	0	5872	0	0	0	3118
EC-BN17 [ha-m]	25yr-6hr-10 %	0.90	0.00	0.59	0.00	0.00	0.00	0.31
EC-BN17 [cm]	25yr-6hr-90 %	15.5	0.0	10.1	0.0	0.0	0.0	5.4
EC-BN17 [m3]	25yr-6hr-90 %	8990	0	5872	0	0	0	3118
EC-BN17 [ha-m]	25yr-6hr-90 %	0.90	0.00	0.59	0.00	0.00	0.00	0.31

Simple Basin: EC-BN18

Scenario:	38701-EC
Node:	EC-N18
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	19.6000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN18	100yr-12hr-10%	5.747	0.8000	27.7	22.4	19.6000	83.0	0.00	0.00
EC-BN18	100yr-12hr-90%	4.711	12.0000	27.7	22.4	19.6000	83.0	0.00	0.00
EC-BN18	100yr-24hr-10%	5.451	1.0333	36.7	31.2	19.6000	83.0	0.00	0.00
EC-BN18	100yr-24h	5.220	24.0000	36.7	31.2	19.6000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	r-90%								
EC-BN18	100yr-6hr-10%	5.882	0.7333	19.7	14.6	19.6000	83.0	0.00	0.00
EC-BN18	100yr-6hr-90%	4.163	6.0000	19.7	14.6	19.6000	83.0	0.00	0.00
EC-BN18	10yr-12hr-10%	2.735	1.0500	15.7	10.8	19.6000	83.0	0.00	0.00
EC-BN18	10yr-12hr-90%	2.547	12.0000	15.7	10.8	19.6000	83.0	0.00	0.00
EC-BN18	10yr-24hr-10%	2.401	1.0500	19.5	14.4	19.6000	83.0	0.00	0.00
EC-BN18	10yr-24hr-90%	2.677	24.0000	19.5	14.4	19.6000	83.0	0.00	0.00
EC-BN18	10yr-6hr-10%	3.340	0.8833	12.9	8.3	19.6000	83.0	0.00	0.00
EC-BN18	10yr-6hr-90%	2.585	6.0000	12.9	8.3	19.6000	83.0	0.00	0.00
EC-BN18	25yr-12hr-10%	3.786	1.0333	20.1	15.0	19.6000	83.0	0.00	0.00
EC-BN18	25yr-12hr-90%	3.346	12.0000	20.1	15.0	19.6000	83.0	0.00	0.00
EC-BN18	25yr-24hr-10%	3.498	1.0333	25.7	20.4	19.6000	83.0	0.00	0.00
EC-BN18	25yr-24hr-90%	3.599	24.0000	25.7	20.4	19.6000	83.0	0.00	0.00
EC-BN18	25yr-6hr-10%	4.275	0.7500	15.5	10.7	19.6000	83.0	0.00	0.00
EC-BN18	25yr-6hr-90%	3.191	6.0000	15.5	10.7	19.6000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN18 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN18 [m3]	100yr-12hr-10%	54292	0	43827	0	0	0	10465
EC-BN18 [ha-m]	100yr-12hr-10%	5.43	0.00	4.38	0.00	0.00	0.00	1.05
EC-BN18 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BN18 [m3]	100yr-12hr-90%	54292	0	43827	0	0	0	10465
EC-BN18	100yr-12hr-	5.43	0.00	4.38	0.00	0.00	0.00	1.05

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	90%							
EC-BN18 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN18 [m3]	100yr-24hr-10%	71932	0	61143	0	0	0	10789
EC-BN18 [ha-m]	100yr-24hr-10%	7.19	0.00	6.11	0.00	0.00	0.00	1.08
EC-BN18 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN18 [m3]	100yr-24hr-90%	71932	0	61143	0	0	0	10789
EC-BN18 [ha-m]	100yr-24hr-90%	7.19	0.00	6.11	0.00	0.00	0.00	1.08
EC-BN18 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN18 [m3]	100yr-6hr-10%	38612	0	28669	0	0	0	9943
EC-BN18 [ha-m]	100yr-6hr-10%	3.86	0.00	2.87	0.00	0.00	0.00	0.99
EC-BN18 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN18 [m3]	100yr-6hr-90%	38612	0	28669	0	0	0	9943
EC-BN18 [ha-m]	100yr-6hr-90%	3.86	0.00	2.87	0.00	0.00	0.00	0.99
EC-BN18 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN18 [m3]	10yr-12hr-10%	30772	0	21258	0	0	0	9514
EC-BN18 [ha-m]	10yr-12hr-10%	3.08	0.00	2.13	0.00	0.00	0.00	0.95
EC-BN18 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN18 [m3]	10yr-12hr-90%	30772	0	21258	0	0	0	9514
EC-BN18 [ha-m]	10yr-12hr-90%	3.08	0.00	2.13	0.00	0.00	0.00	0.95
EC-BN18 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN18 [m3]	10yr-24hr-10%	38220	0	28295	0	0	0	9925
EC-BN18 [ha-m]	10yr-24hr-10%	3.82	0.00	2.83	0.00	0.00	0.00	0.99
EC-BN18 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN18 [m3]	10yr-24hr-90%	38220	0	28295	0	0	0	9925
EC-BN18	10yr-24hr-9	3.82	0.00	2.83	0.00	0.00	0.00	0.99

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN18 [cm]	10yr-6hr-10 %	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN18 [m3]	10yr-6hr-10 %	25284	0	16196	0	0	0	9088
EC-BN18 [ha-m]	10yr-6hr-10 %	2.53	0.00	1.62	0.00	0.00	0.00	0.91
EC-BN18 [cm]	10yr-6hr-90 %	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN18 [m3]	10yr-6hr-90 %	25284	0	16196	0	0	0	9088
EC-BN18 [ha-m]	10yr-6hr-90 %	2.53	0.00	1.62	0.00	0.00	0.00	0.91
EC-BN18 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN18 [m3]	25yr-12hr-10%	39396	0	29418	0	0	0	9978
EC-BN18 [ha-m]	25yr-12hr-10%	3.94	0.00	2.94	0.00	0.00	0.00	1.00
EC-BN18 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN18 [m3]	25yr-12hr-90%	39396	0	29418	0	0	0	9978
EC-BN18 [ha-m]	25yr-12hr-90%	3.94	0.00	2.94	0.00	0.00	0.00	1.00
EC-BN18 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN18 [m3]	25yr-24hr-10%	50372	0	40010	0	0	0	10362
EC-BN18 [ha-m]	25yr-24hr-10%	5.04	0.00	4.00	0.00	0.00	0.00	1.04
EC-BN18 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN18 [m3]	25yr-24hr-90%	50372	0	40010	0	0	0	10362
EC-BN18 [ha-m]	25yr-24hr-90%	5.04	0.00	4.00	0.00	0.00	0.00	1.04
EC-BN18 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN18 [m3]	25yr-6hr-10 %	30380	0	20893	0	0	0	9487
EC-BN18 [ha-m]	25yr-6hr-10 %	3.04	0.00	2.09	0.00	0.00	0.00	0.95
EC-BN18 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN18 [m3]	25yr-6hr-90 %	30380	0	20893	0	0	0	9487
EC-BN18	25yr-6hr-90	3.04	0.00	2.09	0.00	0.00	0.00	0.95

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	%							

Simple Basin: EC-BN19

Scenario:	38701-EC
Node:	EC-N19
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.9000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN19	100yr-12hr-10%	4.981	0.7833	27.7	22.3	16.9000	83.0	0.00	0.00
EC-BN19	100yr-12hr-90%	4.073	12.0000	27.7	22.3	16.9000	83.0	0.00	0.00
EC-BN19	100yr-24hr-10%	4.721	1.0167	36.7	31.2	16.9000	83.0	0.00	0.00
EC-BN19	100yr-24hr-90%	4.498	24.0000	36.7	31.2	16.9000	83.0	0.00	0.00
EC-BN19	100yr-6hr-10%	5.102	0.7000	19.7	14.6	16.9000	83.0	0.00	0.00
EC-BN19	100yr-6hr-90%	3.589	6.0000	19.7	14.6	16.9000	83.0	0.00	0.00
EC-BN19	10yr-12hr-10%	2.369	1.0333	15.7	10.8	16.9000	83.0	0.00	0.00
EC-BN19	10yr-12hr-90%	2.204	12.0000	15.7	10.8	16.9000	83.0	0.00	0.00
EC-BN19	10yr-24hr-10%	2.087	1.0333	19.5	14.4	16.9000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN19	10yr-24hr-90%	2.308	24.0000	19.5	14.4	16.9000	83.0	0.00	0.00
EC-BN19	10yr-6hr-10%	2.891	0.8667	12.9	8.3	16.9000	83.0	0.00	0.00
EC-BN19	10yr-6hr-90%	2.230	6.0000	12.9	8.3	16.9000	83.0	0.00	0.00
EC-BN19	25yr-12hr-10%	3.279	0.8000	20.1	15.0	16.9000	83.0	0.00	0.00
EC-BN19	25yr-12hr-90%	2.893	12.0000	20.1	15.0	16.9000	83.0	0.00	0.00
EC-BN19	25yr-24hr-10%	3.034	1.0167	25.7	20.4	16.9000	83.0	0.00	0.00
EC-BN19	25yr-24hr-90%	3.103	24.0000	25.7	20.4	16.9000	83.0	0.00	0.00
EC-BN19	25yr-6hr-10%	3.713	0.7167	15.5	10.7	16.9000	83.0	0.00	0.00
EC-BN19	25yr-6hr-90%	2.752	6.0000	15.5	10.7	16.9000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN19 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN19 [m3]	100yr-12hr-10%	46813	0	37758	0	0	0	9055
EC-BN19 [ha-m]	100yr-12hr-10%	4.68	0.00	3.78	0.00	0.00	0.00	0.91
EC-BN19 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN19 [m3]	100yr-12hr-90%	46813	0	37758	0	0	0	9055
EC-BN19 [ha-m]	100yr-12hr-90%	4.68	0.00	3.78	0.00	0.00	0.00	0.91
EC-BN19 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN19 [m3]	100yr-24hr-10%	62023	0	52676	0	0	0	9347
EC-BN19 [ha-m]	100yr-24hr-10%	6.20	0.00	5.27	0.00	0.00	0.00	0.93
EC-BN19 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN19 [m3]	100yr-24hr-90%	62023	0	52676	0	0	0	9347

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN19 [ha-m]	100yr-24hr-90%	6.20	0.00	5.27	0.00	0.00	0.00	0.93
EC-BN19 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN19 [m3]	100yr-6hr-10%	33293	0	24699	0	0	0	8594
EC-BN19 [ha-m]	100yr-6hr-10%	3.33	0.00	2.47	0.00	0.00	0.00	0.86
EC-BN19 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN19 [m3]	100yr-6hr-90%	33293	0	24699	0	0	0	8594
EC-BN19 [ha-m]	100yr-6hr-90%	3.33	0.00	2.47	0.00	0.00	0.00	0.86
EC-BN19 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN19 [m3]	10yr-12hr-10%	26533	0	18315	0	0	0	8218
EC-BN19 [ha-m]	10yr-12hr-10%	2.65	0.00	1.83	0.00	0.00	0.00	0.82
EC-BN19 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN19 [m3]	10yr-12hr-90%	26533	0	18315	0	0	0	8218
EC-BN19 [ha-m]	10yr-12hr-90%	2.65	0.00	1.83	0.00	0.00	0.00	0.82
EC-BN19 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN19 [m3]	10yr-24hr-10%	32955	0	24377	0	0	0	8578
EC-BN19 [ha-m]	10yr-24hr-10%	3.30	0.00	2.44	0.00	0.00	0.00	0.86
EC-BN19 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN19 [m3]	10yr-24hr-90%	32955	0	24377	0	0	0	8578
EC-BN19 [ha-m]	10yr-24hr-90%	3.30	0.00	2.44	0.00	0.00	0.00	0.86
EC-BN19 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN19 [m3]	10yr-6hr-10%	21801	0	13954	0	0	0	7847
EC-BN19 [ha-m]	10yr-6hr-10%	2.18	0.00	1.40	0.00	0.00	0.00	0.78
EC-BN19 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN19 [m3]	10yr-6hr-90%	21801	0	13954	0	0	0	7847

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN19 [ha-m]	10yr-6hr-90 %	2.18	0.00	1.40	0.00	0.00	0.00	0.78
EC-BN19 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN19 [m3]	25yr-12hr-10%	33969	0	25344	0	0	0	8625
EC-BN19 [ha-m]	25yr-12hr-10%	3.40	0.00	2.53	0.00	0.00	0.00	0.86
EC-BN19 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN19 [m3]	25yr-12hr-90%	33969	0	25344	0	0	0	8625
EC-BN19 [ha-m]	25yr-12hr-90%	3.40	0.00	2.53	0.00	0.00	0.00	0.86
EC-BN19 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN19 [m3]	25yr-24hr-10%	43433	0	34469	0	0	0	8964
EC-BN19 [ha-m]	25yr-24hr-10%	4.34	0.00	3.45	0.00	0.00	0.00	0.90
EC-BN19 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN19 [m3]	25yr-24hr-90%	43433	0	34469	0	0	0	8964
EC-BN19 [ha-m]	25yr-24hr-90%	4.34	0.00	3.45	0.00	0.00	0.00	0.90
EC-BN19 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN19 [m3]	25yr-6hr-10 %	26195	0	18000	0	0	0	8195
EC-BN19 [ha-m]	25yr-6hr-10 %	2.62	0.00	1.80	0.00	0.00	0.00	0.82
EC-BN19 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN19 [m3]	25yr-6hr-90 %	26195	0	18000	0	0	0	8195
EC-BN19 [ha-m]	25yr-6hr-90 %	2.62	0.00	1.80	0.00	0.00	0.00	0.82

Simple Basin: EC-BN20

Scenario: 38701-EC
Node: EC-N20
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.0000 min

Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 8.5000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN20	100yr-12hr-10%	2.511	0.7833	27.7	22.3	8.5000	83.0	0.00	0.00
EC-BN20	100yr-12hr-90%	2.051	12.0000	27.7	22.3	8.5000	83.0	0.00	0.00
EC-BN20	100yr-24hr-10%	2.379	1.0167	36.7	31.2	8.5000	83.0	0.00	0.00
EC-BN20	100yr-24hr-90%	2.263	24.0000	36.7	31.2	8.5000	83.0	0.00	0.00
EC-BN20	100yr-6hr-10%	2.576	0.7000	19.7	14.6	8.5000	83.0	0.00	0.00
EC-BN20	100yr-6hr-90%	1.805	6.0000	19.7	14.6	8.5000	83.0	0.00	0.00
EC-BN20	10yr-12hr-10%	1.194	1.0167	15.7	10.8	8.5000	83.0	0.00	0.00
EC-BN20	10yr-12hr-90%	1.110	12.0000	15.7	10.8	8.5000	83.0	0.00	0.00
EC-BN20	10yr-24hr-10%	1.055	1.0167	19.5	14.4	8.5000	83.0	0.00	0.00
EC-BN20	10yr-24hr-90%	1.161	24.0000	19.5	14.4	8.5000	83.0	0.00	0.00
EC-BN20	10yr-6hr-10%	1.457	0.8500	12.9	8.3	8.5000	83.0	0.00	0.00
EC-BN20	10yr-6hr-90%	1.122	6.0000	12.9	8.3	8.5000	83.0	0.00	0.00
EC-BN20	25yr-12hr-10%	1.656	0.7833	20.1	15.0	8.5000	83.0	0.00	0.00
EC-BN20	25yr-12hr-90%	1.457	12.0000	20.1	15.0	8.5000	83.0	0.00	0.00
EC-BN20	25yr-24hr-10%	1.532	1.0167	25.7	20.4	8.5000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN20	25yr-24hr-90%	1.561	24.0000	25.7	20.4	8.5000	83.0	0.00	0.00
EC-BN20	25yr-6hr-10%	1.875	0.7000	15.5	10.6	8.5000	83.0	0.00	0.00
EC-BN20	25yr-6hr-90%	1.385	6.0000	15.5	10.6	8.5000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN20 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN20 [m3]	100yr-12hr-10%	23545	0	18989	0	0	0	4556
EC-BN20 [ha-m]	100yr-12hr-10%	2.35	0.00	1.90	0.00	0.00	0.00	0.46
EC-BN20 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN20 [m3]	100yr-12hr-90%	23545	0	18989	0	0	0	4556
EC-BN20 [ha-m]	100yr-12hr-90%	2.35	0.00	1.90	0.00	0.00	0.00	0.46
EC-BN20 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN20 [m3]	100yr-24hr-10%	31195	0	26491	0	0	0	4704
EC-BN20 [ha-m]	100yr-24hr-10%	3.12	0.00	2.65	0.00	0.00	0.00	0.47
EC-BN20 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN20 [m3]	100yr-24hr-90%	31195	0	26491	0	0	0	4704
EC-BN20 [ha-m]	100yr-24hr-90%	3.12	0.00	2.65	0.00	0.00	0.00	0.47
EC-BN20 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN20 [m3]	100yr-6hr-10%	16745	0	12421	0	0	0	4324
EC-BN20 [ha-m]	100yr-6hr-10%	1.67	0.00	1.24	0.00	0.00	0.00	0.43
EC-BN20 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN20 [m3]	100yr-6hr-90%	16745	0	12421	0	0	0	4324

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN20 [ha-m]	100yr-6hr-90%	1.67	0.00	1.24	0.00	0.00	0.00	0.43
EC-BN20 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN20 [m3]	10yr-12hr-10%	13345	0	9211	0	0	0	4134
EC-BN20 [ha-m]	10yr-12hr-10%	1.33	0.00	0.92	0.00	0.00	0.00	0.41
EC-BN20 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN20 [m3]	10yr-12hr-90%	13345	0	9211	0	0	0	4134
EC-BN20 [ha-m]	10yr-12hr-90%	1.33	0.00	0.92	0.00	0.00	0.00	0.41
EC-BN20 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN20 [m3]	10yr-24hr-10%	16575	0	12259	0	0	0	4316
EC-BN20 [ha-m]	10yr-24hr-10%	1.66	0.00	1.23	0.00	0.00	0.00	0.43
EC-BN20 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN20 [m3]	10yr-24hr-90%	16575	0	12259	0	0	0	4316
EC-BN20 [ha-m]	10yr-24hr-90%	1.66	0.00	1.23	0.00	0.00	0.00	0.43
EC-BN20 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN20 [m3]	10yr-6hr-10%	10965	0	7017	0	0	0	3948
EC-BN20 [ha-m]	10yr-6hr-10%	1.10	0.00	0.70	0.00	0.00	0.00	0.39
EC-BN20 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN20 [m3]	10yr-6hr-90%	10965	0	7017	0	0	0	3948
EC-BN20 [ha-m]	10yr-6hr-90%	1.10	0.00	0.70	0.00	0.00	0.00	0.39
EC-BN20 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN20 [m3]	25yr-12hr-10%	17085	0	12746	0	0	0	4339
EC-BN20 [ha-m]	25yr-12hr-10%	1.71	0.00	1.27	0.00	0.00	0.00	0.43
EC-BN20 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN20 [m3]	25yr-12hr-90%	17085	0	12746	0	0	0	4339

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN20 [ha-m]	25yr-12hr-90%	1.71	0.00	1.27	0.00	0.00	0.00	0.43
EC-BN20 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN20 [m3]	25yr-24hr-10%	21845	0	17335	0	0	0	4510
EC-BN20 [ha-m]	25yr-24hr-10%	2.18	0.00	1.73	0.00	0.00	0.00	0.45
EC-BN20 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN20 [m3]	25yr-24hr-90%	21845	0	17335	0	0	0	4510
EC-BN20 [ha-m]	25yr-24hr-90%	2.18	0.00	1.73	0.00	0.00	0.00	0.45
EC-BN20 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN20 [m3]	25yr-6hr-10%	13175	0	9052	0	0	0	4123
EC-BN20 [ha-m]	25yr-6hr-10%	1.32	0.00	0.91	0.00	0.00	0.00	0.41
EC-BN20 [cm]	25yr-6hr-90%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BN20 [m3]	25yr-6hr-90%	13175	0	9052	0	0	0	4123
EC-BN20 [ha-m]	25yr-6hr-90%	1.32	0.00	0.91	0.00	0.00	0.00	0.41

Simple Basin: EC-BN21

Scenario:	38701-EC
Node:	EC-N21
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	26.4000 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN21	100yr-12hr-10%	7.445	0.9000	27.7	22.0	26.4000	82.0	0.00	0.00
EC-BN21	100yr-12hr-90%	6.204	12.0167	27.7	22.0	26.4000	82.0	0.00	0.00
EC-BN21	100yr-24hr-10%	7.121	1.0667	36.7	30.8	26.4000	82.0	0.00	0.00
EC-BN21	100yr-24hr-90%	6.970	24.0000	36.7	30.8	26.4000	82.0	0.00	0.00
EC-BN21	100yr-6hr-10%	7.610	0.8833	19.7	14.3	26.4000	82.0	0.00	0.00
EC-BN21	100yr-6hr-90%	5.540	6.0000	19.7	14.3	26.4000	82.0	0.00	0.00
EC-BN21	10yr-12hr-10%	3.531	1.1167	15.7	10.6	26.4000	82.0	0.00	0.00
EC-BN21	10yr-12hr-90%	3.330	12.0167	15.7	10.6	26.4000	82.0	0.00	0.00
EC-BN21	10yr-24hr-10%	3.048	1.1000	19.5	14.1	26.4000	82.0	0.00	0.00
EC-BN21	10yr-24hr-90%	3.555	24.0000	19.5	14.1	26.4000	82.0	0.00	0.00
EC-BN21	10yr-6hr-10%	4.290	0.9500	12.9	8.0	26.4000	82.0	0.00	0.00
EC-BN21	10yr-6hr-90%	3.409	6.0000	12.9	8.0	26.4000	82.0	0.00	0.00
EC-BN21	25yr-12hr-10%	4.944	1.0833	20.1	14.7	26.4000	82.0	0.00	0.00
EC-BN21	25yr-12hr-90%	4.391	12.0167	20.1	14.7	26.4000	82.0	0.00	0.00
EC-BN21	25yr-24hr-10%	4.501	1.0833	25.7	20.1	26.4000	82.0	0.00	0.00
EC-BN21	25yr-24hr-90%	4.794	24.0000	25.7	20.1	26.4000	82.0	0.00	0.00
EC-BN21	25yr-6hr-10%	5.543	0.9167	15.5	10.4	26.4000	82.0	0.00	0.00
EC-BN21	25yr-6hr-90%	4.227	6.0000	15.5	10.4	26.4000	82.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN21 [cm]	100yr-12hr-10%	27.7	0.0	22.0	0.0	0.0	0.0	5.7
EC-BN21	100yr-12hr-	73128	0	58092	0	0	0	15036

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	10%							
EC-BN21	100yr-12hr-10%	7.31	0.00	5.81	0.00	0.00	0.00	1.50
[ha-m]								
EC-BN21	100yr-12hr-90%	27.7	0.0	22.0	0.0	0.0	0.0	5.7
[cm]								
EC-BN21	100yr-12hr-90%	73128	0	58092	0	0	0	15036
[m3]								
EC-BN21	100yr-12hr-90%	7.31	0.00	5.81	0.00	0.00	0.00	1.50
[ha-m]								
EC-BN21	100yr-24hr-10%	36.7	0.0	30.8	0.0	0.0	0.0	5.9
[cm]								
EC-BN21	100yr-24hr-10%	96888	0	81324	0	0	0	15564
[m3]								
EC-BN21	100yr-24hr-10%	9.69	0.00	8.13	0.00	0.00	0.00	1.56
[ha-m]								
EC-BN21	100yr-24hr-90%	36.7	0.0	30.8	0.0	0.0	0.0	5.9
[cm]								
EC-BN21	100yr-24hr-90%	96888	0	81324	0	0	0	15564
[m3]								
EC-BN21	100yr-24hr-90%	9.69	0.00	8.13	0.00	0.00	0.00	1.56
[ha-m]								
EC-BN21	100yr-6hr-10%	19.7	0.0	14.3	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	100yr-6hr-10%	52008	0	37790	0	0	0	14218
[m3]								
EC-BN21	100yr-6hr-10%	5.20	0.00	3.78	0.00	0.00	0.00	1.42
[ha-m]								
EC-BN21	100yr-6hr-90%	19.7	0.0	14.3	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	100yr-6hr-90%	52008	0	37790	0	0	0	14218
[m3]								
EC-BN21	100yr-6hr-90%	5.20	0.00	3.78	0.00	0.00	0.00	1.42
[ha-m]								
EC-BN21	10yr-12hr-10%	15.7	0.0	10.6	0.0	0.0	0.0	5.1
[cm]								
EC-BN21	10yr-12hr-10%	41448	0	27892	0	0	0	13556
[m3]								
EC-BN21	10yr-12hr-10%	4.14	0.00	2.79	0.00	0.00	0.00	1.36
[ha-m]								
EC-BN21	10yr-12hr-90%	15.7	0.0	10.6	0.0	0.0	0.0	5.1
[cm]								
EC-BN21	10yr-12hr-90%	41448	0	27892	0	0	0	13556
[m3]								
EC-BN21	10yr-12hr-90%	4.14	0.00	2.79	0.00	0.00	0.00	1.36
[ha-m]								
EC-BN21	10yr-24hr-10%	19.5	0.0	14.1	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	10yr-24hr-1	51480	0	37290	0	0	0	14190

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BN21	10yr-24hr-10%	5.15	0.00	3.73	0.00	0.00	0.00	1.42
[ha-m]								
EC-BN21	10yr-24hr-90%	19.5	0.0	14.1	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	10yr-24hr-90%	51480	0	37290	0	0	0	14190
[m3]								
EC-BN21	10yr-24hr-90%	5.15	0.00	3.73	0.00	0.00	0.00	1.42
[ha-m]								
EC-BN21	10yr-6hr-10%	12.9	0.0	8.0	0.0	0.0	0.0	4.9
[cm]								
EC-BN21	10yr-6hr-10%	34056	0	21147	0	0	0	12909
[m3]								
EC-BN21	10yr-6hr-10%	3.41	0.00	2.11	0.00	0.00	0.00	1.29
[ha-m]								
EC-BN21	10yr-6hr-90%	12.9	0.0	8.0	0.0	0.0	0.0	4.9
[cm]								
EC-BN21	10yr-6hr-90%	34056	0	21147	0	0	0	12909
[m3]								
EC-BN21	10yr-6hr-90%	3.41	0.00	2.11	0.00	0.00	0.00	1.29
[ha-m]								
EC-BN21	25yr-12hr-10%	20.1	0.0	14.7	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	25yr-12hr-10%	53064	0	38792	0	0	0	14272
[m3]								
EC-BN21	25yr-12hr-10%	5.31	0.00	3.88	0.00	0.00	0.00	1.43
[ha-m]								
EC-BN21	25yr-12hr-90%	20.1	0.0	14.7	0.0	0.0	0.0	5.4
[cm]								
EC-BN21	25yr-12hr-90%	53064	0	38792	0	0	0	14272
[m3]								
EC-BN21	25yr-12hr-90%	5.31	0.00	3.88	0.00	0.00	0.00	1.43
[ha-m]								
EC-BN21	25yr-24hr-10%	25.7	0.0	20.1	0.0	0.0	0.0	5.6
[cm]								
EC-BN21	25yr-24hr-10%	67848	0	52974	0	0	0	14874
[m3]								
EC-BN21	25yr-24hr-10%	6.78	0.00	5.30	0.00	0.00	0.00	1.49
[ha-m]								
EC-BN21	25yr-24hr-90%	25.7	0.0	20.1	0.0	0.0	0.0	5.6
[cm]								
EC-BN21	25yr-24hr-90%	67848	0	52974	0	0	0	14874
[m3]								
EC-BN21	25yr-24hr-90%	6.78	0.00	5.30	0.00	0.00	0.00	1.49
[ha-m]								
EC-BN21	25yr-6hr-10%	15.5	0.0	10.4	0.0	0.0	0.0	5.1
[cm]								
EC-BN21	25yr-6hr-10	40920	0	27404	0	0	0	13516

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BN21 [ha-m]	25yr-6hr-10 %	4.09	0.00	2.74	0.00	0.00	0.00	1.35
EC-BN21 [cm]	25yr-6hr-90 %	15.5	0.0	10.4	0.0	0.0	0.0	5.1
EC-BN21 [m3]	25yr-6hr-90 %	40920	0	27404	0	0	0	13516
EC-BN21 [ha-m]	25yr-6hr-90 %	4.09	0.00	2.74	0.00	0.00	0.00	1.35

Simple Basin: EC-BN22

Scenario: 38701-EC
Node: EC-N22
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 23.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 58.4000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN22	100yr-12hr-10%	16.506	1.0833	27.7	22.3	58.4000	83.0	0.00	0.00
EC-BN22	100yr-12hr-90%	13.432	12.0333	27.7	22.3	58.4000	83.0	0.00	0.00
EC-BN22	100yr-24hr-10%	15.671	1.1333	36.7	31.2	58.4000	83.0	0.00	0.00
EC-BN22	100yr-24hr-90%	15.240	24.0167	36.7	31.2	58.4000	83.0	0.00	0.00
EC-BN22	100yr-6hr-10%	16.708	0.9833	19.7	14.6	58.4000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN22	100yr-6hr-90%	12.217	6.0167	19.7	14.6	58.4000	83.0	0.00	0.00
EC-BN22	10yr-12hr-10%	7.892	1.2500	15.7	10.8	58.4000	83.0	0.00	0.00
EC-BN22	10yr-12hr-90%	7.233	12.0333	15.7	10.8	58.4000	83.0	0.00	0.00
EC-BN22	10yr-24hr-10%	6.815	1.5833	19.5	14.4	58.4000	83.0	0.00	0.00
EC-BN22	10yr-24hr-90%	7.795	24.0167	19.5	14.4	58.4000	83.0	0.00	0.00
EC-BN22	10yr-6hr-10%	9.507	1.0667	12.9	8.3	58.4000	83.0	0.00	0.00
EC-BN22	10yr-6hr-90%	7.535	6.0167	12.9	8.3	58.4000	83.0	0.00	0.00
EC-BN22	25yr-12hr-10%	10.995	1.1500	20.1	15.0	58.4000	83.0	0.00	0.00
EC-BN22	25yr-12hr-90%	9.521	12.0333	20.1	15.0	58.4000	83.0	0.00	0.00
EC-BN22	25yr-24hr-10%	9.926	1.1667	25.7	20.4	58.4000	83.0	0.00	0.00
EC-BN22	25yr-24hr-90%	10.496	24.0167	25.7	20.4	58.4000	83.0	0.00	0.00
EC-BN22	25yr-6hr-10%	12.221	1.0167	15.5	10.7	58.4000	83.0	0.00	0.00
EC-BN22	25yr-6hr-90%	9.334	6.0167	15.5	10.7	58.4000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN22 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN22 [m3]	100yr-12hr-10%	161768	0	130520	0	0	0	31248
EC-BN22 [ha-m]	100yr-12hr-10%	16.18	0.00	13.05	0.00	0.00	0.00	3.12
EC-BN22 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BN22 [m3]	100yr-12hr-90%	161768	0	130520	0	0	0	31248
EC-BN22 [ha-m]	100yr-12hr-90%	16.18	0.00	13.05	0.00	0.00	0.00	3.12
EC-BN22 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN22 [m3]	100yr-24hr-10%	214328	0	182086	0	0	0	32242
EC-BN22 [ha-m]	100yr-24hr-10%	21.43	0.00	18.21	0.00	0.00	0.00	3.22
EC-BN22 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BN22 [m3]	100yr-24hr-90%	214328	0	182086	0	0	0	32242
EC-BN22 [ha-m]	100yr-24hr-90%	21.43	0.00	18.21	0.00	0.00	0.00	3.22
EC-BN22 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN22 [m3]	100yr-6hr-10%	115048	0	85377	0	0	0	29671
EC-BN22 [ha-m]	100yr-6hr-10%	11.50	0.00	8.54	0.00	0.00	0.00	2.97
EC-BN22 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BN22 [m3]	100yr-6hr-90%	115048	0	85377	0	0	0	29671
EC-BN22 [ha-m]	100yr-6hr-90%	11.50	0.00	8.54	0.00	0.00	0.00	2.97
EC-BN22 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN22 [m3]	10yr-12hr-10%	91688	0	63309	0	0	0	28379
EC-BN22 [ha-m]	10yr-12hr-10%	9.17	0.00	6.33	0.00	0.00	0.00	2.84
EC-BN22 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BN22 [m3]	10yr-12hr-90%	91688	0	63309	0	0	0	28379
EC-BN22 [ha-m]	10yr-12hr-90%	9.17	0.00	6.33	0.00	0.00	0.00	2.84
EC-BN22 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN22 [m3]	10yr-24hr-10%	113880	0	84263	0	0	0	29617
EC-BN22 [ha-m]	10yr-24hr-10%	11.39	0.00	8.43	0.00	0.00	0.00	2.96
EC-BN22 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BN22 [m3]	10yr-24hr-90%	113880	0	84263	0	0	0	29617
EC-BN22 [ha-m]	10yr-24hr-90%	11.39	0.00	8.43	0.00	0.00	0.00	2.96
EC-BN22 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN22 [m3]	10yr-6hr-10 %	75336	0	48234	0	0	0	27102
EC-BN22 [ha-m]	10yr-6hr-10 %	7.53	0.00	4.82	0.00	0.00	0.00	2.71
EC-BN22 [cm]	10yr-6hr-90 %	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BN22 [m3]	10yr-6hr-90 %	75336	0	48234	0	0	0	27102
EC-BN22 [ha-m]	10yr-6hr-90 %	7.53	0.00	4.82	0.00	0.00	0.00	2.71
EC-BN22 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN22 [m3]	25yr-12hr-10%	117384	0	87608	0	0	0	29776
EC-BN22 [ha-m]	25yr-12hr-10%	11.74	0.00	8.76	0.00	0.00	0.00	2.98
EC-BN22 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BN22 [m3]	25yr-12hr-90%	117384	0	87608	0	0	0	29776
EC-BN22 [ha-m]	25yr-12hr-90%	11.74	0.00	8.76	0.00	0.00	0.00	2.98
EC-BN22 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN22 [m3]	25yr-24hr-10%	150088	0	119151	0	0	0	30937
EC-BN22 [ha-m]	25yr-24hr-10%	15.01	0.00	11.92	0.00	0.00	0.00	3.09
EC-BN22 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BN22 [m3]	25yr-24hr-90%	150088	0	119151	0	0	0	30937
EC-BN22 [ha-m]	25yr-24hr-90%	15.01	0.00	11.92	0.00	0.00	0.00	3.09
EC-BN22 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN22 [m3]	25yr-6hr-10 %	90520	0	62220	0	0	0	28300
EC-BN22 [ha-m]	25yr-6hr-10 %	9.05	0.00	6.22	0.00	0.00	0.00	2.83
EC-BN22 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BN22 [m3]	25yr-6hr-90 %	90520	0	62220	0	0	0	28300
EC-BN22 [ha-m]	25yr-6hr-90 %	9.05	0.00	6.22	0.00	0.00	0.00	2.83

Simple Basin: EC-BN23

Scenario:	38701-EC
Node:	EC-N23
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.1000 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN23	100yr-12hr-10%	2.410	0.8000	27.7	22.7	8.1000	84.0	0.00	0.00
EC-BN23	100yr-12hr-90%	1.949	12.0000	27.7	22.7	8.1000	84.0	0.00	0.00
EC-BN23	100yr-24hr-10%	2.278	1.0333	36.7	31.5	8.1000	84.0	0.00	0.00
EC-BN23	100yr-24hr-90%	2.160	24.0000	36.7	31.5	8.1000	84.0	0.00	0.00
EC-BN23	100yr-6hr-10%	2.471	0.7333	19.7	14.9	8.1000	84.0	0.00	0.00
EC-BN23	100yr-6hr-90%	1.730	6.0000	19.7	14.9	8.1000	84.0	0.00	0.00
EC-BN23	10yr-12hr-10%	1.157	1.0500	15.7	11.1	8.1000	84.0	0.00	0.00
EC-BN23	10yr-12hr-90%	1.059	12.0000	15.7	11.1	8.1000	84.0	0.00	0.00
EC-BN23	10yr-24hr-10%	1.018	1.0500	19.5	14.7	8.1000	84.0	0.00	0.00
EC-BN23	10yr-24hr-90%	1.112	24.0000	19.5	14.7	8.1000	84.0	0.00	0.00
EC-BN23	10yr-6hr-10%	1.414	0.8833	12.9	8.5	8.1000	84.0	0.00	0.00
EC-BN23	10yr-6hr-90%	1.079	6.0000	12.9	8.5	8.1000	84.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN23	25yr-12hr-10%	1.595	0.8333	20.1	15.3	8.1000	84.0	0.00	0.00
EC-BN23	25yr-12hr-90%	1.387	12.0000	20.1	15.3	8.1000	84.0	0.00	0.00
EC-BN23	25yr-24hr-10%	1.471	1.0333	25.7	20.7	8.1000	84.0	0.00	0.00
EC-BN23	25yr-24hr-90%	1.492	24.0000	25.7	20.7	8.1000	84.0	0.00	0.00
EC-BN23	25yr-6hr-10%	1.806	0.7667	15.5	10.9	8.1000	84.0	0.00	0.00
EC-BN23	25yr-6hr-90%	1.329	6.0000	15.5	10.9	8.1000	84.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN23 [cm]	100yr-12hr-10%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN23 [m3]	100yr-12hr-10%	22437	0	18375	0	0	0	4062
EC-BN23 [ha-m]	100yr-12hr-10%	2.24	0.00	1.84	0.00	0.00	0.00	0.41
EC-BN23 [cm]	100yr-12hr-90%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN23 [m3]	100yr-12hr-90%	22437	0	18375	0	0	0	4062
EC-BN23 [ha-m]	100yr-12hr-90%	2.24	0.00	1.84	0.00	0.00	0.00	0.41
EC-BN23 [cm]	100yr-24hr-10%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN23 [m3]	100yr-24hr-10%	29727	0	25547	0	0	0	4180
EC-BN23 [ha-m]	100yr-24hr-10%	2.97	0.00	2.55	0.00	0.00	0.00	0.42
EC-BN23 [cm]	100yr-24hr-90%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN23 [m3]	100yr-24hr-90%	29727	0	25547	0	0	0	4180
EC-BN23 [ha-m]	100yr-24hr-90%	2.97	0.00	2.55	0.00	0.00	0.00	0.42
EC-BN23 [cm]	100yr-6hr-10%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN23 [m3]	100yr-6hr-10%	15957	0	12085	0	0	0	3872

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN23 [ha-m]	100yr-6hr-10%	1.60	0.00	1.21	0.00	0.00	0.00	0.39
EC-BN23 [cm]	100yr-6hr-90%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN23 [m3]	100yr-6hr-90%	15957	0	12085	0	0	0	3872
EC-BN23 [ha-m]	100yr-6hr-90%	1.60	0.00	1.21	0.00	0.00	0.00	0.39
EC-BN23 [cm]	10yr-12hr-10%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN23 [m3]	10yr-12hr-10%	12717	0	9003	0	0	0	3714
EC-BN23 [ha-m]	10yr-12hr-10%	1.27	0.00	0.90	0.00	0.00	0.00	0.37
EC-BN23 [cm]	10yr-12hr-90%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN23 [m3]	10yr-12hr-90%	12717	0	9003	0	0	0	3714
EC-BN23 [ha-m]	10yr-12hr-90%	1.27	0.00	0.90	0.00	0.00	0.00	0.37
EC-BN23 [cm]	10yr-24hr-10%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN23 [m3]	10yr-24hr-10%	15795	0	11929	0	0	0	3866
EC-BN23 [ha-m]	10yr-24hr-10%	1.58	0.00	1.19	0.00	0.00	0.00	0.39
EC-BN23 [cm]	10yr-24hr-90%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN23 [m3]	10yr-24hr-90%	15795	0	11929	0	0	0	3866
EC-BN23 [ha-m]	10yr-24hr-90%	1.58	0.00	1.19	0.00	0.00	0.00	0.39
EC-BN23 [cm]	10yr-6hr-10%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN23 [m3]	10yr-6hr-10%	10449	0	6892	0	0	0	3557
EC-BN23 [ha-m]	10yr-6hr-10%	1.04	0.00	0.69	0.00	0.00	0.00	0.36
EC-BN23 [cm]	10yr-6hr-90%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN23 [m3]	10yr-6hr-90%	10449	0	6892	0	0	0	3557
EC-BN23 [ha-m]	10yr-6hr-90%	1.04	0.00	0.69	0.00	0.00	0.00	0.36
EC-BN23 [cm]	25yr-12hr-10%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN23 [m3]	25yr-12hr-10%	16281	0	12396	0	0	0	3885

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN23 [ha-m]	25yr-12hr-10%	1.63	0.00	1.24	0.00	0.00	0.00	0.39
EC-BN23 [cm]	25yr-12hr-90%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN23 [m3]	25yr-12hr-90%	16281	0	12396	0	0	0	3885
EC-BN23 [ha-m]	25yr-12hr-90%	1.63	0.00	1.24	0.00	0.00	0.00	0.39
EC-BN23 [cm]	25yr-24hr-10%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN23 [m3]	25yr-24hr-10%	20817	0	16792	0	0	0	4025
EC-BN23 [ha-m]	25yr-24hr-10%	2.08	0.00	1.68	0.00	0.00	0.00	0.40
EC-BN23 [cm]	25yr-24hr-90%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN23 [m3]	25yr-24hr-90%	20817	0	16792	0	0	0	4025
EC-BN23 [ha-m]	25yr-24hr-90%	2.08	0.00	1.68	0.00	0.00	0.00	0.40
EC-BN23 [cm]	25yr-6hr-10%	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN23 [m3]	25yr-6hr-10%	12555	0	8850	0	0	0	3705
EC-BN23 [ha-m]	25yr-6hr-10%	1.26	0.00	0.89	0.00	0.00	0.00	0.37
EC-BN23 [cm]	25yr-6hr-90%	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN23 [m3]	25yr-6hr-90%	12555	0	8850	0	0	0	3705
EC-BN23 [ha-m]	25yr-6hr-90%	1.26	0.00	0.89	0.00	0.00	0.00	0.37

Simple Basin: EC-BN24

Scenario:	38701-EC
Node:	EC-N24
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	21.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	27.7000 ha
Curve Number:	84.0

% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN24	100yr-12hr-10%	7.993	1.0167	27.7	22.7	27.7000	84.0	0.00	0.00
EC-BN24	100yr-12hr-90%	6.441	12.0333	27.7	22.7	27.7000	84.0	0.00	0.00
EC-BN24	100yr-24hr-10%	7.599	1.1000	36.7	31.5	27.7000	84.0	0.00	0.00
EC-BN24	100yr-24hr-90%	7.281	24.0167	36.7	31.5	27.7000	84.0	0.00	0.00
EC-BN24	100yr-6hr-10%	8.148	0.9333	19.7	14.9	27.7000	84.0	0.00	0.00
EC-BN24	100yr-6hr-90%	5.855	6.0167	19.7	14.9	27.7000	84.0	0.00	0.00
EC-BN24	10yr-12hr-10%	3.864	1.1667	15.7	11.1	27.7000	84.0	0.00	0.00
EC-BN24	10yr-12hr-90%	3.490	12.0333	15.7	11.1	27.7000	84.0	0.00	0.00
EC-BN24	10yr-24hr-10%	3.336	1.1667	19.5	14.7	27.7000	84.0	0.00	0.00
EC-BN24	10yr-24hr-90%	3.742	24.0167	19.5	14.7	27.7000	84.0	0.00	0.00
EC-BN24	10yr-6hr-10%	4.676	1.0000	12.9	8.5	27.7000	84.0	0.00	0.00
EC-BN24	10yr-6hr-90%	3.637	6.0167	12.9	8.5	27.7000	84.0	0.00	0.00
EC-BN24	25yr-12hr-10%	5.357	1.1167	20.1	15.3	27.7000	84.0	0.00	0.00
EC-BN24	25yr-12hr-90%	4.579	12.0333	20.1	15.3	27.7000	84.0	0.00	0.00
EC-BN24	25yr-24hr-10%	4.858	1.1333	25.7	20.7	27.7000	84.0	0.00	0.00
EC-BN24	25yr-24hr-90%	5.025	24.0167	25.7	20.7	27.7000	84.0	0.00	0.00
EC-BN24	25yr-6hr-10%	5.987	0.9667	15.5	10.9	27.7000	84.0	0.00	0.00
EC-BN24	25yr-6hr-90%	4.489	6.0167	15.5	10.9	27.7000	84.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN24 [cm]	100yr-12hr-10%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN24 [m3]	100yr-12hr-10%	76729	0	62814	0	0	0	13915
EC-BN24 [ha-m]	100yr-12hr-10%	7.67	0.00	6.28	0.00	0.00	0.00	1.39
EC-BN24 [cm]	100yr-12hr-90%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BN24 [m3]	100yr-12hr-90%	76729	0	62814	0	0	0	13915
EC-BN24 [ha-m]	100yr-12hr-90%	7.67	0.00	6.28	0.00	0.00	0.00	1.39
EC-BN24 [cm]	100yr-24hr-10%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN24 [m3]	100yr-24hr-10%	101659	0	87333	0	0	0	14326
EC-BN24 [ha-m]	100yr-24hr-10%	10.17	0.00	8.73	0.00	0.00	0.00	1.43
EC-BN24 [cm]	100yr-24hr-90%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BN24 [m3]	100yr-24hr-90%	101659	0	87333	0	0	0	14326
EC-BN24 [ha-m]	100yr-24hr-90%	10.17	0.00	8.73	0.00	0.00	0.00	1.43
EC-BN24 [cm]	100yr-6hr-10%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN24 [m3]	100yr-6hr-10%	54569	0	41313	0	0	0	13256
EC-BN24 [ha-m]	100yr-6hr-10%	5.46	0.00	4.13	0.00	0.00	0.00	1.33
EC-BN24 [cm]	100yr-6hr-90%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BN24 [m3]	100yr-6hr-90%	54569	0	41313	0	0	0	13256
EC-BN24 [ha-m]	100yr-6hr-90%	5.46	0.00	4.13	0.00	0.00	0.00	1.33
EC-BN24 [cm]	10yr-12hr-10%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN24 [m3]	10yr-12hr-10%	43489	0	30776	0	0	0	12713
EC-BN24 [ha-m]	10yr-12hr-10%	4.35	0.00	3.08	0.00	0.00	0.00	1.27
EC-BN24 [cm]	10yr-12hr-90%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BN24 [m3]	10yr-12hr-90%	43489	0	30776	0	0	0	12713
EC-BN24	10yr-12hr-9	4.35	0.00	3.08	0.00	0.00	0.00	1.27

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN24 [cm]	10yr-24hr-10%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN24 [m3]	10yr-24hr-10%	54015	0	40781	0	0	0	13234
EC-BN24 [ha-m]	10yr-24hr-10%	5.40	0.00	4.08	0.00	0.00	0.00	1.32
EC-BN24 [cm]	10yr-24hr-90%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BN24 [m3]	10yr-24hr-90%	54015	0	40781	0	0	0	13234
EC-BN24 [ha-m]	10yr-24hr-90%	5.40	0.00	4.08	0.00	0.00	0.00	1.32
EC-BN24 [cm]	10yr-6hr-10%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN24 [m3]	10yr-6hr-10%	35733	0	23560	0	0	0	12173
EC-BN24 [ha-m]	10yr-6hr-10%	3.57	0.00	2.36	0.00	0.00	0.00	1.22
EC-BN24 [cm]	10yr-6hr-90%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BN24 [m3]	10yr-6hr-90%	35733	0	23560	0	0	0	12173
EC-BN24 [ha-m]	10yr-6hr-90%	3.57	0.00	2.36	0.00	0.00	0.00	1.22
EC-BN24 [cm]	25yr-12hr-10%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN24 [m3]	25yr-12hr-10%	55677	0	42377	0	0	0	13300
EC-BN24 [ha-m]	25yr-12hr-10%	5.57	0.00	4.24	0.00	0.00	0.00	1.33
EC-BN24 [cm]	25yr-12hr-90%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BN24 [m3]	25yr-12hr-90%	55677	0	42377	0	0	0	13300
EC-BN24 [ha-m]	25yr-12hr-90%	5.57	0.00	4.24	0.00	0.00	0.00	1.33
EC-BN24 [cm]	25yr-24hr-10%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN24 [m3]	25yr-24hr-10%	71189	0	57403	0	0	0	13786
EC-BN24 [ha-m]	25yr-24hr-10%	7.12	0.00	5.74	0.00	0.00	0.00	1.38
EC-BN24 [cm]	25yr-24hr-90%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BN24 [m3]	25yr-24hr-90%	71189	0	57403	0	0	0	13786
EC-BN24	25yr-24hr-9	7.12	0.00	5.74	0.00	0.00	0.00	1.38

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BN24 [cm]	25yr-6hr-10 %	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN24 [m3]	25yr-6hr-10 %	42935	0	30255	0	0	0	12680
EC-BN24 [ha-m]	25yr-6hr-10 %	4.29	0.00	3.03	0.00	0.00	0.00	1.27
EC-BN24 [cm]	25yr-6hr-90 %	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BN24 [m3]	25yr-6hr-90 %	42935	0	30255	0	0	0	12680
EC-BN24 [ha-m]	25yr-6hr-90 %	4.29	0.00	3.03	0.00	0.00	0.00	1.27

Simple Basin: EC-BN25

Scenario:	38701-EC
Node:	EC-N25
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	27.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	66.8000 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN25	100yr-12hr-10%	19.276	1.1167	27.7	23.0	66.8000	85.0	0.00	0.00
EC-BN25	100yr-12hr-90%	15.260	12.0500	27.7	23.0	66.8000	85.0	0.00	0.00
EC-BN25	100yr-24hr-10%	18.249	1.1667	36.7	31.9	66.8000	85.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BN25	100yr-24hr-90%	17.319	24.0333	36.7	31.9	66.8000	85.0	0.00	0.00
EC-BN25	100yr-6hr-10%	19.478	1.0167	19.7	15.2	66.8000	85.0	0.00	0.00
EC-BN25	100yr-6hr-90%	14.050	6.0333	19.7	15.2	66.8000	85.0	0.00	0.00
EC-BN25	10yr-12hr-10%	9.416	1.2833	15.7	11.4	66.8000	85.0	0.00	0.00
EC-BN25	10yr-12hr-90%	8.297	12.0500	15.7	11.4	66.8000	85.0	0.00	0.00
EC-BN25	10yr-24hr-10%	8.104	1.5833	19.5	15.0	66.8000	85.0	0.00	0.00
EC-BN25	10yr-24hr-90%	8.926	24.0333	19.5	15.0	66.8000	85.0	0.00	0.00
EC-BN25	10yr-6hr-10%	11.289	1.1000	12.9	8.8	66.8000	85.0	0.00	0.00
EC-BN25	10yr-6hr-90%	8.755	6.0333	12.9	8.8	66.8000	85.0	0.00	0.00
EC-BN25	25yr-12hr-10%	12.976	1.1833	20.1	15.6	66.8000	85.0	0.00	0.00
EC-BN25	25yr-12hr-90%	10.866	12.0500	20.1	15.6	66.8000	85.0	0.00	0.00
EC-BN25	25yr-24hr-10%	11.713	1.2167	25.7	21.0	66.8000	85.0	0.00	0.00
EC-BN25	25yr-24hr-90%	11.968	24.0333	25.7	21.0	66.8000	85.0	0.00	0.00
EC-BN25	25yr-6hr-10%	14.385	1.0667	15.5	11.2	66.8000	85.0	0.00	0.00
EC-BN25	25yr-6hr-90%	10.790	6.0333	15.5	11.2	66.8000	85.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN25 [cm]	100yr-12hr-10%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN25 [m3]	100yr-12hr-10%	185036	0	153683	0	0	0	31353
EC-BN25 [ha-m]	100yr-12hr-10%	18.50	0.00	15.37	0.00	0.00	0.00	3.14
EC-BN25 [cm]	100yr-12hr-90%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BN25 [m3]	100yr-12hr-90%	185036	0	153683	0	0	0	31353

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN25 [ha-m]	100yr-12hr-90%	18.50	0.00	15.37	0.00	0.00	0.00	3.14
EC-BN25 [cm]	100yr-24hr-10%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN25 [m3]	100yr-24hr-10%	245156	0	212955	0	0	0	32201
EC-BN25 [ha-m]	100yr-24hr-10%	24.52	0.00	21.30	0.00	0.00	0.00	3.22
EC-BN25 [cm]	100yr-24hr-90%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BN25 [m3]	100yr-24hr-90%	245156	0	212955	0	0	0	32201
EC-BN25 [ha-m]	100yr-24hr-90%	24.52	0.00	21.30	0.00	0.00	0.00	3.22
EC-BN25 [cm]	100yr-6hr-10%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN25 [m3]	100yr-6hr-10%	131596	0	101619	0	0	0	29977
EC-BN25 [ha-m]	100yr-6hr-10%	13.16	0.00	10.16	0.00	0.00	0.00	3.00
EC-BN25 [cm]	100yr-6hr-90%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BN25 [m3]	100yr-6hr-90%	131596	0	101619	0	0	0	29977
EC-BN25 [ha-m]	100yr-6hr-90%	13.16	0.00	10.16	0.00	0.00	0.00	3.00
EC-BN25 [cm]	10yr-12hr-10%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN25 [m3]	10yr-12hr-10%	104876	0	76047	0	0	0	28829
EC-BN25 [ha-m]	10yr-12hr-10%	10.49	0.00	7.60	0.00	0.00	0.00	2.88
EC-BN25 [cm]	10yr-12hr-90%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BN25 [m3]	10yr-12hr-90%	104876	0	76047	0	0	0	28829
EC-BN25 [ha-m]	10yr-12hr-90%	10.49	0.00	7.60	0.00	0.00	0.00	2.88
EC-BN25 [cm]	10yr-24hr-10%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN25 [m3]	10yr-24hr-10%	130260	0	100331	0	0	0	29929
EC-BN25 [ha-m]	10yr-24hr-10%	13.03	0.00	10.03	0.00	0.00	0.00	2.99
EC-BN25 [cm]	10yr-24hr-90%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BN25 [m3]	10yr-24hr-90%	130260	0	100331	0	0	0	29929

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN25 [ha-m]	10yr-24hr-90%	13.03	0.00	10.03	0.00	0.00	0.00	2.99
EC-BN25 [cm]	10yr-6hr-10%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN25 [m3]	10yr-6hr-10%	86172	0	58492	0	0	0	27680
EC-BN25 [ha-m]	10yr-6hr-10%	8.62	0.00	5.85	0.00	0.00	0.00	2.77
EC-BN25 [cm]	10yr-6hr-90%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BN25 [m3]	10yr-6hr-90%	86172	0	58492	0	0	0	27680
EC-BN25 [ha-m]	10yr-6hr-90%	8.62	0.00	5.85	0.00	0.00	0.00	2.77
EC-BN25 [cm]	25yr-12hr-10%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN25 [m3]	25yr-12hr-10%	134268	0	104199	0	0	0	30069
EC-BN25 [ha-m]	25yr-12hr-10%	13.43	0.00	10.42	0.00	0.00	0.00	3.01
EC-BN25 [cm]	25yr-12hr-90%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BN25 [m3]	25yr-12hr-90%	134268	0	104199	0	0	0	30069
EC-BN25 [ha-m]	25yr-12hr-90%	13.43	0.00	10.42	0.00	0.00	0.00	3.01
EC-BN25 [cm]	25yr-24hr-10%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BN25 [m3]	25yr-24hr-10%	171676	0	140591	0	0	0	31085
EC-BN25 [ha-m]	25yr-24hr-10%	17.17	0.00	14.06	0.00	0.00	0.00	3.11
EC-BN25 [cm]	25yr-24hr-90%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BN25 [m3]	25yr-24hr-90%	171676	0	140591	0	0	0	31085
EC-BN25 [ha-m]	25yr-24hr-90%	17.17	0.00	14.06	0.00	0.00	0.00	3.11
EC-BN25 [cm]	25yr-6hr-10%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN25 [m3]	25yr-6hr-10%	103540	0	74781	0	0	0	28759
EC-BN25 [ha-m]	25yr-6hr-10%	10.35	0.00	7.48	0.00	0.00	0.00	2.88
EC-BN25 [cm]	25yr-6hr-90%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BN25 [m3]	25yr-6hr-90%	103540	0	74781	0	0	0	28759

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BN25 [ha-m]	25yr-6hr-90 %	10.35	0.00	7.48	0.00	0.00	0.00	2.88

Simple Basin: EC-BS26

Scenario: 38701-EC
Node: EC-N26
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 4.8000 ha
Curve Number: 88.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS26	100yr-12hr-10%	1.533	0.7667	27.7	23.9	4.8000	88.0	0.00	0.00
EC-BS26	100yr-12hr-90%	1.174	12.0000	27.7	23.9	4.8000	88.0	0.00	0.00
EC-BS26	100yr-24hr-10%	1.465	0.5167	36.7	32.9	4.8000	88.0	0.00	0.00
EC-BS26	100yr-24hr-90%	1.287	24.0000	36.7	32.9	4.8000	88.0	0.00	0.00
EC-BS26	100yr-6hr-10%	1.591	0.6833	19.7	16.1	4.8000	88.0	0.00	0.00
EC-BS26	100yr-6hr-90%	1.047	5.8500	19.7	16.1	4.8000	88.0	0.00	0.00
EC-BS26	10yr-12hr-10%	0.772	0.7667	15.7	12.2	4.8000	88.0	0.00	0.00
EC-BS26	10yr-12hr-90%	0.650	12.0000	15.7	12.2	4.8000	88.0	0.00	0.00
EC-BS26	10yr-24hr-	0.681	1.0000	19.5	15.9	4.8000	88.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BS26	10yr-24hr-90%	0.672	24.0000	19.5	15.9	4.8000	88.0	0.00	0.00
EC-BS26	10yr-6hr-10%	0.949	0.6833	12.9	9.5	4.8000	88.0	0.00	0.00
EC-BS26	10yr-6hr-90%	0.666	6.0000	12.9	9.5	4.8000	88.0	0.00	0.00
EC-BS26	25yr-12hr-10%	1.052	0.7667	20.1	16.5	4.8000	88.0	0.00	0.00
EC-BS26	25yr-12hr-90%	0.843	12.0000	20.1	16.5	4.8000	88.0	0.00	0.00
EC-BS26	25yr-24hr-10%	0.950	1.0000	25.7	22.0	4.8000	88.0	0.00	0.00
EC-BS26	25yr-24hr-90%	0.895	24.0000	25.7	22.0	4.8000	88.0	0.00	0.00
EC-BS26	25yr-6hr-10%	1.195	0.6833	15.5	12.0	4.8000	88.0	0.00	0.00
EC-BS26	25yr-6hr-90%	0.812	5.8667	15.5	12.0	4.8000	88.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS26 [cm]	100yr-12hr-10%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BS26 [m3]	100yr-12hr-10%	13296	0	11491	0	0	0	1805
EC-BS26 [ha-m]	100yr-12hr-10%	1.33	0.00	1.15	0.00	0.00	0.00	0.18
EC-BS26 [cm]	100yr-12hr-90%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BS26 [m3]	100yr-12hr-90%	13296	0	11491	0	0	0	1805
EC-BS26 [ha-m]	100yr-12hr-90%	1.33	0.00	1.15	0.00	0.00	0.00	0.18
EC-BS26 [cm]	100yr-24hr-10%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BS26 [m3]	100yr-24hr-10%	17616	0	15768	0	0	0	1848
EC-BS26 [ha-m]	100yr-24hr-10%	1.76	0.00	1.58	0.00	0.00	0.00	0.18
EC-BS26 [cm]	100yr-24hr-90%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BS26	100yr-24hr-	17616	0	15768	0	0	0	1848

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	90%							
EC-BS26 [ha-m]	100yr-24hr-90%	1.76	0.00	1.58	0.00	0.00	0.00	0.18
EC-BS26 [cm]	100yr-6hr-10%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BS26 [m3]	100yr-6hr-10%	9456	0	7718	0	0	0	1738
EC-BS26 [ha-m]	100yr-6hr-10%	0.95	0.00	0.77	0.00	0.00	0.00	0.17
EC-BS26 [cm]	100yr-6hr-90%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BS26 [m3]	100yr-6hr-90%	9456	0	7718	0	0	0	1738
EC-BS26 [ha-m]	100yr-6hr-90%	0.95	0.00	0.77	0.00	0.00	0.00	0.17
EC-BS26 [cm]	10yr-12hr-10%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BS26 [m3]	10yr-12hr-10%	7536	0	5853	0	0	0	1683
EC-BS26 [ha-m]	10yr-12hr-10%	0.75	0.00	0.59	0.00	0.00	0.00	0.17
EC-BS26 [cm]	10yr-12hr-90%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BS26 [m3]	10yr-12hr-90%	7536	0	5853	0	0	0	1683
EC-BS26 [ha-m]	10yr-12hr-90%	0.75	0.00	0.59	0.00	0.00	0.00	0.17
EC-BS26 [cm]	10yr-24hr-10%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BS26 [m3]	10yr-24hr-10%	9360	0	7624	0	0	0	1736
EC-BS26 [ha-m]	10yr-24hr-10%	0.94	0.00	0.76	0.00	0.00	0.00	0.17
EC-BS26 [cm]	10yr-24hr-90%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BS26 [m3]	10yr-24hr-90%	9360	0	7624	0	0	0	1736
EC-BS26 [ha-m]	10yr-24hr-90%	0.94	0.00	0.76	0.00	0.00	0.00	0.17
EC-BS26 [cm]	10yr-6hr-10%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BS26 [m3]	10yr-6hr-10%	6192	0	4565	0	0	0	1627
EC-BS26 [ha-m]	10yr-6hr-10%	0.62	0.00	0.46	0.00	0.00	0.00	0.16
EC-BS26 [cm]	10yr-6hr-90%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BS26	10yr-6hr-90	6192	0	4565	0	0	0	1627

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BS26 [ha-m]	10yr-6hr-90 %	0.62	0.00	0.46	0.00	0.00	0.00	0.16
EC-BS26 [cm]	25yr-12hr-10%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BS26 [m3]	25yr-12hr-10%	9648	0	7905	0	0	0	1743
EC-BS26 [ha-m]	25yr-12hr-10%	0.96	0.00	0.79	0.00	0.00	0.00	0.17
EC-BS26 [cm]	25yr-12hr-90%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BS26 [m3]	25yr-12hr-90%	9648	0	7905	0	0	0	1743
EC-BS26 [ha-m]	25yr-12hr-90%	0.96	0.00	0.79	0.00	0.00	0.00	0.17
EC-BS26 [cm]	25yr-24hr-10%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BS26 [m3]	25yr-24hr-10%	12336	0	10544	0	0	0	1792
EC-BS26 [ha-m]	25yr-24hr-10%	1.23	0.00	1.05	0.00	0.00	0.00	0.18
EC-BS26 [cm]	25yr-24hr-90%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BS26 [m3]	25yr-24hr-90%	12336	0	10544	0	0	0	1792
EC-BS26 [ha-m]	25yr-24hr-90%	1.23	0.00	1.05	0.00	0.00	0.00	0.18
EC-BS26 [cm]	25yr-6hr-10 %	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BS26 [m3]	25yr-6hr-10 %	7440	0	5761	0	0	0	1679
EC-BS26 [ha-m]	25yr-6hr-10 %	0.74	0.00	0.58	0.00	0.00	0.00	0.17
EC-BS26 [cm]	25yr-6hr-90 %	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BS26 [m3]	25yr-6hr-90 %	7440	0	5761	0	0	0	1679
EC-BS26 [ha-m]	25yr-6hr-90 %	0.74	0.00	0.58	0.00	0.00	0.00	0.17

Simple Basin: EC-BS27

Scenario: 38701-EC
Node: EC-N27
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 6.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6000 ha
Curve Number: 88.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS27	100yr-12hr-10%	0.511	0.7667	27.7	23.9	1.6000	88.0	0.00	0.00
EC-BS27	100yr-12hr-90%	0.391	12.0000	27.7	23.9	1.6000	88.0	0.00	0.00
EC-BS27	100yr-24hr-10%	0.488	0.5167	36.7	32.9	1.6000	88.0	0.00	0.00
EC-BS27	100yr-24hr-90%	0.429	24.0000	36.7	32.9	1.6000	88.0	0.00	0.00
EC-BS27	100yr-6hr-10%	0.530	0.6833	19.7	16.1	1.6000	88.0	0.00	0.00
EC-BS27	100yr-6hr-90%	0.349	5.8500	19.7	16.1	1.6000	88.0	0.00	0.00
EC-BS27	10yr-12hr-10%	0.257	0.7667	15.7	12.2	1.6000	88.0	0.00	0.00
EC-BS27	10yr-12hr-90%	0.217	12.0000	15.7	12.2	1.6000	88.0	0.00	0.00
EC-BS27	10yr-24hr-10%	0.227	1.0000	19.5	15.9	1.6000	88.0	0.00	0.00
EC-BS27	10yr-24hr-90%	0.224	24.0000	19.5	15.9	1.6000	88.0	0.00	0.00
EC-BS27	10yr-6hr-10%	0.316	0.6833	12.9	9.5	1.6000	88.0	0.00	0.00
EC-BS27	10yr-6hr-90%	0.222	6.0000	12.9	9.5	1.6000	88.0	0.00	0.00
EC-BS27	25yr-12hr-10%	0.351	0.7667	20.1	16.5	1.6000	88.0	0.00	0.00
EC-BS27	25yr-12hr-90%	0.281	12.0000	20.1	16.5	1.6000	88.0	0.00	0.00
EC-BS27	25yr-24hr-	0.317	1.0000	25.7	22.0	1.6000	88.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BS27	25yr-24hr-90%	0.298	24.0000	25.7	22.0	1.6000	88.0	0.00	0.00
EC-BS27	25yr-6hr-10%	0.398	0.6833	15.5	12.0	1.6000	88.0	0.00	0.00
EC-BS27	25yr-6hr-90%	0.271	5.8667	15.5	12.0	1.6000	88.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS27 [cm]	100yr-12hr-10%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BS27 [m3]	100yr-12hr-10%	4432	0	3830	0	0	0	602
EC-BS27 [ha-m]	100yr-12hr-10%	0.44	0.00	0.38	0.00	0.00	0.00	0.06
EC-BS27 [cm]	100yr-12hr-90%	27.7	0.0	23.9	0.0	0.0	0.0	3.8
EC-BS27 [m3]	100yr-12hr-90%	4432	0	3830	0	0	0	602
EC-BS27 [ha-m]	100yr-12hr-90%	0.44	0.00	0.38	0.00	0.00	0.00	0.06
EC-BS27 [cm]	100yr-24hr-10%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BS27 [m3]	100yr-24hr-10%	5872	0	5256	0	0	0	616
EC-BS27 [ha-m]	100yr-24hr-10%	0.59	0.00	0.53	0.00	0.00	0.00	0.06
EC-BS27 [cm]	100yr-24hr-90%	36.7	0.0	32.9	0.0	0.0	0.0	3.8
EC-BS27 [m3]	100yr-24hr-90%	5872	0	5256	0	0	0	616
EC-BS27 [ha-m]	100yr-24hr-90%	0.59	0.00	0.53	0.00	0.00	0.00	0.06
EC-BS27 [cm]	100yr-6hr-10%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BS27 [m3]	100yr-6hr-10%	3152	0	2573	0	0	0	579
EC-BS27 [ha-m]	100yr-6hr-10%	0.32	0.00	0.26	0.00	0.00	0.00	0.06
EC-BS27 [cm]	100yr-6hr-90%	19.7	0.0	16.1	0.0	0.0	0.0	3.6
EC-BS27	100yr-6hr-9	3152	0	2573	0	0	0	579

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS27 [ha-m]	100yr-6hr-90%	0.32	0.00	0.26	0.00	0.00	0.00	0.06
EC-BS27 [cm]	10yr-12hr-10%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BS27 [m3]	10yr-12hr-10%	2512	0	1951	0	0	0	561
EC-BS27 [ha-m]	10yr-12hr-10%	0.25	0.00	0.20	0.00	0.00	0.00	0.06
EC-BS27 [cm]	10yr-12hr-90%	15.7	0.0	12.2	0.0	0.0	0.0	3.5
EC-BS27 [m3]	10yr-12hr-90%	2512	0	1951	0	0	0	561
EC-BS27 [ha-m]	10yr-12hr-90%	0.25	0.00	0.20	0.00	0.00	0.00	0.06
EC-BS27 [cm]	10yr-24hr-10%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BS27 [m3]	10yr-24hr-10%	3120	0	2541	0	0	0	579
EC-BS27 [ha-m]	10yr-24hr-10%	0.31	0.00	0.25	0.00	0.00	0.00	0.06
EC-BS27 [cm]	10yr-24hr-90%	19.5	0.0	15.9	0.0	0.0	0.0	3.6
EC-BS27 [m3]	10yr-24hr-90%	3120	0	2541	0	0	0	579
EC-BS27 [ha-m]	10yr-24hr-90%	0.31	0.00	0.25	0.00	0.00	0.00	0.06
EC-BS27 [cm]	10yr-6hr-10%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BS27 [m3]	10yr-6hr-10%	2064	0	1522	0	0	0	542
EC-BS27 [ha-m]	10yr-6hr-10%	0.21	0.00	0.15	0.00	0.00	0.00	0.05
EC-BS27 [cm]	10yr-6hr-90%	12.9	0.0	9.5	0.0	0.0	0.0	3.4
EC-BS27 [m3]	10yr-6hr-90%	2064	0	1522	0	0	0	542
EC-BS27 [ha-m]	10yr-6hr-90%	0.21	0.00	0.15	0.00	0.00	0.00	0.05
EC-BS27 [cm]	25yr-12hr-10%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BS27 [m3]	25yr-12hr-10%	3216	0	2635	0	0	0	581
EC-BS27 [ha-m]	25yr-12hr-10%	0.32	0.00	0.26	0.00	0.00	0.00	0.06
EC-BS27 [cm]	25yr-12hr-90%	20.1	0.0	16.5	0.0	0.0	0.0	3.6
EC-BS27	25yr-12hr-9	3216	0	2635	0	0	0	581

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS27 [ha-m]	25yr-12hr-90%	0.32	0.00	0.26	0.00	0.00	0.00	0.06
EC-BS27 [cm]	25yr-24hr-10%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BS27 [m3]	25yr-24hr-10%	4112	0	3515	0	0	0	597
EC-BS27 [ha-m]	25yr-24hr-10%	0.41	0.00	0.35	0.00	0.00	0.00	0.06
EC-BS27 [cm]	25yr-24hr-90%	25.7	0.0	22.0	0.0	0.0	0.0	3.7
EC-BS27 [m3]	25yr-24hr-90%	4112	0	3515	0	0	0	597
EC-BS27 [ha-m]	25yr-24hr-90%	0.41	0.00	0.35	0.00	0.00	0.00	0.06
EC-BS27 [cm]	25yr-6hr-10%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BS27 [m3]	25yr-6hr-10%	2480	0	1920	0	0	0	560
EC-BS27 [ha-m]	25yr-6hr-10%	0.25	0.00	0.19	0.00	0.00	0.00	0.06
EC-BS27 [cm]	25yr-6hr-90%	15.5	0.0	12.0	0.0	0.0	0.0	3.5
EC-BS27 [m3]	25yr-6hr-90%	2480	0	1920	0	0	0	560
EC-BS27 [ha-m]	25yr-6hr-90%	0.25	0.00	0.19	0.00	0.00	0.00	0.06

Simple Basin: EC-BS28

Scenario:	38701-EC
Node:	EC-N28
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS28	100yr-12hr-10%	1.096	0.7667	27.7	22.3	3.7000	83.0	0.00	0.00
EC-BS28	100yr-12hr-90%	0.892	12.0000	27.7	22.3	3.7000	83.0	0.00	0.00
EC-BS28	100yr-24hr-10%	1.037	1.0000	36.7	31.1	3.7000	83.0	0.00	0.00
EC-BS28	100yr-24hr-90%	0.984	24.0000	36.7	31.1	3.7000	83.0	0.00	0.00
EC-BS28	100yr-6hr-10%	1.123	0.6833	19.7	14.6	3.7000	83.0	0.00	0.00
EC-BS28	100yr-6hr-90%	0.785	6.0000	19.7	14.6	3.7000	83.0	0.00	0.00
EC-BS28	10yr-12hr-10%	0.521	1.0167	15.7	10.8	3.7000	83.0	0.00	0.00
EC-BS28	10yr-12hr-90%	0.483	12.0000	15.7	10.8	3.7000	83.0	0.00	0.00
EC-BS28	10yr-24hr-10%	0.461	1.0167	19.5	14.4	3.7000	83.0	0.00	0.00
EC-BS28	10yr-24hr-90%	0.505	24.0000	19.5	14.4	3.7000	83.0	0.00	0.00
EC-BS28	10yr-6hr-10%	0.635	0.8500	12.9	8.2	3.7000	83.0	0.00	0.00
EC-BS28	10yr-6hr-90%	0.488	6.0000	12.9	8.2	3.7000	83.0	0.00	0.00
EC-BS28	25yr-12hr-10%	0.722	0.7833	20.1	15.0	3.7000	83.0	0.00	0.00
EC-BS28	25yr-12hr-90%	0.634	12.0000	20.1	15.0	3.7000	83.0	0.00	0.00
EC-BS28	25yr-24hr-10%	0.668	1.0167	25.7	20.4	3.7000	83.0	0.00	0.00
EC-BS28	25yr-24hr-90%	0.679	24.0000	25.7	20.4	3.7000	83.0	0.00	0.00
EC-BS28	25yr-6hr-10%	0.819	0.7000	15.5	10.6	3.7000	83.0	0.00	0.00
EC-BS28	25yr-6hr-90%	0.602	6.0000	15.5	10.6	3.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total	Total	Total Runoff	Total ET	Total Initial	Total	Change Soil

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS28 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS28 [m3]	100yr-12hr-10%	10249	0	8254	0	0	0	1995
EC-BS28 [ha-m]	100yr-12hr-10%	1.02	0.00	0.83	0.00	0.00	0.00	0.20
EC-BS28 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS28 [m3]	100yr-12hr-90%	10249	0	8254	0	0	0	1995
EC-BS28 [ha-m]	100yr-12hr-90%	1.02	0.00	0.83	0.00	0.00	0.00	0.20
EC-BS28 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS28 [m3]	100yr-24hr-10%	13579	0	11515	0	0	0	2064
EC-BS28 [ha-m]	100yr-24hr-10%	1.36	0.00	1.15	0.00	0.00	0.00	0.21
EC-BS28 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS28 [m3]	100yr-24hr-90%	13579	0	11515	0	0	0	2064
EC-BS28 [ha-m]	100yr-24hr-90%	1.36	0.00	1.15	0.00	0.00	0.00	0.21
EC-BS28 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS28 [m3]	100yr-6hr-10%	7289	0	5399	0	0	0	1890
EC-BS28 [ha-m]	100yr-6hr-10%	0.73	0.00	0.54	0.00	0.00	0.00	0.19
EC-BS28 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS28 [m3]	100yr-6hr-90%	7289	0	5399	0	0	0	1890
EC-BS28 [ha-m]	100yr-6hr-90%	0.73	0.00	0.54	0.00	0.00	0.00	0.19
EC-BS28 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS28 [m3]	10yr-12hr-10%	5809	0	4004	0	0	0	1805
EC-BS28 [ha-m]	10yr-12hr-10%	0.58	0.00	0.40	0.00	0.00	0.00	0.18
EC-BS28 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS28 [m3]	10yr-12hr-90%	5809	0	4004	0	0	0	1805
EC-BS28 [ha-m]	10yr-12hr-90%	0.58	0.00	0.40	0.00	0.00	0.00	0.18

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS28 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS28 [m3]	10yr-24hr-10%	7215	0	5329	0	0	0	1886
EC-BS28 [ha-m]	10yr-24hr-10%	0.72	0.00	0.53	0.00	0.00	0.00	0.19
EC-BS28 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS28 [m3]	10yr-24hr-90%	7215	0	5329	0	0	0	1886
EC-BS28 [ha-m]	10yr-24hr-90%	0.72	0.00	0.53	0.00	0.00	0.00	0.19
EC-BS28 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS28 [m3]	10yr-6hr-10%	4773	0	3050	0	0	0	1723
EC-BS28 [ha-m]	10yr-6hr-10%	0.48	0.00	0.31	0.00	0.00	0.00	0.17
EC-BS28 [cm]	10yr-6hr-90%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS28 [m3]	10yr-6hr-90%	4773	0	3050	0	0	0	1723
EC-BS28 [ha-m]	10yr-6hr-90%	0.48	0.00	0.31	0.00	0.00	0.00	0.17
EC-BS28 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS28 [m3]	25yr-12hr-10%	7437	0	5540	0	0	0	1897
EC-BS28 [ha-m]	25yr-12hr-10%	0.74	0.00	0.55	0.00	0.00	0.00	0.19
EC-BS28 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS28 [m3]	25yr-12hr-90%	7437	0	5540	0	0	0	1897
EC-BS28 [ha-m]	25yr-12hr-90%	0.74	0.00	0.55	0.00	0.00	0.00	0.19
EC-BS28 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS28 [m3]	25yr-24hr-10%	9509	0	7535	0	0	0	1974
EC-BS28 [ha-m]	25yr-24hr-10%	0.95	0.00	0.75	0.00	0.00	0.00	0.20
EC-BS28 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS28 [m3]	25yr-24hr-90%	9509	0	7535	0	0	0	1974
EC-BS28 [ha-m]	25yr-24hr-90%	0.95	0.00	0.75	0.00	0.00	0.00	0.20

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS28 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS28 [m3]	25yr-6hr-10 %	5735	0	3935	0	0	0	1800
EC-BS28 [ha-m]	25yr-6hr-10 %	0.57	0.00	0.39	0.00	0.00	0.00	0.18
EC-BS28 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS28 [m3]	25yr-6hr-90 %	5735	0	3935	0	0	0	1800
EC-BS28 [ha-m]	25yr-6hr-90 %	0.57	0.00	0.39	0.00	0.00	0.00	0.18

Simple Basin: EC-BS29

Scenario:	38701-EC
Node:	EC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS29	100yr-12hr-10%	1.096	0.7667	27.7	22.3	3.7000	83.0	0.00	0.00
EC-BS29	100yr-12hr-90%	0.892	12.0000	27.7	22.3	3.7000	83.0	0.00	0.00
EC-BS29	100yr-24hr-10%	1.037	1.0000	36.7	31.1	3.7000	83.0	0.00	0.00
EC-BS29	100yr-24h	0.984	24.0000	36.7	31.1	3.7000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	r-90%								
EC-BS29	100yr-6hr-10%	1.123	0.6833	19.7	14.6	3.7000	83.0	0.00	0.00
EC-BS29	100yr-6hr-90%	0.785	6.0000	19.7	14.6	3.7000	83.0	0.00	0.00
EC-BS29	10yr-12hr-10%	0.521	1.0167	15.7	10.8	3.7000	83.0	0.00	0.00
EC-BS29	10yr-12hr-90%	0.483	12.0000	15.7	10.8	3.7000	83.0	0.00	0.00
EC-BS29	10yr-24hr-10%	0.461	1.0167	19.5	14.4	3.7000	83.0	0.00	0.00
EC-BS29	10yr-24hr-90%	0.505	24.0000	19.5	14.4	3.7000	83.0	0.00	0.00
EC-BS29	10yr-6hr-10%	0.635	0.8500	12.9	8.2	3.7000	83.0	0.00	0.00
EC-BS29	10yr-6hr-90%	0.488	6.0000	12.9	8.2	3.7000	83.0	0.00	0.00
EC-BS29	25yr-12hr-10%	0.722	0.7833	20.1	15.0	3.7000	83.0	0.00	0.00
EC-BS29	25yr-12hr-90%	0.634	12.0000	20.1	15.0	3.7000	83.0	0.00	0.00
EC-BS29	25yr-24hr-10%	0.668	1.0167	25.7	20.4	3.7000	83.0	0.00	0.00
EC-BS29	25yr-24hr-90%	0.679	24.0000	25.7	20.4	3.7000	83.0	0.00	0.00
EC-BS29	25yr-6hr-10%	0.819	0.7000	15.5	10.6	3.7000	83.0	0.00	0.00
EC-BS29	25yr-6hr-90%	0.602	6.0000	15.5	10.6	3.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS29 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS29 [m3]	100yr-12hr-10%	10249	0	8254	0	0	0	1995
EC-BS29 [ha-m]	100yr-12hr-10%	1.02	0.00	0.83	0.00	0.00	0.00	0.20
EC-BS29 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS29 [m3]	100yr-12hr-90%	10249	0	8254	0	0	0	1995
EC-BS29	100yr-12hr-	1.02	0.00	0.83	0.00	0.00	0.00	0.20

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	90%							
EC-BS29 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS29 [m3]	100yr-24hr-10%	13579	0	11515	0	0	0	2064
EC-BS29 [ha-m]	100yr-24hr-10%	1.36	0.00	1.15	0.00	0.00	0.00	0.21
EC-BS29 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS29 [m3]	100yr-24hr-90%	13579	0	11515	0	0	0	2064
EC-BS29 [ha-m]	100yr-24hr-90%	1.36	0.00	1.15	0.00	0.00	0.00	0.21
EC-BS29 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS29 [m3]	100yr-6hr-10%	7289	0	5399	0	0	0	1890
EC-BS29 [ha-m]	100yr-6hr-10%	0.73	0.00	0.54	0.00	0.00	0.00	0.19
EC-BS29 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS29 [m3]	100yr-6hr-90%	7289	0	5399	0	0	0	1890
EC-BS29 [ha-m]	100yr-6hr-90%	0.73	0.00	0.54	0.00	0.00	0.00	0.19
EC-BS29 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS29 [m3]	10yr-12hr-10%	5809	0	4004	0	0	0	1805
EC-BS29 [ha-m]	10yr-12hr-10%	0.58	0.00	0.40	0.00	0.00	0.00	0.18
EC-BS29 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS29 [m3]	10yr-12hr-90%	5809	0	4004	0	0	0	1805
EC-BS29 [ha-m]	10yr-12hr-90%	0.58	0.00	0.40	0.00	0.00	0.00	0.18
EC-BS29 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS29 [m3]	10yr-24hr-10%	7215	0	5329	0	0	0	1886
EC-BS29 [ha-m]	10yr-24hr-10%	0.72	0.00	0.53	0.00	0.00	0.00	0.19
EC-BS29 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS29 [m3]	10yr-24hr-90%	7215	0	5329	0	0	0	1886
EC-BS29	10yr-24hr-9	0.72	0.00	0.53	0.00	0.00	0.00	0.19

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS29 [cm]	10yr-6hr-10 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS29 [m3]	10yr-6hr-10 %	4773	0	3050	0	0	0	1723
EC-BS29 [ha-m]	10yr-6hr-10 %	0.48	0.00	0.31	0.00	0.00	0.00	0.17
EC-BS29 [cm]	10yr-6hr-90 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS29 [m3]	10yr-6hr-90 %	4773	0	3050	0	0	0	1723
EC-BS29 [ha-m]	10yr-6hr-90 %	0.48	0.00	0.31	0.00	0.00	0.00	0.17
EC-BS29 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS29 [m3]	25yr-12hr-10%	7437	0	5540	0	0	0	1897
EC-BS29 [ha-m]	25yr-12hr-10%	0.74	0.00	0.55	0.00	0.00	0.00	0.19
EC-BS29 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS29 [m3]	25yr-12hr-90%	7437	0	5540	0	0	0	1897
EC-BS29 [ha-m]	25yr-12hr-90%	0.74	0.00	0.55	0.00	0.00	0.00	0.19
EC-BS29 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS29 [m3]	25yr-24hr-10%	9509	0	7535	0	0	0	1974
EC-BS29 [ha-m]	25yr-24hr-10%	0.95	0.00	0.75	0.00	0.00	0.00	0.20
EC-BS29 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS29 [m3]	25yr-24hr-90%	9509	0	7535	0	0	0	1974
EC-BS29 [ha-m]	25yr-24hr-90%	0.95	0.00	0.75	0.00	0.00	0.00	0.20
EC-BS29 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS29 [m3]	25yr-6hr-10 %	5735	0	3935	0	0	0	1800
EC-BS29 [ha-m]	25yr-6hr-10 %	0.57	0.00	0.39	0.00	0.00	0.00	0.18
EC-BS29 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS29 [m3]	25yr-6hr-90 %	5735	0	3935	0	0	0	1800
EC-BS29	25yr-6hr-90	0.57	0.00	0.39	0.00	0.00	0.00	0.18

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	%							

Simple Basin: EC-BS30

Scenario: 38701-EC
Node: EC-N30
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 7.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 5.4000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS30	100yr-12hr-10%	1.595	0.7833	27.7	22.3	5.4000	83.0	0.00	0.00
EC-BS30	100yr-12hr-90%	1.303	12.0000	27.7	22.3	5.4000	83.0	0.00	0.00
EC-BS30	100yr-24hr-10%	1.511	1.0167	36.7	31.2	5.4000	83.0	0.00	0.00
EC-BS30	100yr-24hr-90%	1.437	24.0000	36.7	31.2	5.4000	83.0	0.00	0.00
EC-BS30	100yr-6hr-10%	1.636	0.7000	19.7	14.6	5.4000	83.0	0.00	0.00
EC-BS30	100yr-6hr-90%	1.147	6.0000	19.7	14.6	5.4000	83.0	0.00	0.00
EC-BS30	10yr-12hr-10%	0.759	1.0167	15.7	10.8	5.4000	83.0	0.00	0.00
EC-BS30	10yr-12hr-90%	0.705	12.0000	15.7	10.8	5.4000	83.0	0.00	0.00
EC-BS30	10yr-24hr-10%	0.670	1.0167	19.5	14.4	5.4000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS30	10yr-24hr-90%	0.738	24.0000	19.5	14.4	5.4000	83.0	0.00	0.00
EC-BS30	10yr-6hr-10%	0.926	0.8500	12.9	8.3	5.4000	83.0	0.00	0.00
EC-BS30	10yr-6hr-90%	0.713	6.0000	12.9	8.3	5.4000	83.0	0.00	0.00
EC-BS30	25yr-12hr-10%	1.052	0.7833	20.1	15.0	5.4000	83.0	0.00	0.00
EC-BS30	25yr-12hr-90%	0.926	12.0000	20.1	15.0	5.4000	83.0	0.00	0.00
EC-BS30	25yr-24hr-10%	0.973	1.0167	25.7	20.4	5.4000	83.0	0.00	0.00
EC-BS30	25yr-24hr-90%	0.991	24.0000	25.7	20.4	5.4000	83.0	0.00	0.00
EC-BS30	25yr-6hr-10%	1.191	0.7000	15.5	10.6	5.4000	83.0	0.00	0.00
EC-BS30	25yr-6hr-90%	0.880	6.0000	15.5	10.6	5.4000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS30 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS30 [m3]	100yr-12hr-10%	14958	0	12064	0	0	0	2894
EC-BS30 [ha-m]	100yr-12hr-10%	1.50	0.00	1.21	0.00	0.00	0.00	0.29
EC-BS30 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS30 [m3]	100yr-12hr-90%	14958	0	12064	0	0	0	2894
EC-BS30 [ha-m]	100yr-12hr-90%	1.50	0.00	1.21	0.00	0.00	0.00	0.29
EC-BS30 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS30 [m3]	100yr-24hr-10%	19818	0	16830	0	0	0	2988
EC-BS30 [ha-m]	100yr-24hr-10%	1.98	0.00	1.68	0.00	0.00	0.00	0.30
EC-BS30 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS30 [m3]	100yr-24hr-90%	19818	0	16830	0	0	0	2988

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS30 [ha-m]	100yr-24hr-90%	1.98	0.00	1.68	0.00	0.00	0.00	0.30
EC-BS30 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS30 [m3]	100yr-6hr-10%	10638	0	7891	0	0	0	2747
EC-BS30 [ha-m]	100yr-6hr-10%	1.06	0.00	0.79	0.00	0.00	0.00	0.27
EC-BS30 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS30 [m3]	100yr-6hr-90%	10638	0	7891	0	0	0	2747
EC-BS30 [ha-m]	100yr-6hr-90%	1.06	0.00	0.79	0.00	0.00	0.00	0.27
EC-BS30 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS30 [m3]	10yr-12hr-10%	8478	0	5851	0	0	0	2627
EC-BS30 [ha-m]	10yr-12hr-10%	0.85	0.00	0.59	0.00	0.00	0.00	0.26
EC-BS30 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS30 [m3]	10yr-12hr-90%	8478	0	5851	0	0	0	2627
EC-BS30 [ha-m]	10yr-12hr-90%	0.85	0.00	0.59	0.00	0.00	0.00	0.26
EC-BS30 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS30 [m3]	10yr-24hr-10%	10530	0	7788	0	0	0	2742
EC-BS30 [ha-m]	10yr-24hr-10%	1.05	0.00	0.78	0.00	0.00	0.00	0.27
EC-BS30 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS30 [m3]	10yr-24hr-90%	10530	0	7788	0	0	0	2742
EC-BS30 [ha-m]	10yr-24hr-90%	1.05	0.00	0.78	0.00	0.00	0.00	0.27
EC-BS30 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS30 [m3]	10yr-6hr-10%	6966	0	4458	0	0	0	2508
EC-BS30 [ha-m]	10yr-6hr-10%	0.70	0.00	0.45	0.00	0.00	0.00	0.25
EC-BS30 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS30 [m3]	10yr-6hr-90%	6966	0	4458	0	0	0	2508

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS30 [ha-m]	10yr-6hr-90 %	0.70	0.00	0.45	0.00	0.00	0.00	0.25
EC-BS30 [cm]	25yr-12hr-1 0%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS30 [m3]	25yr-12hr-1 0%	10854	0	8097	0	0	0	2757
EC-BS30 [ha-m]	25yr-12hr-1 0%	1.09	0.00	0.81	0.00	0.00	0.00	0.28
EC-BS30 [cm]	25yr-12hr-9 0%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS30 [m3]	25yr-12hr-9 0%	10854	0	8097	0	0	0	2757
EC-BS30 [ha-m]	25yr-12hr-9 0%	1.09	0.00	0.81	0.00	0.00	0.00	0.28
EC-BS30 [cm]	25yr-24hr-1 0%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS30 [m3]	25yr-24hr-1 0%	13878	0	11013	0	0	0	2865
EC-BS30 [ha-m]	25yr-24hr-1 0%	1.39	0.00	1.10	0.00	0.00	0.00	0.29
EC-BS30 [cm]	25yr-24hr-9 0%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS30 [m3]	25yr-24hr-9 0%	13878	0	11013	0	0	0	2865
EC-BS30 [ha-m]	25yr-24hr-9 0%	1.39	0.00	1.10	0.00	0.00	0.00	0.29
EC-BS30 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS30 [m3]	25yr-6hr-10 %	8370	0	5751	0	0	0	2619
EC-BS30 [ha-m]	25yr-6hr-10 %	0.84	0.00	0.58	0.00	0.00	0.00	0.26
EC-BS30 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS30 [m3]	25yr-6hr-90 %	8370	0	5751	0	0	0	2619
EC-BS30 [ha-m]	25yr-6hr-90 %	0.84	0.00	0.58	0.00	0.00	0.00	0.26

Simple Basin: EC-BS31

Scenario: 38701-EC
Node: EC-N31
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 13.0000 min

Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 16.8000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS31	100yr-12hr-10%	4.882	0.8333	27.7	22.4	16.8000	83.0	0.00	0.00
EC-BS31	100yr-12hr-90%	4.006	12.0000	27.7	22.4	16.8000	83.0	0.00	0.00
EC-BS31	100yr-24hr-10%	4.640	1.0500	36.7	31.2	16.8000	83.0	0.00	0.00
EC-BS31	100yr-24hr-90%	4.467	24.0000	36.7	31.2	16.8000	83.0	0.00	0.00
EC-BS31	100yr-6hr-10%	4.987	0.7833	19.7	14.6	16.8000	83.0	0.00	0.00
EC-BS31	100yr-6hr-90%	3.564	6.0000	19.7	14.6	16.8000	83.0	0.00	0.00
EC-BS31	10yr-12hr-10%	2.329	1.0667	15.7	10.8	16.8000	83.0	0.00	0.00
EC-BS31	10yr-12hr-90%	2.163	12.0000	15.7	10.8	16.8000	83.0	0.00	0.00
EC-BS31	10yr-24hr-10%	2.032	1.0667	19.5	14.4	16.8000	83.0	0.00	0.00
EC-BS31	10yr-24hr-90%	2.290	24.0000	19.5	14.4	16.8000	83.0	0.00	0.00
EC-BS31	10yr-6hr-10%	2.842	0.9000	12.9	8.3	16.8000	83.0	0.00	0.00
EC-BS31	10yr-6hr-90%	2.209	6.0000	12.9	8.3	16.8000	83.0	0.00	0.00
EC-BS31	25yr-12hr-10%	3.231	1.0500	20.1	15.0	16.8000	83.0	0.00	0.00
EC-BS31	25yr-12hr-90%	2.843	12.0000	20.1	15.0	16.8000	83.0	0.00	0.00
EC-BS31	25yr-24hr-10%	2.966	1.0500	25.7	20.4	16.8000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS31	25yr-24hr-90%	3.079	24.0000	25.7	20.4	16.8000	83.0	0.00	0.00
EC-BS31	25yr-6hr-10%	3.647	0.8667	15.5	10.7	16.8000	83.0	0.00	0.00
EC-BS31	25yr-6hr-90%	2.730	6.0000	15.5	10.7	16.8000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS31 [cm]	100yr-12hr-10%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BS31 [m3]	100yr-12hr-10%	46536	0	37570	0	0	0	8966
EC-BS31 [ha-m]	100yr-12hr-10%	4.65	0.00	3.76	0.00	0.00	0.00	0.90
EC-BS31 [cm]	100yr-12hr-90%	27.7	0.0	22.4	0.0	0.0	0.0	5.3
EC-BS31 [m3]	100yr-12hr-90%	46536	0	37570	0	0	0	8966
EC-BS31 [ha-m]	100yr-12hr-90%	4.65	0.00	3.76	0.00	0.00	0.00	0.90
EC-BS31 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS31 [m3]	100yr-24hr-10%	61656	0	52413	0	0	0	9243
EC-BS31 [ha-m]	100yr-24hr-10%	6.17	0.00	5.24	0.00	0.00	0.00	0.92
EC-BS31 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS31 [m3]	100yr-24hr-90%	61656	0	52413	0	0	0	9243
EC-BS31 [ha-m]	100yr-24hr-90%	6.17	0.00	5.24	0.00	0.00	0.00	0.92
EC-BS31 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS31 [m3]	100yr-6hr-10%	33096	0	24575	0	0	0	8521
EC-BS31 [ha-m]	100yr-6hr-10%	3.31	0.00	2.46	0.00	0.00	0.00	0.85
EC-BS31 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS31 [m3]	100yr-6hr-90%	33096	0	24575	0	0	0	8521

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS31 [ha-m]	100yr-6hr-90%	3.31	0.00	2.46	0.00	0.00	0.00	0.85
EC-BS31 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS31 [m3]	10yr-12hr-10%	26376	0	18223	0	0	0	8153
EC-BS31 [ha-m]	10yr-12hr-10%	2.64	0.00	1.82	0.00	0.00	0.00	0.82
EC-BS31 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS31 [m3]	10yr-12hr-90%	26376	0	18223	0	0	0	8153
EC-BS31 [ha-m]	10yr-12hr-90%	2.64	0.00	1.82	0.00	0.00	0.00	0.82
EC-BS31 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS31 [m3]	10yr-24hr-10%	32760	0	24255	0	0	0	8505
EC-BS31 [ha-m]	10yr-24hr-10%	3.28	0.00	2.43	0.00	0.00	0.00	0.85
EC-BS31 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS31 [m3]	10yr-24hr-90%	32760	0	24255	0	0	0	8505
EC-BS31 [ha-m]	10yr-24hr-90%	3.28	0.00	2.43	0.00	0.00	0.00	0.85
EC-BS31 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS31 [m3]	10yr-6hr-10%	21672	0	13884	0	0	0	7788
EC-BS31 [ha-m]	10yr-6hr-10%	2.17	0.00	1.39	0.00	0.00	0.00	0.78
EC-BS31 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS31 [m3]	10yr-6hr-90%	21672	0	13884	0	0	0	7788
EC-BS31 [ha-m]	10yr-6hr-90%	2.17	0.00	1.39	0.00	0.00	0.00	0.78
EC-BS31 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS31 [m3]	25yr-12hr-10%	33768	0	25218	0	0	0	8550
EC-BS31 [ha-m]	25yr-12hr-10%	3.38	0.00	2.52	0.00	0.00	0.00	0.86
EC-BS31 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS31 [m3]	25yr-12hr-90%	33768	0	25218	0	0	0	8550

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS31 [ha-m]	25yr-12hr-90%	3.38	0.00	2.52	0.00	0.00	0.00	0.86
EC-BS31 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS31 [m3]	25yr-24hr-10%	43176	0	34297	0	0	0	8879
EC-BS31 [ha-m]	25yr-24hr-10%	4.32	0.00	3.43	0.00	0.00	0.00	0.89
EC-BS31 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS31 [m3]	25yr-24hr-90%	43176	0	34297	0	0	0	8879
EC-BS31 [ha-m]	25yr-24hr-90%	4.32	0.00	3.43	0.00	0.00	0.00	0.89
EC-BS31 [cm]	25yr-6hr-10%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BS31 [m3]	25yr-6hr-10%	26040	0	17910	0	0	0	8130
EC-BS31 [ha-m]	25yr-6hr-10%	2.60	0.00	1.79	0.00	0.00	0.00	0.81
EC-BS31 [cm]	25yr-6hr-90%	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BS31 [m3]	25yr-6hr-90%	26040	0	17910	0	0	0	8130
EC-BS31 [ha-m]	25yr-6hr-90%	2.60	0.00	1.79	0.00	0.00	0.00	0.81

Simple Basin: EC-BS32

Scenario:	38701-EC
Node:	EC-N32
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS32	100yr-12hr-10%	1.392	0.7667	27.7	22.3	4.7000	83.0	0.00	0.00
EC-BS32	100yr-12hr-90%	1.133	12.0000	27.7	22.3	4.7000	83.0	0.00	0.00
EC-BS32	100yr-24hr-10%	1.317	1.0000	36.7	31.1	4.7000	83.0	0.00	0.00
EC-BS32	100yr-24hr-90%	1.249	24.0000	36.7	31.1	4.7000	83.0	0.00	0.00
EC-BS32	100yr-6hr-10%	1.426	0.6833	19.7	14.6	4.7000	83.0	0.00	0.00
EC-BS32	100yr-6hr-90%	0.997	6.0000	19.7	14.6	4.7000	83.0	0.00	0.00
EC-BS32	10yr-12hr-10%	0.662	1.0167	15.7	10.8	4.7000	83.0	0.00	0.00
EC-BS32	10yr-12hr-90%	0.613	12.0000	15.7	10.8	4.7000	83.0	0.00	0.00
EC-BS32	10yr-24hr-10%	0.585	1.0167	19.5	14.4	4.7000	83.0	0.00	0.00
EC-BS32	10yr-24hr-90%	0.641	24.0000	19.5	14.4	4.7000	83.0	0.00	0.00
EC-BS32	10yr-6hr-10%	0.807	0.8500	12.9	8.2	4.7000	83.0	0.00	0.00
EC-BS32	10yr-6hr-90%	0.620	6.0000	12.9	8.2	4.7000	83.0	0.00	0.00
EC-BS32	25yr-12hr-10%	0.918	0.7833	20.1	15.0	4.7000	83.0	0.00	0.00
EC-BS32	25yr-12hr-90%	0.805	12.0000	20.1	15.0	4.7000	83.0	0.00	0.00
EC-BS32	25yr-24hr-10%	0.848	1.0167	25.7	20.4	4.7000	83.0	0.00	0.00
EC-BS32	25yr-24hr-90%	0.862	24.0000	25.7	20.4	4.7000	83.0	0.00	0.00
EC-BS32	25yr-6hr-10%	1.040	0.7000	15.5	10.6	4.7000	83.0	0.00	0.00
EC-BS32	25yr-6hr-90%	0.765	6.0000	15.5	10.6	4.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS32 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS32	100yr-12hr-	13019	0	10485	0	0	0	2534

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	10%							
EC-BS32 [ha-m]	100yr-12hr-10%	1.30	0.00	1.05	0.00	0.00	0.00	0.25
EC-BS32 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS32 [m3]	100yr-12hr-90%	13019	0	10485	0	0	0	2534
EC-BS32 [ha-m]	100yr-12hr-90%	1.30	0.00	1.05	0.00	0.00	0.00	0.25
EC-BS32 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS32 [m3]	100yr-24hr-10%	17249	0	14627	0	0	0	2622
EC-BS32 [ha-m]	100yr-24hr-10%	1.72	0.00	1.46	0.00	0.00	0.00	0.26
EC-BS32 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS32 [m3]	100yr-24hr-90%	17249	0	14627	0	0	0	2622
EC-BS32 [ha-m]	100yr-24hr-90%	1.72	0.00	1.46	0.00	0.00	0.00	0.26
EC-BS32 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS32 [m3]	100yr-6hr-10%	9259	0	6858	0	0	0	2401
EC-BS32 [ha-m]	100yr-6hr-10%	0.93	0.00	0.69	0.00	0.00	0.00	0.24
EC-BS32 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS32 [m3]	100yr-6hr-90%	9259	0	6858	0	0	0	2401
EC-BS32 [ha-m]	100yr-6hr-90%	0.93	0.00	0.69	0.00	0.00	0.00	0.24
EC-BS32 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS32 [m3]	10yr-12hr-10%	7379	0	5086	0	0	0	2293
EC-BS32 [ha-m]	10yr-12hr-10%	0.74	0.00	0.51	0.00	0.00	0.00	0.23
EC-BS32 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS32 [m3]	10yr-12hr-90%	7379	0	5086	0	0	0	2293
EC-BS32 [ha-m]	10yr-12hr-90%	0.74	0.00	0.51	0.00	0.00	0.00	0.23
EC-BS32 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS32	10yr-24hr-1	9165	0	6769	0	0	0	2396

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS32 [ha-m]	10yr-24hr-10%	0.92	0.00	0.68	0.00	0.00	0.00	0.24
EC-BS32 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS32 [m3]	10yr-24hr-90%	9165	0	6769	0	0	0	2396
EC-BS32 [ha-m]	10yr-24hr-90%	0.92	0.00	0.68	0.00	0.00	0.00	0.24
EC-BS32 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS32 [m3]	10yr-6hr-10%	6063	0	3875	0	0	0	2188
EC-BS32 [ha-m]	10yr-6hr-10%	0.61	0.00	0.39	0.00	0.00	0.00	0.22
EC-BS32 [cm]	10yr-6hr-90%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS32 [m3]	10yr-6hr-90%	6063	0	3875	0	0	0	2188
EC-BS32 [ha-m]	10yr-6hr-90%	0.61	0.00	0.39	0.00	0.00	0.00	0.22
EC-BS32 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS32 [m3]	25yr-12hr-10%	9447	0	7038	0	0	0	2409
EC-BS32 [ha-m]	25yr-12hr-10%	0.94	0.00	0.70	0.00	0.00	0.00	0.24
EC-BS32 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS32 [m3]	25yr-12hr-90%	9447	0	7038	0	0	0	2409
EC-BS32 [ha-m]	25yr-12hr-90%	0.94	0.00	0.70	0.00	0.00	0.00	0.24
EC-BS32 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS32 [m3]	25yr-24hr-10%	12079	0	9572	0	0	0	2507
EC-BS32 [ha-m]	25yr-24hr-10%	1.21	0.00	0.96	0.00	0.00	0.00	0.25
EC-BS32 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS32 [m3]	25yr-24hr-90%	12079	0	9572	0	0	0	2507
EC-BS32 [ha-m]	25yr-24hr-90%	1.21	0.00	0.96	0.00	0.00	0.00	0.25
EC-BS32 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS32	25yr-6hr-10	7285	0	4998	0	0	0	2287

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BS32 [ha-m]	25yr-6hr-10 %	0.73	0.00	0.50	0.00	0.00	0.00	0.23
EC-BS32 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS32 [m3]	25yr-6hr-90 %	7285	0	4998	0	0	0	2287
EC-BS32 [ha-m]	25yr-6hr-90 %	0.73	0.00	0.50	0.00	0.00	0.00	0.23

Simple Basin: EC-BS33

Scenario:	38701-EC
Node:	EC-N33
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.3000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS33	100yr-12hr-10%	1.270	0.7833	27.7	22.3	4.3000	83.0	0.00	0.00
EC-BS33	100yr-12hr-90%	1.037	12.0000	27.7	22.3	4.3000	83.0	0.00	0.00
EC-BS33	100yr-24hr-10%	1.204	1.0167	36.7	31.2	4.3000	83.0	0.00	0.00
EC-BS33	100yr-24hr-90%	1.145	24.0000	36.7	31.2	4.3000	83.0	0.00	0.00
EC-BS33	100yr-6hr-10%	1.303	0.7000	19.7	14.6	4.3000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS33	100yr-6hr-90%	0.913	6.0000	19.7	14.6	4.3000	83.0	0.00	0.00
EC-BS33	10yr-12hr-10%	0.604	1.0167	15.7	10.8	4.3000	83.0	0.00	0.00
EC-BS33	10yr-12hr-90%	0.561	12.0000	15.7	10.8	4.3000	83.0	0.00	0.00
EC-BS33	10yr-24hr-10%	0.533	1.0167	19.5	14.4	4.3000	83.0	0.00	0.00
EC-BS33	10yr-24hr-90%	0.587	24.0000	19.5	14.4	4.3000	83.0	0.00	0.00
EC-BS33	10yr-6hr-10%	0.737	0.8500	12.9	8.3	4.3000	83.0	0.00	0.00
EC-BS33	10yr-6hr-90%	0.568	6.0000	12.9	8.3	4.3000	83.0	0.00	0.00
EC-BS33	25yr-12hr-10%	0.838	0.7833	20.1	15.0	4.3000	83.0	0.00	0.00
EC-BS33	25yr-12hr-90%	0.737	12.0000	20.1	15.0	4.3000	83.0	0.00	0.00
EC-BS33	25yr-24hr-10%	0.775	1.0167	25.7	20.4	4.3000	83.0	0.00	0.00
EC-BS33	25yr-24hr-90%	0.790	24.0000	25.7	20.4	4.3000	83.0	0.00	0.00
EC-BS33	25yr-6hr-10%	0.948	0.7000	15.5	10.6	4.3000	83.0	0.00	0.00
EC-BS33	25yr-6hr-90%	0.701	6.0000	15.5	10.6	4.3000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS33 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS33 [m3]	100yr-12hr-10%	11911	0	9606	0	0	0	2305
EC-BS33 [ha-m]	100yr-12hr-10%	1.19	0.00	0.96	0.00	0.00	0.00	0.23
EC-BS33 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS33 [m3]	100yr-12hr-90%	11911	0	9606	0	0	0	2305
EC-BS33 [ha-m]	100yr-12hr-90%	1.19	0.00	0.96	0.00	0.00	0.00	0.23
EC-BS33 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS33 [m3]	100yr-24hr-10%	15781	0	13401	0	0	0	2380
EC-BS33 [ha-m]	100yr-24hr-10%	1.58	0.00	1.34	0.00	0.00	0.00	0.24
EC-BS33 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS33 [m3]	100yr-24hr-90%	15781	0	13401	0	0	0	2380
EC-BS33 [ha-m]	100yr-24hr-90%	1.58	0.00	1.34	0.00	0.00	0.00	0.24
EC-BS33 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS33 [m3]	100yr-6hr-10%	8471	0	6284	0	0	0	2187
EC-BS33 [ha-m]	100yr-6hr-10%	0.85	0.00	0.63	0.00	0.00	0.00	0.22
EC-BS33 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS33 [m3]	100yr-6hr-90%	8471	0	6284	0	0	0	2187
EC-BS33 [ha-m]	100yr-6hr-90%	0.85	0.00	0.63	0.00	0.00	0.00	0.22
EC-BS33 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS33 [m3]	10yr-12hr-10%	6751	0	4659	0	0	0	2092
EC-BS33 [ha-m]	10yr-12hr-10%	0.68	0.00	0.47	0.00	0.00	0.00	0.21
EC-BS33 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS33 [m3]	10yr-12hr-90%	6751	0	4659	0	0	0	2092
EC-BS33 [ha-m]	10yr-12hr-90%	0.68	0.00	0.47	0.00	0.00	0.00	0.21
EC-BS33 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS33 [m3]	10yr-24hr-10%	8385	0	6202	0	0	0	2183
EC-BS33 [ha-m]	10yr-24hr-10%	0.84	0.00	0.62	0.00	0.00	0.00	0.22
EC-BS33 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS33 [m3]	10yr-24hr-90%	8385	0	6202	0	0	0	2183
EC-BS33 [ha-m]	10yr-24hr-90%	0.84	0.00	0.62	0.00	0.00	0.00	0.22
EC-BS33 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS33 [m3]	10yr-6hr-10 %	5547	0	3550	0	0	0	1997
EC-BS33 [ha-m]	10yr-6hr-10 %	0.55	0.00	0.35	0.00	0.00	0.00	0.20
EC-BS33 [cm]	10yr-6hr-90 %	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS33 [m3]	10yr-6hr-90 %	5547	0	3550	0	0	0	1997
EC-BS33 [ha-m]	10yr-6hr-90 %	0.55	0.00	0.35	0.00	0.00	0.00	0.20
EC-BS33 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS33 [m3]	25yr-12hr-10%	8643	0	6448	0	0	0	2195
EC-BS33 [ha-m]	25yr-12hr-10%	0.86	0.00	0.64	0.00	0.00	0.00	0.22
EC-BS33 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS33 [m3]	25yr-12hr-90%	8643	0	6448	0	0	0	2195
EC-BS33 [ha-m]	25yr-12hr-90%	0.86	0.00	0.64	0.00	0.00	0.00	0.22
EC-BS33 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS33 [m3]	25yr-24hr-10%	11051	0	8769	0	0	0	2282
EC-BS33 [ha-m]	25yr-24hr-10%	1.11	0.00	0.88	0.00	0.00	0.00	0.23
EC-BS33 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS33 [m3]	25yr-24hr-90%	11051	0	8769	0	0	0	2282
EC-BS33 [ha-m]	25yr-24hr-90%	1.11	0.00	0.88	0.00	0.00	0.00	0.23
EC-BS33 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS33 [m3]	25yr-6hr-10 %	6665	0	4579	0	0	0	2086
EC-BS33 [ha-m]	25yr-6hr-10 %	0.67	0.00	0.46	0.00	0.00	0.00	0.21
EC-BS33 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS33 [m3]	25yr-6hr-90 %	6665	0	4579	0	0	0	2086
EC-BS33 [ha-m]	25yr-6hr-90 %	0.67	0.00	0.46	0.00	0.00	0.00	0.21

Simple Basin: EC-BS34

Scenario:	38701-EC
Node:	EC-N34
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.8000 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS34	100yr-12hr-10%	0.559	0.7667	27.7	23.3	1.8000	86.0	0.00	0.00
EC-BS34	100yr-12hr-90%	0.438	12.0000	27.7	23.3	1.8000	86.0	0.00	0.00
EC-BS34	100yr-24hr-10%	0.523	1.0000	36.7	32.2	1.8000	86.0	0.00	0.00
EC-BS34	100yr-24hr-90%	0.481	24.0000	36.7	32.2	1.8000	86.0	0.00	0.00
EC-BS34	100yr-6hr-10%	0.577	0.6833	19.7	15.5	1.8000	86.0	0.00	0.00
EC-BS34	100yr-6hr-90%	0.389	5.8667	19.7	15.5	1.8000	86.0	0.00	0.00
EC-BS34	10yr-12hr-10%	0.273	0.7833	15.7	11.6	1.8000	86.0	0.00	0.00
EC-BS34	10yr-12hr-90%	0.241	12.0000	15.7	11.6	1.8000	86.0	0.00	0.00
EC-BS34	10yr-24hr-10%	0.243	1.0167	19.5	15.3	1.8000	86.0	0.00	0.00
EC-BS34	10yr-24hr-90%	0.250	24.0000	19.5	15.3	1.8000	86.0	0.00	0.00
EC-BS34	10yr-6hr-10%	0.337	0.7000	12.9	9.0	1.8000	86.0	0.00	0.00
EC-BS34	10yr-6hr-90%	0.245	6.0000	12.9	9.0	1.8000	86.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS34	25yr-12hr-10%	0.378	0.7667	20.1	15.9	1.8000	86.0	0.00	0.00
EC-BS34	25yr-12hr-90%	0.313	12.0000	20.1	15.9	1.8000	86.0	0.00	0.00
EC-BS34	25yr-24hr-10%	0.344	1.0000	25.7	21.3	1.8000	86.0	0.00	0.00
EC-BS34	25yr-24hr-90%	0.334	24.0000	25.7	21.3	1.8000	86.0	0.00	0.00
EC-BS34	25yr-6hr-10%	0.429	0.6833	15.5	11.4	1.8000	86.0	0.00	0.00
EC-BS34	25yr-6hr-90%	0.300	6.0000	15.5	11.4	1.8000	86.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS34 [cm]	100yr-12hr-10%	27.7	0.0	23.3	0.0	0.0	0.0	4.4
EC-BS34 [m3]	100yr-12hr-10%	4986	0	4192	0	0	0	794
EC-BS34 [ha-m]	100yr-12hr-10%	0.50	0.00	0.42	0.00	0.00	0.00	0.08
EC-BS34 [cm]	100yr-12hr-90%	27.7	0.0	23.3	0.0	0.0	0.0	4.4
EC-BS34 [m3]	100yr-12hr-90%	4986	0	4192	0	0	0	794
EC-BS34 [ha-m]	100yr-12hr-90%	0.50	0.00	0.42	0.00	0.00	0.00	0.08
EC-BS34 [cm]	100yr-24hr-10%	36.7	0.0	32.2	0.0	0.0	0.0	4.5
EC-BS34 [m3]	100yr-24hr-10%	6606	0	5790	0	0	0	816
EC-BS34 [ha-m]	100yr-24hr-10%	0.66	0.00	0.58	0.00	0.00	0.00	0.08
EC-BS34 [cm]	100yr-24hr-90%	36.7	0.0	32.2	0.0	0.0	0.0	4.5
EC-BS34 [m3]	100yr-24hr-90%	6606	0	5790	0	0	0	816
EC-BS34 [ha-m]	100yr-24hr-90%	0.66	0.00	0.58	0.00	0.00	0.00	0.08
EC-BS34 [cm]	100yr-6hr-10%	19.7	0.0	15.5	0.0	0.0	0.0	4.2
EC-BS34 [m3]	100yr-6hr-10%	3546	0	2787	0	0	0	759

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS34 [ha-m]	100yr-6hr-10%	0.35	0.00	0.28	0.00	0.00	0.00	0.08
EC-BS34 [cm]	100yr-6hr-90%	19.7	0.0	15.5	0.0	0.0	0.0	4.2
EC-BS34 [m3]	100yr-6hr-90%	3546	0	2787	0	0	0	759
EC-BS34 [ha-m]	100yr-6hr-90%	0.35	0.00	0.28	0.00	0.00	0.00	0.08
EC-BS34 [cm]	10yr-12hr-10%	15.7	0.0	11.6	0.0	0.0	0.0	4.1
EC-BS34 [m3]	10yr-12hr-10%	2826	0	2095	0	0	0	731
EC-BS34 [ha-m]	10yr-12hr-10%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS34 [cm]	10yr-12hr-90%	15.7	0.0	11.6	0.0	0.0	0.0	4.1
EC-BS34 [m3]	10yr-12hr-90%	2826	0	2095	0	0	0	731
EC-BS34 [ha-m]	10yr-12hr-90%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS34 [cm]	10yr-24hr-10%	19.5	0.0	15.3	0.0	0.0	0.0	4.2
EC-BS34 [m3]	10yr-24hr-10%	3510	0	2752	0	0	0	758
EC-BS34 [ha-m]	10yr-24hr-10%	0.35	0.00	0.28	0.00	0.00	0.00	0.08
EC-BS34 [cm]	10yr-24hr-90%	19.5	0.0	15.3	0.0	0.0	0.0	4.2
EC-BS34 [m3]	10yr-24hr-90%	3510	0	2752	0	0	0	758
EC-BS34 [ha-m]	10yr-24hr-90%	0.35	0.00	0.28	0.00	0.00	0.00	0.08
EC-BS34 [cm]	10yr-6hr-10%	12.9	0.0	9.0	0.0	0.0	0.0	3.9
EC-BS34 [m3]	10yr-6hr-10%	2322	0	1619	0	0	0	703
EC-BS34 [ha-m]	10yr-6hr-10%	0.23	0.00	0.16	0.00	0.00	0.00	0.07
EC-BS34 [cm]	10yr-6hr-90%	12.9	0.0	9.0	0.0	0.0	0.0	3.9
EC-BS34 [m3]	10yr-6hr-90%	2322	0	1619	0	0	0	703
EC-BS34 [ha-m]	10yr-6hr-90%	0.23	0.00	0.16	0.00	0.00	0.00	0.07
EC-BS34 [cm]	25yr-12hr-10%	20.1	0.0	15.9	0.0	0.0	0.0	4.2
EC-BS34 [m3]	25yr-12hr-10%	3618	0	2857	0	0	0	761

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS34 [ha-m]	25yr-12hr-10%	0.36	0.00	0.29	0.00	0.00	0.00	0.08
EC-BS34 [cm]	25yr-12hr-90%	20.1	0.0	15.9	0.0	0.0	0.0	4.2
EC-BS34 [m3]	25yr-12hr-90%	3618	0	2857	0	0	0	761
EC-BS34 [ha-m]	25yr-12hr-90%	0.36	0.00	0.29	0.00	0.00	0.00	0.08
EC-BS34 [cm]	25yr-24hr-10%	25.7	0.0	21.3	0.0	0.0	0.0	4.4
EC-BS34 [m3]	25yr-24hr-10%	4626	0	3839	0	0	0	787
EC-BS34 [ha-m]	25yr-24hr-10%	0.46	0.00	0.38	0.00	0.00	0.00	0.08
EC-BS34 [cm]	25yr-24hr-90%	25.7	0.0	21.3	0.0	0.0	0.0	4.4
EC-BS34 [m3]	25yr-24hr-90%	4626	0	3839	0	0	0	787
EC-BS34 [ha-m]	25yr-24hr-90%	0.46	0.00	0.38	0.00	0.00	0.00	0.08
EC-BS34 [cm]	25yr-6hr-10%	15.5	0.0	11.4	0.0	0.0	0.0	4.1
EC-BS34 [m3]	25yr-6hr-10%	2790	0	2061	0	0	0	729
EC-BS34 [ha-m]	25yr-6hr-10%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS34 [cm]	25yr-6hr-90%	15.5	0.0	11.4	0.0	0.0	0.0	4.1
EC-BS34 [m3]	25yr-6hr-90%	2790	0	2061	0	0	0	729
EC-BS34 [ha-m]	25yr-6hr-90%	0.28	0.00	0.21	0.00	0.00	0.00	0.07

Simple Basin: EC-BS35

Scenario:	38701-EC
Node:	EC-N35
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.7000 ha
Curve Number:	85.0

% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS35	100yr-12hr-10%	0.520	0.7667	27.7	23.0	1.7000	85.0	0.00	0.00
EC-BS35	100yr-12hr-90%	0.413	12.0000	27.7	23.0	1.7000	85.0	0.00	0.00
EC-BS35	100yr-24hr-10%	0.488	1.0000	36.7	31.8	1.7000	85.0	0.00	0.00
EC-BS35	100yr-24hr-90%	0.454	24.0000	36.7	31.8	1.7000	85.0	0.00	0.00
EC-BS35	100yr-6hr-10%	0.536	0.6833	19.7	15.2	1.7000	85.0	0.00	0.00
EC-BS35	100yr-6hr-90%	0.365	5.8667	19.7	15.2	1.7000	85.0	0.00	0.00
EC-BS35	10yr-12hr-10%	0.251	1.0167	15.7	11.4	1.7000	85.0	0.00	0.00
EC-BS35	10yr-12hr-90%	0.226	12.0000	15.7	11.4	1.7000	85.0	0.00	0.00
EC-BS35	10yr-24hr-10%	0.224	1.0167	19.5	15.0	1.7000	85.0	0.00	0.00
EC-BS35	10yr-24hr-90%	0.235	24.0000	19.5	15.0	1.7000	85.0	0.00	0.00
EC-BS35	10yr-6hr-10%	0.309	0.7000	12.9	8.7	1.7000	85.0	0.00	0.00
EC-BS35	10yr-6hr-90%	0.229	6.0000	12.9	8.7	1.7000	85.0	0.00	0.00
EC-BS35	25yr-12hr-10%	0.349	0.7667	20.1	15.6	1.7000	85.0	0.00	0.00
EC-BS35	25yr-12hr-90%	0.295	12.0000	20.1	15.6	1.7000	85.0	0.00	0.00
EC-BS35	25yr-24hr-10%	0.319	1.0000	25.7	21.0	1.7000	85.0	0.00	0.00
EC-BS35	25yr-24hr-90%	0.314	24.0000	25.7	21.0	1.7000	85.0	0.00	0.00
EC-BS35	25yr-6hr-10%	0.395	0.7000	15.5	11.2	1.7000	85.0	0.00	0.00
EC-BS35	25yr-6hr-90%	0.281	6.0000	15.5	11.2	1.7000	85.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS35 [cm]	100yr-12hr-10%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BS35 [m3]	100yr-12hr-10%	4709	0	3904	0	0	0	805
EC-BS35 [ha-m]	100yr-12hr-10%	0.47	0.00	0.39	0.00	0.00	0.00	0.08
EC-BS35 [cm]	100yr-12hr-90%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BS35 [m3]	100yr-12hr-90%	4709	0	3904	0	0	0	805
EC-BS35 [ha-m]	100yr-12hr-90%	0.47	0.00	0.39	0.00	0.00	0.00	0.08
EC-BS35 [cm]	100yr-24hr-10%	36.7	0.0	31.8	0.0	0.0	0.0	4.9
EC-BS35 [m3]	100yr-24hr-10%	6239	0	5410	0	0	0	829
EC-BS35 [ha-m]	100yr-24hr-10%	0.62	0.00	0.54	0.00	0.00	0.00	0.08
EC-BS35 [cm]	100yr-24hr-90%	36.7	0.0	31.8	0.0	0.0	0.0	4.9
EC-BS35 [m3]	100yr-24hr-90%	6239	0	5410	0	0	0	829
EC-BS35 [ha-m]	100yr-24hr-90%	0.62	0.00	0.54	0.00	0.00	0.00	0.08
EC-BS35 [cm]	100yr-6hr-10%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BS35 [m3]	100yr-6hr-10%	3349	0	2581	0	0	0	768
EC-BS35 [ha-m]	100yr-6hr-10%	0.33	0.00	0.26	0.00	0.00	0.00	0.08
EC-BS35 [cm]	100yr-6hr-90%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BS35 [m3]	100yr-6hr-90%	3349	0	2581	0	0	0	768
EC-BS35 [ha-m]	100yr-6hr-90%	0.33	0.00	0.26	0.00	0.00	0.00	0.08
EC-BS35 [cm]	10yr-12hr-10%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BS35 [m3]	10yr-12hr-10%	2669	0	1932	0	0	0	737
EC-BS35 [ha-m]	10yr-12hr-10%	0.27	0.00	0.19	0.00	0.00	0.00	0.07
EC-BS35 [cm]	10yr-12hr-90%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BS35 [m3]	10yr-12hr-90%	2669	0	1932	0	0	0	737
EC-BS35	10yr-12hr-9	0.27	0.00	0.19	0.00	0.00	0.00	0.07

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS35 [cm]	10yr-24hr-10%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BS35 [m3]	10yr-24hr-10%	3315	0	2549	0	0	0	766
EC-BS35 [ha-m]	10yr-24hr-10%	0.33	0.00	0.25	0.00	0.00	0.00	0.08
EC-BS35 [cm]	10yr-24hr-90%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BS35 [m3]	10yr-24hr-90%	3315	0	2549	0	0	0	766
EC-BS35 [ha-m]	10yr-24hr-90%	0.33	0.00	0.25	0.00	0.00	0.00	0.08
EC-BS35 [cm]	10yr-6hr-10%	12.9	0.0	8.7	0.0	0.0	0.0	4.2
EC-BS35 [m3]	10yr-6hr-10%	2193	0	1486	0	0	0	707
EC-BS35 [ha-m]	10yr-6hr-10%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS35 [cm]	10yr-6hr-90%	12.9	0.0	8.7	0.0	0.0	0.0	4.2
EC-BS35 [m3]	10yr-6hr-90%	2193	0	1486	0	0	0	707
EC-BS35 [ha-m]	10yr-6hr-90%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS35 [cm]	25yr-12hr-10%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BS35 [m3]	25yr-12hr-10%	3417	0	2647	0	0	0	770
EC-BS35 [ha-m]	25yr-12hr-10%	0.34	0.00	0.26	0.00	0.00	0.00	0.08
EC-BS35 [cm]	25yr-12hr-90%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BS35 [m3]	25yr-12hr-90%	3417	0	2647	0	0	0	770
EC-BS35 [ha-m]	25yr-12hr-90%	0.34	0.00	0.26	0.00	0.00	0.00	0.08
EC-BS35 [cm]	25yr-24hr-10%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BS35 [m3]	25yr-24hr-10%	4369	0	3572	0	0	0	797
EC-BS35 [ha-m]	25yr-24hr-10%	0.44	0.00	0.36	0.00	0.00	0.00	0.08
EC-BS35 [cm]	25yr-24hr-90%	25.7	0.0	21.0	0.0	0.0	0.0	4.7
EC-BS35 [m3]	25yr-24hr-90%	4369	0	3572	0	0	0	797
EC-BS35	25yr-24hr-9	0.44	0.00	0.36	0.00	0.00	0.00	0.08

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS35 [cm]	25yr-6hr-10 %	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BS35 [m3]	25yr-6hr-10 %	2635	0	1900	0	0	0	735
EC-BS35 [ha-m]	25yr-6hr-10 %	0.26	0.00	0.19	0.00	0.00	0.00	0.07
EC-BS35 [cm]	25yr-6hr-90 %	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BS35 [m3]	25yr-6hr-90 %	2635	0	1900	0	0	0	735
EC-BS35 [ha-m]	25yr-6hr-90 %	0.26	0.00	0.19	0.00	0.00	0.00	0.07

Simple Basin: EC-BS36

Scenario:	38701-EC
Node:	EC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.9000 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS36	100yr-12hr-10%	0.878	0.8000	27.7	23.0	2.9000	85.0	0.00	0.00
EC-BS36	100yr-12hr-90%	0.700	12.0000	27.7	23.0	2.9000	85.0	0.00	0.00
EC-BS36	100yr-24hr-10%	0.826	1.0333	36.7	31.9	2.9000	85.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS36	100yr-24hr-90%	0.775	24.0000	36.7	31.9	2.9000	85.0	0.00	0.00
EC-BS36	100yr-6hr-10%	0.902	0.7333	19.7	15.2	2.9000	85.0	0.00	0.00
EC-BS36	100yr-6hr-90%	0.623	6.0000	19.7	15.2	2.9000	85.0	0.00	0.00
EC-BS36	10yr-12hr-10%	0.424	1.0500	15.7	11.4	2.9000	85.0	0.00	0.00
EC-BS36	10yr-12hr-90%	0.382	12.0000	15.7	11.4	2.9000	85.0	0.00	0.00
EC-BS36	10yr-24hr-10%	0.375	1.0500	19.5	15.0	2.9000	85.0	0.00	0.00
EC-BS36	10yr-24hr-90%	0.400	24.0000	19.5	15.0	2.9000	85.0	0.00	0.00
EC-BS36	10yr-6hr-10%	0.520	0.8667	12.9	8.8	2.9000	85.0	0.00	0.00
EC-BS36	10yr-6hr-90%	0.391	6.0000	12.9	8.8	2.9000	85.0	0.00	0.00
EC-BS36	25yr-12hr-10%	0.586	0.8167	20.1	15.6	2.9000	85.0	0.00	0.00
EC-BS36	25yr-12hr-90%	0.499	12.0000	20.1	15.6	2.9000	85.0	0.00	0.00
EC-BS36	25yr-24hr-10%	0.538	1.0333	25.7	21.1	2.9000	85.0	0.00	0.00
EC-BS36	25yr-24hr-90%	0.536	24.0000	25.7	21.1	2.9000	85.0	0.00	0.00
EC-BS36	25yr-6hr-10%	0.663	0.7500	15.5	11.2	2.9000	85.0	0.00	0.00
EC-BS36	25yr-6hr-90%	0.480	6.0000	15.5	11.2	2.9000	85.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS36 [cm]	100yr-12hr-10%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BS36 [m3]	100yr-12hr-10%	8033	0	6674	0	0	0	1359
EC-BS36 [ha-m]	100yr-12hr-10%	0.80	0.00	0.67	0.00	0.00	0.00	0.14
EC-BS36 [cm]	100yr-12hr-90%	27.7	0.0	23.0	0.0	0.0	0.0	4.7
EC-BS36 [m3]	100yr-12hr-90%	8033	0	6674	0	0	0	1359

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS36 [ha-m]	100yr-12hr-90%	0.80	0.00	0.67	0.00	0.00	0.00	0.14
EC-BS36 [cm]	100yr-24hr-10%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BS36 [m3]	100yr-24hr-10%	10643	0	9248	0	0	0	1395
EC-BS36 [ha-m]	100yr-24hr-10%	1.06	0.00	0.92	0.00	0.00	0.00	0.14
EC-BS36 [cm]	100yr-24hr-90%	36.7	0.0	31.9	0.0	0.0	0.0	4.8
EC-BS36 [m3]	100yr-24hr-90%	10643	0	9248	0	0	0	1395
EC-BS36 [ha-m]	100yr-24hr-90%	1.06	0.00	0.92	0.00	0.00	0.00	0.14
EC-BS36 [cm]	100yr-6hr-10%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BS36 [m3]	100yr-6hr-10%	5713	0	4413	0	0	0	1300
EC-BS36 [ha-m]	100yr-6hr-10%	0.57	0.00	0.44	0.00	0.00	0.00	0.13
EC-BS36 [cm]	100yr-6hr-90%	19.7	0.0	15.2	0.0	0.0	0.0	4.5
EC-BS36 [m3]	100yr-6hr-90%	5713	0	4413	0	0	0	1300
EC-BS36 [ha-m]	100yr-6hr-90%	0.57	0.00	0.44	0.00	0.00	0.00	0.13
EC-BS36 [cm]	10yr-12hr-10%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BS36 [m3]	10yr-12hr-10%	4553	0	3302	0	0	0	1251
EC-BS36 [ha-m]	10yr-12hr-10%	0.46	0.00	0.33	0.00	0.00	0.00	0.13
EC-BS36 [cm]	10yr-12hr-90%	15.7	0.0	11.4	0.0	0.0	0.0	4.3
EC-BS36 [m3]	10yr-12hr-90%	4553	0	3302	0	0	0	1251
EC-BS36 [ha-m]	10yr-12hr-90%	0.46	0.00	0.33	0.00	0.00	0.00	0.13
EC-BS36 [cm]	10yr-24hr-10%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BS36 [m3]	10yr-24hr-10%	5655	0	4357	0	0	0	1298
EC-BS36 [ha-m]	10yr-24hr-10%	0.57	0.00	0.44	0.00	0.00	0.00	0.13
EC-BS36 [cm]	10yr-24hr-90%	19.5	0.0	15.0	0.0	0.0	0.0	4.5
EC-BS36 [m3]	10yr-24hr-90%	5655	0	4357	0	0	0	1298

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS36 [ha-m]	10yr-24hr-90%	0.57	0.00	0.44	0.00	0.00	0.00	0.13
EC-BS36 [cm]	10yr-6hr-10%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BS36 [m3]	10yr-6hr-10%	3741	0	2540	0	0	0	1201
EC-BS36 [ha-m]	10yr-6hr-10%	0.37	0.00	0.25	0.00	0.00	0.00	0.12
EC-BS36 [cm]	10yr-6hr-90%	12.9	0.0	8.8	0.0	0.0	0.0	4.1
EC-BS36 [m3]	10yr-6hr-90%	3741	0	2540	0	0	0	1201
EC-BS36 [ha-m]	10yr-6hr-90%	0.37	0.00	0.25	0.00	0.00	0.00	0.12
EC-BS36 [cm]	25yr-12hr-10%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BS36 [m3]	25yr-12hr-10%	5829	0	4525	0	0	0	1304
EC-BS36 [ha-m]	25yr-12hr-10%	0.58	0.00	0.45	0.00	0.00	0.00	0.13
EC-BS36 [cm]	25yr-12hr-90%	20.1	0.0	15.6	0.0	0.0	0.0	4.5
EC-BS36 [m3]	25yr-12hr-90%	5829	0	4525	0	0	0	1304
EC-BS36 [ha-m]	25yr-12hr-90%	0.58	0.00	0.45	0.00	0.00	0.00	0.13
EC-BS36 [cm]	25yr-24hr-10%	25.7	0.0	21.1	0.0	0.0	0.0	4.6
EC-BS36 [m3]	25yr-24hr-10%	7453	0	6105	0	0	0	1348
EC-BS36 [ha-m]	25yr-24hr-10%	0.75	0.00	0.61	0.00	0.00	0.00	0.13
EC-BS36 [cm]	25yr-24hr-90%	25.7	0.0	21.1	0.0	0.0	0.0	4.6
EC-BS36 [m3]	25yr-24hr-90%	7453	0	6105	0	0	0	1348
EC-BS36 [ha-m]	25yr-24hr-90%	0.75	0.00	0.61	0.00	0.00	0.00	0.13
EC-BS36 [cm]	25yr-6hr-10%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BS36 [m3]	25yr-6hr-10%	4495	0	3247	0	0	0	1248
EC-BS36 [ha-m]	25yr-6hr-10%	0.45	0.00	0.32	0.00	0.00	0.00	0.12
EC-BS36 [cm]	25yr-6hr-90%	15.5	0.0	11.2	0.0	0.0	0.0	4.3
EC-BS36 [m3]	25yr-6hr-90%	4495	0	3247	0	0	0	1248

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS36 [ha-m]	25yr-6hr-90 %	0.45	0.00	0.32	0.00	0.00	0.00	0.12

Simple Basin: EC-BS37

Scenario: 38701-EC
Node: EC-N37
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 29.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 51.1000 ha
Curve Number: 82.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS37	100yr-12hr-10%	13.955	1.2000	27.7	22.0	51.1000	82.0	0.00	0.00
EC-BS37	100yr-12hr-90%	11.452	12.0667	27.7	22.0	51.1000	82.0	0.00	0.00
EC-BS37	100yr-24hr-10%	13.183	1.2167	36.7	30.8	51.1000	82.0	0.00	0.00
EC-BS37	100yr-24hr-90%	13.070	24.0500	36.7	30.8	51.1000	82.0	0.00	0.00
EC-BS37	100yr-6hr-10%	13.936	1.0833	19.7	14.3	51.1000	82.0	0.00	0.00
EC-BS37	100yr-6hr-90%	10.464	6.0333	19.7	14.3	51.1000	82.0	0.00	0.00
EC-BS37	10yr-12hr-10%	6.636	1.3833	15.7	10.6	51.1000	82.0	0.00	0.00
EC-BS37	10yr-12hr-90%	6.122	12.0667	15.7	10.6	51.1000	82.0	0.00	0.00
EC-BS37	10yr-24hr-	5.780	1.6500	19.5	14.1	51.1000	82.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BS37	10yr-24hr-90%	6.649	24.0500	19.5	14.1	51.1000	82.0	0.00	0.00
EC-BS37	10yr-6hr-10%	7.872	1.1667	12.9	8.0	51.1000	82.0	0.00	0.00
EC-BS37	10yr-6hr-90%	6.395	6.0500	12.9	8.0	51.1000	82.0	0.00	0.00
EC-BS37	25yr-12hr-10%	9.257	1.3000	20.1	14.7	51.1000	82.0	0.00	0.00
EC-BS37	25yr-12hr-90%	8.090	12.0667	20.1	14.7	51.1000	82.0	0.00	0.00
EC-BS37	25yr-24hr-10%	8.287	1.3167	25.7	20.1	51.1000	82.0	0.00	0.00
EC-BS37	25yr-24hr-90%	8.979	24.0500	25.7	20.1	51.1000	82.0	0.00	0.00
EC-BS37	25yr-6hr-10%	10.153	1.1333	15.5	10.4	51.1000	82.0	0.00	0.00
EC-BS37	25yr-6hr-90%	7.957	6.0333	15.5	10.4	51.1000	82.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS37 [cm]	100yr-12hr-10%	27.7	0.0	22.0	0.0	0.0	0.0	5.7
EC-BS37 [m3]	100yr-12hr-10%	141547	0	112495	0	0	0	29052
EC-BS37 [ha-m]	100yr-12hr-10%	14.15	0.00	11.25	0.00	0.00	0.00	2.91
EC-BS37 [cm]	100yr-12hr-90%	27.7	0.0	22.0	0.0	0.0	0.0	5.7
EC-BS37 [m3]	100yr-12hr-90%	141547	0	112495	0	0	0	29052
EC-BS37 [ha-m]	100yr-12hr-90%	14.15	0.00	11.25	0.00	0.00	0.00	2.91
EC-BS37 [cm]	100yr-24hr-10%	36.7	0.0	30.8	0.0	0.0	0.0	5.9
EC-BS37 [m3]	100yr-24hr-10%	187537	0	157484	0	0	0	30053
EC-BS37 [ha-m]	100yr-24hr-10%	18.75	0.00	15.75	0.00	0.00	0.00	3.01
EC-BS37 [cm]	100yr-24hr-90%	36.7	0.0	30.8	0.0	0.0	0.0	5.9
EC-BS37	100yr-24hr-	187537	0	157484	0	0	0	30053

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	90%							
EC-BS37 [ha-m]	100yr-24hr-90%	18.75	0.00	15.75	0.00	0.00	0.00	3.01
EC-BS37 [cm]	100yr-6hr-10%	19.7	0.0	14.3	0.0	0.0	0.0	5.4
EC-BS37 [m3]	100yr-6hr-10%	100667	0	73181	0	0	0	27486
EC-BS37 [ha-m]	100yr-6hr-10%	10.07	0.00	7.32	0.00	0.00	0.00	2.75
EC-BS37 [cm]	100yr-6hr-90%	19.7	0.0	14.3	0.0	0.0	0.0	5.4
EC-BS37 [m3]	100yr-6hr-90%	100667	0	73181	0	0	0	27486
EC-BS37 [ha-m]	100yr-6hr-90%	10.07	0.00	7.32	0.00	0.00	0.00	2.75
EC-BS37 [cm]	10yr-12hr-10%	15.7	0.0	10.6	0.0	0.0	0.0	5.1
EC-BS37 [m3]	10yr-12hr-10%	80227	0	54012	0	0	0	26215
EC-BS37 [ha-m]	10yr-12hr-10%	8.02	0.00	5.40	0.00	0.00	0.00	2.62
EC-BS37 [cm]	10yr-12hr-90%	15.7	0.0	10.6	0.0	0.0	0.0	5.1
EC-BS37 [m3]	10yr-12hr-90%	80227	0	54012	0	0	0	26215
EC-BS37 [ha-m]	10yr-12hr-90%	8.02	0.00	5.40	0.00	0.00	0.00	2.62
EC-BS37 [cm]	10yr-24hr-10%	19.5	0.0	14.1	0.0	0.0	0.0	5.4
EC-BS37 [m3]	10yr-24hr-10%	99645	0	72212	0	0	0	27433
EC-BS37 [ha-m]	10yr-24hr-10%	9.96	0.00	7.22	0.00	0.00	0.00	2.74
EC-BS37 [cm]	10yr-24hr-90%	19.5	0.0	14.1	0.0	0.0	0.0	5.4
EC-BS37 [m3]	10yr-24hr-90%	99645	0	72212	0	0	0	27433
EC-BS37 [ha-m]	10yr-24hr-90%	9.96	0.00	7.22	0.00	0.00	0.00	2.74
EC-BS37 [cm]	10yr-6hr-10%	12.9	0.0	8.0	0.0	0.0	0.0	4.9
EC-BS37 [m3]	10yr-6hr-10%	65919	0	40952	0	0	0	24967
EC-BS37 [ha-m]	10yr-6hr-10%	6.59	0.00	4.10	0.00	0.00	0.00	2.50
EC-BS37 [cm]	10yr-6hr-90%	12.9	0.0	8.0	0.0	0.0	0.0	4.9
EC-BS37	10yr-6hr-90	65919	0	40952	0	0	0	24967

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BS37 [ha-m]	10yr-6hr-90 %	6.59	0.00	4.10	0.00	0.00	0.00	2.50
EC-BS37 [cm]	25yr-12hr-10%	20.1	0.0	14.7	0.0	0.0	0.0	5.4
EC-BS37 [m3]	25yr-12hr-10%	102711	0	75121	0	0	0	27590
EC-BS37 [ha-m]	25yr-12hr-10%	10.27	0.00	7.51	0.00	0.00	0.00	2.76
EC-BS37 [cm]	25yr-12hr-90%	20.1	0.0	14.7	0.0	0.0	0.0	5.4
EC-BS37 [m3]	25yr-12hr-90%	102711	0	75121	0	0	0	27590
EC-BS37 [ha-m]	25yr-12hr-90%	10.27	0.00	7.51	0.00	0.00	0.00	2.76
EC-BS37 [cm]	25yr-24hr-10%	25.7	0.0	20.1	0.0	0.0	0.0	5.6
EC-BS37 [m3]	25yr-24hr-10%	131327	0	102585	0	0	0	28742
EC-BS37 [ha-m]	25yr-24hr-10%	13.13	0.00	10.26	0.00	0.00	0.00	2.87
EC-BS37 [cm]	25yr-24hr-90%	25.7	0.0	20.1	0.0	0.0	0.0	5.6
EC-BS37 [m3]	25yr-24hr-90%	131327	0	102585	0	0	0	28742
EC-BS37 [ha-m]	25yr-24hr-90%	13.13	0.00	10.26	0.00	0.00	0.00	2.87
EC-BS37 [cm]	25yr-6hr-10 %	15.5	0.0	10.4	0.0	0.0	0.0	5.1
EC-BS37 [m3]	25yr-6hr-10 %	79205	0	53067	0	0	0	26138
EC-BS37 [ha-m]	25yr-6hr-10 %	7.92	0.00	5.31	0.00	0.00	0.00	2.61
EC-BS37 [cm]	25yr-6hr-90 %	15.5	0.0	10.4	0.0	0.0	0.0	5.1
EC-BS37 [m3]	25yr-6hr-90 %	79205	0	53067	0	0	0	26138
EC-BS37 [ha-m]	25yr-6hr-90 %	7.92	0.00	5.31	0.00	0.00	0.00	2.61

Simple Basin: EC-BS38

Scenario: 38701-EC
Node: EC-N38
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number

Time of Concentration: 6.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 1.6000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS38	100yr-12hr-10%	0.474	0.7667	27.7	22.3	1.6000	83.0	0.00	0.00
EC-BS38	100yr-12hr-90%	0.386	12.0000	27.7	22.3	1.6000	83.0	0.00	0.00
EC-BS38	100yr-24hr-10%	0.448	1.0000	36.7	31.1	1.6000	83.0	0.00	0.00
EC-BS38	100yr-24hr-90%	0.425	24.0000	36.7	31.1	1.6000	83.0	0.00	0.00
EC-BS38	100yr-6hr-10%	0.486	0.6833	19.7	14.6	1.6000	83.0	0.00	0.00
EC-BS38	100yr-6hr-90%	0.339	6.0000	19.7	14.6	1.6000	83.0	0.00	0.00
EC-BS38	10yr-12hr-10%	0.225	1.0167	15.7	10.8	1.6000	83.0	0.00	0.00
EC-BS38	10yr-12hr-90%	0.209	12.0000	15.7	10.8	1.6000	83.0	0.00	0.00
EC-BS38	10yr-24hr-10%	0.199	1.0167	19.5	14.4	1.6000	83.0	0.00	0.00
EC-BS38	10yr-24hr-90%	0.218	24.0000	19.5	14.4	1.6000	83.0	0.00	0.00
EC-BS38	10yr-6hr-10%	0.275	0.8500	12.9	8.2	1.6000	83.0	0.00	0.00
EC-BS38	10yr-6hr-90%	0.211	6.0000	12.9	8.2	1.6000	83.0	0.00	0.00
EC-BS38	25yr-12hr-10%	0.312	0.7833	20.1	15.0	1.6000	83.0	0.00	0.00
EC-BS38	25yr-12hr-90%	0.274	12.0000	20.1	15.0	1.6000	83.0	0.00	0.00
EC-BS38	25yr-24hr-	0.289	1.0167	25.7	20.4	1.6000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	10%								
EC-BS38	25yr-24hr-90%	0.293	24.0000	25.7	20.4	1.6000	83.0	0.00	0.00
EC-BS38	25yr-6hr-10%	0.354	0.7000	15.5	10.6	1.6000	83.0	0.00	0.00
EC-BS38	25yr-6hr-90%	0.260	6.0000	15.5	10.6	1.6000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS38 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS38 [m3]	100yr-12hr-10%	4432	0	3569	0	0	0	863
EC-BS38 [ha-m]	100yr-12hr-10%	0.44	0.00	0.36	0.00	0.00	0.00	0.09
EC-BS38 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS38 [m3]	100yr-12hr-90%	4432	0	3569	0	0	0	863
EC-BS38 [ha-m]	100yr-12hr-90%	0.44	0.00	0.36	0.00	0.00	0.00	0.09
EC-BS38 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS38 [m3]	100yr-24hr-10%	5872	0	4980	0	0	0	892
EC-BS38 [ha-m]	100yr-24hr-10%	0.59	0.00	0.50	0.00	0.00	0.00	0.09
EC-BS38 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS38 [m3]	100yr-24hr-90%	5872	0	4980	0	0	0	892
EC-BS38 [ha-m]	100yr-24hr-90%	0.59	0.00	0.50	0.00	0.00	0.00	0.09
EC-BS38 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS38 [m3]	100yr-6hr-10%	3152	0	2335	0	0	0	817
EC-BS38 [ha-m]	100yr-6hr-10%	0.32	0.00	0.23	0.00	0.00	0.00	0.08
EC-BS38 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS38	100yr-6hr-9	3152	0	2335	0	0	0	817

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS38 [ha-m]	100yr-6hr-90%	0.32	0.00	0.23	0.00	0.00	0.00	0.08
EC-BS38 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS38 [m3]	10yr-12hr-10%	2512	0	1731	0	0	0	781
EC-BS38 [ha-m]	10yr-12hr-10%	0.25	0.00	0.17	0.00	0.00	0.00	0.08
EC-BS38 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS38 [m3]	10yr-12hr-90%	2512	0	1731	0	0	0	781
EC-BS38 [ha-m]	10yr-12hr-90%	0.25	0.00	0.17	0.00	0.00	0.00	0.08
EC-BS38 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS38 [m3]	10yr-24hr-10%	3120	0	2304	0	0	0	816
EC-BS38 [ha-m]	10yr-24hr-10%	0.31	0.00	0.23	0.00	0.00	0.00	0.08
EC-BS38 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS38 [m3]	10yr-24hr-90%	3120	0	2304	0	0	0	816
EC-BS38 [ha-m]	10yr-24hr-90%	0.31	0.00	0.23	0.00	0.00	0.00	0.08
EC-BS38 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS38 [m3]	10yr-6hr-10%	2064	0	1319	0	0	0	745
EC-BS38 [ha-m]	10yr-6hr-10%	0.21	0.00	0.13	0.00	0.00	0.00	0.07
EC-BS38 [cm]	10yr-6hr-90%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS38 [m3]	10yr-6hr-90%	2064	0	1319	0	0	0	745
EC-BS38 [ha-m]	10yr-6hr-90%	0.21	0.00	0.13	0.00	0.00	0.00	0.07
EC-BS38 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS38 [m3]	25yr-12hr-10%	3216	0	2396	0	0	0	820
EC-BS38 [ha-m]	25yr-12hr-10%	0.32	0.00	0.24	0.00	0.00	0.00	0.08
EC-BS38 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS38	25yr-12hr-9	3216	0	2396	0	0	0	820

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS38 [ha-m]	25yr-12hr-90%	0.32	0.00	0.24	0.00	0.00	0.00	0.08
EC-BS38 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS38 [m3]	25yr-24hr-10%	4112	0	3258	0	0	0	854
EC-BS38 [ha-m]	25yr-24hr-10%	0.41	0.00	0.33	0.00	0.00	0.00	0.09
EC-BS38 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS38 [m3]	25yr-24hr-90%	4112	0	3258	0	0	0	854
EC-BS38 [ha-m]	25yr-24hr-90%	0.41	0.00	0.33	0.00	0.00	0.00	0.09
EC-BS38 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS38 [m3]	25yr-6hr-10%	2480	0	1702	0	0	0	778
EC-BS38 [ha-m]	25yr-6hr-10%	0.25	0.00	0.17	0.00	0.00	0.00	0.08
EC-BS38 [cm]	25yr-6hr-90%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS38 [m3]	25yr-6hr-90%	2480	0	1702	0	0	0	778
EC-BS38 [ha-m]	25yr-6hr-90%	0.25	0.00	0.17	0.00	0.00	0.00	0.08

Simple Basin: EC-BS39

Scenario:	38701-EC
Node:	EC-N39
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	10.8000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS39	100yr-12hr-10%	3.171	0.8000	27.7	22.3	10.8000	83.0	0.00	0.00
EC-BS39	100yr-12hr-90%	2.598	12.0000	27.7	22.3	10.8000	83.0	0.00	0.00
EC-BS39	100yr-24hr-10%	3.008	1.0167	36.7	31.2	10.8000	83.0	0.00	0.00
EC-BS39	100yr-24hr-90%	2.873	24.0000	36.7	31.2	10.8000	83.0	0.00	0.00
EC-BS39	100yr-6hr-10%	3.249	0.7167	19.7	14.6	10.8000	83.0	0.00	0.00
EC-BS39	100yr-6hr-90%	2.292	6.0000	19.7	14.6	10.8000	83.0	0.00	0.00
EC-BS39	10yr-12hr-10%	1.509	1.0333	15.7	10.8	10.8000	83.0	0.00	0.00
EC-BS39	10yr-12hr-90%	1.405	12.0000	15.7	10.8	10.8000	83.0	0.00	0.00
EC-BS39	10yr-24hr-10%	1.327	1.0333	19.5	14.4	10.8000	83.0	0.00	0.00
EC-BS39	10yr-24hr-90%	1.474	24.0000	19.5	14.4	10.8000	83.0	0.00	0.00
EC-BS39	10yr-6hr-10%	1.843	0.8667	12.9	8.3	10.8000	83.0	0.00	0.00
EC-BS39	10yr-6hr-90%	1.423	6.0000	12.9	8.3	10.8000	83.0	0.00	0.00
EC-BS39	25yr-12hr-10%	2.087	1.0333	20.1	15.0	10.8000	83.0	0.00	0.00
EC-BS39	25yr-12hr-90%	1.845	12.0000	20.1	15.0	10.8000	83.0	0.00	0.00
EC-BS39	25yr-24hr-10%	1.931	1.0333	25.7	20.4	10.8000	83.0	0.00	0.00
EC-BS39	25yr-24hr-90%	1.981	24.0000	25.7	20.4	10.8000	83.0	0.00	0.00
EC-BS39	25yr-6hr-10%	2.362	0.7333	15.5	10.6	10.8000	83.0	0.00	0.00
EC-BS39	25yr-6hr-90%	1.757	6.0000	15.5	10.6	10.8000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total	Total	Total Runoff	Total ET	Total Initial	Total	Change Soil

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS39 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS39 [m3]	100yr-12hr-10%	29916	0	24118	0	0	0	5798
EC-BS39 [ha-m]	100yr-12hr-10%	2.99	0.00	2.41	0.00	0.00	0.00	0.58
EC-BS39 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS39 [m3]	100yr-12hr-90%	29916	0	24118	0	0	0	5798
EC-BS39 [ha-m]	100yr-12hr-90%	2.99	0.00	2.41	0.00	0.00	0.00	0.58
EC-BS39 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS39 [m3]	100yr-24hr-10%	39636	0	33647	0	0	0	5989
EC-BS39 [ha-m]	100yr-24hr-10%	3.96	0.00	3.36	0.00	0.00	0.00	0.60
EC-BS39 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS39 [m3]	100yr-24hr-90%	39636	0	33647	0	0	0	5989
EC-BS39 [ha-m]	100yr-24hr-90%	3.96	0.00	3.36	0.00	0.00	0.00	0.60
EC-BS39 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS39 [m3]	100yr-6hr-10%	21276	0	15776	0	0	0	5500
EC-BS39 [ha-m]	100yr-6hr-10%	2.13	0.00	1.58	0.00	0.00	0.00	0.55
EC-BS39 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS39 [m3]	100yr-6hr-90%	21276	0	15776	0	0	0	5500
EC-BS39 [ha-m]	100yr-6hr-90%	2.13	0.00	1.58	0.00	0.00	0.00	0.55
EC-BS39 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS39 [m3]	10yr-12hr-10%	16956	0	11698	0	0	0	5258
EC-BS39 [ha-m]	10yr-12hr-10%	1.70	0.00	1.17	0.00	0.00	0.00	0.53
EC-BS39 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS39 [m3]	10yr-12hr-90%	16956	0	11698	0	0	0	5258
EC-BS39 [ha-m]	10yr-12hr-90%	1.70	0.00	1.17	0.00	0.00	0.00	0.53

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS39 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS39 [m3]	10yr-24hr-10%	21060	0	15571	0	0	0	5489
EC-BS39 [ha-m]	10yr-24hr-10%	2.11	0.00	1.56	0.00	0.00	0.00	0.55
EC-BS39 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS39 [m3]	10yr-24hr-90%	21060	0	15571	0	0	0	5489
EC-BS39 [ha-m]	10yr-24hr-90%	2.11	0.00	1.56	0.00	0.00	0.00	0.55
EC-BS39 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS39 [m3]	10yr-6hr-10%	13932	0	8913	0	0	0	5019
EC-BS39 [ha-m]	10yr-6hr-10%	1.39	0.00	0.89	0.00	0.00	0.00	0.50
EC-BS39 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS39 [m3]	10yr-6hr-90%	13932	0	8913	0	0	0	5019
EC-BS39 [ha-m]	10yr-6hr-90%	1.39	0.00	0.89	0.00	0.00	0.00	0.50
EC-BS39 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS39 [m3]	25yr-12hr-10%	21708	0	16189	0	0	0	5519
EC-BS39 [ha-m]	25yr-12hr-10%	2.17	0.00	1.62	0.00	0.00	0.00	0.55
EC-BS39 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS39 [m3]	25yr-12hr-90%	21708	0	16189	0	0	0	5519
EC-BS39 [ha-m]	25yr-12hr-90%	2.17	0.00	1.62	0.00	0.00	0.00	0.55
EC-BS39 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS39 [m3]	25yr-24hr-10%	27756	0	22017	0	0	0	5739
EC-BS39 [ha-m]	25yr-24hr-10%	2.78	0.00	2.20	0.00	0.00	0.00	0.57
EC-BS39 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS39 [m3]	25yr-24hr-90%	27756	0	22017	0	0	0	5739
EC-BS39 [ha-m]	25yr-24hr-90%	2.78	0.00	2.20	0.00	0.00	0.00	0.57

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS39 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS39 [m3]	25yr-6hr-10 %	16740	0	11497	0	0	0	5243
EC-BS39 [ha-m]	25yr-6hr-10 %	1.67	0.00	1.15	0.00	0.00	0.00	0.52
EC-BS39 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS39 [m3]	25yr-6hr-90 %	16740	0	11497	0	0	0	5243
EC-BS39 [ha-m]	25yr-6hr-90 %	1.67	0.00	1.15	0.00	0.00	0.00	0.52

Simple Basin: EC-BS40

Scenario:	38701-EC
Node:	EC-N40
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.7000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS40	100yr-12hr-10%	0.207	0.7667	27.7	22.3	0.7000	83.0	0.00	0.00
EC-BS40	100yr-12hr-90%	0.169	12.0000	27.7	22.3	0.7000	83.0	0.00	0.00
EC-BS40	100yr-24hr-10%	0.196	1.0000	36.7	31.1	0.7000	83.0	0.00	0.00
EC-BS40	100yr-24h	0.186	24.0000	36.7	31.1	0.7000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
	r-90%								
EC-BS40	100yr-6hr-10%	0.212	0.6833	19.7	14.6	0.7000	83.0	0.00	0.00
EC-BS40	100yr-6hr-90%	0.149	6.0000	19.7	14.6	0.7000	83.0	0.00	0.00
EC-BS40	10yr-12hr-10%	0.099	1.0167	15.7	10.8	0.7000	83.0	0.00	0.00
EC-BS40	10yr-12hr-90%	0.091	12.0000	15.7	10.8	0.7000	83.0	0.00	0.00
EC-BS40	10yr-24hr-10%	0.087	1.0167	19.5	14.4	0.7000	83.0	0.00	0.00
EC-BS40	10yr-24hr-90%	0.096	24.0000	19.5	14.4	0.7000	83.0	0.00	0.00
EC-BS40	10yr-6hr-10%	0.120	0.8500	12.9	8.2	0.7000	83.0	0.00	0.00
EC-BS40	10yr-6hr-90%	0.092	6.0000	12.9	8.2	0.7000	83.0	0.00	0.00
EC-BS40	25yr-12hr-10%	0.137	0.7833	20.1	15.0	0.7000	83.0	0.00	0.00
EC-BS40	25yr-12hr-90%	0.120	12.0000	20.1	15.0	0.7000	83.0	0.00	0.00
EC-BS40	25yr-24hr-10%	0.126	1.0167	25.7	20.4	0.7000	83.0	0.00	0.00
EC-BS40	25yr-24hr-90%	0.128	24.0000	25.7	20.4	0.7000	83.0	0.00	0.00
EC-BS40	25yr-6hr-10%	0.155	0.7000	15.5	10.6	0.7000	83.0	0.00	0.00
EC-BS40	25yr-6hr-90%	0.114	6.0000	15.5	10.6	0.7000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS40 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS40 [m3]	100yr-12hr-10%	1939	0	1562	0	0	0	377
EC-BS40 [ha-m]	100yr-12hr-10%	0.19	0.00	0.16	0.00	0.00	0.00	0.04
EC-BS40 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS40 [m3]	100yr-12hr-90%	1939	0	1562	0	0	0	377
EC-BS40	100yr-12hr-	0.19	0.00	0.16	0.00	0.00	0.00	0.04

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	90%							
EC-BS40 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS40 [m3]	100yr-24hr-10%	2569	0	2179	0	0	0	390
EC-BS40 [ha-m]	100yr-24hr-10%	0.26	0.00	0.22	0.00	0.00	0.00	0.04
EC-BS40 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS40 [m3]	100yr-24hr-90%	2569	0	2179	0	0	0	390
EC-BS40 [ha-m]	100yr-24hr-90%	0.26	0.00	0.22	0.00	0.00	0.00	0.04
EC-BS40 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS40 [m3]	100yr-6hr-10%	1379	0	1021	0	0	0	358
EC-BS40 [ha-m]	100yr-6hr-10%	0.14	0.00	0.10	0.00	0.00	0.00	0.04
EC-BS40 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS40 [m3]	100yr-6hr-90%	1379	0	1021	0	0	0	358
EC-BS40 [ha-m]	100yr-6hr-90%	0.14	0.00	0.10	0.00	0.00	0.00	0.04
EC-BS40 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS40 [m3]	10yr-12hr-10%	1099	0	757	0	0	0	342
EC-BS40 [ha-m]	10yr-12hr-10%	0.11	0.00	0.08	0.00	0.00	0.00	0.03
EC-BS40 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS40 [m3]	10yr-12hr-90%	1099	0	757	0	0	0	342
EC-BS40 [ha-m]	10yr-12hr-90%	0.11	0.00	0.08	0.00	0.00	0.00	0.03
EC-BS40 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS40 [m3]	10yr-24hr-10%	1365	0	1008	0	0	0	357
EC-BS40 [ha-m]	10yr-24hr-10%	0.14	0.00	0.10	0.00	0.00	0.00	0.04
EC-BS40 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS40 [m3]	10yr-24hr-90%	1365	0	1008	0	0	0	357
EC-BS40	10yr-24hr-9	0.14	0.00	0.10	0.00	0.00	0.00	0.04

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS40 [cm]	10yr-6hr-10 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS40 [m3]	10yr-6hr-10 %	903	0	577	0	0	0	326
EC-BS40 [ha-m]	10yr-6hr-10 %	0.09	0.00	0.06	0.00	0.00	0.00	0.03
EC-BS40 [cm]	10yr-6hr-90 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS40 [m3]	10yr-6hr-90 %	903	0	577	0	0	0	326
EC-BS40 [ha-m]	10yr-6hr-90 %	0.09	0.00	0.06	0.00	0.00	0.00	0.03
EC-BS40 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS40 [m3]	25yr-12hr-10%	1407	0	1048	0	0	0	359
EC-BS40 [ha-m]	25yr-12hr-10%	0.14	0.00	0.10	0.00	0.00	0.00	0.04
EC-BS40 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS40 [m3]	25yr-12hr-90%	1407	0	1048	0	0	0	359
EC-BS40 [ha-m]	25yr-12hr-90%	0.14	0.00	0.10	0.00	0.00	0.00	0.04
EC-BS40 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS40 [m3]	25yr-24hr-10%	1799	0	1426	0	0	0	373
EC-BS40 [ha-m]	25yr-24hr-10%	0.18	0.00	0.14	0.00	0.00	0.00	0.04
EC-BS40 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS40 [m3]	25yr-24hr-90%	1799	0	1426	0	0	0	373
EC-BS40 [ha-m]	25yr-24hr-90%	0.18	0.00	0.14	0.00	0.00	0.00	0.04
EC-BS40 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS40 [m3]	25yr-6hr-10 %	1085	0	744	0	0	0	341
EC-BS40 [ha-m]	25yr-6hr-10 %	0.11	0.00	0.07	0.00	0.00	0.00	0.03
EC-BS40 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS40 [m3]	25yr-6hr-90 %	1085	0	744	0	0	0	341
EC-BS40	25yr-6hr-90	0.11	0.00	0.07	0.00	0.00	0.00	0.03

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	%							

Simple Basin: EC-BS41

Scenario: 38701-EC
Node: EC-N41
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 8.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 10.4000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS41	100yr-12hr-10%	3.065	0.7833	27.7	22.3	10.4000	83.0	0.00	0.00
EC-BS41	100yr-12hr-90%	2.506	12.0000	27.7	22.3	10.4000	83.0	0.00	0.00
EC-BS41	100yr-24hr-10%	2.905	1.0167	36.7	31.2	10.4000	83.0	0.00	0.00
EC-BS41	100yr-24hr-90%	2.768	24.0000	36.7	31.2	10.4000	83.0	0.00	0.00
EC-BS41	100yr-6hr-10%	3.139	0.7000	19.7	14.6	10.4000	83.0	0.00	0.00
EC-BS41	100yr-6hr-90%	2.208	6.0000	19.7	14.6	10.4000	83.0	0.00	0.00
EC-BS41	10yr-12hr-10%	1.458	1.0333	15.7	10.8	10.4000	83.0	0.00	0.00
EC-BS41	10yr-12hr-90%	1.356	12.0000	15.7	10.8	10.4000	83.0	0.00	0.00
EC-BS41	10yr-24hr-10%	1.284	1.0333	19.5	14.4	10.4000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS41	10yr-24hr-90%	1.421	24.0000	19.5	14.4	10.4000	83.0	0.00	0.00
EC-BS41	10yr-6hr-10%	1.779	0.8667	12.9	8.3	10.4000	83.0	0.00	0.00
EC-BS41	10yr-6hr-90%	1.372	6.0000	12.9	8.3	10.4000	83.0	0.00	0.00
EC-BS41	25yr-12hr-10%	2.018	0.8000	20.1	15.0	10.4000	83.0	0.00	0.00
EC-BS41	25yr-12hr-90%	1.781	12.0000	20.1	15.0	10.4000	83.0	0.00	0.00
EC-BS41	25yr-24hr-10%	1.867	1.0167	25.7	20.4	10.4000	83.0	0.00	0.00
EC-BS41	25yr-24hr-90%	1.909	24.0000	25.7	20.4	10.4000	83.0	0.00	0.00
EC-BS41	25yr-6hr-10%	2.285	0.7167	15.5	10.7	10.4000	83.0	0.00	0.00
EC-BS41	25yr-6hr-90%	1.694	6.0000	15.5	10.7	10.4000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS41 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS41 [m3]	100yr-12hr-10%	28808	0	23236	0	0	0	5572
EC-BS41 [ha-m]	100yr-12hr-10%	2.88	0.00	2.32	0.00	0.00	0.00	0.56
EC-BS41 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS41 [m3]	100yr-12hr-90%	28808	0	23236	0	0	0	5572
EC-BS41 [ha-m]	100yr-12hr-90%	2.88	0.00	2.32	0.00	0.00	0.00	0.56
EC-BS41 [cm]	100yr-24hr-10%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS41 [m3]	100yr-24hr-10%	38168	0	32416	0	0	0	5752
EC-BS41 [ha-m]	100yr-24hr-10%	3.82	0.00	3.24	0.00	0.00	0.00	0.58
EC-BS41 [cm]	100yr-24hr-90%	36.7	0.0	31.2	0.0	0.0	0.0	5.5
EC-BS41 [m3]	100yr-24hr-90%	38168	0	32416	0	0	0	5752

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS41 [ha-m]	100yr-24hr-90%	3.82	0.00	3.24	0.00	0.00	0.00	0.58
EC-BS41 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS41 [m3]	100yr-6hr-10%	20488	0	15199	0	0	0	5289
EC-BS41 [ha-m]	100yr-6hr-10%	2.05	0.00	1.52	0.00	0.00	0.00	0.53
EC-BS41 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS41 [m3]	100yr-6hr-90%	20488	0	15199	0	0	0	5289
EC-BS41 [ha-m]	100yr-6hr-90%	2.05	0.00	1.52	0.00	0.00	0.00	0.53
EC-BS41 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS41 [m3]	10yr-12hr-10%	16328	0	11271	0	0	0	5057
EC-BS41 [ha-m]	10yr-12hr-10%	1.63	0.00	1.13	0.00	0.00	0.00	0.51
EC-BS41 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS41 [m3]	10yr-12hr-90%	16328	0	11271	0	0	0	5057
EC-BS41 [ha-m]	10yr-12hr-90%	1.63	0.00	1.13	0.00	0.00	0.00	0.51
EC-BS41 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS41 [m3]	10yr-24hr-10%	20280	0	15001	0	0	0	5279
EC-BS41 [ha-m]	10yr-24hr-10%	2.03	0.00	1.50	0.00	0.00	0.00	0.53
EC-BS41 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS41 [m3]	10yr-24hr-90%	20280	0	15001	0	0	0	5279
EC-BS41 [ha-m]	10yr-24hr-90%	2.03	0.00	1.50	0.00	0.00	0.00	0.53
EC-BS41 [cm]	10yr-6hr-10%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS41 [m3]	10yr-6hr-10%	13416	0	8587	0	0	0	4829
EC-BS41 [ha-m]	10yr-6hr-10%	1.34	0.00	0.86	0.00	0.00	0.00	0.48
EC-BS41 [cm]	10yr-6hr-90%	12.9	0.0	8.3	0.0	0.0	0.0	4.6
EC-BS41 [m3]	10yr-6hr-90%	13416	0	8587	0	0	0	4829

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS41 [ha-m]	10yr-6hr-90 %	1.34	0.00	0.86	0.00	0.00	0.00	0.48
EC-BS41 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS41 [m3]	25yr-12hr-10%	20904	0	15596	0	0	0	5308
EC-BS41 [ha-m]	25yr-12hr-10%	2.09	0.00	1.56	0.00	0.00	0.00	0.53
EC-BS41 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS41 [m3]	25yr-12hr-90%	20904	0	15596	0	0	0	5308
EC-BS41 [ha-m]	25yr-12hr-90%	2.09	0.00	1.56	0.00	0.00	0.00	0.53
EC-BS41 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS41 [m3]	25yr-24hr-10%	26728	0	21212	0	0	0	5516
EC-BS41 [ha-m]	25yr-24hr-10%	2.67	0.00	2.12	0.00	0.00	0.00	0.55
EC-BS41 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS41 [m3]	25yr-24hr-90%	26728	0	21212	0	0	0	5516
EC-BS41 [ha-m]	25yr-24hr-90%	2.67	0.00	2.12	0.00	0.00	0.00	0.55
EC-BS41 [cm]	25yr-6hr-10 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BS41 [m3]	25yr-6hr-10 %	16120	0	11077	0	0	0	5043
EC-BS41 [ha-m]	25yr-6hr-10 %	1.61	0.00	1.11	0.00	0.00	0.00	0.50
EC-BS41 [cm]	25yr-6hr-90 %	15.5	0.0	10.7	0.0	0.0	0.0	4.8
EC-BS41 [m3]	25yr-6hr-90 %	16120	0	11077	0	0	0	5043
EC-BS41 [ha-m]	25yr-6hr-90 %	1.61	0.00	1.11	0.00	0.00	0.00	0.50

Simple Basin: EC-BS42

Scenario: 38701-EC
Node: EC-N42
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 9.0000 min

Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 20.5000 ha
Curve Number: 84.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS42	100yr-12hr-10%	6.124	0.7833	27.7	22.7	20.5000	84.0	0.00	0.00
EC-BS42	100yr-12hr-90%	4.948	12.0000	27.7	22.7	20.5000	84.0	0.00	0.00
EC-BS42	100yr-24hr-10%	5.785	1.0167	36.7	31.5	20.5000	84.0	0.00	0.00
EC-BS42	100yr-24hr-90%	5.465	24.0000	36.7	31.5	20.5000	84.0	0.00	0.00
EC-BS42	100yr-6hr-10%	6.291	0.7167	19.7	14.9	20.5000	84.0	0.00	0.00
EC-BS42	100yr-6hr-90%	4.376	6.0000	19.7	14.9	20.5000	84.0	0.00	0.00
EC-BS42	10yr-12hr-10%	2.937	1.0333	15.7	11.1	20.5000	84.0	0.00	0.00
EC-BS42	10yr-12hr-90%	2.689	12.0000	15.7	11.1	20.5000	84.0	0.00	0.00
EC-BS42	10yr-24hr-10%	2.595	1.0333	19.5	14.7	20.5000	84.0	0.00	0.00
EC-BS42	10yr-24hr-90%	2.815	24.0000	19.5	14.7	20.5000	84.0	0.00	0.00
EC-BS42	10yr-6hr-10%	3.590	0.8667	12.9	8.5	20.5000	84.0	0.00	0.00
EC-BS42	10yr-6hr-90%	2.733	6.0000	12.9	8.5	20.5000	84.0	0.00	0.00
EC-BS42	25yr-12hr-10%	4.063	0.8000	20.1	15.3	20.5000	84.0	0.00	0.00
EC-BS42	25yr-12hr-90%	3.523	12.0000	20.1	15.3	20.5000	84.0	0.00	0.00
EC-BS42	25yr-24hr-10%	3.743	1.0333	25.7	20.7	20.5000	84.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS42	25yr-24hr-90%	3.776	24.0000	25.7	20.7	20.5000	84.0	0.00	0.00
EC-BS42	25yr-6hr-10%	4.601	0.7333	15.5	10.9	20.5000	84.0	0.00	0.00
EC-BS42	25yr-6hr-90%	3.365	6.0000	15.5	10.9	20.5000	84.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS42 [cm]	100yr-12hr-10%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BS42 [m3]	100yr-12hr-10%	56785	0	46455	0	0	0	10330
EC-BS42 [ha-m]	100yr-12hr-10%	5.68	0.00	4.65	0.00	0.00	0.00	1.03
EC-BS42 [cm]	100yr-12hr-90%	27.7	0.0	22.7	0.0	0.0	0.0	5.0
EC-BS42 [m3]	100yr-12hr-90%	56785	0	46455	0	0	0	10330
EC-BS42 [ha-m]	100yr-12hr-90%	5.68	0.00	4.65	0.00	0.00	0.00	1.03
EC-BS42 [cm]	100yr-24hr-10%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BS42 [m3]	100yr-24hr-10%	75235	0	64589	0	0	0	10646
EC-BS42 [ha-m]	100yr-24hr-10%	7.52	0.00	6.46	0.00	0.00	0.00	1.06
EC-BS42 [cm]	100yr-24hr-90%	36.7	0.0	31.5	0.0	0.0	0.0	5.2
EC-BS42 [m3]	100yr-24hr-90%	75235	0	64589	0	0	0	10646
EC-BS42 [ha-m]	100yr-24hr-90%	7.52	0.00	6.46	0.00	0.00	0.00	1.06
EC-BS42 [cm]	100yr-6hr-10%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BS42 [m3]	100yr-6hr-10%	40385	0	30553	0	0	0	9832
EC-BS42 [ha-m]	100yr-6hr-10%	4.04	0.00	3.06	0.00	0.00	0.00	0.98
EC-BS42 [cm]	100yr-6hr-90%	19.7	0.0	14.9	0.0	0.0	0.0	4.8
EC-BS42 [m3]	100yr-6hr-90%	40385	0	30553	0	0	0	9832

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS42 [ha-m]	100yr-6hr-90%	4.04	0.00	3.06	0.00	0.00	0.00	0.98
EC-BS42 [cm]	10yr-12hr-10%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BS42 [m3]	10yr-12hr-10%	32185	0	22761	0	0	0	9424
EC-BS42 [ha-m]	10yr-12hr-10%	3.22	0.00	2.28	0.00	0.00	0.00	0.94
EC-BS42 [cm]	10yr-12hr-90%	15.7	0.0	11.1	0.0	0.0	0.0	4.6
EC-BS42 [m3]	10yr-12hr-90%	32185	0	22761	0	0	0	9424
EC-BS42 [ha-m]	10yr-12hr-90%	3.22	0.00	2.28	0.00	0.00	0.00	0.94
EC-BS42 [cm]	10yr-24hr-10%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BS42 [m3]	10yr-24hr-10%	39975	0	30160	0	0	0	9815
EC-BS42 [ha-m]	10yr-24hr-10%	4.00	0.00	3.02	0.00	0.00	0.00	0.98
EC-BS42 [cm]	10yr-24hr-90%	19.5	0.0	14.7	0.0	0.0	0.0	4.8
EC-BS42 [m3]	10yr-24hr-90%	39975	0	30160	0	0	0	9815
EC-BS42 [ha-m]	10yr-24hr-90%	4.00	0.00	3.02	0.00	0.00	0.00	0.98
EC-BS42 [cm]	10yr-6hr-10%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BS42 [m3]	10yr-6hr-10%	26445	0	17424	0	0	0	9021
EC-BS42 [ha-m]	10yr-6hr-10%	2.64	0.00	1.74	0.00	0.00	0.00	0.90
EC-BS42 [cm]	10yr-6hr-90%	12.9	0.0	8.5	0.0	0.0	0.0	4.4
EC-BS42 [m3]	10yr-6hr-90%	26445	0	17424	0	0	0	9021
EC-BS42 [ha-m]	10yr-6hr-90%	2.64	0.00	1.74	0.00	0.00	0.00	0.90
EC-BS42 [cm]	25yr-12hr-10%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BS42 [m3]	25yr-12hr-10%	41205	0	31340	0	0	0	9865
EC-BS42 [ha-m]	25yr-12hr-10%	4.12	0.00	3.13	0.00	0.00	0.00	0.99
EC-BS42 [cm]	25yr-12hr-90%	20.1	0.0	15.3	0.0	0.0	0.0	4.8
EC-BS42 [m3]	25yr-12hr-90%	41205	0	31340	0	0	0	9865

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS42 [ha-m]	25yr-12hr-90%	4.12	0.00	3.13	0.00	0.00	0.00	0.99
EC-BS42 [cm]	25yr-24hr-10%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BS42 [m3]	25yr-24hr-10%	52685	0	42454	0	0	0	10231
EC-BS42 [ha-m]	25yr-24hr-10%	5.27	0.00	4.25	0.00	0.00	0.00	1.02
EC-BS42 [cm]	25yr-24hr-90%	25.7	0.0	20.7	0.0	0.0	0.0	5.0
EC-BS42 [m3]	25yr-24hr-90%	52685	0	42454	0	0	0	10231
EC-BS42 [ha-m]	25yr-24hr-90%	5.27	0.00	4.25	0.00	0.00	0.00	1.02
EC-BS42 [cm]	25yr-6hr-10%	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BS42 [m3]	25yr-6hr-10%	31775	0	22376	0	0	0	9399
EC-BS42 [ha-m]	25yr-6hr-10%	3.18	0.00	2.24	0.00	0.00	0.00	0.94
EC-BS42 [cm]	25yr-6hr-90%	15.5	0.0	10.9	0.0	0.0	0.0	4.6
EC-BS42 [m3]	25yr-6hr-90%	31775	0	22376	0	0	0	9399
EC-BS42 [ha-m]	25yr-6hr-90%	3.18	0.00	2.24	0.00	0.00	0.00	0.94

Simple Basin: EC-BS43

Scenario:	38701-EC
Node:	EC-N43
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS43	100yr-12hr-10%	1.066	0.7667	27.7	22.3	3.6000	83.0	0.00	0.00
EC-BS43	100yr-12hr-90%	0.868	12.0000	27.7	22.3	3.6000	83.0	0.00	0.00
EC-BS43	100yr-24hr-10%	1.009	1.0000	36.7	31.1	3.6000	83.0	0.00	0.00
EC-BS43	100yr-24hr-90%	0.957	24.0000	36.7	31.1	3.6000	83.0	0.00	0.00
EC-BS43	100yr-6hr-10%	1.093	0.6833	19.7	14.6	3.6000	83.0	0.00	0.00
EC-BS43	100yr-6hr-90%	0.764	6.0000	19.7	14.6	3.6000	83.0	0.00	0.00
EC-BS43	10yr-12hr-10%	0.507	1.0167	15.7	10.8	3.6000	83.0	0.00	0.00
EC-BS43	10yr-12hr-90%	0.470	12.0000	15.7	10.8	3.6000	83.0	0.00	0.00
EC-BS43	10yr-24hr-10%	0.448	1.0167	19.5	14.4	3.6000	83.0	0.00	0.00
EC-BS43	10yr-24hr-90%	0.491	24.0000	19.5	14.4	3.6000	83.0	0.00	0.00
EC-BS43	10yr-6hr-10%	0.618	0.8500	12.9	8.2	3.6000	83.0	0.00	0.00
EC-BS43	10yr-6hr-90%	0.475	6.0000	12.9	8.2	3.6000	83.0	0.00	0.00
EC-BS43	25yr-12hr-10%	0.703	0.7833	20.1	15.0	3.6000	83.0	0.00	0.00
EC-BS43	25yr-12hr-90%	0.617	12.0000	20.1	15.0	3.6000	83.0	0.00	0.00
EC-BS43	25yr-24hr-10%	0.650	1.0167	25.7	20.4	3.6000	83.0	0.00	0.00
EC-BS43	25yr-24hr-90%	0.660	24.0000	25.7	20.4	3.6000	83.0	0.00	0.00
EC-BS43	25yr-6hr-10%	0.797	0.7000	15.5	10.6	3.6000	83.0	0.00	0.00
EC-BS43	25yr-6hr-90%	0.586	6.0000	15.5	10.6	3.6000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS43 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS43	100yr-12hr-	9972	0	8031	0	0	0	1941

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	10%							
EC-BS43	100yr-12hr-10%	1.00	0.00	0.80	0.00	0.00	0.00	0.19
[ha-m]								
EC-BS43	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
[cm]								
EC-BS43	100yr-12hr-90%	9972	0	8031	0	0	0	1941
[m3]								
EC-BS43	100yr-12hr-90%	1.00	0.00	0.80	0.00	0.00	0.00	0.19
[ha-m]								
EC-BS43	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
[cm]								
EC-BS43	100yr-24hr-10%	13212	0	11204	0	0	0	2008
[m3]								
EC-BS43	100yr-24hr-10%	1.32	0.00	1.12	0.00	0.00	0.00	0.20
[ha-m]								
EC-BS43	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
[cm]								
EC-BS43	100yr-24hr-90%	13212	0	11204	0	0	0	2008
[m3]								
EC-BS43	100yr-24hr-90%	1.32	0.00	1.12	0.00	0.00	0.00	0.20
[ha-m]								
EC-BS43	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
[cm]								
EC-BS43	100yr-6hr-10%	7092	0	5253	0	0	0	1839
[m3]								
EC-BS43	100yr-6hr-10%	0.71	0.00	0.53	0.00	0.00	0.00	0.18
[ha-m]								
EC-BS43	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
[cm]								
EC-BS43	100yr-6hr-90%	7092	0	5253	0	0	0	1839
[m3]								
EC-BS43	100yr-6hr-90%	0.71	0.00	0.53	0.00	0.00	0.00	0.18
[ha-m]								
EC-BS43	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
[cm]								
EC-BS43	10yr-12hr-10%	5652	0	3895	0	0	0	1757
[m3]								
EC-BS43	10yr-12hr-10%	0.57	0.00	0.39	0.00	0.00	0.00	0.18
[ha-m]								
EC-BS43	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
[cm]								
EC-BS43	10yr-12hr-90%	5652	0	3895	0	0	0	1757
[m3]								
EC-BS43	10yr-12hr-90%	0.57	0.00	0.39	0.00	0.00	0.00	0.18
[ha-m]								
EC-BS43	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
[cm]								
EC-BS43	10yr-24hr-1	7020	0	5185	0	0	0	1835

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	0%							
EC-BS43 [ha-m]	10yr-24hr-10%	0.70	0.00	0.52	0.00	0.00	0.00	0.18
EC-BS43 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS43 [m3]	10yr-24hr-90%	7020	0	5185	0	0	0	1835
EC-BS43 [ha-m]	10yr-24hr-90%	0.70	0.00	0.52	0.00	0.00	0.00	0.18
EC-BS43 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS43 [m3]	10yr-6hr-10%	4644	0	2968	0	0	0	1676
EC-BS43 [ha-m]	10yr-6hr-10%	0.46	0.00	0.30	0.00	0.00	0.00	0.17
EC-BS43 [cm]	10yr-6hr-90%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS43 [m3]	10yr-6hr-90%	4644	0	2968	0	0	0	1676
EC-BS43 [ha-m]	10yr-6hr-90%	0.46	0.00	0.30	0.00	0.00	0.00	0.17
EC-BS43 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS43 [m3]	25yr-12hr-10%	7236	0	5391	0	0	0	1845
EC-BS43 [ha-m]	25yr-12hr-10%	0.72	0.00	0.54	0.00	0.00	0.00	0.18
EC-BS43 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS43 [m3]	25yr-12hr-90%	7236	0	5391	0	0	0	1845
EC-BS43 [ha-m]	25yr-12hr-90%	0.72	0.00	0.54	0.00	0.00	0.00	0.18
EC-BS43 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS43 [m3]	25yr-24hr-10%	9252	0	7331	0	0	0	1921
EC-BS43 [ha-m]	25yr-24hr-10%	0.93	0.00	0.73	0.00	0.00	0.00	0.19
EC-BS43 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS43 [m3]	25yr-24hr-90%	9252	0	7331	0	0	0	1921
EC-BS43 [ha-m]	25yr-24hr-90%	0.93	0.00	0.73	0.00	0.00	0.00	0.19
EC-BS43 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS43	25yr-6hr-10	5580	0	3828	0	0	0	1752

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[m3]	%							
EC-BS43 [ha-m]	25yr-6hr-10 %	0.56	0.00	0.38	0.00	0.00	0.00	0.18
EC-BS43 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS43 [m3]	25yr-6hr-90 %	5580	0	3828	0	0	0	1752
EC-BS43 [ha-m]	25yr-6hr-90 %	0.56	0.00	0.38	0.00	0.00	0.00	0.18

Simple Basin: EC-BS44

Scenario: 38701-EC
Node: EC-N44
Hydrograph Method: NRCS Unit Hydrograph
Infiltration Method: Curve Number
Time of Concentration: 6.0000 min
Max Allowable Q: 0.000 cms
Time Shift: 0.0000 hr
Unit Hydrograph: UH484
Peaking Factor: 484.0
Area: 3.0000 ha
Curve Number: 83.0
% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS44	100yr-12hr-10%	0.888	0.7667	27.7	22.3	3.0000	83.0	0.00	0.00
EC-BS44	100yr-12hr-90%	0.723	12.0000	27.7	22.3	3.0000	83.0	0.00	0.00
EC-BS44	100yr-24hr-10%	0.841	1.0000	36.7	31.1	3.0000	83.0	0.00	0.00
EC-BS44	100yr-24hr-90%	0.798	24.0000	36.7	31.1	3.0000	83.0	0.00	0.00
EC-BS44	100yr-6hr-10%	0.911	0.6833	19.7	14.6	3.0000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS44	100yr-6hr-90%	0.636	6.0000	19.7	14.6	3.0000	83.0	0.00	0.00
EC-BS44	10yr-12hr-10%	0.422	1.0167	15.7	10.8	3.0000	83.0	0.00	0.00
EC-BS44	10yr-12hr-90%	0.392	12.0000	15.7	10.8	3.0000	83.0	0.00	0.00
EC-BS44	10yr-24hr-10%	0.373	1.0167	19.5	14.4	3.0000	83.0	0.00	0.00
EC-BS44	10yr-24hr-90%	0.409	24.0000	19.5	14.4	3.0000	83.0	0.00	0.00
EC-BS44	10yr-6hr-10%	0.515	0.8500	12.9	8.2	3.0000	83.0	0.00	0.00
EC-BS44	10yr-6hr-90%	0.396	6.0000	12.9	8.2	3.0000	83.0	0.00	0.00
EC-BS44	25yr-12hr-10%	0.586	0.7833	20.1	15.0	3.0000	83.0	0.00	0.00
EC-BS44	25yr-12hr-90%	0.514	12.0000	20.1	15.0	3.0000	83.0	0.00	0.00
EC-BS44	25yr-24hr-10%	0.541	1.0167	25.7	20.4	3.0000	83.0	0.00	0.00
EC-BS44	25yr-24hr-90%	0.550	24.0000	25.7	20.4	3.0000	83.0	0.00	0.00
EC-BS44	25yr-6hr-10%	0.664	0.7000	15.5	10.6	3.0000	83.0	0.00	0.00
EC-BS44	25yr-6hr-90%	0.488	6.0000	15.5	10.6	3.0000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS44 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS44 [m3]	100yr-12hr-10%	8310	0	6692	0	0	0	1618
EC-BS44 [ha-m]	100yr-12hr-10%	0.83	0.00	0.67	0.00	0.00	0.00	0.16
EC-BS44 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS44 [m3]	100yr-12hr-90%	8310	0	6692	0	0	0	1618
EC-BS44 [ha-m]	100yr-12hr-90%	0.83	0.00	0.67	0.00	0.00	0.00	0.16
EC-BS44 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS44 [m3]	100yr-24hr-10%	11010	0	9337	0	0	0	1673
EC-BS44 [ha-m]	100yr-24hr-10%	1.10	0.00	0.93	0.00	0.00	0.00	0.17
EC-BS44 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS44 [m3]	100yr-24hr-90%	11010	0	9337	0	0	0	1673
EC-BS44 [ha-m]	100yr-24hr-90%	1.10	0.00	0.93	0.00	0.00	0.00	0.17
EC-BS44 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS44 [m3]	100yr-6hr-10%	5910	0	4378	0	0	0	1532
EC-BS44 [ha-m]	100yr-6hr-10%	0.59	0.00	0.44	0.00	0.00	0.00	0.15
EC-BS44 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS44 [m3]	100yr-6hr-90%	5910	0	4378	0	0	0	1532
EC-BS44 [ha-m]	100yr-6hr-90%	0.59	0.00	0.44	0.00	0.00	0.00	0.15
EC-BS44 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS44 [m3]	10yr-12hr-10%	4710	0	3246	0	0	0	1464
EC-BS44 [ha-m]	10yr-12hr-10%	0.47	0.00	0.32	0.00	0.00	0.00	0.15
EC-BS44 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS44 [m3]	10yr-12hr-90%	4710	0	3246	0	0	0	1464
EC-BS44 [ha-m]	10yr-12hr-90%	0.47	0.00	0.32	0.00	0.00	0.00	0.15
EC-BS44 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS44 [m3]	10yr-24hr-10%	5850	0	4321	0	0	0	1529
EC-BS44 [ha-m]	10yr-24hr-10%	0.59	0.00	0.43	0.00	0.00	0.00	0.15
EC-BS44 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS44 [m3]	10yr-24hr-90%	5850	0	4321	0	0	0	1529
EC-BS44 [ha-m]	10yr-24hr-90%	0.59	0.00	0.43	0.00	0.00	0.00	0.15
EC-BS44 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS44 [m3]	10yr-6hr-10 %	3870	0	2473	0	0	0	1397
EC-BS44 [ha-m]	10yr-6hr-10 %	0.39	0.00	0.25	0.00	0.00	0.00	0.14
EC-BS44 [cm]	10yr-6hr-90 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS44 [m3]	10yr-6hr-90 %	3870	0	2473	0	0	0	1397
EC-BS44 [ha-m]	10yr-6hr-90 %	0.39	0.00	0.25	0.00	0.00	0.00	0.14
EC-BS44 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS44 [m3]	25yr-12hr-10%	6030	0	4492	0	0	0	1538
EC-BS44 [ha-m]	25yr-12hr-10%	0.60	0.00	0.45	0.00	0.00	0.00	0.15
EC-BS44 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS44 [m3]	25yr-12hr-90%	6030	0	4492	0	0	0	1538
EC-BS44 [ha-m]	25yr-12hr-90%	0.60	0.00	0.45	0.00	0.00	0.00	0.15
EC-BS44 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS44 [m3]	25yr-24hr-10%	7710	0	6110	0	0	0	1600
EC-BS44 [ha-m]	25yr-24hr-10%	0.77	0.00	0.61	0.00	0.00	0.00	0.16
EC-BS44 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS44 [m3]	25yr-24hr-90%	7710	0	6110	0	0	0	1600
EC-BS44 [ha-m]	25yr-24hr-90%	0.77	0.00	0.61	0.00	0.00	0.00	0.16
EC-BS44 [cm]	25yr-6hr-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS44 [m3]	25yr-6hr-10 %	4650	0	3190	0	0	0	1460
EC-BS44 [ha-m]	25yr-6hr-10 %	0.47	0.00	0.32	0.00	0.00	0.00	0.15
EC-BS44 [cm]	25yr-6hr-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS44 [m3]	25yr-6hr-90 %	4650	0	3190	0	0	0	1460
EC-BS44 [ha-m]	25yr-6hr-90 %	0.47	0.00	0.32	0.00	0.00	0.00	0.15

Simple Basin: EC-BS45

Scenario:	38701-EC
Node:	EC-N45
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.4000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS45	100yr-12hr-10%	0.415	0.7667	27.7	22.3	1.4000	83.0	0.00	0.00
EC-BS45	100yr-12hr-90%	0.338	12.0000	27.7	22.3	1.4000	83.0	0.00	0.00
EC-BS45	100yr-24hr-10%	0.392	1.0000	36.7	31.1	1.4000	83.0	0.00	0.00
EC-BS45	100yr-24hr-90%	0.372	24.0000	36.7	31.1	1.4000	83.0	0.00	0.00
EC-BS45	100yr-6hr-10%	0.425	0.6833	19.7	14.6	1.4000	83.0	0.00	0.00
EC-BS45	100yr-6hr-90%	0.297	6.0000	19.7	14.6	1.4000	83.0	0.00	0.00
EC-BS45	10yr-12hr-10%	0.197	1.0167	15.7	10.8	1.4000	83.0	0.00	0.00
EC-BS45	10yr-12hr-90%	0.183	12.0000	15.7	10.8	1.4000	83.0	0.00	0.00
EC-BS45	10yr-24hr-10%	0.174	1.0167	19.5	14.4	1.4000	83.0	0.00	0.00
EC-BS45	10yr-24hr-90%	0.191	24.0000	19.5	14.4	1.4000	83.0	0.00	0.00
EC-BS45	10yr-6hr-10%	0.240	0.8500	12.9	8.2	1.4000	83.0	0.00	0.00
EC-BS45	10yr-6hr-90%	0.185	6.0000	12.9	8.2	1.4000	83.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS45	25yr-12hr-10%	0.273	0.7833	20.1	15.0	1.4000	83.0	0.00	0.00
EC-BS45	25yr-12hr-90%	0.240	12.0000	20.1	15.0	1.4000	83.0	0.00	0.00
EC-BS45	25yr-24hr-10%	0.253	1.0167	25.7	20.4	1.4000	83.0	0.00	0.00
EC-BS45	25yr-24hr-90%	0.257	24.0000	25.7	20.4	1.4000	83.0	0.00	0.00
EC-BS45	25yr-6hr-10%	0.310	0.7000	15.5	10.6	1.4000	83.0	0.00	0.00
EC-BS45	25yr-6hr-90%	0.228	6.0000	15.5	10.6	1.4000	83.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS45 [cm]	100yr-12hr-10%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS45 [m3]	100yr-12hr-10%	3878	0	3123	0	0	0	755
EC-BS45 [ha-m]	100yr-12hr-10%	0.39	0.00	0.31	0.00	0.00	0.00	0.08
EC-BS45 [cm]	100yr-12hr-90%	27.7	0.0	22.3	0.0	0.0	0.0	5.4
EC-BS45 [m3]	100yr-12hr-90%	3878	0	3123	0	0	0	755
EC-BS45 [ha-m]	100yr-12hr-90%	0.39	0.00	0.31	0.00	0.00	0.00	0.08
EC-BS45 [cm]	100yr-24hr-10%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS45 [m3]	100yr-24hr-10%	5138	0	4357	0	0	0	781
EC-BS45 [ha-m]	100yr-24hr-10%	0.51	0.00	0.44	0.00	0.00	0.00	0.08
EC-BS45 [cm]	100yr-24hr-90%	36.7	0.0	31.1	0.0	0.0	0.0	5.6
EC-BS45 [m3]	100yr-24hr-90%	5138	0	4357	0	0	0	781
EC-BS45 [ha-m]	100yr-24hr-90%	0.51	0.00	0.44	0.00	0.00	0.00	0.08
EC-BS45 [cm]	100yr-6hr-10%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS45 [m3]	100yr-6hr-10%	2758	0	2043	0	0	0	715

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS45 [ha-m]	100yr-6hr-10%	0.28	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	100yr-6hr-90%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS45 [m3]	100yr-6hr-90%	2758	0	2043	0	0	0	715
EC-BS45 [ha-m]	100yr-6hr-90%	0.28	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-12hr-10%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS45 [m3]	10yr-12hr-10%	2198	0	1515	0	0	0	683
EC-BS45 [ha-m]	10yr-12hr-10%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-12hr-90%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS45 [m3]	10yr-12hr-90%	2198	0	1515	0	0	0	683
EC-BS45 [ha-m]	10yr-12hr-90%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-24hr-10%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS45 [m3]	10yr-24hr-10%	2730	0	2016	0	0	0	714
EC-BS45 [ha-m]	10yr-24hr-10%	0.27	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-24hr-90%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS45 [m3]	10yr-24hr-90%	2730	0	2016	0	0	0	714
EC-BS45 [ha-m]	10yr-24hr-90%	0.27	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-6hr-10%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS45 [m3]	10yr-6hr-10%	1806	0	1154	0	0	0	652
EC-BS45 [ha-m]	10yr-6hr-10%	0.18	0.00	0.12	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-6hr-90%	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS45 [m3]	10yr-6hr-90%	1806	0	1154	0	0	0	652
EC-BS45 [ha-m]	10yr-6hr-90%	0.18	0.00	0.12	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-12hr-10%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS45 [m3]	25yr-12hr-10%	2814	0	2096	0	0	0	718

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS45 [ha-m]	25yr-12hr-10%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-12hr-90%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS45 [m3]	25yr-12hr-90%	2814	0	2096	0	0	0	718
EC-BS45 [ha-m]	25yr-12hr-90%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-24hr-10%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS45 [m3]	25yr-24hr-10%	3598	0	2851	0	0	0	747
EC-BS45 [ha-m]	25yr-24hr-10%	0.36	0.00	0.29	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-24hr-90%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS45 [m3]	25yr-24hr-90%	3598	0	2851	0	0	0	747
EC-BS45 [ha-m]	25yr-24hr-90%	0.36	0.00	0.29	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-6hr-10%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS45 [m3]	25yr-6hr-10%	2170	0	1489	0	0	0	681
EC-BS45 [ha-m]	25yr-6hr-10%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25yr-6hr-90%	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS45 [m3]	25yr-6hr-90%	2170	0	1489	0	0	0	681
EC-BS45 [ha-m]	25yr-6hr-90%	0.22	0.00	0.15	0.00	0.00	0.00	0.07

Simple Basin: EC-BS46

Scenario:	38701-EC
Node:	EC-N46
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.1000 ha
Curve Number:	87.0

% Impervious: 0.00
% DCIA: 0.00
% Direct: 0.00
Rainfall Name:

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS46	100yr-12hr-10%	4.743	0.7667	27.7	23.7	15.1000	87.0	0.00	0.00
EC-BS46	100yr-12hr-90%	3.684	12.0000	27.7	23.7	15.1000	87.0	0.00	0.00
EC-BS46	100yr-24hr-10%	4.427	0.5333	36.7	32.6	15.1000	87.0	0.00	0.00
EC-BS46	100yr-24hr-90%	4.050	24.0000	36.7	32.6	15.1000	87.0	0.00	0.00
EC-BS46	100yr-6hr-10%	4.911	0.7000	19.7	15.8	15.1000	87.0	0.00	0.00
EC-BS46	100yr-6hr-90%	3.280	5.8833	19.7	15.8	15.1000	87.0	0.00	0.00
EC-BS46	10yr-12hr-10%	2.343	0.7833	15.7	11.9	15.1000	87.0	0.00	0.00
EC-BS46	10yr-12hr-90%	2.030	12.0000	15.7	11.9	15.1000	87.0	0.00	0.00
EC-BS46	10yr-24hr-10%	2.081	1.0167	19.5	15.6	15.1000	87.0	0.00	0.00
EC-BS46	10yr-24hr-90%	2.108	24.0000	19.5	15.6	15.1000	87.0	0.00	0.00
EC-BS46	10yr-6hr-10%	2.890	0.7167	12.9	9.3	15.1000	87.0	0.00	0.00
EC-BS46	10yr-6hr-90%	2.078	6.0000	12.9	9.3	15.1000	87.0	0.00	0.00
EC-BS46	25yr-12hr-10%	3.225	0.7833	20.1	16.2	15.1000	87.0	0.00	0.00
EC-BS46	25yr-12hr-90%	2.640	12.0000	20.1	16.2	15.1000	87.0	0.00	0.00
EC-BS46	25yr-24hr-10%	2.930	1.0167	25.7	21.7	15.1000	87.0	0.00	0.00
EC-BS46	25yr-24hr-90%	2.811	24.0000	25.7	21.7	15.1000	87.0	0.00	0.00
EC-BS46	25yr-6hr-10%	3.662	0.7000	15.5	11.7	15.1000	87.0	0.00	0.00
EC-BS46	25yr-6hr-90%	2.539	6.0000	15.5	11.7	15.1000	87.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS46 [cm]	100yr-12hr-10%	27.7	0.0	23.7	0.0	0.0	0.0	4.0
EC-BS46 [m3]	100yr-12hr-10%	41827	0	35715	0	0	0	6112
EC-BS46 [ha-m]	100yr-12hr-10%	4.18	0.00	3.57	0.00	0.00	0.00	0.61
EC-BS46 [cm]	100yr-12hr-90%	27.7	0.0	23.7	0.0	0.0	0.0	4.0
EC-BS46 [m3]	100yr-12hr-90%	41827	0	35715	0	0	0	6112
EC-BS46 [ha-m]	100yr-12hr-90%	4.18	0.00	3.57	0.00	0.00	0.00	0.61
EC-BS46 [cm]	100yr-24hr-10%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BS46 [m3]	100yr-24hr-10%	55417	0	49166	0	0	0	6251
EC-BS46 [ha-m]	100yr-24hr-10%	5.54	0.00	4.92	0.00	0.00	0.00	0.63
EC-BS46 [cm]	100yr-24hr-90%	36.7	0.0	32.6	0.0	0.0	0.0	4.1
EC-BS46 [m3]	100yr-24hr-90%	55417	0	49166	0	0	0	6251
EC-BS46 [ha-m]	100yr-24hr-90%	5.54	0.00	4.92	0.00	0.00	0.00	0.63
EC-BS46 [cm]	100yr-6hr-10%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BS46 [m3]	100yr-6hr-10%	29747	0	23865	0	0	0	5882
EC-BS46 [ha-m]	100yr-6hr-10%	2.97	0.00	2.39	0.00	0.00	0.00	0.59
EC-BS46 [cm]	100yr-6hr-90%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BS46 [m3]	100yr-6hr-90%	29747	0	23865	0	0	0	5882
EC-BS46 [ha-m]	100yr-6hr-90%	2.97	0.00	2.39	0.00	0.00	0.00	0.59
EC-BS46 [cm]	10yr-12hr-10%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BS46 [m3]	10yr-12hr-10%	23707	0	18019	0	0	0	5688
EC-BS46 [ha-m]	10yr-12hr-10%	2.37	0.00	1.80	0.00	0.00	0.00	0.57
EC-BS46 [cm]	10yr-12hr-90%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BS46 [m3]	10yr-12hr-90%	23707	0	18019	0	0	0	5688
EC-BS46	10yr-12hr-9	2.37	0.00	1.80	0.00	0.00	0.00	0.57

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS46 [cm]	10yr-24hr-10%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BS46 [m3]	10yr-24hr-10%	29445	0	23571	0	0	0	5874
EC-BS46 [ha-m]	10yr-24hr-10%	2.94	0.00	2.36	0.00	0.00	0.00	0.59
EC-BS46 [cm]	10yr-24hr-90%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BS46 [m3]	10yr-24hr-90%	29445	0	23571	0	0	0	5874
EC-BS46 [ha-m]	10yr-24hr-90%	2.94	0.00	2.36	0.00	0.00	0.00	0.59
EC-BS46 [cm]	10yr-6hr-10%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BS46 [m3]	10yr-6hr-10%	19479	0	13989	0	0	0	5490
EC-BS46 [ha-m]	10yr-6hr-10%	1.95	0.00	1.40	0.00	0.00	0.00	0.55
EC-BS46 [cm]	10yr-6hr-90%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BS46 [m3]	10yr-6hr-90%	19479	0	13989	0	0	0	5490
EC-BS46 [ha-m]	10yr-6hr-90%	1.95	0.00	1.40	0.00	0.00	0.00	0.55
EC-BS46 [cm]	25yr-12hr-10%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BS46 [m3]	25yr-12hr-10%	30351	0	24453	0	0	0	5898
EC-BS46 [ha-m]	25yr-12hr-10%	3.04	0.00	2.45	0.00	0.00	0.00	0.59
EC-BS46 [cm]	25yr-12hr-90%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BS46 [m3]	25yr-12hr-90%	30351	0	24453	0	0	0	5898
EC-BS46 [ha-m]	25yr-12hr-90%	3.04	0.00	2.45	0.00	0.00	0.00	0.59
EC-BS46 [cm]	25yr-24hr-10%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BS46 [m3]	25yr-24hr-10%	38807	0	32739	0	0	0	6068
EC-BS46 [ha-m]	25yr-24hr-10%	3.88	0.00	3.27	0.00	0.00	0.00	0.61
EC-BS46 [cm]	25yr-24hr-90%	25.7	0.0	21.7	0.0	0.0	0.0	4.0
EC-BS46 [m3]	25yr-24hr-90%	38807	0	32739	0	0	0	6068
EC-BS46	25yr-24hr-9	3.88	0.00	3.27	0.00	0.00	0.00	0.61

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
[ha-m]	0%							
EC-BS46 [cm]	25yr-6hr-10 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BS46 [m3]	25yr-6hr-10 %	23405	0	17730	0	0	0	5675
EC-BS46 [ha-m]	25yr-6hr-10 %	2.34	0.00	1.77	0.00	0.00	0.00	0.57
EC-BS46 [cm]	25yr-6hr-90 %	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BS46 [m3]	25yr-6hr-90 %	23405	0	17730	0	0	0	5675
EC-BS46 [ha-m]	25yr-6hr-90 %	2.34	0.00	1.77	0.00	0.00	0.00	0.57

Simple Basin: EC-BS47

Scenario:	38701-EC
Node:	EC-N47
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5000 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin Runoff Summary [38701-EC]

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS47	100yr-12hr-10%	0.788	0.7667	27.7	23.6	2.5000	87.0	0.00	0.00
EC-BS47	100yr-12hr-90%	0.610	12.0000	27.7	23.6	2.5000	87.0	0.00	0.00
EC-BS47	100yr-24hr-10%	0.744	0.5167	36.7	32.5	2.5000	87.0	0.00	0.00

Basin Name	Sim Name	Max Flow [cms]	Time to Max Flow [hrs]	Total Rainfall [cm]	Total Runoff [cm]	Area [ha]	Equivalent Curve Number	% Imperv	% DCIA
EC-BS47	100yr-24hr-90%	0.670	24.0000	36.7	32.5	2.5000	87.0	0.00	0.00
EC-BS47	100yr-6hr-10%	0.816	0.6833	19.7	15.8	2.5000	87.0	0.00	0.00
EC-BS47	100yr-6hr-90%	0.543	5.8667	19.7	15.8	2.5000	87.0	0.00	0.00
EC-BS47	10yr-12hr-10%	0.390	0.7667	15.7	11.9	2.5000	87.0	0.00	0.00
EC-BS47	10yr-12hr-90%	0.336	12.0000	15.7	11.9	2.5000	87.0	0.00	0.00
EC-BS47	10yr-24hr-10%	0.346	1.0167	19.5	15.6	2.5000	87.0	0.00	0.00
EC-BS47	10yr-24hr-90%	0.349	24.0000	19.5	15.6	2.5000	87.0	0.00	0.00
EC-BS47	10yr-6hr-10%	0.481	0.7000	12.9	9.3	2.5000	87.0	0.00	0.00
EC-BS47	10yr-6hr-90%	0.344	6.0000	12.9	9.3	2.5000	87.0	0.00	0.00
EC-BS47	25yr-12hr-10%	0.536	0.7667	20.1	16.2	2.5000	87.0	0.00	0.00
EC-BS47	25yr-12hr-90%	0.437	12.0000	20.1	16.2	2.5000	87.0	0.00	0.00
EC-BS47	25yr-24hr-10%	0.487	1.0000	25.7	21.6	2.5000	87.0	0.00	0.00
EC-BS47	25yr-24hr-90%	0.465	24.0000	25.7	21.6	2.5000	87.0	0.00	0.00
EC-BS47	25yr-6hr-10%	0.609	0.6833	15.5	11.7	2.5000	87.0	0.00	0.00
EC-BS47	25yr-6hr-90%	0.420	6.0000	15.5	11.7	2.5000	87.0	0.00	0.00

Simple Basin Mass Balance Summary [38701-EC]

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS47 [cm]	100yr-12hr-10%	27.7	0.0	23.6	0.0	0.0	0.0	4.1
EC-BS47 [m3]	100yr-12hr-10%	6925	0	5904	0	0	0	1021
EC-BS47 [ha-m]	100yr-12hr-10%	0.69	0.00	0.59	0.00	0.00	0.00	0.10
EC-BS47 [cm]	100yr-12hr-90%	27.7	0.0	23.6	0.0	0.0	0.0	4.1
EC-BS47 [m3]	100yr-12hr-90%	6925	0	5904	0	0	0	1021

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS47 [ha-m]	100yr-12hr-90%	0.69	0.00	0.59	0.00	0.00	0.00	0.10
EC-BS47 [cm]	100yr-24hr-10%	36.7	0.0	32.5	0.0	0.0	0.0	4.2
EC-BS47 [m3]	100yr-24hr-10%	9175	0	8128	0	0	0	1047
EC-BS47 [ha-m]	100yr-24hr-10%	0.92	0.00	0.81	0.00	0.00	0.00	0.10
EC-BS47 [cm]	100yr-24hr-90%	36.7	0.0	32.5	0.0	0.0	0.0	4.2
EC-BS47 [m3]	100yr-24hr-90%	9175	0	8128	0	0	0	1047
EC-BS47 [ha-m]	100yr-24hr-90%	0.92	0.00	0.81	0.00	0.00	0.00	0.10
EC-BS47 [cm]	100yr-6hr-10%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BS47 [m3]	100yr-6hr-10%	4925	0	3945	0	0	0	980
EC-BS47 [ha-m]	100yr-6hr-10%	0.49	0.00	0.39	0.00	0.00	0.00	0.10
EC-BS47 [cm]	100yr-6hr-90%	19.7	0.0	15.8	0.0	0.0	0.0	3.9
EC-BS47 [m3]	100yr-6hr-90%	4925	0	3945	0	0	0	980
EC-BS47 [ha-m]	100yr-6hr-90%	0.49	0.00	0.39	0.00	0.00	0.00	0.10
EC-BS47 [cm]	10yr-12hr-10%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BS47 [m3]	10yr-12hr-10%	3925	0	2979	0	0	0	946
EC-BS47 [ha-m]	10yr-12hr-10%	0.39	0.00	0.30	0.00	0.00	0.00	0.09
EC-BS47 [cm]	10yr-12hr-90%	15.7	0.0	11.9	0.0	0.0	0.0	3.8
EC-BS47 [m3]	10yr-12hr-90%	3925	0	2979	0	0	0	946
EC-BS47 [ha-m]	10yr-12hr-90%	0.39	0.00	0.30	0.00	0.00	0.00	0.09
EC-BS47 [cm]	10yr-24hr-10%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BS47 [m3]	10yr-24hr-10%	4875	0	3896	0	0	0	979
EC-BS47 [ha-m]	10yr-24hr-10%	0.49	0.00	0.39	0.00	0.00	0.00	0.10
EC-BS47 [cm]	10yr-24hr-90%	19.5	0.0	15.6	0.0	0.0	0.0	3.9
EC-BS47 [m3]	10yr-24hr-90%	4875	0	3896	0	0	0	979

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS47 [ha-m]	10yr-24hr-90%	0.49	0.00	0.39	0.00	0.00	0.00	0.10
EC-BS47 [cm]	10yr-6hr-10%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BS47 [m3]	10yr-6hr-10%	3225	0	2313	0	0	0	912
EC-BS47 [ha-m]	10yr-6hr-10%	0.32	0.00	0.23	0.00	0.00	0.00	0.09
EC-BS47 [cm]	10yr-6hr-90%	12.9	0.0	9.3	0.0	0.0	0.0	3.6
EC-BS47 [m3]	10yr-6hr-90%	3225	0	2313	0	0	0	912
EC-BS47 [ha-m]	10yr-6hr-90%	0.32	0.00	0.23	0.00	0.00	0.00	0.09
EC-BS47 [cm]	25yr-12hr-10%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BS47 [m3]	25yr-12hr-10%	5025	0	4042	0	0	0	983
EC-BS47 [ha-m]	25yr-12hr-10%	0.50	0.00	0.40	0.00	0.00	0.00	0.10
EC-BS47 [cm]	25yr-12hr-90%	20.1	0.0	16.2	0.0	0.0	0.0	3.9
EC-BS47 [m3]	25yr-12hr-90%	5025	0	4042	0	0	0	983
EC-BS47 [ha-m]	25yr-12hr-90%	0.50	0.00	0.40	0.00	0.00	0.00	0.10
EC-BS47 [cm]	25yr-24hr-10%	25.7	0.0	21.6	0.0	0.0	0.0	4.1
EC-BS47 [m3]	25yr-24hr-10%	6425	0	5412	0	0	0	1013
EC-BS47 [ha-m]	25yr-24hr-10%	0.64	0.00	0.54	0.00	0.00	0.00	0.10
EC-BS47 [cm]	25yr-24hr-90%	25.7	0.0	21.6	0.0	0.0	0.0	4.1
EC-BS47 [m3]	25yr-24hr-90%	6425	0	5412	0	0	0	1013
EC-BS47 [ha-m]	25yr-24hr-90%	0.64	0.00	0.54	0.00	0.00	0.00	0.10
EC-BS47 [cm]	25yr-6hr-10%	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BS47 [m3]	25yr-6hr-10%	3875	0	2931	0	0	0	944
EC-BS47 [ha-m]	25yr-6hr-10%	0.39	0.00	0.29	0.00	0.00	0.00	0.09
EC-BS47 [cm]	25yr-6hr-90%	15.5	0.0	11.7	0.0	0.0	0.0	3.8
EC-BS47 [m3]	25yr-6hr-90%	3875	0	2931	0	0	0	944

Basin Name	Sim Name	Total Rainfall	Total Irrigation	Total Runoff	Total ET	Total Initial Abst	Total Recharge	Change Soil Storage
EC-BS47 [ha-m]	25yr-6hr-90 %	0.39	0.00	0.29	0.00	0.00	0.00	0.09

Node: EC-N01

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N01	100yr-12hr-10%	0.00	0.00	0.0000	1.437	0.000	0.0
EC-N01	100yr-12hr-90%	0.00	0.00	0.0000	1.101	0.000	0.0
EC-N01	100yr-24hr-10%	0.00	0.00	0.0000	1.374	0.000	0.0
EC-N01	100yr-24hr-90%	0.00	0.00	0.0000	1.207	0.000	0.0
EC-N01	100yr-6hr-10%	0.00	0.00	0.0000	1.491	0.000	0.0
EC-N01	100yr-6hr-90%	0.00	0.00	0.0000	0.982	0.000	0.0
EC-N01	10yr-12hr-10%	0.00	0.00	0.0000	0.723	0.000	0.0
EC-N01	10yr-12hr-90%	0.00	0.00	0.0000	0.609	0.000	0.0
EC-N01	10yr-24hr-10%	0.00	0.00	0.0000	0.638	0.000	0.0
EC-N01	10yr-24hr-90%	0.00	0.00	0.0000	0.630	0.000	0.0
EC-N01	10yr-6hr-10%	0.00	0.00	0.0000	0.890	0.000	0.0
EC-N01	10yr-6hr-90%	0.00	0.00	0.0000	0.624	0.000	0.0
EC-N01	25yr-12hr-10%	0.00	0.00	0.0000	0.986	0.000	0.0
EC-N01	25yr-12hr-90%	0.00	0.00	0.0000	0.790	0.000	0.0
EC-N01	25yr-24hr-10%	0.00	0.00	0.0000	0.891	0.000	0.0
EC-N01	25yr-24hr-90%	0.00	0.00	0.0000	0.839	0.000	0.0
EC-N01	25yr-6hr-10%	0.00	0.00	0.0000	1.120	0.000	0.0
EC-N01	25yr-6hr-90%	0.00	0.00	0.0000	0.761	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N01 : In	100yr-12 hr-10%	0	10773	0	0	0	0	10773	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-12 hr-90%	0	10773	0	0	0	0	10773	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-24 hr-10%	0	14783	0	0	0	0	14783	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-24 hr-90%	0	14783	0	0	0	0	14783	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-6hr-10%	0	7235	0	0	0	0	7235	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-6hr-90%	0	7235	0	0	0	0	7235	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-12hr-10%	0	5487	0	0	0	0	5487	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-12hr-90%	0	5487	0	0	0	0	5487	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-24hr-10%	0	7148	0	0	0	0	7148	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-24hr-90%	0	7148	0	0	0	0	7148	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-6hr-10%	0	4279	0	0	0	0	4279	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 :	10yr-6hr-	0	4279	0	0	0	0	4279	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-12hr-10%	0	7411	0	0	0	0	7411	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-12hr-90%	0	7411	0	0	0	0	7411	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-24hr-10%	0	9885	0	0	0	0	9885	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-24hr-90%	0	9885	0	0	0	0	9885	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-6hr-10%	0	5401	0	0	0	0	5401	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-6hr-90%	0	5401	0	0	0	0	5401	0	100.00
EC-N01 : Out		0	0	0	0	0	0			

Node: EC-N02

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N02	100yr-12hr-10%	0.00	0.00	0.0000	0.862	0.000	0.0
EC-N02	100yr-12hr-90%	0.00	0.00	0.0000	0.661	0.000	0.0
EC-N02	100yr-24hr-10%	0.00	0.00	0.0000	0.824	0.000	0.0
EC-N02	100yr-24hr-90%	0.00	0.00	0.0000	0.724	0.000	0.0
EC-N02	100yr-6hr-10%	0.00	0.00	0.0000	0.894	0.000	0.0
EC-N02	100yr-6hr-90%	0.00	0.00	0.0000	0.589	0.000	0.0
EC-N02	10yr-12hr-10%	0.00	0.00	0.0000	0.434	0.000	0.0
EC-N02	10yr-12hr-90%	0.00	0.00	0.0000	0.366	0.000	0.0
EC-N02	10yr-24hr-10%	0.00	0.00	0.0000	0.383	0.000	0.0
EC-N02	10yr-24hr-90%	0.00	0.00	0.0000	0.378	0.000	0.0
EC-N02	10yr-6hr-10%	0.00	0.00	0.0000	0.534	0.000	0.0
EC-N02	10yr-6hr-90%	0.00	0.00	0.0000	0.374	0.000	0.0
EC-N02	25yr-12hr-10%	0.00	0.00	0.0000	0.591	0.000	0.0
EC-N02	25yr-12hr-90%	0.00	0.00	0.0000	0.474	0.000	0.0
EC-N02	25yr-24hr-10%	0.00	0.00	0.0000	0.534	0.000	0.0
EC-N02	25yr-24hr-90%	0.00	0.00	0.0000	0.503	0.000	0.0
EC-N02	25yr-6hr-10%	0.00	0.00	0.0000	0.672	0.000	0.0
EC-N02	25yr-6hr-90%	0.00	0.00	0.0000	0.457	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N02 : In	100yr-12hr-10%	0	6464	0	0	0	0	6464	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-12hr-90%	0	6464	0	0	0	0	6464	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-24hr-10%	0	8870	0	0	0	0	8870	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-24hr-90%	0	8870	0	0	0	0	8870	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-6hr-10%	0	4341	0	0	0	0	4341	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-6hr-90%	0	4341	0	0	0	0	4341	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-12hr-10%	0	3292	0	0	0	0	3292	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-12hr-90%	0	3292	0	0	0	0	3292	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-24hr-10%	0	4289	0	0	0	0	4289	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-24hr-90%	0	4289	0	0	0	0	4289	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-6hr-10%	0	2568	0	0	0	0	2568	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-6hr-90%	0	2568	0	0	0	0	2568	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-12hr-10%	0	4447	0	0	0	0	4447	0	100.00
EC-N02 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N02 : In	25yr-12hr-90%	0	4447	0	0	0	0	4447	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-24hr-10%	0	5931	0	0	0	0	5931	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-24hr-90%	0	5931	0	0	0	0	5931	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-6hr-10%	0	3240	0	0	0	0	3240	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-6hr-90%	0	3240	0	0	0	0	3240	0	100.00
EC-N02 : Out		0	0	0	0	0	0			

Node: EC-N03

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N03	100yr-12hr-10%	0.00	0.00	0.0000	1.788	0.000	0.0
EC-N03	100yr-12hr-90%	0.00	0.00	0.0000	1.370	0.000	0.0
EC-N03	100yr-24hr-1	0.00	0.00	0.0000	1.709	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N03	100yr-24hr-90%	0.00	0.00	0.0000	1.502	0.000	0.0
EC-N03	100yr-6hr-10%	0.00	0.00	0.0000	1.855	0.000	0.0
EC-N03	100yr-6hr-90%	0.00	0.00	0.0000	1.222	0.000	0.0
EC-N03	10yr-12hr-10%	0.00	0.00	0.0000	0.900	0.000	0.0
EC-N03	10yr-12hr-90%	0.00	0.00	0.0000	0.758	0.000	0.0
EC-N03	10yr-24hr-10%	0.00	0.00	0.0000	0.794	0.000	0.0
EC-N03	10yr-24hr-90%	0.00	0.00	0.0000	0.784	0.000	0.0
EC-N03	10yr-6hr-10%	0.00	0.00	0.0000	1.108	0.000	0.0
EC-N03	10yr-6hr-90%	0.00	0.00	0.0000	0.777	0.000	0.0
EC-N03	25yr-12hr-10%	0.00	0.00	0.0000	1.226	0.000	0.0
EC-N03	25yr-12hr-90%	0.00	0.00	0.0000	0.984	0.000	0.0
EC-N03	25yr-24hr-10%	0.00	0.00	0.0000	1.108	0.000	0.0
EC-N03	25yr-24hr-90%	0.00	0.00	0.0000	1.044	0.000	0.0
EC-N03	25yr-6hr-10%	0.00	0.00	0.0000	1.394	0.000	0.0
EC-N03	25yr-6hr-90%	0.00	0.00	0.0000	0.947	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N03 : In	100yr-12hr-10%	0	13406	0	0	0	0	13406	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	100yr-12hr-90%	0	13406	0	0	0	0	13406	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	100yr-24hr-10%	0	18396	0	0	0	0	18396	0	100.00
EC-N03 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N03 : In	100yr-24hr-90%	0	18396	0	0	0	0	18396	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	100yr-6hr-10%	0	9004	0	0	0	0	9004	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	100yr-6hr-90%	0	9004	0	0	0	0	9004	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-12hr-10%	0	6829	0	0	0	0	6829	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-12hr-90%	0	6829	0	0	0	0	6829	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-24hr-10%	0	8895	0	0	0	0	8895	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-24hr-90%	0	8895	0	0	0	0	8895	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-6hr-10%	0	5326	0	0	0	0	5326	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-6hr-90%	0	5326	0	0	0	0	5326	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-12hr-10%	0	9223	0	0	0	0	9223	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-12hr-90%	0	9223	0	0	0	0	9223	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 :	25yr-24h	0	12301	0	0	0	0	12301	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-24hr-90%	0	12301	0	0	0	0	12301	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-6hr-10%	0	6721	0	0	0	0	6721	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-6hr-90%	0	6721	0	0	0	0	6721	0	100.00
EC-N03 : Out		0	0	0	0	0	0			

Node: EC-N04

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N04	100yr-12hr-10%	0.00	0.00	0.0000	1.790	0.000	0.0
EC-N04	100yr-12hr-90%	0.00	0.00	0.0000	1.390	0.000	0.0
EC-N04	100yr-24hr-10%	0.00	0.00	0.0000	1.671	0.000	0.0
EC-N04	100yr-24hr-90%	0.00	0.00	0.0000	1.529	0.000	0.0
EC-N04	100yr-6hr-10%	0.00	0.00	0.0000	1.853	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N04	100yr-6hr-90 %	0.00	0.00	0.0000	1.238	0.000	0.0
EC-N04	10yr-12hr-10 %	0.00	0.00	0.0000	0.884	0.000	0.0
EC-N04	10yr-12hr-90 %	0.00	0.00	0.0000	0.766	0.000	0.0
EC-N04	10yr-24hr-10 %	0.00	0.00	0.0000	0.785	0.000	0.0
EC-N04	10yr-24hr-90 %	0.00	0.00	0.0000	0.796	0.000	0.0
EC-N04	10yr-6hr-10%	0.00	0.00	0.0000	1.090	0.000	0.0
EC-N04	10yr-6hr-90%	0.00	0.00	0.0000	0.784	0.000	0.0
EC-N04	25yr-12hr-10 %	0.00	0.00	0.0000	1.217	0.000	0.0
EC-N04	25yr-12hr-90 %	0.00	0.00	0.0000	0.996	0.000	0.0
EC-N04	25yr-24hr-10 %	0.00	0.00	0.0000	1.106	0.000	0.0
EC-N04	25yr-24hr-90 %	0.00	0.00	0.0000	1.061	0.000	0.0
EC-N04	25yr-6hr-10%	0.00	0.00	0.0000	1.382	0.000	0.0
EC-N04	25yr-6hr-90%	0.00	0.00	0.0000	0.958	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N04 : In	100yr-12 hr-10%	0	13482	0	0	0	0	13482	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	100yr-12 hr-90%	0	13482	0	0	0	0	13482	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	100yr-24 hr-10%	0	18559	0	0	0	0	18559	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	100yr-24 hr-90%	0	18559	0	0	0	0	18559	0	100.00
EC-N04 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N04 : In	100yr-6hr-10%	0	9008	0	0	0	0	9008	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	100yr-6hr-90%	0	9008	0	0	0	0	9008	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-12hr-10%	0	6802	0	0	0	0	6802	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-12hr-90%	0	6802	0	0	0	0	6802	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-24hr-10%	0	8897	0	0	0	0	8897	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-24hr-90%	0	8898	0	0	0	0	8898	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-6hr-10%	0	5281	0	0	0	0	5281	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-6hr-90%	0	5281	0	0	0	0	5281	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-12hr-10%	0	9231	0	0	0	0	9231	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-12hr-90%	0	9231	0	0	0	0	9231	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-24hr-10%	0	12358	0	0	0	0	12358	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-24hr-90%	0	12358	0	0	0	0	12358	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-6hr-10%	0	6693	0	0	0	0	6693	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-6hr-90%	0	6693	0	0	0	0	6693	0	100.00
EC-N04 : Out		0	0	0	0	0	0			

Node: EC-N05

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N05	100yr-12hr-10%	0.00	0.00	0.0000	5.946	0.000	0.0
EC-N05	100yr-12hr-90%	0.00	0.00	0.0000	4.738	0.000	0.0
EC-N05	100yr-24hr-10%	0.00	0.00	0.0000	5.630	0.000	0.0
EC-N05	100yr-24hr-90%	0.00	0.00	0.0000	5.312	0.000	0.0
EC-N05	100yr-6hr-10%	0.00	0.00	0.0000	6.090	0.000	0.0
EC-N05	100yr-6hr-90%	0.00	0.00	0.0000	4.280	0.000	0.0
EC-N05	10yr-12hr-10%	0.00	0.00	0.0000	2.895	0.000	0.0
EC-N05	10yr-12hr-90	0.00	0.00	0.0000	2.582	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N05	10yr-24hr-10 %	0.00	0.00	0.0000	2.526	0.000	0.0
EC-N05	10yr-24hr-90 %	0.00	0.00	0.0000	2.742	0.000	0.0
EC-N05	10yr-6hr-10%	0.00	0.00	0.0000	3.528	0.000	0.0
EC-N05	10yr-6hr-90%	0.00	0.00	0.0000	2.677	0.000	0.0
EC-N05	25yr-12hr-10 %	0.00	0.00	0.0000	3.980	0.000	0.0
EC-N05	25yr-12hr-90 %	0.00	0.00	0.0000	3.377	0.000	0.0
EC-N05	25yr-24hr-10 %	0.00	0.00	0.0000	3.641	0.000	0.0
EC-N05	25yr-24hr-90 %	0.00	0.00	0.0000	3.674	0.000	0.0
EC-N05	25yr-6hr-10%	0.00	0.00	0.0000	4.497	0.000	0.0
EC-N05	25yr-6hr-90%	0.00	0.00	0.0000	3.293	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N05 : In	100yr-12 hr-10%	0	46032	0	0	0	0	46032	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	100yr-12 hr-90%	0	46032	0	0	0	0	46032	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	100yr-24 hr-10%	0	63785	0	0	0	0	63785	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	100yr-24 hr-90%	0	63786	0	0	0	0	63786	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	100yr-6h r-10%	0	30437	0	0	0	0	30437	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 :	100yr-6h	0	30438	0	0	0	0	30438	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-12hr-10%	0	22778	0	0	0	0	22778	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-12hr-90%	0	22778	0	0	0	0	22778	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-24hr-10%	0	30052	0	0	0	0	30052	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-24hr-90%	0	30052	0	0	0	0	30052	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-6hr-10%	0	17520	0	0	0	0	17520	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-6hr-90%	0	17520	0	0	0	0	17520	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-12hr-10%	0	31210	0	0	0	0	31210	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-12hr-90%	0	31210	0	0	0	0	31210	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-24hr-10%	0	42111	0	0	0	0	42111	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-24hr-90%	0	42111	0	0	0	0	42111	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-6hr-10%	0	22399	0	0	0	0	22399	0	100.00
EC-N05 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N05 : In	25yr-6hr-90%	0	22399	0	0	0	0	22399	0	100.00
EC-N05 : Out		0	0	0	0	0	0			

Node: EC-N06

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N06	100yr-12hr-10%	0.00	0.00	0.0000	7.188	0.000	0.0
EC-N06	100yr-12hr-90%	0.00	0.00	0.0000	5.567	0.000	0.0
EC-N06	100yr-24hr-10%	0.00	0.00	0.0000	6.740	0.000	0.0
EC-N06	100yr-24hr-90%	0.00	0.00	0.0000	6.215	0.000	0.0
EC-N06	100yr-6hr-10%	0.00	0.00	0.0000	7.382	0.000	0.0
EC-N06	100yr-6hr-90%	0.00	0.00	0.0000	5.042	0.000	0.0
EC-N06	10yr-12hr-10%	0.00	0.00	0.0000	3.548	0.000	0.0
EC-N06	10yr-12hr-90%	0.00	0.00	0.0000	3.063	0.000	0.0
EC-N06	10yr-24hr-10%	0.00	0.00	0.0000	3.124	0.000	0.0
EC-N06	10yr-24hr-90%	0.00	0.00	0.0000	3.231	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N06	10yr-6hr-10%	0.00	0.00	0.0000	4.348	0.000	0.0
EC-N06	10yr-6hr-90%	0.00	0.00	0.0000	3.188	0.000	0.0
EC-N06	25yr-12hr-10 %	0.00	0.00	0.0000	4.852	0.000	0.0
EC-N06	25yr-12hr-90 %	0.00	0.00	0.0000	3.985	0.000	0.0
EC-N06	25yr-24hr-10 %	0.00	0.00	0.0000	4.429	0.000	0.0
EC-N06	25yr-24hr-90 %	0.00	0.00	0.0000	4.311	0.000	0.0
EC-N06	25yr-6hr-10%	0.00	0.00	0.0000	5.495	0.000	0.0
EC-N06	25yr-6hr-90%	0.00	0.00	0.0000	3.900	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N06 : In	100yr-12 hr-10%	0	55092	0	0	0	0	55092	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-12 hr-90%	0	55093	0	0	0	0	55093	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-24 hr-10%	0	75842	0	0	0	0	75842	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-24 hr-90%	0	75842	0	0	0	0	75842	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-6h r-10%	0	36813	0	0	0	0	36813	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-6h r-90%	0	36813	0	0	0	0	36813	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-12h r-10%	0	27796	0	0	0	0	27796	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-12hr-90%	0	27797	0	0	0	0	27797	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-24hr-10%	0	36359	0	0	0	0	36359	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-24hr-90%	0	36360	0	0	0	0	36360	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-6hr-10%	0	21579	0	0	0	0	21579	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-6hr-90%	0	21579	0	0	0	0	21579	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-12hr-10%	0	37721	0	0	0	0	37721	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-12hr-90%	0	37721	0	0	0	0	37721	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-24hr-10%	0	50502	0	0	0	0	50502	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-24hr-90%	0	50503	0	0	0	0	50503	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-6hr-10%	0	27349	0	0	0	0	27349	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-6hr-90%	0	27349	0	0	0	0	27349	0	100.00
EC-N06 : Out		0	0	0	0	0	0			

Node: EC-N07

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N07	100yr-12hr-10%	0.00	0.00	0.0000	5.156	0.000	0.0
EC-N07	100yr-12hr-90%	0.00	0.00	0.0000	4.050	0.000	0.0
EC-N07	100yr-24hr-10%	0.00	0.00	0.0000	4.855	0.000	0.0
EC-N07	100yr-24hr-90%	0.00	0.00	0.0000	4.526	0.000	0.0
EC-N07	100yr-6hr-10%	0.00	0.00	0.0000	5.287	0.000	0.0
EC-N07	100yr-6hr-90%	0.00	0.00	0.0000	3.659	0.000	0.0
EC-N07	10yr-12hr-10%	0.00	0.00	0.0000	2.526	0.000	0.0
EC-N07	10yr-12hr-90%	0.00	0.00	0.0000	2.218	0.000	0.0
EC-N07	10yr-24hr-10%	0.00	0.00	0.0000	2.217	0.000	0.0
EC-N07	10yr-24hr-90%	0.00	0.00	0.0000	2.345	0.000	0.0
EC-N07	10yr-6hr-10%	0.00	0.00	0.0000	3.090	0.000	0.0
EC-N07	10yr-6hr-90%	0.00	0.00	0.0000	2.302	0.000	0.0
EC-N07	25yr-12hr-10%	0.00	0.00	0.0000	3.457	0.000	0.0
EC-N07	25yr-12hr-90%	0.00	0.00	0.0000	2.894	0.000	0.0
EC-N07	25yr-24hr-10%	0.00	0.00	0.0000	3.167	0.000	0.0
EC-N07	25yr-24hr-90%	0.00	0.00	0.0000	3.135	0.000	0.0
EC-N07	25yr-6hr-10%	0.00	0.00	0.0000	3.920	0.000	0.0
EC-N07	25yr-6hr-90%	0.00	0.00	0.0000	2.823	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N07 : In	100yr-12 hr-10%	0	39644	0	0	0	0	39644	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-12 hr-90%	0	39644	0	0	0	0	39644	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-24 hr-10%	0	54752	0	0	0	0	54752	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-24 hr-90%	0	54752	0	0	0	0	54752	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-6hr-10%	0	26352	0	0	0	0	26352	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-6hr-90%	0	26352	0	0	0	0	26352	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-12hr-10%	0	19810	0	0	0	0	19810	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-12hr-90%	0	19810	0	0	0	0	19810	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-24hr-10%	0	26023	0	0	0	0	26023	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-24hr-90%	0	26023	0	0	0	0	26023	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-6hr-10%	0	15308	0	0	0	0	15308	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 :	10yr-6hr-	0	15308	0	0	0	0	15308	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-12hr-10%	0	27011	0	0	0	0	27011	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-12hr-90%	0	27012	0	0	0	0	27012	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-24hr-10%	0	36304	0	0	0	0	36304	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-24hr-90%	0	36304	0	0	0	0	36304	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-6hr-10%	0	19485	0	0	0	0	19485	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-6hr-90%	0	19486	0	0	0	0	19486	0	100.00
EC-N07 : Out		0	0	0	0	0	0			

Node: EC-N08

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N08	100yr-12hr-10%	0.00	0.00	0.0000	4.861	0.000	0.0
EC-N08	100yr-12hr-90%	0.00	0.00	0.0000	3.930	0.000	0.0
EC-N08	100yr-24hr-10%	0.00	0.00	0.0000	4.605	0.000	0.0
EC-N08	100yr-24hr-90%	0.00	0.00	0.0000	4.386	0.000	0.0
EC-N08	100yr-6hr-10%	0.00	0.00	0.0000	4.973	0.000	0.0
EC-N08	100yr-6hr-90%	0.00	0.00	0.0000	3.515	0.000	0.0
EC-N08	10yr-12hr-10%	0.00	0.00	0.0000	2.339	0.000	0.0
EC-N08	10yr-12hr-90%	0.00	0.00	0.0000	2.133	0.000	0.0
EC-N08	10yr-24hr-10%	0.00	0.00	0.0000	2.045	0.000	0.0
EC-N08	10yr-24hr-90%	0.00	0.00	0.0000	2.256	0.000	0.0
EC-N08	10yr-6hr-10%	0.00	0.00	0.0000	2.857	0.000	0.0
EC-N08	10yr-6hr-90%	0.00	0.00	0.0000	2.189	0.000	0.0
EC-N08	25yr-12hr-10%	0.00	0.00	0.0000	3.228	0.000	0.0
EC-N08	25yr-12hr-90%	0.00	0.00	0.0000	2.796	0.000	0.0
EC-N08	25yr-24hr-10%	0.00	0.00	0.0000	2.964	0.000	0.0
EC-N08	25yr-24hr-90%	0.00	0.00	0.0000	3.028	0.000	0.0
EC-N08	25yr-6hr-10%	0.00	0.00	0.0000	3.653	0.000	0.0
EC-N08	25yr-6hr-90%	0.00	0.00	0.0000	2.699	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N08 : In	100yr-12hr-10%	0	37390	0	0	0	0	37390	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-12hr-90%	0	37390	0	0	0	0	37390	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-24hr-10%	0	51984	0	0	0	0	51984	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-24hr-90%	0	51985	0	0	0	0	51985	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-6hr-10%	0	24591	0	0	0	0	24591	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-6hr-90%	0	24591	0	0	0	0	24591	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-12hr-10%	0	18319	0	0	0	0	18319	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-12hr-90%	0	18319	0	0	0	0	18319	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-24hr-10%	0	24275	0	0	0	0	24275	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-24hr-90%	0	24275	0	0	0	0	24275	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-6hr-10%	0	14024	0	0	0	0	14024	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-6hr-90%	0	14024	0	0	0	0	14024	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-12hr-10%	0	25224	0	0	0	0	25224	0	100.00
EC-N08 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N08 : In	25yr-12hr-90%	0	25224	0	0	0	0	25224	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-24hr-10%	0	34169	0	0	0	0	34169	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-24hr-90%	0	34169	0	0	0	0	34169	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-6hr-10%	0	18009	0	0	0	0	18009	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-6hr-90%	0	18009	0	0	0	0	18009	0	100.00
EC-N08 : Out		0	0	0	0	0	0			

Node: EC-N09

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N09	100yr-12hr-10%	0.00	0.00	0.0000	1.793	0.000	0.0
EC-N09	100yr-12hr-90%	0.00	0.00	0.0000	1.349	0.000	0.0
EC-N09	100yr-24hr-1	0.00	0.00	0.0000	1.721	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N09	100yr-24hr-90%	0.00	0.00	0.0000	1.477	0.000	0.0
EC-N09	100yr-6hr-10%	0.00	0.00	0.0000	1.850	0.000	0.0
EC-N09	100yr-6hr-90%	0.00	0.00	0.0000	1.205	0.000	0.0
EC-N09	10yr-12hr-10%	0.00	0.00	0.0000	0.908	0.000	0.0
EC-N09	10yr-12hr-90%	0.00	0.00	0.0000	0.749	0.000	0.0
EC-N09	10yr-24hr-10%	0.00	0.00	0.0000	0.798	0.000	0.0
EC-N09	10yr-24hr-90%	0.00	0.00	0.0000	0.773	0.000	0.0
EC-N09	10yr-6hr-10%	0.00	0.00	0.0000	1.117	0.000	0.0
EC-N09	10yr-6hr-90%	0.00	0.00	0.0000	0.769	0.000	0.0
EC-N09	25yr-12hr-10%	0.00	0.00	0.0000	1.229	0.000	0.0
EC-N09	25yr-12hr-90%	0.00	0.00	0.0000	0.970	0.000	0.0
EC-N09	25yr-24hr-10%	0.00	0.00	0.0000	1.106	0.000	0.0
EC-N09	25yr-24hr-90%	0.00	0.00	0.0000	1.028	0.000	0.0
EC-N09	25yr-6hr-10%	0.00	0.00	0.0000	1.397	0.000	0.0
EC-N09	25yr-6hr-90%	0.00	0.00	0.0000	0.937	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N09 : In	100yr-12hr-10%	0	13343	0	0	0	0	13343	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	100yr-12hr-90%	0	13344	0	0	0	0	13344	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	100yr-24hr-10%	0	18253	0	0	0	0	18253	0	100.00
EC-N09 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N09 : In	100yr-24 hr-90%	0	18253	0	0	0	0	18253	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	100yr-6hr-10%	0	9008	0	0	0	0	9008	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	100yr-6hr-90%	0	9008	0	0	0	0	9008	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-12hr-10%	0	6861	0	0	0	0	6861	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-12hr-90%	0	6861	0	0	0	0	6861	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-24hr-10%	0	8900	0	0	0	0	8900	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-24hr-90%	0	8900	0	0	0	0	8900	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-6hr-10%	0	5375	0	0	0	0	5375	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-6hr-90%	0	5375	0	0	0	0	5375	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-12hr-10%	0	9223	0	0	0	0	9223	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-12hr-90%	0	9223	0	0	0	0	9223	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 :	25yr-24h	0	12256	0	0	0	0	12256	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-24hr-90%	0	12256	0	0	0	0	12256	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-6hr-10%	0	6754	0	0	0	0	6754	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-6hr-90%	0	6755	0	0	0	0	6755	0	100.00
EC-N09 : Out		0	0	0	0	0	0			

Node: EC-N10

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N10	100yr-12hr-10%	0.00	0.00	0.0000	1.673	0.000	0.0
EC-N10	100yr-12hr-90%	0.00	0.00	0.0000	1.370	0.000	0.0
EC-N10	100yr-24hr-10%	0.00	0.00	0.0000	1.587	0.000	0.0
EC-N10	100yr-24hr-90%	0.00	0.00	0.0000	1.516	0.000	0.0
EC-N10	100yr-6hr-10%	0.00	0.00	0.0000	1.714	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N10	100yr-6hr-90 %	0.00	0.00	0.0000	1.209	0.000	0.0
EC-N10	10yr-12hr-10 %	0.00	0.00	0.0000	0.796	0.000	0.0
EC-N10	10yr-12hr-90 %	0.00	0.00	0.0000	0.741	0.000	0.0
EC-N10	10yr-24hr-10 %	0.00	0.00	0.0000	0.700	0.000	0.0
EC-N10	10yr-24hr-90 %	0.00	0.00	0.0000	0.778	0.000	0.0
EC-N10	10yr-6hr-10%	0.00	0.00	0.0000	0.972	0.000	0.0
EC-N10	10yr-6hr-90%	0.00	0.00	0.0000	0.751	0.000	0.0
EC-N10	25yr-12hr-10 %	0.00	0.00	0.0000	1.101	0.000	0.0
EC-N10	25yr-12hr-90 %	0.00	0.00	0.0000	0.973	0.000	0.0
EC-N10	25yr-24hr-10 %	0.00	0.00	0.0000	1.019	0.000	0.0
EC-N10	25yr-24hr-90 %	0.00	0.00	0.0000	1.046	0.000	0.0
EC-N10	25yr-6hr-10%	0.00	0.00	0.0000	1.246	0.000	0.0
EC-N10	25yr-6hr-90%	0.00	0.00	0.0000	0.927	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N10 : In	100yr-12 hr-10%	0	12729	0	0	0	0	12729	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	100yr-12 hr-90%	0	12729	0	0	0	0	12729	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	100yr-24 hr-10%	0	17758	0	0	0	0	17758	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	100yr-24 hr-90%	0	17758	0	0	0	0	17758	0	100.00
EC-N10 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N10 : In	100yr-6hr-10%	0	8326	0	0	0	0	8326	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	100yr-6hr-90%	0	8326	0	0	0	0	8326	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-12hr-10%	0	6174	0	0	0	0	6174	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-12hr-90%	0	6174	0	0	0	0	6174	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-24hr-10%	0	8218	0	0	0	0	8218	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-24hr-90%	0	8218	0	0	0	0	8218	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-6hr-10%	0	4704	0	0	0	0	4704	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-6hr-90%	0	4704	0	0	0	0	4704	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-12hr-10%	0	8544	0	0	0	0	8544	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-12hr-90%	0	8544	0	0	0	0	8544	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-24hr-10%	0	11620	0	0	0	0	11620	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-24hr-90%	0	11620	0	0	0	0	11620	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-6hr-10%	0	6068	0	0	0	0	6068	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-6hr-90%	0	6068	0	0	0	0	6068	0	100.00
EC-N10 : Out		0	0	0	0	0	0			

Node: EC-N11

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N11	100yr-12hr-10%	0.00	0.00	0.0000	1.036	0.000	0.0
EC-N11	100yr-12hr-90%	0.00	0.00	0.0000	0.844	0.000	0.0
EC-N11	100yr-24hr-10%	0.00	0.00	0.0000	0.980	0.000	0.0
EC-N11	100yr-24hr-90%	0.00	0.00	0.0000	0.930	0.000	0.0
EC-N11	100yr-6hr-10%	0.00	0.00	0.0000	1.062	0.000	0.0
EC-N11	100yr-6hr-90%	0.00	0.00	0.0000	0.742	0.000	0.0
EC-N11	10yr-12hr-10%	0.00	0.00	0.0000	0.493	0.000	0.0
EC-N11	10yr-12hr-90	0.00	0.00	0.0000	0.457	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N11	10yr-24hr-10 %	0.00	0.00	0.0000	0.435	0.000	0.0
EC-N11	10yr-24hr-90 %	0.00	0.00	0.0000	0.478	0.000	0.0
EC-N11	10yr-6hr-10%	0.00	0.00	0.0000	0.601	0.000	0.0
EC-N11	10yr-6hr-90%	0.00	0.00	0.0000	0.462	0.000	0.0
EC-N11	25yr-12hr-10 %	0.00	0.00	0.0000	0.683	0.000	0.0
EC-N11	25yr-12hr-90 %	0.00	0.00	0.0000	0.600	0.000	0.0
EC-N11	25yr-24hr-10 %	0.00	0.00	0.0000	0.632	0.000	0.0
EC-N11	25yr-24hr-90 %	0.00	0.00	0.0000	0.642	0.000	0.0
EC-N11	25yr-6hr-10%	0.00	0.00	0.0000	0.774	0.000	0.0
EC-N11	25yr-6hr-90%	0.00	0.00	0.0000	0.570	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N11 : In	100yr-12 hr-10%	0	7808	0	0	0	0	7808	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	100yr-12 hr-90%	0	7808	0	0	0	0	7808	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	100yr-24 hr-10%	0	10893	0	0	0	0	10893	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	100yr-24 hr-90%	0	10893	0	0	0	0	10893	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	100yr-6h r-10%	0	5107	0	0	0	0	5107	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 :	100yr-6h	0	5107	0	0	0	0	5107	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-12hr-10%	0	3787	0	0	0	0	3787	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-12hr-90%	0	3787	0	0	0	0	3787	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-24hr-10%	0	5041	0	0	0	0	5041	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-24hr-90%	0	5041	0	0	0	0	5041	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-6hr-10%	0	2885	0	0	0	0	2885	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-6hr-90%	0	2885	0	0	0	0	2885	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-12hr-10%	0	5241	0	0	0	0	5241	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-12hr-90%	0	5241	0	0	0	0	5241	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-24hr-10%	0	7128	0	0	0	0	7128	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-24hr-90%	0	7128	0	0	0	0	7128	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-6hr-10%	0	3722	0	0	0	0	3722	0	100.00
EC-N11 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N11 : In	25yr-6hr-90%	0	3722	0	0	0	0	3722	0	100.00
EC-N11 : Out		0	0	0	0	0	0			

Node: EC-N12

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N12	100yr-12hr-10%	0.00	0.00	0.0000	4.525	0.000	0.0
EC-N12	100yr-12hr-90%	0.00	0.00	0.0000	3.607	0.000	0.0
EC-N12	100yr-24hr-10%	0.00	0.00	0.0000	4.262	0.000	0.0
EC-N12	100yr-24hr-90%	0.00	0.00	0.0000	4.003	0.000	0.0
EC-N12	100yr-6hr-10%	0.00	0.00	0.0000	4.648	0.000	0.0
EC-N12	100yr-6hr-90%	0.00	0.00	0.0000	3.219	0.000	0.0
EC-N12	10yr-12hr-10%	0.00	0.00	0.0000	2.190	0.000	0.0
EC-N12	10yr-12hr-90%	0.00	0.00	0.0000	1.968	0.000	0.0
EC-N12	10yr-24hr-10%	0.00	0.00	0.0000	1.930	0.000	0.0
EC-N12	10yr-24hr-90%	0.00	0.00	0.0000	2.068	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N12	10yr-6hr-10%	0.00	0.00	0.0000	2.681	0.000	0.0
EC-N12	10yr-6hr-90%	0.00	0.00	0.0000	2.018	0.000	0.0
EC-N12	25yr-12hr-10 %	0.00	0.00	0.0000	3.017	0.000	0.0
EC-N12	25yr-12hr-90 %	0.00	0.00	0.0000	2.573	0.000	0.0
EC-N12	25yr-24hr-10 %	0.00	0.00	0.0000	2.770	0.000	0.0
EC-N12	25yr-24hr-90 %	0.00	0.00	0.0000	2.770	0.000	0.0
EC-N12	25yr-6hr-10%	0.00	0.00	0.0000	3.417	0.000	0.0
EC-N12	25yr-6hr-90%	0.00	0.00	0.0000	2.480	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N12 : In	100yr-12 hr-10%	0	34497	0	0	0	0	34497	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-12 hr-90%	0	34497	0	0	0	0	34497	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-24 hr-10%	0	47802	0	0	0	0	47802	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-24 hr-90%	0	47802	0	0	0	0	47802	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-6h r-10%	0	22810	0	0	0	0	22810	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-6h r-90%	0	22811	0	0	0	0	22811	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-12h r-10%	0	17070	0	0	0	0	17070	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-12hr-90%	0	17070	0	0	0	0	17070	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-24hr-10%	0	22521	0	0	0	0	22521	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-24hr-90%	0	22521	0	0	0	0	22521	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-6hr-10%	0	13130	0	0	0	0	13130	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-6hr-90%	0	13130	0	0	0	0	13130	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-12hr-10%	0	23390	0	0	0	0	23390	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-12hr-90%	0	23390	0	0	0	0	23390	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-24hr-10%	0	31559	0	0	0	0	31559	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-24hr-90%	0	31559	0	0	0	0	31559	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-6hr-10%	0	16786	0	0	0	0	16786	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-6hr-90%	0	16786	0	0	0	0	16786	0	100.00
EC-N12 : Out		0	0	0	0	0	0			

Node: EC-N13

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N13	100yr-12hr-10%	0.00	0.00	0.0000	4.301	0.000	0.0
EC-N13	100yr-12hr-90%	0.00	0.00	0.0000	3.528	0.000	0.0
EC-N13	100yr-24hr-10%	0.00	0.00	0.0000	4.087	0.000	0.0
EC-N13	100yr-24hr-90%	0.00	0.00	0.0000	3.934	0.000	0.0
EC-N13	100yr-6hr-10%	0.00	0.00	0.0000	4.393	0.000	0.0
EC-N13	100yr-6hr-90%	0.00	0.00	0.0000	3.139	0.000	0.0
EC-N13	10yr-12hr-10%	0.00	0.00	0.0000	2.051	0.000	0.0
EC-N13	10yr-12hr-90%	0.00	0.00	0.0000	1.906	0.000	0.0
EC-N13	10yr-24hr-10%	0.00	0.00	0.0000	1.789	0.000	0.0
EC-N13	10yr-24hr-90%	0.00	0.00	0.0000	2.016	0.000	0.0
EC-N13	10yr-6hr-10%	0.00	0.00	0.0000	2.503	0.000	0.0
EC-N13	10yr-6hr-90%	0.00	0.00	0.0000	1.945	0.000	0.0
EC-N13	25yr-12hr-10%	0.00	0.00	0.0000	2.846	0.000	0.0
EC-N13	25yr-12hr-90%	0.00	0.00	0.0000	2.505	0.000	0.0
EC-N13	25yr-24hr-10%	0.00	0.00	0.0000	2.613	0.000	0.0
EC-N13	25yr-24hr-90%	0.00	0.00	0.0000	2.712	0.000	0.0
EC-N13	25yr-6hr-10%	0.00	0.00	0.0000	3.213	0.000	0.0
EC-N13	25yr-6hr-90%	0.00	0.00	0.0000	2.404	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N13 : In	100yr-12 hr-10%	0	33097	0	0	0	0	33097	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-12 hr-90%	0	33097	0	0	0	0	33097	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-24 hr-10%	0	46173	0	0	0	0	46173	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-24 hr-90%	0	46173	0	0	0	0	46173	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-6hr-10%	0	21650	0	0	0	0	21650	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-6hr-90%	0	21650	0	0	0	0	21650	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-12hr-10%	0	16054	0	0	0	0	16054	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-12hr-90%	0	16054	0	0	0	0	16054	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-24hr-10%	0	21367	0	0	0	0	21367	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-24hr-90%	0	21367	0	0	0	0	21367	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-6hr-10%	0	12231	0	0	0	0	12231	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 :	10yr-6hr-	0	12231	0	0	0	0	12231	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-12hr-10%	0	22215	0	0	0	0	22215	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-12hr-90%	0	22215	0	0	0	0	22215	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-24hr-10%	0	30214	0	0	0	0	30214	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-24hr-90%	0	30214	0	0	0	0	30214	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-6hr-10%	0	15777	0	0	0	0	15777	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-6hr-90%	0	15778	0	0	0	0	15778	0	100.00
EC-N13 : Out		0	0	0	0	0	0			

Node: EC-N14

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N14	100yr-12hr-10%	0.00	0.00	0.0000	4.562	0.000	0.0
EC-N14	100yr-12hr-90%	0.00	0.00	0.0000	3.743	0.000	0.0
EC-N14	100yr-24hr-10%	0.00	0.00	0.0000	4.336	0.000	0.0
EC-N14	100yr-24hr-90%	0.00	0.00	0.0000	4.174	0.000	0.0
EC-N14	100yr-6hr-10%	0.00	0.00	0.0000	4.660	0.000	0.0
EC-N14	100yr-6hr-90%	0.00	0.00	0.0000	3.330	0.000	0.0
EC-N14	10yr-12hr-10%	0.00	0.00	0.0000	2.176	0.000	0.0
EC-N14	10yr-12hr-90%	0.00	0.00	0.0000	2.022	0.000	0.0
EC-N14	10yr-24hr-10%	0.00	0.00	0.0000	1.898	0.000	0.0
EC-N14	10yr-24hr-90%	0.00	0.00	0.0000	2.139	0.000	0.0
EC-N14	10yr-6hr-10%	0.00	0.00	0.0000	2.656	0.000	0.0
EC-N14	10yr-6hr-90%	0.00	0.00	0.0000	2.064	0.000	0.0
EC-N14	25yr-12hr-10%	0.00	0.00	0.0000	3.020	0.000	0.0
EC-N14	25yr-12hr-90%	0.00	0.00	0.0000	2.657	0.000	0.0
EC-N14	25yr-24hr-10%	0.00	0.00	0.0000	2.772	0.000	0.0
EC-N14	25yr-24hr-90%	0.00	0.00	0.0000	2.877	0.000	0.0
EC-N14	25yr-6hr-10%	0.00	0.00	0.0000	3.408	0.000	0.0
EC-N14	25yr-6hr-90%	0.00	0.00	0.0000	2.550	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N14 : In	100yr-12hr-10%	0	35110	0	0	0	0	35110	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-12hr-90%	0	35110	0	0	0	0	35110	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-24hr-10%	0	48981	0	0	0	0	48981	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-24hr-90%	0	48981	0	0	0	0	48981	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-6hr-10%	0	22966	0	0	0	0	22966	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-6hr-90%	0	22966	0	0	0	0	22966	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-12hr-10%	0	17030	0	0	0	0	17030	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-12hr-90%	0	17030	0	0	0	0	17030	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-24hr-10%	0	22666	0	0	0	0	22666	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-24hr-90%	0	22667	0	0	0	0	22667	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-6hr-10%	0	12975	0	0	0	0	12975	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-6hr-90%	0	12975	0	0	0	0	12975	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-12hr-10%	0	23566	0	0	0	0	23566	0	100.00
EC-N14 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N14 : In	25yr-12hr-90%	0	23566	0	0	0	0	23566	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-24hr-10%	0	32051	0	0	0	0	32051	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-24hr-90%	0	32051	0	0	0	0	32051	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-6hr-10%	0	16737	0	0	0	0	16737	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-6hr-90%	0	16737	0	0	0	0	16737	0	100.00
EC-N14 : Out		0	0	0	0	0	0			

Node: EC-N15

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N15	100yr-12hr-10%	0.00	0.00	0.0000	12.997	0.000	0.0
EC-N15	100yr-12hr-90%	0.00	0.00	0.0000	10.642	0.000	0.0
EC-N15	100yr-24hr-1	0.00	0.00	0.0000	12.395	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N15	100yr-24hr-90%	0.00	0.00	0.0000	12.012	0.000	0.0
EC-N15	100yr-6hr-10%	0.00	0.00	0.0000	13.271	0.000	0.0
EC-N15	100yr-6hr-90%	0.00	0.00	0.0000	9.605	0.000	0.0
EC-N15	10yr-12hr-10%	0.00	0.00	0.0000	6.226	0.000	0.0
EC-N15	10yr-12hr-90%	0.00	0.00	0.0000	5.738	0.000	0.0
EC-N15	10yr-24hr-10%	0.00	0.00	0.0000	5.368	0.000	0.0
EC-N15	10yr-24hr-90%	0.00	0.00	0.0000	6.149	0.000	0.0
EC-N15	10yr-6hr-10%	0.00	0.00	0.0000	7.544	0.000	0.0
EC-N15	10yr-6hr-90%	0.00	0.00	0.0000	5.936	0.000	0.0
EC-N15	25yr-12hr-10%	0.00	0.00	0.0000	8.676	0.000	0.0
EC-N15	25yr-12hr-90%	0.00	0.00	0.0000	7.548	0.000	0.0
EC-N15	25yr-24hr-10%	0.00	0.00	0.0000	7.875	0.000	0.0
EC-N15	25yr-24hr-90%	0.00	0.00	0.0000	8.276	0.000	0.0
EC-N15	25yr-6hr-10%	0.00	0.00	0.0000	9.705	0.000	0.0
EC-N15	25yr-6hr-90%	0.00	0.00	0.0000	7.345	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N15 : In	100yr-12hr-10%	0	101924	0	0	0	0	101924	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	100yr-12hr-90%	0	101924	0	0	0	0	101924	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	100yr-24hr-10%	0	142192	0	0	0	0	142192	0	100.00
EC-N15 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N15 : In	100yr-24 hr-90%	0	142193	0	0	0	0	142193	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	100yr-6hr-10%	0	66671	0	0	0	0	66671	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	100yr-6hr-90%	0	66672	0	0	0	0	66672	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-12hr-10%	0	49438	0	0	0	0	49438	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-12hr-90%	0	49438	0	0	0	0	49438	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-24hr-10%	0	65801	0	0	0	0	65801	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-24hr-90%	0	65801	0	0	0	0	65801	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-6hr-10%	0	37666	0	0	0	0	37666	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-6hr-90%	0	37666	0	0	0	0	37666	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-12hr-10%	0	68413	0	0	0	0	68413	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-12hr-90%	0	68414	0	0	0	0	68414	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 :	25yr-24h	0	93045	0	0	0	0	93045	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-24hr-90%	0	93046	0	0	0	0	93046	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-6hr-10%	0	48587	0	0	0	0	48587	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-6hr-90%	0	48588	0	0	0	0	48588	0	100.00
EC-N15 : Out		0	0	0	0	0	0			

Node: EC-N16

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N16	100yr-12hr-10%	0.00	0.00	0.0000	2.481	0.000	0.0
EC-N16	100yr-12hr-90%	0.00	0.00	0.0000	2.037	0.000	0.0
EC-N16	100yr-24hr-10%	0.00	0.00	0.0000	2.363	0.000	0.0
EC-N16	100yr-24hr-90%	0.00	0.00	0.0000	2.280	0.000	0.0
EC-N16	100yr-6hr-10%	0.00	0.00	0.0000	2.536	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N16	100yr-6hr-90 %	0.00	0.00	0.0000	1.820	0.000	0.0
EC-N16	10yr-12hr-10 %	0.00	0.00	0.0000	1.186	0.000	0.0
EC-N16	10yr-12hr-90 %	0.00	0.00	0.0000	1.099	0.000	0.0
EC-N16	10yr-24hr-10 %	0.00	0.00	0.0000	1.030	0.000	0.0
EC-N16	10yr-24hr-90 %	0.00	0.00	0.0000	1.168	0.000	0.0
EC-N16	10yr-6hr-10%	0.00	0.00	0.0000	1.445	0.000	0.0
EC-N16	10yr-6hr-90%	0.00	0.00	0.0000	1.127	0.000	0.0
EC-N16	25yr-12hr-10 %	0.00	0.00	0.0000	1.648	0.000	0.0
EC-N16	25yr-12hr-90 %	0.00	0.00	0.0000	1.445	0.000	0.0
EC-N16	25yr-24hr-10 %	0.00	0.00	0.0000	1.507	0.000	0.0
EC-N16	25yr-24hr-90 %	0.00	0.00	0.0000	1.571	0.000	0.0
EC-N16	25yr-6hr-10%	0.00	0.00	0.0000	1.857	0.000	0.0
EC-N16	25yr-6hr-90%	0.00	0.00	0.0000	1.393	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N16 : In	100yr-12 hr-10%	0	19221	0	0	0	0	19221	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	100yr-12 hr-90%	0	19221	0	0	0	0	19221	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	100yr-24 hr-10%	0	26815	0	0	0	0	26815	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	100yr-24 hr-90%	0	26815	0	0	0	0	26815	0	100.00
EC-N16 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N16 : In	100yr-6hr-10%	0	12573	0	0	0	0	12573	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	100yr-6hr-90%	0	12573	0	0	0	0	12573	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-12hr-10%	0	9323	0	0	0	0	9323	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-12hr-90%	0	9323	0	0	0	0	9323	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-24hr-10%	0	12409	0	0	0	0	12409	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-24hr-90%	0	12409	0	0	0	0	12409	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-6hr-10%	0	7103	0	0	0	0	7103	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-6hr-90%	0	7103	0	0	0	0	7103	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-12hr-10%	0	12902	0	0	0	0	12902	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-12hr-90%	0	12902	0	0	0	0	12902	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-24hr-10%	0	17547	0	0	0	0	17547	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-24hr-90%	0	17547	0	0	0	0	17547	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-6hr-10%	0	9163	0	0	0	0	9163	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-6hr-90%	0	9163	0	0	0	0	9163	0	100.00
EC-N16 : Out		0	0	0	0	0	0			

Node: EC-N17

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N17	100yr-12hr-10%	0.00	0.00	0.0000	1.632	0.000	0.0
EC-N17	100yr-12hr-90%	0.00	0.00	0.0000	1.379	0.000	0.0
EC-N17	100yr-24hr-10%	0.00	0.00	0.0000	1.563	0.000	0.0
EC-N17	100yr-24hr-90%	0.00	0.00	0.0000	1.536	0.000	0.0
EC-N17	100yr-6hr-10%	0.00	0.00	0.0000	1.662	0.000	0.0
EC-N17	100yr-6hr-90%	0.00	0.00	0.0000	1.214	0.000	0.0
EC-N17	10yr-12hr-10%	0.00	0.00	0.0000	0.765	0.000	0.0
EC-N17	10yr-12hr-90	0.00	0.00	0.0000	0.737	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N17	10yr-24hr-10 %	0.00	0.00	0.0000	0.664	0.000	0.0
EC-N17	10yr-24hr-90 %	0.00	0.00	0.0000	0.781	0.000	0.0
EC-N17	10yr-6hr-10%	0.00	0.00	0.0000	0.932	0.000	0.0
EC-N17	10yr-6hr-90%	0.00	0.00	0.0000	0.745	0.000	0.0
EC-N17	25yr-12hr-10 %	0.00	0.00	0.0000	1.074	0.000	0.0
EC-N17	25yr-12hr-90 %	0.00	0.00	0.0000	0.974	0.000	0.0
EC-N17	25yr-24hr-10 %	0.00	0.00	0.0000	0.985	0.000	0.0
EC-N17	25yr-24hr-90 %	0.00	0.00	0.0000	1.055	0.000	0.0
EC-N17	25yr-6hr-10%	0.00	0.00	0.0000	1.206	0.000	0.0
EC-N17	25yr-6hr-90%	0.00	0.00	0.0000	0.925	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N17 : In	100yr-12 hr-10%	0	12580	0	0	0	0	12580	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	100yr-12 hr-90%	0	12581	0	0	0	0	12581	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	100yr-24 hr-10%	0	17674	0	0	0	0	17674	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	100yr-24 hr-90%	0	17674	0	0	0	0	17674	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	100yr-6hr-10%	0	8138	0	0	0	0	8138	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 :	100yr-6h	0	8138	0	0	0	0	8138	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-12hr-10%	0	5978	0	0	0	0	5978	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-12hr-90%	0	5978	0	0	0	0	5978	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-24hr-10%	0	8029	0	0	0	0	8029	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-24hr-90%	0	8029	0	0	0	0	8029	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-6hr-10%	0	4510	0	0	0	0	4510	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-6hr-90%	0	4510	0	0	0	0	4510	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-12hr-10%	0	8357	0	0	0	0	8357	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-12hr-90%	0	8357	0	0	0	0	8357	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-24hr-10%	0	11460	0	0	0	0	11460	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-24hr-90%	0	11460	0	0	0	0	11460	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-6hr-10%	0	5872	0	0	0	0	5872	0	100.00
EC-N17 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N17 : In	25yr-6hr-90%	0	5872	0	0	0	0	5872	0	100.00
EC-N17 : Out		0	0	0	0	0	0			

Node: EC-N18

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N18	100yr-12hr-10%	0.00	0.00	0.0000	5.746	0.000	0.0
EC-N18	100yr-12hr-90%	0.00	0.00	0.0000	4.709	0.000	0.0
EC-N18	100yr-24hr-10%	0.00	0.00	0.0000	5.451	0.000	0.0
EC-N18	100yr-24hr-90%	0.00	0.00	0.0000	5.219	0.000	0.0
EC-N18	100yr-6hr-10%	0.00	0.00	0.0000	5.881	0.000	0.0
EC-N18	100yr-6hr-90%	0.00	0.00	0.0000	4.162	0.000	0.0
EC-N18	10yr-12hr-10%	0.00	0.00	0.0000	2.735	0.000	0.0
EC-N18	10yr-12hr-90%	0.00	0.00	0.0000	2.545	0.000	0.0
EC-N18	10yr-24hr-10%	0.00	0.00	0.0000	2.400	0.000	0.0
EC-N18	10yr-24hr-90%	0.00	0.00	0.0000	2.677	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N18	10yr-6hr-10%	0.00	0.00	0.0000	3.340	0.000	0.0
EC-N18	10yr-6hr-90%	0.00	0.00	0.0000	2.584	0.000	0.0
EC-N18	25yr-12hr-10 %	0.00	0.00	0.0000	3.785	0.000	0.0
EC-N18	25yr-12hr-90 %	0.00	0.00	0.0000	3.344	0.000	0.0
EC-N18	25yr-24hr-10 %	0.00	0.00	0.0000	3.497	0.000	0.0
EC-N18	25yr-24hr-90 %	0.00	0.00	0.0000	3.599	0.000	0.0
EC-N18	25yr-6hr-10%	0.00	0.00	0.0000	4.275	0.000	0.0
EC-N18	25yr-6hr-90%	0.00	0.00	0.0000	3.190	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N18 : In	100yr-12 hr-10%	0	43827	0	0	0	0	43827	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-12 hr-90%	0	43827	0	0	0	0	43827	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-24 hr-10%	0	61143	0	0	0	0	61143	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-24 hr-90%	0	61143	0	0	0	0	61143	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-6hr-10%	0	28669	0	0	0	0	28669	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-6hr-90%	0	28669	0	0	0	0	28669	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-12hr-10%	0	21258	0	0	0	0	21258	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-12hr-90%	0	21258	0	0	0	0	21258	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-24hr-10%	0	28295	0	0	0	0	28295	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-24hr-90%	0	28295	0	0	0	0	28295	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-6hr-10%	0	16196	0	0	0	0	16196	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-6hr-90%	0	16196	0	0	0	0	16196	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-12hr-10%	0	29418	0	0	0	0	29418	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-12hr-90%	0	29418	0	0	0	0	29418	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-24hr-10%	0	40010	0	0	0	0	40010	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-24hr-90%	0	40010	0	0	0	0	40010	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-6hr-10%	0	20893	0	0	0	0	20893	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-6hr-90%	0	20893	0	0	0	0	20893	0	100.00
EC-N18 : Out		0	0	0	0	0	0			

Node: EC-N19

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N19	100yr-12hr-10%	0.00	0.00	0.0000	4.979	0.000	0.0
EC-N19	100yr-12hr-90%	0.00	0.00	0.0000	4.072	0.000	0.0
EC-N19	100yr-24hr-10%	0.00	0.00	0.0000	4.719	0.000	0.0
EC-N19	100yr-24hr-90%	0.00	0.00	0.0000	4.498	0.000	0.0
EC-N19	100yr-6hr-10%	0.00	0.00	0.0000	5.101	0.000	0.0
EC-N19	100yr-6hr-90%	0.00	0.00	0.0000	3.588	0.000	0.0
EC-N19	10yr-12hr-10%	0.00	0.00	0.0000	2.368	0.000	0.0
EC-N19	10yr-12hr-90%	0.00	0.00	0.0000	2.203	0.000	0.0
EC-N19	10yr-24hr-10%	0.00	0.00	0.0000	2.087	0.000	0.0
EC-N19	10yr-24hr-90%	0.00	0.00	0.0000	2.308	0.000	0.0
EC-N19	10yr-6hr-10%	0.00	0.00	0.0000	2.890	0.000	0.0
EC-N19	10yr-6hr-90%	0.00	0.00	0.0000	2.230	0.000	0.0
EC-N19	25yr-12hr-10%	0.00	0.00	0.0000	3.278	0.000	0.0
EC-N19	25yr-12hr-90%	0.00	0.00	0.0000	2.892	0.000	0.0
EC-N19	25yr-24hr-10%	0.00	0.00	0.0000	3.034	0.000	0.0
EC-N19	25yr-24hr-90%	0.00	0.00	0.0000	3.102	0.000	0.0
EC-N19	25yr-6hr-10%	0.00	0.00	0.0000	3.712	0.000	0.0
EC-N19	25yr-6hr-90%	0.00	0.00	0.0000	2.752	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N19 : In	100yr-12 hr-10%	0	37758	0	0	0	0	37758	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-12 hr-90%	0	37758	0	0	0	0	37758	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-24 hr-10%	0	52676	0	0	0	0	52676	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-24 hr-90%	0	52676	0	0	0	0	52676	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-6hr-10%	0	24699	0	0	0	0	24699	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-6hr-90%	0	24699	0	0	0	0	24699	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-12hr-10%	0	18315	0	0	0	0	18315	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-12hr-90%	0	18315	0	0	0	0	18315	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-24hr-10%	0	24376	0	0	0	0	24376	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-24hr-90%	0	24377	0	0	0	0	24377	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-6hr-10%	0	13954	0	0	0	0	13954	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 :	10yr-6hr-	0	13954	0	0	0	0	13954	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-12hr-10%	0	25344	0	0	0	0	25344	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-12hr-90%	0	25344	0	0	0	0	25344	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-24hr-10%	0	34469	0	0	0	0	34469	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-24hr-90%	0	34469	0	0	0	0	34469	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-6hr-10%	0	17999	0	0	0	0	17999	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-6hr-90%	0	18000	0	0	0	0	18000	0	100.00
EC-N19 : Out		0	0	0	0	0	0			

Node: EC-N20

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N20	100yr-12hr-10%	0.00	0.00	0.0000	2.511	0.000	0.0
EC-N20	100yr-12hr-90%	0.00	0.00	0.0000	2.050	0.000	0.0
EC-N20	100yr-24hr-10%	0.00	0.00	0.0000	2.379	0.000	0.0
EC-N20	100yr-24hr-90%	0.00	0.00	0.0000	2.262	0.000	0.0
EC-N20	100yr-6hr-10%	0.00	0.00	0.0000	2.574	0.000	0.0
EC-N20	100yr-6hr-90%	0.00	0.00	0.0000	1.805	0.000	0.0
EC-N20	10yr-12hr-10%	0.00	0.00	0.0000	1.194	0.000	0.0
EC-N20	10yr-12hr-90%	0.00	0.00	0.0000	1.109	0.000	0.0
EC-N20	10yr-24hr-10%	0.00	0.00	0.0000	1.054	0.000	0.0
EC-N20	10yr-24hr-90%	0.00	0.00	0.0000	1.161	0.000	0.0
EC-N20	10yr-6hr-10%	0.00	0.00	0.0000	1.457	0.000	0.0
EC-N20	10yr-6hr-90%	0.00	0.00	0.0000	1.122	0.000	0.0
EC-N20	25yr-12hr-10%	0.00	0.00	0.0000	1.656	0.000	0.0
EC-N20	25yr-12hr-90%	0.00	0.00	0.0000	1.457	0.000	0.0
EC-N20	25yr-24hr-10%	0.00	0.00	0.0000	1.531	0.000	0.0
EC-N20	25yr-24hr-90%	0.00	0.00	0.0000	1.561	0.000	0.0
EC-N20	25yr-6hr-10%	0.00	0.00	0.0000	1.874	0.000	0.0
EC-N20	25yr-6hr-90%	0.00	0.00	0.0000	1.385	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N20 : In	100yr-12hr-10%	0	18989	0	0	0	0	18989	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-12hr-90%	0	18989	0	0	0	0	18989	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-24hr-10%	0	26491	0	0	0	0	26491	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-24hr-90%	0	26491	0	0	0	0	26491	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-6hr-10%	0	12421	0	0	0	0	12421	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-6hr-90%	0	12421	0	0	0	0	12421	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-12hr-10%	0	9210	0	0	0	0	9210	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-12hr-90%	0	9211	0	0	0	0	9211	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-24hr-10%	0	12259	0	0	0	0	12259	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-24hr-90%	0	12259	0	0	0	0	12259	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-6hr-10%	0	7017	0	0	0	0	7017	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-6hr-90%	0	7017	0	0	0	0	7017	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-12hr-10%	0	12746	0	0	0	0	12746	0	100.00
EC-N20 : Out		0	0	0	0	0	0			

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Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N20 : In	25yr-12hr-90%	0	12746	0	0	0	0	12746	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-24hr-10%	0	17335	0	0	0	0	17335	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-24hr-90%	0	17335	0	0	0	0	17335	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-6hr-10%	0	9052	0	0	0	0	9052	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-6hr-90%	0	9052	0	0	0	0	9052	0	100.00
EC-N20 : Out		0	0	0	0	0	0			

Node: EC-N21

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N21	100yr-12hr-10%	0.00	0.00	0.0000	7.444	0.000	0.0
EC-N21	100yr-12hr-90%	0.00	0.00	0.0000	6.201	0.000	0.0
EC-N21	100yr-24hr-1	0.00	0.00	0.0000	7.120	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N21	100yr-24hr-90%	0.00	0.00	0.0000	6.969	0.000	0.0
EC-N21	100yr-6hr-10%	0.00	0.00	0.0000	7.610	0.000	0.0
EC-N21	100yr-6hr-90%	0.00	0.00	0.0000	5.539	0.000	0.0
EC-N21	10yr-12hr-10%	0.00	0.00	0.0000	3.531	0.000	0.0
EC-N21	10yr-12hr-90%	0.00	0.00	0.0000	3.328	0.000	0.0
EC-N21	10yr-24hr-10%	0.00	0.00	0.0000	3.048	0.000	0.0
EC-N21	10yr-24hr-90%	0.00	0.00	0.0000	3.554	0.000	0.0
EC-N21	10yr-6hr-10%	0.00	0.00	0.0000	4.290	0.000	0.0
EC-N21	10yr-6hr-90%	0.00	0.00	0.0000	3.408	0.000	0.0
EC-N21	25yr-12hr-10%	0.00	0.00	0.0000	4.944	0.000	0.0
EC-N21	25yr-12hr-90%	0.00	0.00	0.0000	4.389	0.000	0.0
EC-N21	25yr-24hr-10%	0.00	0.00	0.0000	4.501	0.000	0.0
EC-N21	25yr-24hr-90%	0.00	0.00	0.0000	4.793	0.000	0.0
EC-N21	25yr-6hr-10%	0.00	0.00	0.0000	5.542	0.000	0.0
EC-N21	25yr-6hr-90%	0.00	0.00	0.0000	4.227	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N21 : In	100yr-12hr-10%	0	58092	0	0	0	0	58092	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	100yr-12hr-90%	0	58092	0	0	0	0	58092	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	100yr-24hr-10%	0	81324	0	0	0	0	81324	0	100.00
EC-N21 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N21 : In	100yr-24 hr-90%	0	81324	0	0	0	0	81324	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	100yr-6hr-10%	0	37790	0	0	0	0	37790	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	100yr-6hr-90%	0	37790	0	0	0	0	37790	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-12hr-10%	0	27891	0	0	0	0	27891	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-12hr-90%	0	27892	0	0	0	0	27892	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-24hr-10%	0	37290	0	0	0	0	37290	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-24hr-90%	0	37290	0	0	0	0	37290	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-6hr-10%	0	21147	0	0	0	0	21147	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-6hr-90%	0	21147	0	0	0	0	21147	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-12hr-10%	0	38792	0	0	0	0	38792	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-12hr-90%	0	38792	0	0	0	0	38792	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 :	25yr-24h	0	52974	0	0	0	0	52974	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-24hr-90%	0	52974	0	0	0	0	52974	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-6hr-10%	0	27403	0	0	0	0	27403	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-6hr-90%	0	27404	0	0	0	0	27404	0	100.00
EC-N21 : Out		0	0	0	0	0	0			

Node: EC-N22

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N22	100yr-12hr-10%	0.00	0.00	0.0000	16.505	0.000	0.0
EC-N22	100yr-12hr-90%	0.00	0.00	0.0000	13.430	0.000	0.0
EC-N22	100yr-24hr-10%	0.00	0.00	0.0000	15.669	0.000	0.0
EC-N22	100yr-24hr-90%	0.00	0.00	0.0000	15.239	0.000	0.0
EC-N22	100yr-6hr-10%	0.00	0.00	0.0000	16.708	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N22	100yr-6hr-90 %	0.00	0.00	0.0000	12.214	0.000	0.0
EC-N22	10yr-12hr-10 %	0.00	0.00	0.0000	7.892	0.000	0.0
EC-N22	10yr-12hr-90 %	0.00	0.00	0.0000	7.233	0.000	0.0
EC-N22	10yr-24hr-10 %	0.00	0.00	0.0000	6.815	0.000	0.0
EC-N22	10yr-24hr-90 %	0.00	0.00	0.0000	7.795	0.000	0.0
EC-N22	10yr-6hr-10%	0.00	0.00	0.0000	9.507	0.000	0.0
EC-N22	10yr-6hr-90%	0.00	0.00	0.0000	7.535	0.000	0.0
EC-N22	25yr-12hr-10 %	0.00	0.00	0.0000	10.995	0.000	0.0
EC-N22	25yr-12hr-90 %	0.00	0.00	0.0000	9.520	0.000	0.0
EC-N22	25yr-24hr-10 %	0.00	0.00	0.0000	9.926	0.000	0.0
EC-N22	25yr-24hr-90 %	0.00	0.00	0.0000	10.495	0.000	0.0
EC-N22	25yr-6hr-10%	0.00	0.00	0.0000	12.221	0.000	0.0
EC-N22	25yr-6hr-90%	0.00	0.00	0.0000	9.333	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N22 : In	100yr-12 hr-10%	0	130520	0	0	0	0	130520	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	100yr-12 hr-90%	0	130520	0	0	0	0	130520	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	100yr-24 hr-10%	0	182086	0	0	0	0	182086	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	100yr-24 hr-90%	0	182086	0	0	0	0	182086	0	100.00
EC-N22 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N22 : In	100yr-6hr-10%	0	85376	0	0	0	0	85376	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	100yr-6hr-90%	0	85377	0	0	0	0	85377	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-12hr-10%	0	63308	0	0	0	0	63308	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-12hr-90%	0	63309	0	0	0	0	63309	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-24hr-10%	0	84263	0	0	0	0	84263	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-24hr-90%	0	84263	0	0	0	0	84263	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-6hr-10%	0	48233	0	0	0	0	48233	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-6hr-90%	0	48234	0	0	0	0	48234	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-12hr-10%	0	87608	0	0	0	0	87608	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-12hr-90%	0	87608	0	0	0	0	87608	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-24hr-10%	0	119150	0	0	0	0	119150	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-24hr-90%	0	119151	0	0	0	0	119151	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-6hr-10%	0	62219	0	0	0	0	62219	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-6hr-90%	0	62220	0	0	0	0	62220	0	100.00
EC-N22 : Out		0	0	0	0	0	0			

Node: EC-N23

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N23	100yr-12hr-10%	0.00	0.00	0.0000	2.409	0.000	0.0
EC-N23	100yr-12hr-90%	0.00	0.00	0.0000	1.947	0.000	0.0
EC-N23	100yr-24hr-10%	0.00	0.00	0.0000	2.278	0.000	0.0
EC-N23	100yr-24hr-90%	0.00	0.00	0.0000	2.160	0.000	0.0
EC-N23	100yr-6hr-10%	0.00	0.00	0.0000	2.471	0.000	0.0
EC-N23	100yr-6hr-90%	0.00	0.00	0.0000	1.730	0.000	0.0
EC-N23	10yr-12hr-10%	0.00	0.00	0.0000	1.156	0.000	0.0
EC-N23	10yr-12hr-90	0.00	0.00	0.0000	1.058	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N23	10yr-24hr-10 %	0.00	0.00	0.0000	1.017	0.000	0.0
EC-N23	10yr-24hr-90 %	0.00	0.00	0.0000	1.112	0.000	0.0
EC-N23	10yr-6hr-10%	0.00	0.00	0.0000	1.414	0.000	0.0
EC-N23	10yr-6hr-90%	0.00	0.00	0.0000	1.079	0.000	0.0
EC-N23	25yr-12hr-10 %	0.00	0.00	0.0000	1.595	0.000	0.0
EC-N23	25yr-12hr-90 %	0.00	0.00	0.0000	1.386	0.000	0.0
EC-N23	25yr-24hr-10 %	0.00	0.00	0.0000	1.471	0.000	0.0
EC-N23	25yr-24hr-90 %	0.00	0.00	0.0000	1.492	0.000	0.0
EC-N23	25yr-6hr-10%	0.00	0.00	0.0000	1.806	0.000	0.0
EC-N23	25yr-6hr-90%	0.00	0.00	0.0000	1.329	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N23 : In	100yr-12 hr-10%	0	18374	0	0	0	0	18374	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	100yr-12 hr-90%	0	18375	0	0	0	0	18375	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	100yr-24 hr-10%	0	25547	0	0	0	0	25547	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	100yr-24 hr-90%	0	25547	0	0	0	0	25547	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	100yr-6h r-10%	0	12085	0	0	0	0	12085	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 :	100yr-6h	0	12085	0	0	0	0	12085	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-12hr-10%	0	9003	0	0	0	0	9003	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-12hr-90%	0	9003	0	0	0	0	9003	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-24hr-10%	0	11929	0	0	0	0	11929	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-24hr-90%	0	11929	0	0	0	0	11929	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-6hr-10%	0	6892	0	0	0	0	6892	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-6hr-90%	0	6892	0	0	0	0	6892	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-12hr-10%	0	12396	0	0	0	0	12396	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-12hr-90%	0	12396	0	0	0	0	12396	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-24hr-10%	0	16792	0	0	0	0	16792	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-24hr-90%	0	16792	0	0	0	0	16792	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-6hr-10%	0	8850	0	0	0	0	8850	0	100.00
EC-N23 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N23 : In	25yr-6hr-90%	0	8850	0	0	0	0	8850	0	100.00
EC-N23 : Out		0	0	0	0	0	0			

Node: EC-N24

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N24	100yr-12hr-10%	0.00	0.00	0.0000	7.993	0.000	0.0
EC-N24	100yr-12hr-90%	0.00	0.00	0.0000	6.439	0.000	0.0
EC-N24	100yr-24hr-10%	0.00	0.00	0.0000	7.599	0.000	0.0
EC-N24	100yr-24hr-90%	0.00	0.00	0.0000	7.280	0.000	0.0
EC-N24	100yr-6hr-10%	0.00	0.00	0.0000	8.148	0.000	0.0
EC-N24	100yr-6hr-90%	0.00	0.00	0.0000	5.855	0.000	0.0
EC-N24	10yr-12hr-10%	0.00	0.00	0.0000	3.864	0.000	0.0
EC-N24	10yr-12hr-90%	0.00	0.00	0.0000	3.489	0.000	0.0
EC-N24	10yr-24hr-10%	0.00	0.00	0.0000	3.335	0.000	0.0
EC-N24	10yr-24hr-90%	0.00	0.00	0.0000	3.741	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N24	10yr-6hr-10%	0.00	0.00	0.0000	4.675	0.000	0.0
EC-N24	10yr-6hr-90%	0.00	0.00	0.0000	3.636	0.000	0.0
EC-N24	25yr-12hr-10 %	0.00	0.00	0.0000	5.356	0.000	0.0
EC-N24	25yr-12hr-90 %	0.00	0.00	0.0000	4.577	0.000	0.0
EC-N24	25yr-24hr-10 %	0.00	0.00	0.0000	4.858	0.000	0.0
EC-N24	25yr-24hr-90 %	0.00	0.00	0.0000	5.024	0.000	0.0
EC-N24	25yr-6hr-10%	0.00	0.00	0.0000	5.987	0.000	0.0
EC-N24	25yr-6hr-90%	0.00	0.00	0.0000	4.488	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N24 : In	100yr-12 hr-10%	0	62814	0	0	0	0	62814	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-12 hr-90%	0	62814	0	0	0	0	62814	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-24 hr-10%	0	87333	0	0	0	0	87333	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-24 hr-90%	0	87333	0	0	0	0	87333	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-6h r-10%	0	41312	0	0	0	0	41312	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-6h r-90%	0	41313	0	0	0	0	41313	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-12h r-10%	0	30776	0	0	0	0	30776	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-12hr-90%	0	30776	0	0	0	0	30776	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-24hr-10%	0	40781	0	0	0	0	40781	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-24hr-90%	0	40781	0	0	0	0	40781	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-6hr-10%	0	23560	0	0	0	0	23560	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-6hr-90%	0	23560	0	0	0	0	23560	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-12hr-10%	0	42376	0	0	0	0	42376	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-12hr-90%	0	42377	0	0	0	0	42377	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-24hr-10%	0	57403	0	0	0	0	57403	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-24hr-90%	0	57403	0	0	0	0	57403	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-6hr-10%	0	30255	0	0	0	0	30255	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-6hr-90%	0	30255	0	0	0	0	30255	0	100.00
EC-N24 : Out		0	0	0	0	0	0			

Node: EC-N25

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N25	100yr-12hr-10%	0.00	0.00	0.0000	19.276	0.000	0.0
EC-N25	100yr-12hr-90%	0.00	0.00	0.0000	15.257	0.000	0.0
EC-N25	100yr-24hr-10%	0.00	0.00	0.0000	18.247	0.000	0.0
EC-N25	100yr-24hr-90%	0.00	0.00	0.0000	17.316	0.000	0.0
EC-N25	100yr-6hr-10%	0.00	0.00	0.0000	19.477	0.000	0.0
EC-N25	100yr-6hr-90%	0.00	0.00	0.0000	14.049	0.000	0.0
EC-N25	10yr-12hr-10%	0.00	0.00	0.0000	9.416	0.000	0.0
EC-N25	10yr-12hr-90%	0.00	0.00	0.0000	8.297	0.000	0.0
EC-N25	10yr-24hr-10%	0.00	0.00	0.0000	8.104	0.000	0.0
EC-N25	10yr-24hr-90%	0.00	0.00	0.0000	8.925	0.000	0.0
EC-N25	10yr-6hr-10%	0.00	0.00	0.0000	11.288	0.000	0.0
EC-N25	10yr-6hr-90%	0.00	0.00	0.0000	8.754	0.000	0.0
EC-N25	25yr-12hr-10%	0.00	0.00	0.0000	12.975	0.000	0.0
EC-N25	25yr-12hr-90%	0.00	0.00	0.0000	10.864	0.000	0.0
EC-N25	25yr-24hr-10%	0.00	0.00	0.0000	11.713	0.000	0.0
EC-N25	25yr-24hr-90%	0.00	0.00	0.0000	11.967	0.000	0.0
EC-N25	25yr-6hr-10%	0.00	0.00	0.0000	14.385	0.000	0.0
EC-N25	25yr-6hr-90%	0.00	0.00	0.0000	10.788	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N25 : In	100yr-12 hr-10%	0	153682	0	0	0	0	153682	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-12 hr-90%	0	153683	0	0	0	0	153683	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-24 hr-10%	0	212955	0	0	0	0	212955	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-24 hr-90%	0	212955	0	0	0	0	212955	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-6hr-10%	0	101618	0	0	0	0	101618	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-6hr-90%	0	101619	0	0	0	0	101619	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-12hr-10%	0	76046	0	0	0	0	76046	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-12hr-90%	0	76047	0	0	0	0	76047	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-24hr-10%	0	100330	0	0	0	0	100330	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-24hr-90%	0	100331	0	0	0	0	100331	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-6hr-10%	0	58491	0	0	0	0	58491	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 :	10yr-6hr-	0	58492	0	0	0	0	58492	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-12hr-10%	0	104198	0	0	0	0	104198	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-12hr-90%	0	104199	0	0	0	0	104199	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-24hr-10%	0	140591	0	0	0	0	140591	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-24hr-90%	0	140591	0	0	0	0	140591	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-6hr-10%	0	74781	0	0	0	0	74781	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-6hr-90%	0	74781	0	0	0	0	74781	0	100.00
EC-N25 : Out		0	0	0	0	0	0			

Node: EC-N26

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N26	100yr-12hr-10%	0.00	0.00	0.0000	1.532	0.000	0.0
EC-N26	100yr-12hr-90%	0.00	0.00	0.0000	1.174	0.000	0.0
EC-N26	100yr-24hr-10%	0.00	0.00	0.0000	1.465	0.000	0.0
EC-N26	100yr-24hr-90%	0.00	0.00	0.0000	1.287	0.000	0.0
EC-N26	100yr-6hr-10%	0.00	0.00	0.0000	1.590	0.000	0.0
EC-N26	100yr-6hr-90%	0.00	0.00	0.0000	1.047	0.000	0.0
EC-N26	10yr-12hr-10%	0.00	0.00	0.0000	0.771	0.000	0.0
EC-N26	10yr-12hr-90%	0.00	0.00	0.0000	0.650	0.000	0.0
EC-N26	10yr-24hr-10%	0.00	0.00	0.0000	0.681	0.000	0.0
EC-N26	10yr-24hr-90%	0.00	0.00	0.0000	0.672	0.000	0.0
EC-N26	10yr-6hr-10%	0.00	0.00	0.0000	0.949	0.000	0.0
EC-N26	10yr-6hr-90%	0.00	0.00	0.0000	0.666	0.000	0.0
EC-N26	25yr-12hr-10%	0.00	0.00	0.0000	1.051	0.000	0.0
EC-N26	25yr-12hr-90%	0.00	0.00	0.0000	0.843	0.000	0.0
EC-N26	25yr-24hr-10%	0.00	0.00	0.0000	0.950	0.000	0.0
EC-N26	25yr-24hr-90%	0.00	0.00	0.0000	0.895	0.000	0.0
EC-N26	25yr-6hr-10%	0.00	0.00	0.0000	1.195	0.000	0.0
EC-N26	25yr-6hr-90%	0.00	0.00	0.0000	0.812	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N26 : In	100yr-12hr-10%	0	11491	0	0	0	0	11491	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-12hr-90%	0	11491	0	0	0	0	11491	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-24hr-10%	0	15768	0	0	0	0	15768	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-24hr-90%	0	15768	0	0	0	0	15768	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-6hr-10%	0	7718	0	0	0	0	7718	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-6hr-90%	0	7718	0	0	0	0	7718	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-12hr-10%	0	5853	0	0	0	0	5853	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-12hr-90%	0	5853	0	0	0	0	5853	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-24hr-10%	0	7624	0	0	0	0	7624	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-24hr-90%	0	7624	0	0	0	0	7624	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-6hr-10%	0	4565	0	0	0	0	4565	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-6hr-90%	0	4565	0	0	0	0	4565	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-12hr-10%	0	7905	0	0	0	0	7905	0	100.00
EC-N26 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N26 : In	25yr-12hr-90%	0	7905	0	0	0	0	7905	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-24hr-10%	0	10544	0	0	0	0	10544	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-24hr-90%	0	10544	0	0	0	0	10544	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-6hr-10%	0	5761	0	0	0	0	5761	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-6hr-90%	0	5761	0	0	0	0	5761	0	100.00
EC-N26 : Out		0	0	0	0	0	0			

Node: EC-N27

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N27	100yr-12hr-10%	0.00	0.00	0.0000	0.511	0.000	0.0
EC-N27	100yr-12hr-90%	0.00	0.00	0.0000	0.391	0.000	0.0
EC-N27	100yr-24hr-1	0.00	0.00	0.0000	0.488	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N27	100yr-24hr-90%	0.00	0.00	0.0000	0.429	0.000	0.0
EC-N27	100yr-6hr-10%	0.00	0.00	0.0000	0.530	0.000	0.0
EC-N27	100yr-6hr-90%	0.00	0.00	0.0000	0.349	0.000	0.0
EC-N27	10yr-12hr-10%	0.00	0.00	0.0000	0.257	0.000	0.0
EC-N27	10yr-12hr-90%	0.00	0.00	0.0000	0.217	0.000	0.0
EC-N27	10yr-24hr-10%	0.00	0.00	0.0000	0.227	0.000	0.0
EC-N27	10yr-24hr-90%	0.00	0.00	0.0000	0.224	0.000	0.0
EC-N27	10yr-6hr-10%	0.00	0.00	0.0000	0.316	0.000	0.0
EC-N27	10yr-6hr-90%	0.00	0.00	0.0000	0.222	0.000	0.0
EC-N27	25yr-12hr-10%	0.00	0.00	0.0000	0.350	0.000	0.0
EC-N27	25yr-12hr-90%	0.00	0.00	0.0000	0.281	0.000	0.0
EC-N27	25yr-24hr-10%	0.00	0.00	0.0000	0.317	0.000	0.0
EC-N27	25yr-24hr-90%	0.00	0.00	0.0000	0.298	0.000	0.0
EC-N27	25yr-6hr-10%	0.00	0.00	0.0000	0.398	0.000	0.0
EC-N27	25yr-6hr-90%	0.00	0.00	0.0000	0.271	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N27 : In	100yr-12hr-10%	0	3830	0	0	0	0	3830	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	100yr-12hr-90%	0	3830	0	0	0	0	3830	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	100yr-24hr-10%	0	5256	0	0	0	0	5256	0	100.00
EC-N27 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N27 : In	100yr-24 hr-90%	0	5256	0	0	0	0	5256	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	100yr-6hr-10%	0	2573	0	0	0	0	2573	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	100yr-6hr-90%	0	2573	0	0	0	0	2573	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-12hr-10%	0	1951	0	0	0	0	1951	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-12hr-90%	0	1951	0	0	0	0	1951	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-24hr-10%	0	2541	0	0	0	0	2541	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-24hr-90%	0	2541	0	0	0	0	2541	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-6hr-10%	0	1522	0	0	0	0	1522	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-6hr-90%	0	1522	0	0	0	0	1522	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-12hr-10%	0	2635	0	0	0	0	2635	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-12hr-90%	0	2635	0	0	0	0	2635	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 :	25yr-24h	0	3515	0	0	0	0	3515	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-24hr-90%	0	3515	0	0	0	0	3515	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-6hr-10%	0	1920	0	0	0	0	1920	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-6hr-90%	0	1920	0	0	0	0	1920	0	100.00
EC-N27 : Out		0	0	0	0	0	0			

Node: EC-N28

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N28	100yr-12hr-10%	0.00	0.00	0.0000	1.095	0.000	0.0
EC-N28	100yr-12hr-90%	0.00	0.00	0.0000	0.892	0.000	0.0
EC-N28	100yr-24hr-10%	0.00	0.00	0.0000	1.036	0.000	0.0
EC-N28	100yr-24hr-90%	0.00	0.00	0.0000	0.984	0.000	0.0
EC-N28	100yr-6hr-10%	0.00	0.00	0.0000	1.123	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N28	100yr-6hr-90 %	0.00	0.00	0.0000	0.785	0.000	0.0
EC-N28	10yr-12hr-10 %	0.00	0.00	0.0000	0.521	0.000	0.0
EC-N28	10yr-12hr-90 %	0.00	0.00	0.0000	0.483	0.000	0.0
EC-N28	10yr-24hr-10 %	0.00	0.00	0.0000	0.460	0.000	0.0
EC-N28	10yr-24hr-90 %	0.00	0.00	0.0000	0.505	0.000	0.0
EC-N28	10yr-6hr-10%	0.00	0.00	0.0000	0.635	0.000	0.0
EC-N28	10yr-6hr-90%	0.00	0.00	0.0000	0.488	0.000	0.0
EC-N28	25yr-12hr-10 %	0.00	0.00	0.0000	0.722	0.000	0.0
EC-N28	25yr-12hr-90 %	0.00	0.00	0.0000	0.634	0.000	0.0
EC-N28	25yr-24hr-10 %	0.00	0.00	0.0000	0.668	0.000	0.0
EC-N28	25yr-24hr-90 %	0.00	0.00	0.0000	0.678	0.000	0.0
EC-N28	25yr-6hr-10%	0.00	0.00	0.0000	0.818	0.000	0.0
EC-N28	25yr-6hr-90%	0.00	0.00	0.0000	0.602	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N28 : In	100yr-12 hr-10%	0	8254	0	0	0	0	8254	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	100yr-12 hr-90%	0	8254	0	0	0	0	8254	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	100yr-24 hr-10%	0	11515	0	0	0	0	11515	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	100yr-24 hr-90%	0	11515	0	0	0	0	11515	0	100.00
EC-N28 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N28 : In	100yr-6hr-10%	0	5399	0	0	0	0	5399	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	100yr-6hr-90%	0	5399	0	0	0	0	5399	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-12hr-10%	0	4004	0	0	0	0	4004	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-12hr-90%	0	4004	0	0	0	0	4004	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-24hr-10%	0	5329	0	0	0	0	5329	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-24hr-90%	0	5329	0	0	0	0	5329	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-6hr-10%	0	3050	0	0	0	0	3050	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-6hr-90%	0	3050	0	0	0	0	3050	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-12hr-10%	0	5540	0	0	0	0	5540	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-12hr-90%	0	5540	0	0	0	0	5540	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-24hr-10%	0	7535	0	0	0	0	7535	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-24hr-90%	0	7535	0	0	0	0	7535	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-6hr-10%	0	3935	0	0	0	0	3935	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-6hr-90%	0	3935	0	0	0	0	3935	0	100.00
EC-N28 : Out		0	0	0	0	0	0			

Node: EC-N29

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N29	100yr-12hr-10%	0.00	0.00	0.0000	1.095	0.000	0.0
EC-N29	100yr-12hr-90%	0.00	0.00	0.0000	0.892	0.000	0.0
EC-N29	100yr-24hr-10%	0.00	0.00	0.0000	1.036	0.000	0.0
EC-N29	100yr-24hr-90%	0.00	0.00	0.0000	0.984	0.000	0.0
EC-N29	100yr-6hr-10%	0.00	0.00	0.0000	1.123	0.000	0.0
EC-N29	100yr-6hr-90%	0.00	0.00	0.0000	0.785	0.000	0.0
EC-N29	10yr-12hr-10%	0.00	0.00	0.0000	0.521	0.000	0.0
EC-N29	10yr-12hr-90	0.00	0.00	0.0000	0.483	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N29	10yr-24hr-10 %	0.00	0.00	0.0000	0.460	0.000	0.0
EC-N29	10yr-24hr-90 %	0.00	0.00	0.0000	0.505	0.000	0.0
EC-N29	10yr-6hr-10%	0.00	0.00	0.0000	0.635	0.000	0.0
EC-N29	10yr-6hr-90%	0.00	0.00	0.0000	0.488	0.000	0.0
EC-N29	25yr-12hr-10 %	0.00	0.00	0.0000	0.722	0.000	0.0
EC-N29	25yr-12hr-90 %	0.00	0.00	0.0000	0.634	0.000	0.0
EC-N29	25yr-24hr-10 %	0.00	0.00	0.0000	0.668	0.000	0.0
EC-N29	25yr-24hr-90 %	0.00	0.00	0.0000	0.678	0.000	0.0
EC-N29	25yr-6hr-10%	0.00	0.00	0.0000	0.818	0.000	0.0
EC-N29	25yr-6hr-90%	0.00	0.00	0.0000	0.602	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N29 : In	100yr-12 hr-10%	0	8254	0	0	0	0	8254	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	100yr-12 hr-90%	0	8254	0	0	0	0	8254	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	100yr-24 hr-10%	0	11515	0	0	0	0	11515	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	100yr-24 hr-90%	0	11515	0	0	0	0	11515	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	100yr-6hr-10%	0	5399	0	0	0	0	5399	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 :	100yr-6h	0	5399	0	0	0	0	5399	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-12hr-10%	0	4004	0	0	0	0	4004	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-12hr-90%	0	4004	0	0	0	0	4004	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-24hr-10%	0	5329	0	0	0	0	5329	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-24hr-90%	0	5329	0	0	0	0	5329	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-6hr-10%	0	3050	0	0	0	0	3050	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-6hr-90%	0	3050	0	0	0	0	3050	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-12hr-10%	0	5540	0	0	0	0	5540	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-12hr-90%	0	5540	0	0	0	0	5540	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-24hr-10%	0	7535	0	0	0	0	7535	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-24hr-90%	0	7535	0	0	0	0	7535	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-6hr-10%	0	3935	0	0	0	0	3935	0	100.00
EC-N29 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N29 : In	25yr-6hr-90%	0	3935	0	0	0	0	3935	0	100.00
EC-N29 : Out		0	0	0	0	0	0			

Node: EC-N30

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N30	100yr-12hr-10%	0.00	0.00	0.0000	1.595	0.000	0.0
EC-N30	100yr-12hr-90%	0.00	0.00	0.0000	1.302	0.000	0.0
EC-N30	100yr-24hr-10%	0.00	0.00	0.0000	1.511	0.000	0.0
EC-N30	100yr-24hr-90%	0.00	0.00	0.0000	1.437	0.000	0.0
EC-N30	100yr-6hr-10%	0.00	0.00	0.0000	1.635	0.000	0.0
EC-N30	100yr-6hr-90%	0.00	0.00	0.0000	1.147	0.000	0.0
EC-N30	10yr-12hr-10%	0.00	0.00	0.0000	0.759	0.000	0.0
EC-N30	10yr-12hr-90%	0.00	0.00	0.0000	0.705	0.000	0.0
EC-N30	10yr-24hr-10%	0.00	0.00	0.0000	0.670	0.000	0.0
EC-N30	10yr-24hr-90%	0.00	0.00	0.0000	0.738	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N30	10yr-6hr-10%	0.00	0.00	0.0000	0.926	0.000	0.0
EC-N30	10yr-6hr-90%	0.00	0.00	0.0000	0.713	0.000	0.0
EC-N30	25yr-12hr-10 %	0.00	0.00	0.0000	1.052	0.000	0.0
EC-N30	25yr-12hr-90 %	0.00	0.00	0.0000	0.925	0.000	0.0
EC-N30	25yr-24hr-10 %	0.00	0.00	0.0000	0.972	0.000	0.0
EC-N30	25yr-24hr-90 %	0.00	0.00	0.0000	0.991	0.000	0.0
EC-N30	25yr-6hr-10%	0.00	0.00	0.0000	1.191	0.000	0.0
EC-N30	25yr-6hr-90%	0.00	0.00	0.0000	0.880	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N30 : In	100yr-12 hr-10%	0	12063	0	0	0	0	12063	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-12 hr-90%	0	12064	0	0	0	0	12064	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-24 hr-10%	0	16830	0	0	0	0	16830	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-24 hr-90%	0	16830	0	0	0	0	16830	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-6hr-10%	0	7891	0	0	0	0	7891	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-6hr-90%	0	7891	0	0	0	0	7891	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-12hr-10%	0	5851	0	0	0	0	5851	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-12hr-90%	0	5851	0	0	0	0	5851	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-24hr-10%	0	7788	0	0	0	0	7788	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-24hr-90%	0	7788	0	0	0	0	7788	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-6hr-10%	0	4458	0	0	0	0	4458	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-6hr-90%	0	4458	0	0	0	0	4458	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-12hr-10%	0	8097	0	0	0	0	8097	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-12hr-90%	0	8097	0	0	0	0	8097	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-24hr-10%	0	11013	0	0	0	0	11013	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-24hr-90%	0	11013	0	0	0	0	11013	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-6hr-10%	0	5751	0	0	0	0	5751	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-6hr-90%	0	5751	0	0	0	0	5751	0	100.00
EC-N30 : Out		0	0	0	0	0	0			

Node: EC-N31

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N31	100yr-12hr-10%	0.00	0.00	0.0000	4.882	0.000	0.0
EC-N31	100yr-12hr-90%	0.00	0.00	0.0000	4.005	0.000	0.0
EC-N31	100yr-24hr-10%	0.00	0.00	0.0000	4.640	0.000	0.0
EC-N31	100yr-24hr-90%	0.00	0.00	0.0000	4.466	0.000	0.0
EC-N31	100yr-6hr-10%	0.00	0.00	0.0000	4.987	0.000	0.0
EC-N31	100yr-6hr-90%	0.00	0.00	0.0000	3.563	0.000	0.0
EC-N31	10yr-12hr-10%	0.00	0.00	0.0000	2.329	0.000	0.0
EC-N31	10yr-12hr-90%	0.00	0.00	0.0000	2.163	0.000	0.0
EC-N31	10yr-24hr-10%	0.00	0.00	0.0000	2.031	0.000	0.0
EC-N31	10yr-24hr-90%	0.00	0.00	0.0000	2.289	0.000	0.0
EC-N31	10yr-6hr-10%	0.00	0.00	0.0000	2.842	0.000	0.0
EC-N31	10yr-6hr-90%	0.00	0.00	0.0000	2.208	0.000	0.0
EC-N31	25yr-12hr-10%	0.00	0.00	0.0000	3.231	0.000	0.0
EC-N31	25yr-12hr-90%	0.00	0.00	0.0000	2.843	0.000	0.0
EC-N31	25yr-24hr-10%	0.00	0.00	0.0000	2.966	0.000	0.0
EC-N31	25yr-24hr-90%	0.00	0.00	0.0000	3.079	0.000	0.0
EC-N31	25yr-6hr-10%	0.00	0.00	0.0000	3.647	0.000	0.0
EC-N31	25yr-6hr-90%	0.00	0.00	0.0000	2.729	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N31 : In	100yr-12 hr-10%	0	37569	0	0	0	0	37569	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-12 hr-90%	0	37570	0	0	0	0	37570	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-24 hr-10%	0	52413	0	0	0	0	52413	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-24 hr-90%	0	52413	0	0	0	0	52413	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-6hr-10%	0	24575	0	0	0	0	24575	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-6hr-90%	0	24575	0	0	0	0	24575	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-12hr-10%	0	18223	0	0	0	0	18223	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-12hr-90%	0	18223	0	0	0	0	18223	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-24hr-10%	0	24255	0	0	0	0	24255	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-24hr-90%	0	24255	0	0	0	0	24255	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-6hr-10%	0	13884	0	0	0	0	13884	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 :	10yr-6hr-	0	13884	0	0	0	0	13884	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-12hr-10%	0	25217	0	0	0	0	25217	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-12hr-90%	0	25218	0	0	0	0	25218	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-24hr-10%	0	34297	0	0	0	0	34297	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-24hr-90%	0	34297	0	0	0	0	34297	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-6hr-10%	0	17909	0	0	0	0	17909	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-6hr-90%	0	17910	0	0	0	0	17910	0	100.00
EC-N31 : Out		0	0	0	0	0	0			

Node: EC-N32

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N32	100yr-12hr-10%	0.00	0.00	0.0000	1.391	0.000	0.0
EC-N32	100yr-12hr-90%	0.00	0.00	0.0000	1.133	0.000	0.0
EC-N32	100yr-24hr-10%	0.00	0.00	0.0000	1.317	0.000	0.0
EC-N32	100yr-24hr-90%	0.00	0.00	0.0000	1.249	0.000	0.0
EC-N32	100yr-6hr-10%	0.00	0.00	0.0000	1.426	0.000	0.0
EC-N32	100yr-6hr-90%	0.00	0.00	0.0000	0.997	0.000	0.0
EC-N32	10yr-12hr-10%	0.00	0.00	0.0000	0.661	0.000	0.0
EC-N32	10yr-12hr-90%	0.00	0.00	0.0000	0.613	0.000	0.0
EC-N32	10yr-24hr-10%	0.00	0.00	0.0000	0.585	0.000	0.0
EC-N32	10yr-24hr-90%	0.00	0.00	0.0000	0.641	0.000	0.0
EC-N32	10yr-6hr-10%	0.00	0.00	0.0000	0.807	0.000	0.0
EC-N32	10yr-6hr-90%	0.00	0.00	0.0000	0.620	0.000	0.0
EC-N32	25yr-12hr-10%	0.00	0.00	0.0000	0.918	0.000	0.0
EC-N32	25yr-12hr-90%	0.00	0.00	0.0000	0.805	0.000	0.0
EC-N32	25yr-24hr-10%	0.00	0.00	0.0000	0.848	0.000	0.0
EC-N32	25yr-24hr-90%	0.00	0.00	0.0000	0.862	0.000	0.0
EC-N32	25yr-6hr-10%	0.00	0.00	0.0000	1.039	0.000	0.0
EC-N32	25yr-6hr-90%	0.00	0.00	0.0000	0.765	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N32 : In	100yr-12hr-10%	0	10485	0	0	0	0	10485	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-12hr-90%	0	10485	0	0	0	0	10485	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-24hr-10%	0	14627	0	0	0	0	14627	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-24hr-90%	0	14627	0	0	0	0	14627	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-6hr-10%	0	6858	0	0	0	0	6858	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-6hr-90%	0	6858	0	0	0	0	6858	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-12hr-10%	0	5086	0	0	0	0	5086	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-12hr-90%	0	5086	0	0	0	0	5086	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-24hr-10%	0	6769	0	0	0	0	6769	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-24hr-90%	0	6769	0	0	0	0	6769	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-6hr-10%	0	3875	0	0	0	0	3875	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-6hr-90%	0	3875	0	0	0	0	3875	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-12hr-10%	0	7038	0	0	0	0	7038	0	100.00
EC-N32 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N32 : In	25yr-12hr-90%	0	7038	0	0	0	0	7038	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-24hr-10%	0	9572	0	0	0	0	9572	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-24hr-90%	0	9572	0	0	0	0	9572	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-6hr-10%	0	4998	0	0	0	0	4998	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-6hr-90%	0	4998	0	0	0	0	4998	0	100.00
EC-N32 : Out		0	0	0	0	0	0			

Node: EC-N33

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N33	100yr-12hr-10%	0.00	0.00	0.0000	1.270	0.000	0.0
EC-N33	100yr-12hr-90%	0.00	0.00	0.0000	1.037	0.000	0.0
EC-N33	100yr-24hr-1	0.00	0.00	0.0000	1.203	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N33	100yr-24hr-90%	0.00	0.00	0.0000	1.145	0.000	0.0
EC-N33	100yr-6hr-10%	0.00	0.00	0.0000	1.302	0.000	0.0
EC-N33	100yr-6hr-90%	0.00	0.00	0.0000	0.913	0.000	0.0
EC-N33	10yr-12hr-10%	0.00	0.00	0.0000	0.604	0.000	0.0
EC-N33	10yr-12hr-90%	0.00	0.00	0.0000	0.561	0.000	0.0
EC-N33	10yr-24hr-10%	0.00	0.00	0.0000	0.533	0.000	0.0
EC-N33	10yr-24hr-90%	0.00	0.00	0.0000	0.587	0.000	0.0
EC-N33	10yr-6hr-10%	0.00	0.00	0.0000	0.737	0.000	0.0
EC-N33	10yr-6hr-90%	0.00	0.00	0.0000	0.568	0.000	0.0
EC-N33	25yr-12hr-10%	0.00	0.00	0.0000	0.838	0.000	0.0
EC-N33	25yr-12hr-90%	0.00	0.00	0.0000	0.737	0.000	0.0
EC-N33	25yr-24hr-10%	0.00	0.00	0.0000	0.774	0.000	0.0
EC-N33	25yr-24hr-90%	0.00	0.00	0.0000	0.789	0.000	0.0
EC-N33	25yr-6hr-10%	0.00	0.00	0.0000	0.948	0.000	0.0
EC-N33	25yr-6hr-90%	0.00	0.00	0.0000	0.700	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N33 : In	100yr-12hr-10%	0	9606	0	0	0	0	9606	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	100yr-12hr-90%	0	9606	0	0	0	0	9606	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	100yr-24hr-10%	0	13401	0	0	0	0	13401	0	100.00
EC-N33 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N33 : In	100yr-24hr-90%	0	13401	0	0	0	0	13401	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	100yr-6hr-10%	0	6284	0	0	0	0	6284	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	100yr-6hr-90%	0	6284	0	0	0	0	6284	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-12hr-10%	0	4659	0	0	0	0	4659	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-12hr-90%	0	4659	0	0	0	0	4659	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-24hr-10%	0	6202	0	0	0	0	6202	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-24hr-90%	0	6202	0	0	0	0	6202	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-6hr-10%	0	3550	0	0	0	0	3550	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-6hr-90%	0	3550	0	0	0	0	3550	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-12hr-10%	0	6448	0	0	0	0	6448	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-12hr-90%	0	6448	0	0	0	0	6448	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 :	25yr-24h	0	8769	0	0	0	0	8769	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-24hr-90%	0	8769	0	0	0	0	8769	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-6hr-10%	0	4579	0	0	0	0	4579	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-6hr-90%	0	4579	0	0	0	0	4579	0	100.00
EC-N33 : Out		0	0	0	0	0	0			

Node: EC-N34

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N34	100yr-12hr-10%	0.00	0.00	0.0000	0.559	0.000	0.0
EC-N34	100yr-12hr-90%	0.00	0.00	0.0000	0.438	0.000	0.0
EC-N34	100yr-24hr-10%	0.00	0.00	0.0000	0.523	0.000	0.0
EC-N34	100yr-24hr-90%	0.00	0.00	0.0000	0.481	0.000	0.0
EC-N34	100yr-6hr-10%	0.00	0.00	0.0000	0.577	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N34	100yr-6hr-90 %	0.00	0.00	0.0000	0.389	0.000	0.0
EC-N34	10yr-12hr-10 %	0.00	0.00	0.0000	0.273	0.000	0.0
EC-N34	10yr-12hr-90 %	0.00	0.00	0.0000	0.240	0.000	0.0
EC-N34	10yr-24hr-10 %	0.00	0.00	0.0000	0.243	0.000	0.0
EC-N34	10yr-24hr-90 %	0.00	0.00	0.0000	0.250	0.000	0.0
EC-N34	10yr-6hr-10%	0.00	0.00	0.0000	0.337	0.000	0.0
EC-N34	10yr-6hr-90%	0.00	0.00	0.0000	0.245	0.000	0.0
EC-N34	25yr-12hr-10 %	0.00	0.00	0.0000	0.378	0.000	0.0
EC-N34	25yr-12hr-90 %	0.00	0.00	0.0000	0.313	0.000	0.0
EC-N34	25yr-24hr-10 %	0.00	0.00	0.0000	0.344	0.000	0.0
EC-N34	25yr-24hr-90 %	0.00	0.00	0.0000	0.334	0.000	0.0
EC-N34	25yr-6hr-10%	0.00	0.00	0.0000	0.429	0.000	0.0
EC-N34	25yr-6hr-90%	0.00	0.00	0.0000	0.300	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N34 : In	100yr-12 hr-10%	0	4192	0	0	0	0	4192	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	100yr-12 hr-90%	0	4192	0	0	0	0	4192	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	100yr-24 hr-10%	0	5790	0	0	0	0	5790	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	100yr-24 hr-90%	0	5790	0	0	0	0	5790	0	100.00
EC-N34 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N34 : In	100yr-6hr-10%	0	2787	0	0	0	0	2787	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	100yr-6hr-90%	0	2787	0	0	0	0	2787	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-12hr-10%	0	2095	0	0	0	0	2095	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-12hr-90%	0	2095	0	0	0	0	2095	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-24hr-10%	0	2752	0	0	0	0	2752	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-24hr-90%	0	2752	0	0	0	0	2752	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-6hr-10%	0	1619	0	0	0	0	1619	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-6hr-90%	0	1619	0	0	0	0	1619	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-12hr-10%	0	2857	0	0	0	0	2857	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-12hr-90%	0	2857	0	0	0	0	2857	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-24hr-10%	0	3839	0	0	0	0	3839	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-24hr-90%	0	3839	0	0	0	0	3839	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-6hr-10%	0	2061	0	0	0	0	2061	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-6hr-90%	0	2061	0	0	0	0	2061	0	100.00
EC-N34 : Out		0	0	0	0	0	0			

Node: EC-N35

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N35	100yr-12hr-10%	0.00	0.00	0.0000	0.520	0.000	0.0
EC-N35	100yr-12hr-90%	0.00	0.00	0.0000	0.413	0.000	0.0
EC-N35	100yr-24hr-10%	0.00	0.00	0.0000	0.488	0.000	0.0
EC-N35	100yr-24hr-90%	0.00	0.00	0.0000	0.454	0.000	0.0
EC-N35	100yr-6hr-10%	0.00	0.00	0.0000	0.536	0.000	0.0
EC-N35	100yr-6hr-90%	0.00	0.00	0.0000	0.365	0.000	0.0
EC-N35	10yr-12hr-10%	0.00	0.00	0.0000	0.251	0.000	0.0
EC-N35	10yr-12hr-90	0.00	0.00	0.0000	0.225	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N35	10yr-24hr-10 %	0.00	0.00	0.0000	0.224	0.000	0.0
EC-N35	10yr-24hr-90 %	0.00	0.00	0.0000	0.235	0.000	0.0
EC-N35	10yr-6hr-10%	0.00	0.00	0.0000	0.309	0.000	0.0
EC-N35	10yr-6hr-90%	0.00	0.00	0.0000	0.229	0.000	0.0
EC-N35	25yr-12hr-10 %	0.00	0.00	0.0000	0.349	0.000	0.0
EC-N35	25yr-12hr-90 %	0.00	0.00	0.0000	0.294	0.000	0.0
EC-N35	25yr-24hr-10 %	0.00	0.00	0.0000	0.319	0.000	0.0
EC-N35	25yr-24hr-90 %	0.00	0.00	0.0000	0.314	0.000	0.0
EC-N35	25yr-6hr-10%	0.00	0.00	0.0000	0.395	0.000	0.0
EC-N35	25yr-6hr-90%	0.00	0.00	0.0000	0.281	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N35 : In	100yr-12 hr-10%	0	3904	0	0	0	0	3904	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	100yr-12 hr-90%	0	3904	0	0	0	0	3904	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	100yr-24 hr-10%	0	5410	0	0	0	0	5410	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	100yr-24 hr-90%	0	5410	0	0	0	0	5410	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	100yr-6h r-10%	0	2581	0	0	0	0	2581	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 :	100yr-6h	0	2581	0	0	0	0	2581	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-12hr-10%	0	1932	0	0	0	0	1932	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-12hr-90%	0	1932	0	0	0	0	1932	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-24hr-10%	0	2549	0	0	0	0	2549	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-24hr-90%	0	2549	0	0	0	0	2549	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-6hr-10%	0	1486	0	0	0	0	1486	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-6hr-90%	0	1486	0	0	0	0	1486	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-12hr-10%	0	2647	0	0	0	0	2647	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-12hr-90%	0	2647	0	0	0	0	2647	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-24hr-10%	0	3571	0	0	0	0	3571	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-24hr-90%	0	3572	0	0	0	0	3572	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-6hr-10%	0	1900	0	0	0	0	1900	0	100.00
EC-N35 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N35 : In	25yr-6hr-90%	0	1900	0	0	0	0	1900	0	100.00
EC-N35 : Out		0	0	0	0	0	0			

Node: EC-N36

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N36	100yr-12hr-10%	0.00	0.00	0.0000	0.878	0.000	0.0
EC-N36	100yr-12hr-90%	0.00	0.00	0.0000	0.699	0.000	0.0
EC-N36	100yr-24hr-10%	0.00	0.00	0.0000	0.826	0.000	0.0
EC-N36	100yr-24hr-90%	0.00	0.00	0.0000	0.775	0.000	0.0
EC-N36	100yr-6hr-10%	0.00	0.00	0.0000	0.902	0.000	0.0
EC-N36	100yr-6hr-90%	0.00	0.00	0.0000	0.623	0.000	0.0
EC-N36	10yr-12hr-10%	0.00	0.00	0.0000	0.424	0.000	0.0
EC-N36	10yr-12hr-90%	0.00	0.00	0.0000	0.382	0.000	0.0
EC-N36	10yr-24hr-10%	0.00	0.00	0.0000	0.375	0.000	0.0
EC-N36	10yr-24hr-90%	0.00	0.00	0.0000	0.400	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N36	10yr-6hr-10%	0.00	0.00	0.0000	0.520	0.000	0.0
EC-N36	10yr-6hr-90%	0.00	0.00	0.0000	0.391	0.000	0.0
EC-N36	25yr-12hr-10 %	0.00	0.00	0.0000	0.586	0.000	0.0
EC-N36	25yr-12hr-90 %	0.00	0.00	0.0000	0.499	0.000	0.0
EC-N36	25yr-24hr-10 %	0.00	0.00	0.0000	0.538	0.000	0.0
EC-N36	25yr-24hr-90 %	0.00	0.00	0.0000	0.536	0.000	0.0
EC-N36	25yr-6hr-10%	0.00	0.00	0.0000	0.663	0.000	0.0
EC-N36	25yr-6hr-90%	0.00	0.00	0.0000	0.480	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N36 : In	100yr-12 hr-10%	0	6674	0	0	0	0	6674	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-12 hr-90%	0	6674	0	0	0	0	6674	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-24 hr-10%	0	9248	0	0	0	0	9248	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-24 hr-90%	0	9248	0	0	0	0	9248	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-6h r-10%	0	4413	0	0	0	0	4413	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-6h r-90%	0	4413	0	0	0	0	4413	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-12h r-10%	0	3302	0	0	0	0	3302	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-12hr-90%	0	3302	0	0	0	0	3302	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-24hr-10%	0	4357	0	0	0	0	4357	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-24hr-90%	0	4357	0	0	0	0	4357	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-6hr-10%	0	2540	0	0	0	0	2540	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-6hr-90%	0	2540	0	0	0	0	2540	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-12hr-10%	0	4525	0	0	0	0	4525	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-12hr-90%	0	4525	0	0	0	0	4525	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-24hr-10%	0	6105	0	0	0	0	6105	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-24hr-90%	0	6105	0	0	0	0	6105	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-6hr-10%	0	3247	0	0	0	0	3247	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-6hr-90%	0	3247	0	0	0	0	3247	0	100.00
EC-N36 : Out		0	0	0	0	0	0			

Node: EC-N37

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N37	100yr-12hr-10%	0.00	0.00	0.0000	13.955	0.000	0.0
EC-N37	100yr-12hr-90%	0.00	0.00	0.0000	11.452	0.000	0.0
EC-N37	100yr-24hr-10%	0.00	0.00	0.0000	13.183	0.000	0.0
EC-N37	100yr-24hr-90%	0.00	0.00	0.0000	13.070	0.000	0.0
EC-N37	100yr-6hr-10%	0.00	0.00	0.0000	13.936	0.000	0.0
EC-N37	100yr-6hr-90%	0.00	0.00	0.0000	10.463	0.000	0.0
EC-N37	10yr-12hr-10%	0.00	0.00	0.0000	6.636	0.000	0.0
EC-N37	10yr-12hr-90%	0.00	0.00	0.0000	6.121	0.000	0.0
EC-N37	10yr-24hr-10%	0.00	0.00	0.0000	5.780	0.000	0.0
EC-N37	10yr-24hr-90%	0.00	0.00	0.0000	6.648	0.000	0.0
EC-N37	10yr-6hr-10%	0.00	0.00	0.0000	7.872	0.000	0.0
EC-N37	10yr-6hr-90%	0.00	0.00	0.0000	6.395	0.000	0.0
EC-N37	25yr-12hr-10%	0.00	0.00	0.0000	9.257	0.000	0.0
EC-N37	25yr-12hr-90%	0.00	0.00	0.0000	8.089	0.000	0.0
EC-N37	25yr-24hr-10%	0.00	0.00	0.0000	8.287	0.000	0.0
EC-N37	25yr-24hr-90%	0.00	0.00	0.0000	8.978	0.000	0.0
EC-N37	25yr-6hr-10%	0.00	0.00	0.0000	10.153	0.000	0.0
EC-N37	25yr-6hr-90%	0.00	0.00	0.0000	7.957	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N37 : In	100yr-12 hr-10%	0	112494	0	0	0	0	112494	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-12 hr-90%	0	112495	0	0	0	0	112495	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-24 hr-10%	0	157483	0	0	0	0	157483	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-24 hr-90%	0	157484	0	0	0	0	157484	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-6hr-10%	0	73180	0	0	0	0	73180	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-6hr-90%	0	73181	0	0	0	0	73181	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-12hr-10%	0	54012	0	0	0	0	54012	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-12hr-90%	0	54012	0	0	0	0	54012	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-24hr-10%	0	72212	0	0	0	0	72212	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-24hr-90%	0	72212	0	0	0	0	72212	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-6hr-10%	0	40952	0	0	0	0	40952	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 :	10yr-6hr-	0	40952	0	0	0	0	40952	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-12hr-10%	0	75121	0	0	0	0	75121	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-12hr-90%	0	75121	0	0	0	0	75121	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-24hr-10%	0	102584	0	0	0	0	102584	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-24hr-90%	0	102585	0	0	0	0	102585	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-6hr-10%	0	53067	0	0	0	0	53067	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-6hr-90%	0	53067	0	0	0	0	53067	0	100.00
EC-N37 : Out		0	0	0	0	0	0			

Node: EC-N38

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N38	100yr-12hr-10%	0.00	0.00	0.0000	0.474	0.000	0.0
EC-N38	100yr-12hr-90%	0.00	0.00	0.0000	0.386	0.000	0.0
EC-N38	100yr-24hr-10%	0.00	0.00	0.0000	0.448	0.000	0.0
EC-N38	100yr-24hr-90%	0.00	0.00	0.0000	0.425	0.000	0.0
EC-N38	100yr-6hr-10%	0.00	0.00	0.0000	0.486	0.000	0.0
EC-N38	100yr-6hr-90%	0.00	0.00	0.0000	0.339	0.000	0.0
EC-N38	10yr-12hr-10%	0.00	0.00	0.0000	0.225	0.000	0.0
EC-N38	10yr-12hr-90%	0.00	0.00	0.0000	0.209	0.000	0.0
EC-N38	10yr-24hr-10%	0.00	0.00	0.0000	0.199	0.000	0.0
EC-N38	10yr-24hr-90%	0.00	0.00	0.0000	0.218	0.000	0.0
EC-N38	10yr-6hr-10%	0.00	0.00	0.0000	0.275	0.000	0.0
EC-N38	10yr-6hr-90%	0.00	0.00	0.0000	0.211	0.000	0.0
EC-N38	25yr-12hr-10%	0.00	0.00	0.0000	0.312	0.000	0.0
EC-N38	25yr-12hr-90%	0.00	0.00	0.0000	0.274	0.000	0.0
EC-N38	25yr-24hr-10%	0.00	0.00	0.0000	0.289	0.000	0.0
EC-N38	25yr-24hr-90%	0.00	0.00	0.0000	0.293	0.000	0.0
EC-N38	25yr-6hr-10%	0.00	0.00	0.0000	0.354	0.000	0.0
EC-N38	25yr-6hr-90%	0.00	0.00	0.0000	0.260	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N38 : In	100yr-12hr-10%	0	3569	0	0	0	0	3569	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-12hr-90%	0	3569	0	0	0	0	3569	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-24hr-10%	0	4979	0	0	0	0	4979	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-24hr-90%	0	4980	0	0	0	0	4980	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-6hr-10%	0	2335	0	0	0	0	2335	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-6hr-90%	0	2335	0	0	0	0	2335	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-12hr-10%	0	1731	0	0	0	0	1731	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-12hr-90%	0	1731	0	0	0	0	1731	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-24hr-10%	0	2304	0	0	0	0	2304	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-24hr-90%	0	2304	0	0	0	0	2304	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-6hr-10%	0	1319	0	0	0	0	1319	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-6hr-90%	0	1319	0	0	0	0	1319	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-12hr-10%	0	2396	0	0	0	0	2396	0	100.00
EC-N38 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N38 : In	25yr-12hr-90%	0	2396	0	0	0	0	2396	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-24hr-10%	0	3258	0	0	0	0	3258	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-24hr-90%	0	3258	0	0	0	0	3258	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-6hr-10%	0	1702	0	0	0	0	1702	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-6hr-90%	0	1702	0	0	0	0	1702	0	100.00
EC-N38 : Out		0	0	0	0	0	0			

Node: EC-N39

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N39	100yr-12hr-10%	0.00	0.00	0.0000	3.171	0.000	0.0
EC-N39	100yr-12hr-90%	0.00	0.00	0.0000	2.596	0.000	0.0
EC-N39	100yr-24hr-1	0.00	0.00	0.0000	3.007	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N39	100yr-24hr-90%	0.00	0.00	0.0000	2.873	0.000	0.0
EC-N39	100yr-6hr-10%	0.00	0.00	0.0000	3.248	0.000	0.0
EC-N39	100yr-6hr-90%	0.00	0.00	0.0000	2.291	0.000	0.0
EC-N39	10yr-12hr-10%	0.00	0.00	0.0000	1.509	0.000	0.0
EC-N39	10yr-12hr-90%	0.00	0.00	0.0000	1.404	0.000	0.0
EC-N39	10yr-24hr-10%	0.00	0.00	0.0000	1.327	0.000	0.0
EC-N39	10yr-24hr-90%	0.00	0.00	0.0000	1.474	0.000	0.0
EC-N39	10yr-6hr-10%	0.00	0.00	0.0000	1.842	0.000	0.0
EC-N39	10yr-6hr-90%	0.00	0.00	0.0000	1.423	0.000	0.0
EC-N39	25yr-12hr-10%	0.00	0.00	0.0000	2.086	0.000	0.0
EC-N39	25yr-12hr-90%	0.00	0.00	0.0000	1.844	0.000	0.0
EC-N39	25yr-24hr-10%	0.00	0.00	0.0000	1.931	0.000	0.0
EC-N39	25yr-24hr-90%	0.00	0.00	0.0000	1.981	0.000	0.0
EC-N39	25yr-6hr-10%	0.00	0.00	0.0000	2.361	0.000	0.0
EC-N39	25yr-6hr-90%	0.00	0.00	0.0000	1.757	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N39 : In	100yr-12hr-10%	0	24118	0	0	0	0	24118	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	100yr-12hr-90%	0	24118	0	0	0	0	24118	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	100yr-24hr-10%	0	33647	0	0	0	0	33647	0	100.00
EC-N39 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N39 : In	100yr-24hr-90%	0	33647	0	0	0	0	33647	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	100yr-6hr-10%	0	15776	0	0	0	0	15776	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	100yr-6hr-90%	0	15776	0	0	0	0	15776	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-12hr-10%	0	11698	0	0	0	0	11698	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-12hr-90%	0	11698	0	0	0	0	11698	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-24hr-10%	0	15570	0	0	0	0	15570	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-24hr-90%	0	15571	0	0	0	0	15571	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-6hr-10%	0	8913	0	0	0	0	8913	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-6hr-90%	0	8913	0	0	0	0	8913	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-12hr-10%	0	16189	0	0	0	0	16189	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-12hr-90%	0	16189	0	0	0	0	16189	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 :	25yr-24h	0	22017	0	0	0	0	22017	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-24hr-90%	0	22017	0	0	0	0	22017	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-6hr-10%	0	11497	0	0	0	0	11497	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-6hr-90%	0	11497	0	0	0	0	11497	0	100.00
EC-N39 : Out		0	0	0	0	0	0			

Node: EC-N40

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N40	100yr-12hr-10%	0.00	0.00	0.0000	0.207	0.000	0.0
EC-N40	100yr-12hr-90%	0.00	0.00	0.0000	0.169	0.000	0.0
EC-N40	100yr-24hr-10%	0.00	0.00	0.0000	0.196	0.000	0.0
EC-N40	100yr-24hr-90%	0.00	0.00	0.0000	0.186	0.000	0.0
EC-N40	100yr-6hr-10%	0.00	0.00	0.0000	0.212	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N40	100yr-6hr-90 %	0.00	0.00	0.0000	0.148	0.000	0.0
EC-N40	10yr-12hr-10 %	0.00	0.00	0.0000	0.099	0.000	0.0
EC-N40	10yr-12hr-90 %	0.00	0.00	0.0000	0.091	0.000	0.0
EC-N40	10yr-24hr-10 %	0.00	0.00	0.0000	0.087	0.000	0.0
EC-N40	10yr-24hr-90 %	0.00	0.00	0.0000	0.096	0.000	0.0
EC-N40	10yr-6hr-10%	0.00	0.00	0.0000	0.120	0.000	0.0
EC-N40	10yr-6hr-90%	0.00	0.00	0.0000	0.092	0.000	0.0
EC-N40	25yr-12hr-10 %	0.00	0.00	0.0000	0.137	0.000	0.0
EC-N40	25yr-12hr-90 %	0.00	0.00	0.0000	0.120	0.000	0.0
EC-N40	25yr-24hr-10 %	0.00	0.00	0.0000	0.126	0.000	0.0
EC-N40	25yr-24hr-90 %	0.00	0.00	0.0000	0.128	0.000	0.0
EC-N40	25yr-6hr-10%	0.00	0.00	0.0000	0.155	0.000	0.0
EC-N40	25yr-6hr-90%	0.00	0.00	0.0000	0.114	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N40 : In	100yr-12 hr-10%	0	1562	0	0	0	0	1562	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	100yr-12 hr-90%	0	1562	0	0	0	0	1562	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	100yr-24 hr-10%	0	2179	0	0	0	0	2179	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	100yr-24 hr-90%	0	2179	0	0	0	0	2179	0	100.00
EC-N40 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N40 : In	100yr-6hr-10%	0	1021	0	0	0	0	1021	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	100yr-6hr-90%	0	1021	0	0	0	0	1021	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-12hr-10%	0	757	0	0	0	0	757	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-12hr-90%	0	757	0	0	0	0	757	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-24hr-10%	0	1008	0	0	0	0	1008	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-24hr-90%	0	1008	0	0	0	0	1008	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-6hr-10%	0	577	0	0	0	0	577	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-6hr-90%	0	577	0	0	0	0	577	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-12hr-10%	0	1048	0	0	0	0	1048	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-12hr-90%	0	1048	0	0	0	0	1048	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-24hr-10%	0	1426	0	0	0	0	1426	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-24hr-90%	0	1426	0	0	0	0	1426	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-6hr-10%	0	744	0	0	0	0	744	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-6hr-90%	0	744	0	0	0	0	744	0	100.00
EC-N40 : Out		0	0	0	0	0	0			

Node: EC-N41

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N41	100yr-12hr-10%	0.00	0.00	0.0000	3.064	0.000	0.0
EC-N41	100yr-12hr-90%	0.00	0.00	0.0000	2.506	0.000	0.0
EC-N41	100yr-24hr-10%	0.00	0.00	0.0000	2.904	0.000	0.0
EC-N41	100yr-24hr-90%	0.00	0.00	0.0000	2.768	0.000	0.0
EC-N41	100yr-6hr-10%	0.00	0.00	0.0000	3.139	0.000	0.0
EC-N41	100yr-6hr-90%	0.00	0.00	0.0000	2.208	0.000	0.0
EC-N41	10yr-12hr-10%	0.00	0.00	0.0000	1.457	0.000	0.0
EC-N41	10yr-12hr-90	0.00	0.00	0.0000	1.355	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N41	10yr-24hr-10 %	0.00	0.00	0.0000	1.284	0.000	0.0
EC-N41	10yr-24hr-90 %	0.00	0.00	0.0000	1.420	0.000	0.0
EC-N41	10yr-6hr-10%	0.00	0.00	0.0000	1.779	0.000	0.0
EC-N41	10yr-6hr-90%	0.00	0.00	0.0000	1.372	0.000	0.0
EC-N41	25yr-12hr-10 %	0.00	0.00	0.0000	2.017	0.000	0.0
EC-N41	25yr-12hr-90 %	0.00	0.00	0.0000	1.780	0.000	0.0
EC-N41	25yr-24hr-10 %	0.00	0.00	0.0000	1.867	0.000	0.0
EC-N41	25yr-24hr-90 %	0.00	0.00	0.0000	1.909	0.000	0.0
EC-N41	25yr-6hr-10%	0.00	0.00	0.0000	2.284	0.000	0.0
EC-N41	25yr-6hr-90%	0.00	0.00	0.0000	1.693	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N41 : In	100yr-12 hr-10%	0	23236	0	0	0	0	23236	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	100yr-12 hr-90%	0	23236	0	0	0	0	23236	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	100yr-24 hr-10%	0	32416	0	0	0	0	32416	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	100yr-24 hr-90%	0	32416	0	0	0	0	32416	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	100yr-6h r-10%	0	15199	0	0	0	0	15199	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 :	100yr-6h	0	15199	0	0	0	0	15199	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-12hr-10%	0	11271	0	0	0	0	11271	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-12hr-90%	0	11271	0	0	0	0	11271	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-24hr-10%	0	15001	0	0	0	0	15001	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-24hr-90%	0	15001	0	0	0	0	15001	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-6hr-10%	0	8587	0	0	0	0	8587	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-6hr-90%	0	8587	0	0	0	0	8587	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-12hr-10%	0	15596	0	0	0	0	15596	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-12hr-90%	0	15596	0	0	0	0	15596	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-24hr-10%	0	21212	0	0	0	0	21212	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-24hr-90%	0	21212	0	0	0	0	21212	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-6hr-10%	0	11077	0	0	0	0	11077	0	100.00
EC-N41 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N41 : In	25yr-6hr-90%	0	11077	0	0	0	0	11077	0	100.00
EC-N41 : Out		0	0	0	0	0	0			

Node: EC-N42

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N42	100yr-12hr-10%	0.00	0.00	0.0000	6.124	0.000	0.0
EC-N42	100yr-12hr-90%	0.00	0.00	0.0000	4.946	0.000	0.0
EC-N42	100yr-24hr-10%	0.00	0.00	0.0000	5.784	0.000	0.0
EC-N42	100yr-24hr-90%	0.00	0.00	0.0000	5.465	0.000	0.0
EC-N42	100yr-6hr-10%	0.00	0.00	0.0000	6.289	0.000	0.0
EC-N42	100yr-6hr-90%	0.00	0.00	0.0000	4.376	0.000	0.0
EC-N42	10yr-12hr-10%	0.00	0.00	0.0000	2.936	0.000	0.0
EC-N42	10yr-12hr-90%	0.00	0.00	0.0000	2.688	0.000	0.0
EC-N42	10yr-24hr-10%	0.00	0.00	0.0000	2.593	0.000	0.0
EC-N42	10yr-24hr-90%	0.00	0.00	0.0000	2.814	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N42	10yr-6hr-10%	0.00	0.00	0.0000	3.589	0.000	0.0
EC-N42	10yr-6hr-90%	0.00	0.00	0.0000	2.732	0.000	0.0
EC-N42	25yr-12hr-10 %	0.00	0.00	0.0000	4.062	0.000	0.0
EC-N42	25yr-12hr-90 %	0.00	0.00	0.0000	3.521	0.000	0.0
EC-N42	25yr-24hr-10 %	0.00	0.00	0.0000	3.742	0.000	0.0
EC-N42	25yr-24hr-90 %	0.00	0.00	0.0000	3.775	0.000	0.0
EC-N42	25yr-6hr-10%	0.00	0.00	0.0000	4.601	0.000	0.0
EC-N42	25yr-6hr-90%	0.00	0.00	0.0000	3.364	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N42 : In	100yr-12 hr-10%	0	46455	0	0	0	0	46455	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-12 hr-90%	0	46455	0	0	0	0	46455	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-24 hr-10%	0	64588	0	0	0	0	64588	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-24 hr-90%	0	64589	0	0	0	0	64589	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-6hr-10%	0	30553	0	0	0	0	30553	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-6hr-90%	0	30553	0	0	0	0	30553	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-12hr-10%	0	22761	0	0	0	0	22761	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-12hr-90%	0	22761	0	0	0	0	22761	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-24hr-10%	0	30160	0	0	0	0	30160	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-24hr-90%	0	30160	0	0	0	0	30160	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-6hr-10%	0	17424	0	0	0	0	17424	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-6hr-90%	0	17424	0	0	0	0	17424	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-12hr-10%	0	31340	0	0	0	0	31340	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-12hr-90%	0	31340	0	0	0	0	31340	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-24hr-10%	0	42454	0	0	0	0	42454	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-24hr-90%	0	42454	0	0	0	0	42454	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-6hr-10%	0	22375	0	0	0	0	22375	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-6hr-90%	0	22376	0	0	0	0	22376	0	100.00
EC-N42 : Out		0	0	0	0	0	0			

Node: EC-N43

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N43	100yr-12hr-10%	0.00	0.00	0.0000	1.066	0.000	0.0
EC-N43	100yr-12hr-90%	0.00	0.00	0.0000	0.868	0.000	0.0
EC-N43	100yr-24hr-10%	0.00	0.00	0.0000	1.008	0.000	0.0
EC-N43	100yr-24hr-90%	0.00	0.00	0.0000	0.957	0.000	0.0
EC-N43	100yr-6hr-10%	0.00	0.00	0.0000	1.092	0.000	0.0
EC-N43	100yr-6hr-90%	0.00	0.00	0.0000	0.764	0.000	0.0
EC-N43	10yr-12hr-10%	0.00	0.00	0.0000	0.507	0.000	0.0
EC-N43	10yr-12hr-90%	0.00	0.00	0.0000	0.470	0.000	0.0
EC-N43	10yr-24hr-10%	0.00	0.00	0.0000	0.448	0.000	0.0
EC-N43	10yr-24hr-90%	0.00	0.00	0.0000	0.491	0.000	0.0
EC-N43	10yr-6hr-10%	0.00	0.00	0.0000	0.618	0.000	0.0
EC-N43	10yr-6hr-90%	0.00	0.00	0.0000	0.475	0.000	0.0
EC-N43	25yr-12hr-10%	0.00	0.00	0.0000	0.703	0.000	0.0
EC-N43	25yr-12hr-90%	0.00	0.00	0.0000	0.617	0.000	0.0
EC-N43	25yr-24hr-10%	0.00	0.00	0.0000	0.650	0.000	0.0
EC-N43	25yr-24hr-90%	0.00	0.00	0.0000	0.660	0.000	0.0
EC-N43	25yr-6hr-10%	0.00	0.00	0.0000	0.796	0.000	0.0
EC-N43	25yr-6hr-90%	0.00	0.00	0.0000	0.586	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N43 : In	100yr-12 hr-10%	0	8031	0	0	0	0	8031	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-12 hr-90%	0	8031	0	0	0	0	8031	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-24 hr-10%	0	11204	0	0	0	0	11204	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-24 hr-90%	0	11204	0	0	0	0	11204	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-6hr-10%	0	5253	0	0	0	0	5253	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-6hr-90%	0	5253	0	0	0	0	5253	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-12hr-10%	0	3895	0	0	0	0	3895	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-12hr-90%	0	3895	0	0	0	0	3895	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-24hr-10%	0	5185	0	0	0	0	5185	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-24hr-90%	0	5185	0	0	0	0	5185	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-6hr-10%	0	2968	0	0	0	0	2968	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 :	10yr-6hr-	0	2968	0	0	0	0	2968	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	90%									
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-12hr-10%	0	5391	0	0	0	0	5391	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-12hr-90%	0	5391	0	0	0	0	5391	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-24hr-10%	0	7331	0	0	0	0	7331	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-24hr-90%	0	7331	0	0	0	0	7331	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-6hr-10%	0	3828	0	0	0	0	3828	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-6hr-90%	0	3828	0	0	0	0	3828	0	100.00
EC-N43 : Out		0	0	0	0	0	0			

Node: EC-N44

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning	Max Stage	Min/Max	Max Total	Max Total	Max Surface

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N44	100yr-12hr-10%	0.00	0.00	0.0000	0.888	0.000	0.0
EC-N44	100yr-12hr-90%	0.00	0.00	0.0000	0.723	0.000	0.0
EC-N44	100yr-24hr-10%	0.00	0.00	0.0000	0.840	0.000	0.0
EC-N44	100yr-24hr-90%	0.00	0.00	0.0000	0.797	0.000	0.0
EC-N44	100yr-6hr-10%	0.00	0.00	0.0000	0.910	0.000	0.0
EC-N44	100yr-6hr-90%	0.00	0.00	0.0000	0.636	0.000	0.0
EC-N44	10yr-12hr-10%	0.00	0.00	0.0000	0.422	0.000	0.0
EC-N44	10yr-12hr-90%	0.00	0.00	0.0000	0.391	0.000	0.0
EC-N44	10yr-24hr-10%	0.00	0.00	0.0000	0.373	0.000	0.0
EC-N44	10yr-24hr-90%	0.00	0.00	0.0000	0.409	0.000	0.0
EC-N44	10yr-6hr-10%	0.00	0.00	0.0000	0.515	0.000	0.0
EC-N44	10yr-6hr-90%	0.00	0.00	0.0000	0.396	0.000	0.0
EC-N44	25yr-12hr-10%	0.00	0.00	0.0000	0.586	0.000	0.0
EC-N44	25yr-12hr-90%	0.00	0.00	0.0000	0.514	0.000	0.0
EC-N44	25yr-24hr-10%	0.00	0.00	0.0000	0.541	0.000	0.0
EC-N44	25yr-24hr-90%	0.00	0.00	0.0000	0.550	0.000	0.0
EC-N44	25yr-6hr-10%	0.00	0.00	0.0000	0.663	0.000	0.0
EC-N44	25yr-6hr-90%	0.00	0.00	0.0000	0.488	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N44 : In	100yr-12hr-10%	0	6692	0	0	0	0	6692	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	100yr-12hr-90%	0	6692	0	0	0	0	6692	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	100yr-24hr-10%	0	9337	0	0	0	0	9337	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	100yr-24hr-90%	0	9337	0	0	0	0	9337	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	100yr-6hr-10%	0	4378	0	0	0	0	4378	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	100yr-6hr-90%	0	4378	0	0	0	0	4378	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-12hr-10%	0	3246	0	0	0	0	3246	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-12hr-90%	0	3246	0	0	0	0	3246	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-24hr-10%	0	4321	0	0	0	0	4321	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-24hr-90%	0	4321	0	0	0	0	4321	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-6hr-10%	0	2473	0	0	0	0	2473	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	10yr-6hr-90%	0	2473	0	0	0	0	2473	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	25yr-12hr-10%	0	4492	0	0	0	0	4492	0	100.00
EC-N44 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N44 : In	25yr-12hr-90%	0	4492	0	0	0	0	4492	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	25yr-24hr-10%	0	6109	0	0	0	0	6109	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	25yr-24hr-90%	0	6110	0	0	0	0	6110	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	25yr-6hr-10%	0	3190	0	0	0	0	3190	0	100.00
EC-N44 : Out		0	0	0	0	0	0			
EC-N44 : In	25yr-6hr-90%	0	3190	0	0	0	0	3190	0	100.00
EC-N44 : Out		0	0	0	0	0	0			

Node: EC-N45

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N45	100yr-12hr-10%	0.00	0.00	0.0000	0.414	0.000	0.0
EC-N45	100yr-12hr-90%	0.00	0.00	0.0000	0.337	0.000	0.0
EC-N45	100yr-24hr-1	0.00	0.00	0.0000	0.392	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	0%						
EC-N45	100yr-24hr-90%	0.00	0.00	0.0000	0.372	0.000	0.0
EC-N45	100yr-6hr-10%	0.00	0.00	0.0000	0.425	0.000	0.0
EC-N45	100yr-6hr-90%	0.00	0.00	0.0000	0.297	0.000	0.0
EC-N45	10yr-12hr-10%	0.00	0.00	0.0000	0.197	0.000	0.0
EC-N45	10yr-12hr-90%	0.00	0.00	0.0000	0.183	0.000	0.0
EC-N45	10yr-24hr-10%	0.00	0.00	0.0000	0.174	0.000	0.0
EC-N45	10yr-24hr-90%	0.00	0.00	0.0000	0.191	0.000	0.0
EC-N45	10yr-6hr-10%	0.00	0.00	0.0000	0.240	0.000	0.0
EC-N45	10yr-6hr-90%	0.00	0.00	0.0000	0.185	0.000	0.0
EC-N45	25yr-12hr-10%	0.00	0.00	0.0000	0.273	0.000	0.0
EC-N45	25yr-12hr-90%	0.00	0.00	0.0000	0.240	0.000	0.0
EC-N45	25yr-24hr-10%	0.00	0.00	0.0000	0.253	0.000	0.0
EC-N45	25yr-24hr-90%	0.00	0.00	0.0000	0.257	0.000	0.0
EC-N45	25yr-6hr-10%	0.00	0.00	0.0000	0.310	0.000	0.0
EC-N45	25yr-6hr-90%	0.00	0.00	0.0000	0.228	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N45 : In	100yr-12hr-10%	0	3123	0	0	0	0	3123	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	100yr-12hr-90%	0	3123	0	0	0	0	3123	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	100yr-24hr-10%	0	4357	0	0	0	0	4357	0	100.00
EC-N45 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N45 : In	100yr-24 hr-90%	0	4357	0	0	0	0	4357	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	100yr-6hr-10%	0	2043	0	0	0	0	2043	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	100yr-6hr-90%	0	2043	0	0	0	0	2043	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-12hr-10%	0	1515	0	0	0	0	1515	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-12hr-90%	0	1515	0	0	0	0	1515	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-24hr-10%	0	2016	0	0	0	0	2016	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-24hr-90%	0	2016	0	0	0	0	2016	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-6hr-10%	0	1154	0	0	0	0	1154	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	10yr-6hr-90%	0	1154	0	0	0	0	1154	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	25yr-12hr-10%	0	2096	0	0	0	0	2096	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	25yr-12hr-90%	0	2096	0	0	0	0	2096	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 :	25yr-24h	0	2851	0	0	0	0	2851	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-10%									
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	25yr-24hr-90%	0	2851	0	0	0	0	2851	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	25yr-6hr-10%	0	1489	0	0	0	0	1489	0	100.00
EC-N45 : Out		0	0	0	0	0	0			
EC-N45 : In	25yr-6hr-90%	0	1489	0	0	0	0	1489	0	100.00
EC-N45 : Out		0	0	0	0	0	0			

Node: EC-N46

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N46	100yr-12hr-10%	0.00	0.00	0.0000	4.743	0.000	0.0
EC-N46	100yr-12hr-90%	0.00	0.00	0.0000	3.683	0.000	0.0
EC-N46	100yr-24hr-10%	0.00	0.00	0.0000	4.427	0.000	0.0
EC-N46	100yr-24hr-90%	0.00	0.00	0.0000	4.050	0.000	0.0
EC-N46	100yr-6hr-10%	0.00	0.00	0.0000	4.910	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N46	100yr-6hr-90 %	0.00	0.00	0.0000	3.280	0.000	0.0
EC-N46	10yr-12hr-10 %	0.00	0.00	0.0000	2.343	0.000	0.0
EC-N46	10yr-12hr-90 %	0.00	0.00	0.0000	2.030	0.000	0.0
EC-N46	10yr-24hr-10 %	0.00	0.00	0.0000	2.080	0.000	0.0
EC-N46	10yr-24hr-90 %	0.00	0.00	0.0000	2.108	0.000	0.0
EC-N46	10yr-6hr-10%	0.00	0.00	0.0000	2.889	0.000	0.0
EC-N46	10yr-6hr-90%	0.00	0.00	0.0000	2.078	0.000	0.0
EC-N46	25yr-12hr-10 %	0.00	0.00	0.0000	3.224	0.000	0.0
EC-N46	25yr-12hr-90 %	0.00	0.00	0.0000	2.639	0.000	0.0
EC-N46	25yr-24hr-10 %	0.00	0.00	0.0000	2.929	0.000	0.0
EC-N46	25yr-24hr-90 %	0.00	0.00	0.0000	2.811	0.000	0.0
EC-N46	25yr-6hr-10%	0.00	0.00	0.0000	3.661	0.000	0.0
EC-N46	25yr-6hr-90%	0.00	0.00	0.0000	2.538	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N46 : In	100yr-12 hr-10%	0	35714	0	0	0	0	35714	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	100yr-12 hr-90%	0	35715	0	0	0	0	35715	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	100yr-24 hr-10%	0	49166	0	0	0	0	49166	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	100yr-24 hr-90%	0	49166	0	0	0	0	49166	0	100.00
EC-N46 : Out		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N46 : In	100yr-6hr-10%	0	23864	0	0	0	0	23864	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	100yr-6hr-90%	0	23865	0	0	0	0	23865	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-12hr-10%	0	18019	0	0	0	0	18019	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-12hr-90%	0	18019	0	0	0	0	18019	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-24hr-10%	0	23571	0	0	0	0	23571	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-24hr-90%	0	23571	0	0	0	0	23571	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-6hr-10%	0	13989	0	0	0	0	13989	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	10yr-6hr-90%	0	13989	0	0	0	0	13989	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-12hr-10%	0	24453	0	0	0	0	24453	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-12hr-90%	0	24453	0	0	0	0	24453	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-24hr-10%	0	32739	0	0	0	0	32739	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-24hr-90%	0	32739	0	0	0	0	32739	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-6hr-10%	0	17729	0	0	0	0	17729	0	100.00
EC-N46 : Out		0	0	0	0	0	0			
EC-N46 : In	25yr-6hr-90%	0	17730	0	0	0	0	17730	0	100.00
EC-N46 : Out		0	0	0	0	0	0			

Node: EC-N47

Scenario: 38701-EC
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions [38701-EC]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
EC-N47	100yr-12hr-10%	0.00	0.00	0.0000	0.787	0.000	0.0
EC-N47	100yr-12hr-90%	0.00	0.00	0.0000	0.610	0.000	0.0
EC-N47	100yr-24hr-10%	0.00	0.00	0.0000	0.744	0.000	0.0
EC-N47	100yr-24hr-90%	0.00	0.00	0.0000	0.670	0.000	0.0
EC-N47	100yr-6hr-10%	0.00	0.00	0.0000	0.815	0.000	0.0
EC-N47	100yr-6hr-90%	0.00	0.00	0.0000	0.543	0.000	0.0
EC-N47	10yr-12hr-10%	0.00	0.00	0.0000	0.390	0.000	0.0
EC-N47	10yr-12hr-90	0.00	0.00	0.0000	0.336	0.000	0.0

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]
	%						
EC-N47	10yr-24hr-10 %	0.00	0.00	0.0000	0.346	0.000	0.0
EC-N47	10yr-24hr-90 %	0.00	0.00	0.0000	0.349	0.000	0.0
EC-N47	10yr-6hr-10%	0.00	0.00	0.0000	0.481	0.000	0.0
EC-N47	10yr-6hr-90%	0.00	0.00	0.0000	0.344	0.000	0.0
EC-N47	25yr-12hr-10 %	0.00	0.00	0.0000	0.536	0.000	0.0
EC-N47	25yr-12hr-90 %	0.00	0.00	0.0000	0.437	0.000	0.0
EC-N47	25yr-24hr-10 %	0.00	0.00	0.0000	0.487	0.000	0.0
EC-N47	25yr-24hr-90 %	0.00	0.00	0.0000	0.465	0.000	0.0
EC-N47	25yr-6hr-10%	0.00	0.00	0.0000	0.609	0.000	0.0
EC-N47	25yr-6hr-90%	0.00	0.00	0.0000	0.420	0.000	0.0

Node Mass Balance Detailed [38701-EC]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N47 : In	100yr-12 hr-10%	0	5904	0	0	0	0	5904	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	100yr-12 hr-90%	0	5904	0	0	0	0	5904	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	100yr-24 hr-10%	0	8128	0	0	0	0	8128	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	100yr-24 hr-90%	0	8128	0	0	0	0	8128	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	100yr-6h r-10%	0	3945	0	0	0	0	3945	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 :	100yr-6h	0	3945	0	0	0	0	3945	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-12hr-10%	0	2979	0	0	0	0	2979	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-12hr-90%	0	2979	0	0	0	0	2979	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-24hr-10%	0	3896	0	0	0	0	3896	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-24hr-90%	0	3896	0	0	0	0	3896	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-6hr-10%	0	2313	0	0	0	0	2313	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	10yr-6hr-90%	0	2313	0	0	0	0	2313	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	25yr-12hr-10%	0	4042	0	0	0	0	4042	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	25yr-12hr-90%	0	4042	0	0	0	0	4042	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	25yr-24hr-10%	0	5412	0	0	0	0	5412	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	25yr-24hr-90%	0	5412	0	0	0	0	5412	0	100.00
EC-N47 : Out		0	0	0	0	0	0			
EC-N47 : In	25yr-6hr-10%	0	2931	0	0	0	0	2931	0	100.00
EC-N47 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										
EC-N47 : In	25yr-6hr-90%	0	2931	0	0	0	0	2931	0	100.00
EC-N47 : Out		0	0	0	0	0	0			

Simple Basin: EC-BN01

Scenario:	38701-EC_S
Node:	EC-N01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.5000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.5400 ha
Curve Number:	77.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN02

Scenario:	38701-EC_S
Node:	EC-N02
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.7200 ha
Curve Number:	77.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN03

Scenario:	38701-EC_S
Node:	EC-N03
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.5700 ha
Curve Number:	77.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN04

Scenario:	38701-EC_S
Node:	EC-N04
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7000 ha
Curve Number:	79.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN05

Scenario:	38701-EC_S
Node:	EC-N05
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	20.0200 ha
Curve Number:	81.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN06

Scenario:	38701-EC_S
Node:	EC-N06
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	18.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	23.3600 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN07

Scenario:	38701-EC_S
Node:	EC-N07
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	18.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	17.0300 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN08A

Scenario:	38701-EC_S
Node:	EC-N08
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	14.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.4900 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN08B

Scenario:	38701-EC_S
Node:	EC-N08
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	23.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.2300 ha
Curve Number:	54.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN09A

Scenario:	38701-EC_S
Node:	EC-N09
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.6000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.5300 ha
Curve Number:	80.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN09B

Scenario:	38701-EC_S
Node:	EC-N09
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	30.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.4000 ha
Curve Number:	57.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN10A

Scenario:	38701-EC_S
Node:	EC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7200 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN10B

Scenario:	38701-EC_S
Node:	EC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	30.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.3300 ha
Curve Number:	47.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN11A

Scenario:	38701-EC_S
Node:	EC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.5400 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN11B

Scenario:	38701-EC_S
Node:	EC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	22.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.0900 ha
Curve Number:	49.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN11C

Scenario:	38701-EC_S
Node:	EC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.9800 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN11D

Scenario:	38701-EC_S
Node:	EC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	25.2000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.6500 ha
Curve Number:	57.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN12A

Scenario:	38701-EC_S
Node:	EC-N12
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.8100 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN12B

Scenario:	38701-EC_S
Node:	EC-N12
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.7700 ha
Curve Number:	73.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN13A

Scenario:	38701-EC_S
Node:	EC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	13.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.6500 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN13B

Scenario:	38701-EC_S
Node:	EC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	21.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.7600 ha
Curve Number:	73.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN13C

Scenario:	38701-EC_S
Node:	EC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	19.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	50.6000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN13D

Scenario:	38701-EC_S
Node:	EC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	26.5000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.8100 ha
Curve Number:	74.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN14

Scenario:	38701-EC_S
Node:	EC-N14
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.1000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6200 ha
Curve Number:	80.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN15

Scenario:	38701-EC_S
Node:	EC-N15
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7600 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN16

Scenario:	38701-EC_S
Node:	EC-N16
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	19.6200 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN17

Scenario:	38701-EC_S
Node:	EC-N17
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.8500 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN18

Scenario:	38701-EC_S
Node:	EC-N18
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.7000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.4900 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN19

Scenario:	38701-EC_S
Node:	EC-N19
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	26.4300 ha
Curve Number:	81.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN20

Scenario:	38701-EC_S
Node:	EC-N20
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	22.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	58.4200 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN21

Scenario:	38701-EC_S
Node:	EC-N21
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.4000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.1000 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN22

Scenario:	38701-EC_S
Node:	EC-N22
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	21.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	27.7500 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN23

Scenario:	38701-EC_S
Node:	EC-N23
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	19.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	66.7800 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BN43

Scenario:	38701-EC_S
Node:	EC-N43
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	68.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	44.9300 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS24

Scenario:	38701-EC_S
Node:	EC-N24
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.7800 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS25

Scenario:	38701-EC_S
Node:	EC-N25
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	7.4700 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS26

Scenario:	38701-EC_S
Node:	EC-N26
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.7800 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS27

Scenario:	38701-EC_S
Node:	EC-N27
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.7600 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS28

Scenario:	38701-EC_S
Node:	EC-N28
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.7100 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS29A

Scenario:	38701-EC_S
Node:	EC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.8300 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS29B

Scenario:	38701-EC_S
Node:	EC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6500 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS29C

Scenario:	38701-EC_S
Node:	EC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.3400 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS30

Scenario:	38701-EC_S
Node:	EC-N30
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.7400 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS31

Scenario:	38701-EC_S
Node:	EC-N31
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.3600 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS32

Scenario:	38701-EC_S
Node:	EC-N32
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.8400 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS33

Scenario:	38701-EC_S
Node:	EC-N33
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.7300 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS34

Scenario:	38701-EC_S
Node:	EC-N34
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.8800 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS35

Scenario:	38701-EC_S
Node:	EC-N35
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	28.5000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	51.1600 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS36A

Scenario:	38701-EC_S
Node:	EC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.7000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	10.8400 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS36B

Scenario:	38701-EC_S
Node:	EC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.7000 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS36C

Scenario:	38701-EC_S
Node:	EC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.5900 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS36D

Scenario:	38701-EC_S
Node:	EC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	22.4000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	25.2900 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS37A

Scenario:	38701-EC_S
Node:	EC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	10.3800 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS37B

Scenario:	38701-EC_S
Node:	EC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	20.1600 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS37C

Scenario:	38701-EC_S
Node:	EC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.5000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	7.6900 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS38

Scenario:	38701-EC_S
Node:	EC-N38
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6000 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS39

Scenario:	38701-EC_S
Node:	EC-N39
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.0000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS40

Scenario:	38701-EC_S
Node:	EC-N40
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.4200 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS41

Scenario:	38701-EC_S
Node:	EC-N41
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.6000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.1200 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: EC-BS42

Scenario:	38701-EC_S
Node:	EC-N42
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5100 ha
Curve Number:	79.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN01

Scenario:	38701-PC-S
Node:	PC-N01
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.5400 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN02

Scenario:	38701-PC-S
Node:	PC-N02
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.7200 ha
Curve Number:	94.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN03

Scenario:	38701-PC-S
Node:	PC-N03
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.5700 ha
Curve Number:	94.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN04

Scenario:	38701-PC-S
Node:	PC-N04
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7000 ha
Curve Number:	92.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN05

Scenario:	38701-PC-S
Node:	PC-N05
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	20.0200 ha
Curve Number:	92.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN06

Scenario:	38701-PC-S
Node:	PC-N06
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	12.9000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	23.3600 ha
Curve Number:	92.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN07A

Scenario:	38701-PC-S
Node:	PC-N07
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	13.4200 ha
Curve Number:	91.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN07B

Scenario:	38701-PC-S
Node:	PC-N07
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.8700 ha
Curve Number:	93.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN08A

Scenario:	38701-PC-S
Node:	PC-N08
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	13.4900 ha
Curve Number:	91.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN08B

Scenario:	38701-PC-S
Node:	PC-N08
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.0400 ha
Curve Number:	95.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN08C

Scenario:	38701-PC-S
Node:	PC-N08
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.6000 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN09A

Scenario:	38701-PC-S
Node:	PC-N09
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.9000 ha
Curve Number:	89.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN09B

Scenario:	38701-PC-S
Node:	PC-N09
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	33.1000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.1500 ha
Curve Number:	53.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN10A

Scenario:	38701-PC-S
Node:	PC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.7500 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN10B

Scenario:	38701-PC-S
Node:	PC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.0200 ha
Curve Number:	78.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN10C

Scenario:	38701-PC-S
Node:	PC-N10
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	35.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.3300 ha
Curve Number:	39.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN11A

Scenario:	38701-PC-S
Node:	PC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.5400 ha
Curve Number:	89.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN11B

Scenario:	38701-PC-S
Node:	PC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	29.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.0900 ha
Curve Number:	39.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN11C

Scenario:	38701-PC-S
Node:	PC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	6.0300 ha
Curve Number:	89.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN11D

Scenario:	38701-PC-S
Node:	PC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	9.0000 ha
Curve Number:	88.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN11E

Scenario:	38701-PC-S
Node:	PC-N11
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	40.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.6600 ha
Curve Number:	57.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN12A

Scenario:	38701-PC-S
Node:	PC-N12
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	14.8100 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN12B

Scenario:	38701-PC-S
Node:	PC-N12
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	17.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.7700 ha
Curve Number:	55.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13A

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	14.7000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	15.6100 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13B

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	45.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.8000 ha
Curve Number:	44.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13C

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	19.9900 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13D

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	7.9800 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13E

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	10.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	22.6100 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN13F

Scenario:	38701-PC-S
Node:	PC-N13
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	30.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.8300 ha
Curve Number:	68.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN14

Scenario:	38701-PC-S
Node:	PC-N14
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	9.1000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6200 ha
Curve Number:	95.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN15

Scenario:	38701-PC-S
Node:	PC-N15
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.7600 ha
Curve Number:	94.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN16

Scenario:	38701-PC-S
Node:	PC-N16
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	19.6200 ha
Curve Number:	88.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN17

Scenario:	38701-PC-S
Node:	PC-N17
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.8500 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN18

Scenario:	38701-PC-S
Node:	PC-N18
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.4900 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN19

Scenario:	38701-PC-S
Node:	PC-N19
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	15.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	26.4300 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN20A

Scenario:	38701-PC-S
Node:	PC-N20
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.7000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	56.7600 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN20B

Scenario:	38701-PC-S
Node:	PC-N20
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.1500 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN21

Scenario:	38701-PC-S
Node:	PC-N21
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.1000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN22A

Scenario:	38701-PC-S
Node:	PC-N22
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	15.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	18.3100 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN22B

Scenario:	38701-PC-S
Node:	PC-N22
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	16.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	9.4400 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN23A

Scenario:	38701-PC-S
Node:	PC-N23
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	17.6000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	56.0100 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN23B

Scenario:	38701-PC-S
Node:	PC-N23
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	10.7700 ha
Curve Number:	81.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BN43

Scenario:	38701-PC-S
Node:	PC-N43
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	68.8000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	44.9300 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS24

Scenario:	38701-PC-S
Node:	PC-N24
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	4.7800 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS25

Scenario:	38701-PC-S
Node:	PC-N25
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.2000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	7.5600 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS26

Scenario:	38701-PC-S
Node:	PC-N26
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.2500 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS27

Scenario:	38701-PC-S
Node:	PC-N27
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.7500 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS28

Scenario:	38701-PC-S
Node:	PC-N28
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.9300 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS29A

Scenario:	38701-PC-S
Node:	PC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	11.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	16.8800 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS29B

Scenario:	38701-PC-S
Node:	PC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.6500 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS29C

Scenario:	38701-PC-S
Node:	PC-N29
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.6000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	5.3400 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS30

Scenario:	38701-PC-S
Node:	PC-N30
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.0700 ha
Curve Number:	81.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS31

Scenario:	38701-PC-S
Node:	PC-N31
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.0400 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS32

Scenario:	38701-PC-S
Node:	PC-N32
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.3200 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS33

Scenario:	38701-PC-S
Node:	PC-N33
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.0300 ha
Curve Number:	88.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS34

Scenario:	38701-PC-S
Node:	PC-N34
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.4100 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS35

Scenario:	38701-PC-S
Node:	PC-N35
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	26.3000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	58.7800 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS36A

Scenario:	38701-PC-S
Node:	PC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	7.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	12.6000 ha
Curve Number:	85.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS36B

Scenario:	38701-PC-S
Node:	PC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4800 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS36C

Scenario:	38701-PC-S
Node:	PC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.6000 ha
Curve Number:	87.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS36D

Scenario:	38701-PC-S
Node:	PC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	0.4200 ha
Curve Number:	90.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS36E

Scenario:	38701-PC-S
Node:	PC-N36
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	19.6000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	25.2900 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS37A

Scenario:	38701-PC-S
Node:	PC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	6.2900 ha
Curve Number:	90.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS37B

Scenario:	38701-PC-S
Node:	PC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.5000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	12.6800 ha
Curve Number:	93.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS37C

Scenario:	38701-PC-S
Node:	PC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	9.8900 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS37D

Scenario:	38701-PC-S
Node:	PC-N37
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	8.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	7.7000 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS38

Scenario:	38701-PC-S
Node:	PC-N38
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	3.4100 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS39

Scenario:	38701-PC-S
Node:	PC-N39
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.6000 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS40

Scenario:	38701-PC-S
Node:	PC-N40
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms

Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	1.3500 ha
Curve Number:	83.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS41A

Scenario:	38701-PC-S
Node:	PC-N41
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.9000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	8.3900 ha
Curve Number:	86.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS41B

Scenario:	38701-PC-S
Node:	PC-N41
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.0000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	6.8900 ha
Curve Number:	84.0
% Impervious:	0.00
% DCIA:	0.00

% Direct:	0.00
Rainfall Name:	

Comment:

Simple Basin: PC-BS42

Scenario:	38701-PC-S
Node:	PC-N42
Hydrograph Method:	NRCS Unit Hydrograph
Infiltration Method:	Curve Number
Time of Concentration:	6.4000 min
Max Allowable Q:	0.000 cms
Time Shift:	0.0000 hr
Unit Hydrograph:	UH484
Peaking Factor:	484.0
Area:	2.5100 ha
Curve Number:	82.0
% Impervious:	0.00
% DCIA:	0.00
% Direct:	0.00
Rainfall Name:	

Comment:

Node: EC-N01

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N01	100yr-24hr-90%	0.00	0.00	0.0000	1.190	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N01	100yr-6hr-10%	0.00	0.00	0.0000	1.211	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N01	10yr-24hr-90%	0.00	0.00	0.0000	0.594	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N01	10yr-6hr-10%	0.00	0.00	0.0000	0.658	0.000	0.0	0.0000	0.0000	0.8611	0.0000
EC-N01	25yr-24hr-90%	0.00	0.00	0.0000	0.811	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N01	25yr-6hr-10%	0.00	0.00	0.0000	0.866	0.000	0.0	0.0000	0.0000	0.8527	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N01 : In	100yr-24hr-90%	0	13172	0	0	0	0	13172	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	100yr-6hr-10%	0	5839	0	0	0	0	5839	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 :	10yr-24h	0	5756	0	0	0	0	5756	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	10yr-6hr-10%	0	3109	0	0	0	0	3109	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-24hr-90%	0	8378	0	0	0	0	8378	0	100.00
EC-N01 : Out		0	0	0	0	0	0			
EC-N01 : In	25yr-6hr-10%	0	4125	0	0	0	0	4125	0	100.00
EC-N01 : Out		0	0	0	0	0	0			

Node: EC-N02

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N02	100yr-24hr-90%	0.00	0.00	0.0000	0.711	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N02	100yr-6hr-10%	0.00	0.00	0.0000	0.724	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N02	10yr-24hr-90%	0.00	0.00	0.0000	0.355	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N02	10yr-6hr	0.00	0.00	0.0000	0.394	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
	-10%										
EC-N02	25yr-24 hr-90%	0.00	0.00	0.0000	0.484	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N02	25yr-6hr -10%	0.00	0.00	0.0000	0.518	0.000	0.0	0.0000	0.0000	0.8527	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N02 : In	100yr-24 hr-90%	0	7869	0	0	0	0	7869	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	100yr-6h r-10%	0	3488	0	0	0	0	3488	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-24h r-90%	0	3439	0	0	0	0	3439	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	10yr-6hr-10%	0	1857	0	0	0	0	1857	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-24h r-90%	0	5005	0	0	0	0	5005	0	100.00
EC-N02 : Out		0	0	0	0	0	0			
EC-N02 : In	25yr-6hr-10%	0	2465	0	0	0	0	2465	0	100.00
EC-N02 : Out		0	0	0	0	0	0			

Node: EC-N03

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms

Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N03	100yr-24hr-90%	0.00	0.00	0.0000	1.457	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N03	100yr-6hr-10%	0.00	0.00	0.0000	1.483	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N03	10yr-24hr-90%	0.00	0.00	0.0000	0.727	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N03	10yr-6hr-10%	0.00	0.00	0.0000	0.807	0.000	0.0	0.0000	0.0000	0.8611	0.0000
EC-N03	25yr-24hr-90%	0.00	0.00	0.0000	0.992	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N03	25yr-6hr-10%	0.00	0.00	0.0000	1.063	0.000	0.0	0.0000	0.0000	0.8527	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N03 : In	100yr-24hr-90%	0	16122	0	0	0	0	16122	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	100yr-6hr-10%	0	7146	0	0	0	0	7146	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	10yr-24hr-90%	0	7045	0	0	0	0	7045	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 :	10yr-6hr-	0	3805	0	0	0	0	3805	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	10%									
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-24hr-90%	0	10254	0	0	0	0	10254	0	100.00
EC-N03 : Out		0	0	0	0	0	0			
EC-N03 : In	25yr-6hr-10%	0	5049	0	0	0	0	5049	0	100.00
EC-N03 : Out		0	0	0	0	0	0			

Node: EC-N04

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N04	100yr-24hr-90%	0.00	0.00	0.0000	1.500	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N04	100yr-6hr-10%	0.00	0.00	0.0000	1.567	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N04	10yr-24hr-90%	0.00	0.00	0.0000	0.756	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N04	10yr-6hr-10%	0.00	0.00	0.0000	0.865	0.000	0.0	0.0000	0.0000	0.8944	0.0000
EC-N04	25yr-24hr-90%	0.00	0.00	0.0000	1.026	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N04	25yr-6hr	0.00	0.00	0.0000	1.130	0.000	0.0	0.0000	0.0000	0.8861	0.0000

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
	-10%										

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N04 : In	100yr-24hr-90%	0	16940	0	0	0	0	16940	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	100yr-6hr-10%	0	7656	0	0	0	0	7656	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-24hr-90%	0	7550	0	0	0	0	7550	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	10yr-6hr-10%	0	4160	0	0	0	0	4160	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-24hr-90%	0	10880	0	0	0	0	10880	0	100.00
EC-N04 : Out		0	0	0	0	0	0			
EC-N04 : In	25yr-6hr-10%	0	5467	0	0	0	0	5467	0	100.00
EC-N04 : Out		0	0	0	0	0	0			

Node: EC-N05

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N05	100yr-24hr-90%	0.00	0.00	0.0000	5.270	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N05	100yr-6hr-10%	0.00	0.00	0.0000	5.652	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N05	10yr-24hr-90%	0.00	0.00	0.0000	2.675	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N05	10yr-6hr-10%	0.00	0.00	0.0000	3.155	0.000	0.0	0.0000	0.0000	0.9694	0.0000
EC-N05	25yr-24hr-90%	0.00	0.00	0.0000	3.617	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N05	25yr-6hr-10%	0.00	0.00	0.0000	4.094	0.000	0.0	0.0000	0.0000	0.9361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N05 : In	100yr-24hr-90%	0	60997	0	0	0	0	60997	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	100yr-6hr-10%	0	28087	0	0	0	0	28087	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-24hr-90%	0	27710	0	0	0	0	27710	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	10yr-6hr-10%	0	15566	0	0	0	0	15566	0	100.00
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 :	25yr-24h	0	39550	0	0	0	0	39550	0	100.00

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
In	r-90%									
EC-N05 : Out		0	0	0	0	0	0			
EC-N05 : In	25yr-6hr-10%	0	20265	0	0	0	0	20265	0	100.00
EC-N05 : Out		0	0	0	0	0	0			

Node: EC-N06

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N06	100yr-24hr-90%	0.00	0.00	0.0000	6.141	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N06	100yr-6hr-10%	0.00	0.00	0.0000	6.675	0.000	0.0	0.0000	0.0000	0.9194	0.0000
EC-N06	10yr-24hr-90%	0.00	0.00	0.0000	3.130	0.000	0.0	0.0000	0.0000	24.0111	0.0000
EC-N06	10yr-6hr-10%	0.00	0.00	0.0000	3.760	0.000	0.0	0.0000	0.0000	1.0027	0.0000
EC-N06	25yr-24hr-90%	0.00	0.00	0.0000	4.223	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N06	25yr-6hr-10%	0.00	0.00	0.0000	4.858	0.000	0.0	0.0000	0.0000	0.9527	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N06 : In	100yr-24 hr-90%	0	71983	0	0	0	0	71983	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	100yr-6hr-10%	0	33450	0	0	0	0	33450	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-24hr-90%	0	33007	0	0	0	0	33007	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	10yr-6hr-10%	0	18718	0	0	0	0	18718	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-24hr-90%	0	46890	0	0	0	0	46890	0	100.00
EC-N06 : Out		0	0	0	0	0	0			
EC-N06 : In	25yr-6hr-10%	0	24256	0	0	0	0	24256	0	100.00
EC-N06 : Out		0	0	0	0	0	0			

Node: EC-N07

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage	Max Total Inflow	Max Total Outflow	Max Surface Area	Time to Max Stage	Time to Min/Max Delta	Time to Max Total	Time to Max Total

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N07	100yr-24hr-90%	0.00	0.00	0.0000	4.490	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N07	100yr-6hr-10%	0.00	0.00	0.0000	4.966	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N07	10yr-24hr-90%	0.00	0.00	0.0000	2.299	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N07	10yr-6hr-10%	0.00	0.00	0.0000	2.823	0.000	0.0	0.0000	0.0000	0.9694	0.0000
EC-N07	25yr-24hr-90%	0.00	0.00	0.0000	3.094	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N07	25yr-6hr-10%	0.00	0.00	0.0000	3.632	0.000	0.0	0.0000	0.0000	0.9361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N07 : In	100yr-24hr-90%	0	53088	0	0	0	0	53088	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	100yr-6hr-10%	0	24892	0	0	0	0	24892	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-24hr-90%	0	24567	0	0	0	0	24567	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	10yr-6hr-10%	0	14063	0	0	0	0	14063	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-24hr-90%	0	34739	0	0	0	0	34739	0	100.00
EC-N07 : Out		0	0	0	0	0	0			
EC-N07 : In	25yr-6hr-10%	0	18140	0	0	0	0	18140	0	100.00
EC-N07 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N08

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N08	100yr-24hr-90%	0.00	0.00	0.0000	4.640	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N08	100yr-6hr-10%	0.00	0.00	0.0000	4.967	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N08	10yr-24hr-90%	0.00	0.00	0.0000	2.348	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N08	10yr-6hr-10%	0.00	0.00	0.0000	2.801	0.000	0.0	0.0000	0.0000	0.9361	0.0000
EC-N08	25yr-24hr-90%	0.00	0.00	0.0000	3.178	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N08	25yr-6hr-10%	0.00	0.00	0.0000	3.617	0.000	0.0	0.0000	0.0000	0.9027	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N08 : In	100yr-24 hr-90%	0	53806	0	0	0	0	53806	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	100yr-6h r-10%	0	24894	0	0	0	0	24894	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-24h r-90%	0	24563	0	0	0	0	24563	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	10yr-6hr-10%	0	13919	0	0	0	0	13919	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-24h r-90%	0	34953	0	0	0	0	34953	0	100.00
EC-N08 : Out		0	0	0	0	0	0			
EC-N08 : In	25yr-6hr-10%	0	18037	0	0	0	0	18037	0	100.00
EC-N08 : Out		0	0	0	0	0	0			

Node: EC-N09

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N09	100yr-24hr-90%	0.00	0.00	0.0000	1.763	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N09	100yr-6hr-10%	0.00	0.00	0.0000	1.666	0.000	0.0	0.0000	0.0000	0.9111	0.0000
EC-N09	10yr-24hr-90%	0.00	0.00	0.0000	0.864	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N09	10yr-6hr-10%	0.00	0.00	0.0000	0.895	0.000	0.0	0.0000	0.0000	1.0277	0.0000
EC-N09	25yr-24hr-90%	0.00	0.00	0.0000	1.189	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N09	25yr-6hr-10%	0.00	0.00	0.0000	1.182	0.000	0.0	0.0000	0.0000	0.9277	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N09 : In	100yr-24hr-90%	0	19559	0	0	0	0	19559	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	100yr-6hr-10%	0	8603	0	0	0	0	8603	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-24hr-90%	0	8480	0	0	0	0	8480	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	10yr-6hr-10%	0	4577	0	0	0	0	4577	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-24hr-90%	0	12378	0	0	0	0	12378	0	100.00
EC-N09 : Out		0	0	0	0	0	0			
EC-N09 : In	25yr-6hr-10%	0	6071	0	0	0	0	6071	0	100.00
EC-N09 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N10

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N10	100yr-24hr-90%	0.00	0.00	0.0000	1.773	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N10	100yr-6hr-10%	0.00	0.00	0.0000	1.746	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N10	10yr-24hr-90%	0.00	0.00	0.0000	0.871	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N10	10yr-6hr-10%	0.00	0.00	0.0000	0.983	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N10	25yr-24hr-90%	0.00	0.00	0.0000	1.196	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N10	25yr-6hr-10%	0.00	0.00	0.0000	1.266	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N10 : In	100yr-24 hr-90%	0	19946	0	0	0	0	19946	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	100yr-6h r-10%	0	8957	0	0	0	0	8957	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-24h r-90%	0	8834	0	0	0	0	8834	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	10yr-6hr-10%	0	4907	0	0	0	0	4907	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-24h r-90%	0	12742	0	0	0	0	12742	0	100.00
EC-N10 : Out		0	0	0	0	0	0			
EC-N10 : In	25yr-6hr-10%	0	6414	0	0	0	0	6414	0	100.00
EC-N10 : Out		0	0	0	0	0	0			

Node: EC-N11

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N11	100yr-24hr-90%	0.00	0.00	0.0000	5.522	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N11	100yr-6hr-10%	0.00	0.00	0.0000	5.772	0.000	0.0	0.0000	0.0000	0.8444	0.0000
EC-N11	10yr-24hr-90%	0.00	0.00	0.0000	2.776	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N11	10yr-6hr-10%	0.00	0.00	0.0000	3.278	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N11	25yr-24hr-90%	0.00	0.00	0.0000	3.769	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N11	25yr-6hr-10%	0.00	0.00	0.0000	4.218	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N11 : In	100yr-24hr-90%	0	63632	0	0	0	0	63632	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	100yr-6hr-10%	0	29339	0	0	0	0	29339	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-24hr-90%	0	28949	0	0	0	0	28949	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	10yr-6hr-10%	0	16405	0	0	0	0	16405	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-24hr-90%	0	41242	0	0	0	0	41242	0	100.00
EC-N11 : Out		0	0	0	0	0	0			
EC-N11 : In	25yr-6hr-10%	0	21250	0	0	0	0	21250	0	100.00
EC-N11 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N12

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N12	100yr-24hr-90%	0.00	0.00	0.0000	4.125	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N12	100yr-6hr-10%	0.00	0.00	0.0000	4.495	0.000	0.0	0.0000	0.0000	0.7777	0.0000
EC-N12	10yr-24hr-90%	0.00	0.00	0.0000	2.101	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N12	10yr-6hr-10%	0.00	0.00	0.0000	2.534	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N12	25yr-24hr-90%	0.00	0.00	0.0000	2.835	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N12	25yr-6hr-10%	0.00	0.00	0.0000	3.271	0.000	0.0	0.0000	0.0000	0.8861	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N12 : In	100yr-24 hr-90%	0	47746	0	0	0	0	47746	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	100yr-6hr-10%	0	22104	0	0	0	0	22104	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-24hr-90%	0	21810	0	0	0	0	21810	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	10yr-6hr-10%	0	12324	0	0	0	0	12324	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-24hr-90%	0	31041	0	0	0	0	31041	0	100.00
EC-N12 : Out		0	0	0	0	0	0			
EC-N12 : In	25yr-6hr-10%	0	15998	0	0	0	0	15998	0	100.00
EC-N12 : Out		0	0	0	0	0	0			

Node: EC-N13

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N13	100yr-24hr-90%	0.00	0.00	0.0000	18.372	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N13	100yr-6hr-10%	0.00	0.00	0.0000	20.016	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N13	10yr-24hr-90%	0.00	0.00	0.0000	9.374	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N13	10yr-6hr-10%	0.00	0.00	0.0000	11.310	0.000	0.0	0.0000	0.0000	0.9777	0.0000
EC-N13	25yr-24hr-90%	0.00	0.00	0.0000	12.638	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N13	25yr-6hr-10%	0.00	0.00	0.0000	14.592	0.000	0.0	0.0000	0.0000	0.9361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N13 : In	100yr-24hr-90%	0	215921	0	0	0	0	215921	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	100yr-6hr-10%	0	100633	0	0	0	0	100633	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-24hr-90%	0	99308	0	0	0	0	99308	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	10yr-6hr-10%	0	56512	0	0	0	0	56512	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-24hr-90%	0	140855	0	0	0	0	140855	0	100.00
EC-N13 : Out		0	0	0	0	0	0			
EC-N13 : In	25yr-6hr-10%	0	73105	0	0	0	0	73105	0	100.00
EC-N13 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N14

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N14	100yr-24hr-90%	0.00	0.00	0.0000	0.951	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N14	100yr-6hr-10%	0.00	0.00	0.0000	1.003	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N14	10yr-24hr-90%	0.00	0.00	0.0000	0.480	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N14	10yr-6hr-10%	0.00	0.00	0.0000	0.555	0.000	0.0	0.0000	0.0000	0.9777	0.0000
EC-N14	25yr-24hr-90%	0.00	0.00	0.0000	0.651	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N14	25yr-6hr-10%	0.00	0.00	0.0000	0.723	0.000	0.0	0.0000	0.0000	0.9361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N14 : In	100yr-24 hr-90%	0	10894	0	0	0	0	10894	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	100yr-6h r-10%	0	4970	0	0	0	0	4970	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-24h r-90%	0	4902	0	0	0	0	4902	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	10yr-6hr-10%	0	2728	0	0	0	0	2728	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-24h r-90%	0	7031	0	0	0	0	7031	0	100.00
EC-N14 : Out		0	0	0	0	0	0			
EC-N14 : In	25yr-6hr-10%	0	3568	0	0	0	0	3568	0	100.00
EC-N14 : Out		0	0	0	0	0	0			

Node: EC-N15

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N15	100yr-24hr-90%	0.00	0.00	0.0000	1.533	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N15	100yr-6hr-10%	0.00	0.00	0.0000	1.732	0.000	0.0	0.0000	0.0000	0.7194	0.0000
EC-N15	10yr-24hr-90%	0.00	0.00	0.0000	0.786	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N15	10yr-6hr-10%	0.00	0.00	0.0000	0.983	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N15	25yr-24hr-90%	0.00	0.00	0.0000	1.057	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N15	25yr-6hr-10%	0.00	0.00	0.0000	1.259	0.000	0.0	0.0000	0.0000	0.7361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N15 : In	100yr-24hr-90%	0	17951	0	0	0	0	17951	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	100yr-6hr-10%	0	8417	0	0	0	0	8417	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-24hr-90%	0	8307	0	0	0	0	8307	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	10yr-6hr-10%	0	4755	0	0	0	0	4755	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-24hr-90%	0	11747	0	0	0	0	11747	0	100.00
EC-N15 : Out		0	0	0	0	0	0			
EC-N15 : In	25yr-6hr-10%	0	6134	0	0	0	0	6134	0	100.00
EC-N15 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N16

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N16	100yr-24hr-90%	0.00	0.00	0.0000	5.225	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N16	100yr-6hr-10%	0.00	0.00	0.0000	5.887	0.000	0.0	0.0000	0.0000	0.7277	0.0000
EC-N16	10yr-24hr-90%	0.00	0.00	0.0000	2.680	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N16	10yr-6hr-10%	0.00	0.00	0.0000	3.344	0.000	0.0	0.0000	0.0000	0.8777	0.0000
EC-N16	25yr-24hr-90%	0.00	0.00	0.0000	3.603	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N16	25yr-6hr-10%	0.00	0.00	0.0000	4.279	0.000	0.0	0.0000	0.0000	0.7527	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N16 : In	100yr-24hr-90%	0	61205	0	0	0	0	61205	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	100yr-6hr-10%	0	28698	0	0	0	0	28698	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-24hr-90%	0	28323	0	0	0	0	28323	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	10yr-6hr-10%	0	16213	0	0	0	0	16213	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-24hr-90%	0	40050	0	0	0	0	40050	0	100.00
EC-N16 : Out		0	0	0	0	0	0			
EC-N16 : In	25yr-6hr-10%	0	20914	0	0	0	0	20914	0	100.00
EC-N16 : Out		0	0	0	0	0	0			

Node: EC-N17

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N17	100yr-24hr-90%	0.00	0.00	0.0000	4.474	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N17	100yr-6hr-10%	0.00	0.00	0.0000	4.959	0.000	0.0	0.0000	0.0000	0.7277	0.0000
EC-N17	10yr-24hr-90%	0.00	0.00	0.0000	2.286	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N17	10yr-6hr-10%	0.00	0.00	0.0000	2.797	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N17	25yr-24hr-90%	0.00	0.00	0.0000	3.080	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N17	25yr-6hr-10%	0.00	0.00	0.0000	3.595	0.000	0.0	0.0000	0.0000	0.8694	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N17 : In	100yr-24hr-90%	0	51931	0	0	0	0	51931	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	100yr-6hr-10%	0	24132	0	0	0	0	24132	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-24hr-90%	0	23813	0	0	0	0	23813	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	10yr-6hr-10%	0	13504	0	0	0	0	13504	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-24hr-90%	0	33828	0	0	0	0	33828	0	100.00
EC-N17 : Out		0	0	0	0	0	0			
EC-N17 : In	25yr-6hr-10%	0	17499	0	0	0	0	17499	0	100.00
EC-N17 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N18

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N18	100yr-24hr-90%	0.00	0.00	0.0000	2.254	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N18	100yr-6hr-10%	0.00	0.00	0.0000	2.504	0.000	0.0	0.0000	0.0000	0.7194	0.0000
EC-N18	10yr-24hr-90%	0.00	0.00	0.0000	1.151	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N18	10yr-6hr-10%	0.00	0.00	0.0000	1.411	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N18	25yr-24hr-90%	0.00	0.00	0.0000	1.551	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N18	25yr-6hr-10%	0.00	0.00	0.0000	1.812	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N18 : In	100yr-24 hr-90%	0	26152	0	0	0	0	26152	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	100yr-6hr-10%	0	12152	0	0	0	0	12152	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-24hr-90%	0	11991	0	0	0	0	11991	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	10yr-6hr-10%	0	6800	0	0	0	0	6800	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-24hr-90%	0	17035	0	0	0	0	17035	0	100.00
EC-N18 : Out		0	0	0	0	0	0			
EC-N18 : In	25yr-6hr-10%	0	8812	0	0	0	0	8812	0	100.00
EC-N18 : Out		0	0	0	0	0	0			

Node: EC-N19

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N19	100yr-24hr-90%	0.00	0.00	0.0000	6.957	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N19	100yr-6hr-10%	0.00	0.00	0.0000	7.461	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N19	10yr-24hr-90%	0.00	0.00	0.0000	3.532	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N19	10yr-6hr-10%	0.00	0.00	0.0000	4.165	0.000	0.0	0.0000	0.0000	0.9694	0.0000
EC-N19	25yr-24hr-90%	0.00	0.00	0.0000	4.775	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N19	25yr-6hr-10%	0.00	0.00	0.0000	5.405	0.000	0.0	0.0000	0.0000	0.9361	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N19 : In	100yr-24hr-90%	0	80527	0	0	0	0	80527	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	100yr-6hr-10%	0	37080	0	0	0	0	37080	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-24hr-90%	0	36582	0	0	0	0	36582	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	10yr-6hr-10%	0	20550	0	0	0	0	20550	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-24hr-90%	0	52213	0	0	0	0	52213	0	100.00
EC-N19 : Out		0	0	0	0	0	0			
EC-N19 : In	25yr-6hr-10%	0	26753	0	0	0	0	26753	0	100.00
EC-N19 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N20

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N20	100yr-24hr-90%	0.00	0.00	0.0000	15.244	0.000	0.0	0.0000	0.0000	24.0194	0.0000
EC-N20	100yr-6hr-10%	0.00	0.00	0.0000	16.464	0.000	0.0	0.0000	0.0000	0.9694	0.0000
EC-N20	10yr-24hr-90%	0.00	0.00	0.0000	7.765	0.000	0.0	0.0000	0.0000	24.0194	0.0000
EC-N20	10yr-6hr-10%	0.00	0.00	0.0000	9.284	0.000	0.0	0.0000	0.0000	1.0611	0.0000
EC-N20	25yr-24hr-90%	0.00	0.00	0.0000	10.479	0.000	0.0	0.0000	0.0000	24.0194	0.0000
EC-N20	25yr-6hr-10%	0.00	0.00	0.0000	11.983	0.000	0.0	0.0000	0.0000	1.0194	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N20 : In	100yr-24 hr-90%	0	180071	0	0	0	0	180071	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	100yr-6h r-10%	0	83676	0	0	0	0	83676	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-24h r-90%	0	82569	0	0	0	0	82569	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	10yr-6hr-10%	0	46825	0	0	0	0	46825	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-24h r-90%	0	117298	0	0	0	0	117298	0	100.00
EC-N20 : Out		0	0	0	0	0	0			
EC-N20 : In	25yr-6hr-10%	0	60678	0	0	0	0	60678	0	100.00
EC-N20 : Out		0	0	0	0	0	0			

Node: EC-N21

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N21	100yr-24hr-90%	0.00	0.00	0.0000	2.157	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N21	100yr-6hr-10%	0.00	0.00	0.0000	2.465	0.000	0.0	0.0000	0.0000	0.7444	0.0000
EC-N21	10yr-24hr-90%	0.00	0.00	0.0000	1.110	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N21	10yr-6hr-10%	0.00	0.00	0.0000	1.411	0.000	0.0	0.0000	0.0000	0.8777	0.0000
EC-N21	25yr-24hr-90%	0.00	0.00	0.0000	1.490	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N21	25yr-6hr-10%	0.00	0.00	0.0000	1.802	0.000	0.0	0.0000	0.0000	0.7694	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N21 : In	100yr-24hr-90%	0	25519	0	0	0	0	25519	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	100yr-6hr-10%	0	12072	0	0	0	0	12072	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-24hr-90%	0	11917	0	0	0	0	11917	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	10yr-6hr-10%	0	6884	0	0	0	0	6884	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-24hr-90%	0	16774	0	0	0	0	16774	0	100.00
EC-N21 : Out		0	0	0	0	0	0			
EC-N21 : In	25yr-6hr-10%	0	8841	0	0	0	0	8841	0	100.00
EC-N21 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N22

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N22	100yr-24hr-90%	0.00	0.00	0.0000	7.276	0.000	0.0	0.0000	0.0000	24.0111	0.0000
EC-N22	100yr-6hr-10%	0.00	0.00	0.0000	8.008	0.000	0.0	0.0000	0.0000	0.9444	0.0000
EC-N22	10yr-24hr-90%	0.00	0.00	0.0000	3.723	0.000	0.0	0.0000	0.0000	24.0194	0.0000
EC-N22	10yr-6hr-10%	0.00	0.00	0.0000	4.554	0.000	0.0	0.0000	0.0000	1.0194	0.0000
EC-N22	25yr-24hr-90%	0.00	0.00	0.0000	5.012	0.000	0.0	0.0000	0.0000	24.0111	0.0000
EC-N22	25yr-6hr-10%	0.00	0.00	0.0000	5.856	0.000	0.0	0.0000	0.0000	0.9861	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N22 : In	100yr-24hr-90%	0	86513	0	0	0	0	86513	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	100yr-6hr-10%	0	40564	0	0	0	0	40564	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-24hr-90%	0	40035	0	0	0	0	40035	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	10yr-6hr-10%	0	22917	0	0	0	0	22917	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-24hr-90%	0	56611	0	0	0	0	56611	0	100.00
EC-N22 : Out		0	0	0	0	0	0			
EC-N22 : In	25yr-6hr-10%	0	29561	0	0	0	0	29561	0	100.00
EC-N22 : Out		0	0	0	0	0	0			

Node: EC-N23

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N23	100yr-24hr-90%	0.00	0.00	0.0000	17.625	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N23	100yr-6hr-10%	0.00	0.00	0.0000	19.793	0.000	0.0	0.0000	0.0000	0.9027	0.0000
EC-N23	10yr-24hr-90%	0.00	0.00	0.0000	9.060	0.000	0.0	0.0000	0.0000	24.0111	0.0000
EC-N23	10yr-6hr-10%	0.00	0.00	0.0000	11.357	0.000	0.0	0.0000	0.0000	0.9694	0.0000
EC-N23	25yr-24hr-90%	0.00	0.00	0.0000	12.165	0.000	0.0	0.0000	0.0000	24.0111	0.0000
EC-N23	25yr-6hr-10%	0.00	0.00	0.0000	14.546	0.000	0.0	0.0000	0.0000	0.9444	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N23 : In	100yr-24hr-90%	0	210600	0	0	0	0	210600	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	100yr-6hr-10%	0	99623	0	0	0	0	99623	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-24hr-90%	0	98342	0	0	0	0	98342	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	10yr-6hr-10%	0	56813	0	0	0	0	56813	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-24hr-90%	0	138426	0	0	0	0	138426	0	100.00
EC-N23 : Out		0	0	0	0	0	0			
EC-N23 : In	25yr-6hr-10%	0	72958	0	0	0	0	72958	0	100.00
EC-N23 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N24

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N24	100yr-24hr-90%	0.00	0.00	0.0000	1.276	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N24	100yr-6hr-10%	0.00	0.00	0.0000	1.471	0.000	0.0	0.0000	0.0000	0.7111	0.0000
EC-N24	10yr-24hr-90%	0.00	0.00	0.0000	0.657	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N24	10yr-6hr-10%	0.00	0.00	0.0000	0.839	0.000	0.0	0.0000	0.0000	0.8611	0.0000
EC-N24	25yr-24hr-90%	0.00	0.00	0.0000	0.881	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N24	25yr-6hr-10%	0.00	0.00	0.0000	1.077	0.000	0.0	0.0000	0.0000	0.7194	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N24 : In	100yr-24hr-90%	0	15079	0	0	0	0	15079	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	100yr-6hr-10%	0	7133	0	0	0	0	7133	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-24hr-90%	0	7041	0	0	0	0	7041	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	10yr-6hr-10%	0	4068	0	0	0	0	4068	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-24hr-90%	0	9911	0	0	0	0	9911	0	100.00
EC-N24 : Out		0	0	0	0	0	0			
EC-N24 : In	25yr-6hr-10%	0	5224	0	0	0	0	5224	0	100.00
EC-N24 : Out		0	0	0	0	0	0			

Node: EC-N25

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N25	100yr-24hr-90%	0.00	0.00	0.0000	1.990	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N25	100yr-6hr-10%	0.00	0.00	0.0000	2.275	0.000	0.0	0.0000	0.0000	0.7361	0.0000
EC-N25	10yr-24hr-90%	0.00	0.00	0.0000	1.025	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N25	10yr-6hr-10%	0.00	0.00	0.0000	1.303	0.000	0.0	0.0000	0.0000	0.8777	0.0000
EC-N25	25yr-24hr-90%	0.00	0.00	0.0000	1.375	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N25	25yr-6hr-10%	0.00	0.00	0.0000	1.663	0.000	0.0	0.0000	0.0000	0.7694	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N25 : In	100yr-24hr-90%	0	23541	0	0	0	0	23541	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	100yr-6hr-10%	0	11136	0	0	0	0	11136	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-24hr-90%	0	10993	0	0	0	0	10993	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	10yr-6hr-10%	0	6351	0	0	0	0	6351	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-24hr-90%	0	15473	0	0	0	0	15473	0	100.00
EC-N25 : Out		0	0	0	0	0	0			
EC-N25 : In	25yr-6hr-10%	0	8155	0	0	0	0	8155	0	100.00
EC-N25 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N26

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N26	100yr-24hr-90%	0.00	0.00	0.0000	0.473	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N26	100yr-6hr-10%	0.00	0.00	0.0000	0.540	0.000	0.0	0.0000	0.0000	0.6873	0.0000
EC-N26	10yr-24hr-90%	0.00	0.00	0.0000	0.243	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N26	10yr-6hr-10%	0.00	0.00	0.0000	0.305	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N26	25yr-24hr-90%	0.00	0.00	0.0000	0.326	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N26	25yr-6hr-10%	0.00	0.00	0.0000	0.394	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N26 : In	100yr-24 hr-90%	0	5540	0	0	0	0	5540	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	100yr-6h r-10%	0	2597	0	0	0	0	2597	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-24h r-90%	0	2564	0	0	0	0	2564	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	10yr-6hr-10%	0	1467	0	0	0	0	1467	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-24h r-90%	0	3625	0	0	0	0	3625	0	100.00
EC-N26 : Out		0	0	0	0	0	0			
EC-N26 : In	25yr-6hr-10%	0	1893	0	0	0	0	1893	0	100.00
EC-N26 : Out		0	0	0	0	0	0			

Node: EC-N27

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N27	100yr-24hr-90%	0.00	0.00	0.0000	0.732	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N27	100yr-6hr-10%	0.00	0.00	0.0000	0.821	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N27	10yr-24hr-90%	0.00	0.00	0.0000	0.374	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N27	10yr-6hr-10%	0.00	0.00	0.0000	0.462	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N27	25yr-24hr-90%	0.00	0.00	0.0000	0.504	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N27	25yr-6hr-10%	0.00	0.00	0.0000	0.594	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N27 : In	100yr-24hr-90%	0	8492	0	0	0	0	8492	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	100yr-6hr-10%	0	3946	0	0	0	0	3946	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-24hr-90%	0	3894	0	0	0	0	3894	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	10yr-6hr-10%	0	2208	0	0	0	0	2208	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-24hr-90%	0	5531	0	0	0	0	5531	0	100.00
EC-N27 : Out		0	0	0	0	0	0			
EC-N27 : In	25yr-6hr-10%	0	2861	0	0	0	0	2861	0	100.00
EC-N27 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N28

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N28	100yr-24hr-90%	0.00	0.00	0.0000	0.984	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N28	100yr-6hr-10%	0.00	0.00	0.0000	1.104	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N28	10yr-24hr-90%	0.00	0.00	0.0000	0.503	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N28	10yr-6hr-10%	0.00	0.00	0.0000	0.620	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N28	25yr-24hr-90%	0.00	0.00	0.0000	0.678	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N28	25yr-6hr-10%	0.00	0.00	0.0000	0.799	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N28 : In	100yr-24 hr-90%	0	11415	0	0	0	0	11415	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	100yr-6h r-10%	0	5304	0	0	0	0	5304	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-24h r-90%	0	5234	0	0	0	0	5234	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	10yr-6hr-10%	0	2968	0	0	0	0	2968	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-24h r-90%	0	7435	0	0	0	0	7435	0	100.00
EC-N28 : Out		0	0	0	0	0	0			
EC-N28 : In	25yr-6hr-10%	0	3846	0	0	0	0	3846	0	100.00
EC-N28 : Out		0	0	0	0	0	0			

Node: EC-N29

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N29	100yr-24hr-90%	0.00	0.00	0.0000	6.848	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N29	100yr-6hr-10%	0.00	0.00	0.0000	7.512	0.000	0.0	0.0000	0.0000	0.7444	0.0000
EC-N29	10yr-24hr-90%	0.00	0.00	0.0000	3.497	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N29	10yr-6hr-10%	0.00	0.00	0.0000	4.258	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N29	25yr-24hr-90%	0.00	0.00	0.0000	4.713	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N29	25yr-6hr-10%	0.00	0.00	0.0000	5.488	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N29 : In	100yr-24hr-90%	0	79556	0	0	0	0	79556	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	100yr-6hr-10%	0	36969	0	0	0	0	36969	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-24hr-90%	0	36480	0	0	0	0	36480	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	10yr-6hr-10%	0	20688	0	0	0	0	20688	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-24hr-90%	0	51823	0	0	0	0	51823	0	100.00
EC-N29 : Out		0	0	0	0	0	0			
EC-N29 : In	25yr-6hr-10%	0	26808	0	0	0	0	26808	0	100.00
EC-N29 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N30

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N30	100yr-24hr-90%	0.00	0.00	0.0000	1.257	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N30	100yr-6hr-10%	0.00	0.00	0.0000	1.410	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N30	10yr-24hr-90%	0.00	0.00	0.0000	0.643	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N30	10yr-6hr-10%	0.00	0.00	0.0000	0.793	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N30	25yr-24hr-90%	0.00	0.00	0.0000	0.866	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N30	25yr-6hr-10%	0.00	0.00	0.0000	1.021	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N30 : In	100yr-24 hr-90%	0	14584	0	0	0	0	14584	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	100yr-6h r-10%	0	6777	0	0	0	0	6777	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-24h r-90%	0	6687	0	0	0	0	6687	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	10yr-6hr-10%	0	3792	0	0	0	0	3792	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-24h r-90%	0	9500	0	0	0	0	9500	0	100.00
EC-N30 : Out		0	0	0	0	0	0			
EC-N30 : In	25yr-6hr-10%	0	4914	0	0	0	0	4914	0	100.00
EC-N30 : Out		0	0	0	0	0	0			

Node: EC-N31

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N31	100yr-24hr-90%	0.00	0.00	0.0000	1.156	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N31	100yr-6hr-10%	0.00	0.00	0.0000	1.297	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N31	10yr-24hr-90%	0.00	0.00	0.0000	0.591	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N31	10yr-6hr-10%	0.00	0.00	0.0000	0.729	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N31	25yr-24hr-90%	0.00	0.00	0.0000	0.796	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N31	25yr-6hr-10%	0.00	0.00	0.0000	0.939	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N31 : In	100yr-24hr-90%	0	13414	0	0	0	0	13414	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	100yr-6hr-10%	0	6233	0	0	0	0	6233	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-24hr-90%	0	6151	0	0	0	0	6151	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	10yr-6hr-10%	0	3488	0	0	0	0	3488	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-24hr-90%	0	8738	0	0	0	0	8738	0	100.00
EC-N31 : Out		0	0	0	0	0	0			
EC-N31 : In	25yr-6hr-10%	0	4520	0	0	0	0	4520	0	100.00
EC-N31 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N32

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N32	100yr-24hr-90%	0.00	0.00	0.0000	0.489	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N32	100yr-6hr-10%	0.00	0.00	0.0000	0.558	0.000	0.0	0.0000	0.0000	0.6873	0.0000
EC-N32	10yr-24hr-90%	0.00	0.00	0.0000	0.251	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N32	10yr-6hr-10%	0.00	0.00	0.0000	0.316	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N32	25yr-24hr-90%	0.00	0.00	0.0000	0.337	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N32	25yr-6hr-10%	0.00	0.00	0.0000	0.407	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N32 : In	100yr-24hr-90%	0	5726	0	0	0	0	5726	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	100yr-6hr-10%	0	2685	0	0	0	0	2685	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-24hr-90%	0	2650	0	0	0	0	2650	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	10yr-6hr-10%	0	1517	0	0	0	0	1517	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-24hr-90%	0	3747	0	0	0	0	3747	0	100.00
EC-N32 : Out		0	0	0	0	0	0			
EC-N32 : In	25yr-6hr-10%	0	1957	0	0	0	0	1957	0	100.00
EC-N32 : Out		0	0	0	0	0	0			

Node: EC-N33

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N33	100yr-24hr-90%	0.00	0.00	0.0000	0.460	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N33	100yr-6hr-10%	0.00	0.00	0.0000	0.525	0.000	0.0	0.0000	0.0000	0.6873	0.0000
EC-N33	10yr-24hr-90%	0.00	0.00	0.0000	0.236	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N33	10yr-6hr-10%	0.00	0.00	0.0000	0.297	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N33	25yr-24hr-90%	0.00	0.00	0.0000	0.317	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N33	25yr-6hr-10%	0.00	0.00	0.0000	0.383	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N33 : In	100yr-24hr-90%	0	5384	0	0	0	0	5384	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	100yr-6hr-10%	0	2524	0	0	0	0	2524	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-24hr-90%	0	2492	0	0	0	0	2492	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	10yr-6hr-10%	0	1426	0	0	0	0	1426	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-24hr-90%	0	3523	0	0	0	0	3523	0	100.00
EC-N33 : Out		0	0	0	0	0	0			
EC-N33 : In	25yr-6hr-10%	0	1840	0	0	0	0	1840	0	100.00
EC-N33 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N34

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N34	100yr-24hr-90%	0.00	0.00	0.0000	0.766	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N34	100yr-6hr-10%	0.00	0.00	0.0000	0.874	0.000	0.0	0.0000	0.0000	0.6873	0.0000
EC-N34	10yr-24hr-90%	0.00	0.00	0.0000	0.393	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N34	10yr-6hr-10%	0.00	0.00	0.0000	0.494	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N34	25yr-24hr-90%	0.00	0.00	0.0000	0.528	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N34	25yr-6hr-10%	0.00	0.00	0.0000	0.637	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N34 : In	100yr-24 hr-90%	0	8963	0	0	0	0	8963	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	100yr-6h r-10%	0	4203	0	0	0	0	4203	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-24h r-90%	0	4148	0	0	0	0	4148	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	10yr-6hr-10%	0	2374	0	0	0	0	2374	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-24h r-90%	0	5865	0	0	0	0	5865	0	100.00
EC-N34 : Out		0	0	0	0	0	0			
EC-N34 : In	25yr-6hr-10%	0	3063	0	0	0	0	3063	0	100.00
EC-N34 : Out		0	0	0	0	0	0			

Node: EC-N35

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N35	100yr-24hr-90%	0.00	0.00	0.0000	13.108	0.000	0.0	0.0000	0.0000	24.0361	0.0000
EC-N35	100yr-6hr-10%	0.00	0.00	0.0000	13.989	0.000	0.0	0.0000	0.0000	1.0861	0.0000
EC-N35	10yr-24hr-90%	0.00	0.00	0.0000	6.668	0.000	0.0	0.0000	0.0000	24.0444	0.0000
EC-N35	10yr-6hr-10%	0.00	0.00	0.0000	7.901	0.000	0.0	0.0000	0.0000	1.1694	0.0000
EC-N35	25yr-24hr-90%	0.00	0.00	0.0000	9.005	0.000	0.0	0.0000	0.0000	24.0444	0.0000
EC-N35	25yr-6hr-10%	0.00	0.00	0.0000	10.191	0.000	0.0	0.0000	0.0000	1.1277	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N35 : In	100yr-24hr-90%	0	157704	0	0	0	0	157704	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	100yr-6hr-10%	0	73283	0	0	0	0	73283	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-24hr-90%	0	72313	0	0	0	0	72313	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	10yr-6hr-10%	0	41009	0	0	0	0	41009	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-24hr-90%	0	102728	0	0	0	0	102728	0	100.00
EC-N35 : Out		0	0	0	0	0	0			
EC-N35 : In	25yr-6hr-10%	0	53141	0	0	0	0	53141	0	100.00
EC-N35 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N36

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N36	100yr-24hr-90%	0.00	0.00	0.0000	10.066	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N36	100yr-6hr-10%	0.00	0.00	0.0000	10.791	0.000	0.0	0.0000	0.0000	0.8861	0.0000
EC-N36	10yr-24hr-90%	0.00	0.00	0.0000	5.131	0.000	0.0	0.0000	0.0000	24.0027	0.0000
EC-N36	10yr-6hr-10%	0.00	0.00	0.0000	6.091	0.000	0.0	0.0000	0.0000	1.0194	0.0000
EC-N36	25yr-24hr-90%	0.00	0.00	0.0000	6.922	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N36	25yr-6hr-10%	0.00	0.00	0.0000	7.832	0.000	0.0	0.0000	0.0000	1.0027	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N36 : In	100yr-24 hr-90%	0	118384	0	0	0	0	118384	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	100yr-6hr-10%	0	55012	0	0	0	0	55012	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-24hr-90%	0	54284	0	0	0	0	54284	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	10yr-6hr-10%	0	30784	0	0	0	0	30784	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-24hr-90%	0	77115	0	0	0	0	77115	0	100.00
EC-N36 : Out		0	0	0	0	0	0			
EC-N36 : In	25yr-6hr-10%	0	39892	0	0	0	0	39892	0	100.00
EC-N36 : Out		0	0	0	0	0	0			

Node: EC-N37

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N37	100yr-24hr-90%	0.00	0.00	0.0000	10.161	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N37	100yr-6hr-10%	0.00	0.00	0.0000	11.360	0.000	0.0	0.0000	0.0000	0.7277	0.0000
EC-N37	10yr-24hr-90%	0.00	0.00	0.0000	5.202	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N37	10yr-6hr-10%	0.00	0.00	0.0000	6.432	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N37	25yr-24hr-90%	0.00	0.00	0.0000	7.000	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N37	25yr-6hr-10%	0.00	0.00	0.0000	8.247	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N37 : In	100yr-24hr-90%	0	118516	0	0	0	0	118516	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	100yr-6hr-10%	0	55336	0	0	0	0	55336	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-24hr-90%	0	54610	0	0	0	0	54610	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	10yr-6hr-10%	0	31124	0	0	0	0	31124	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-24hr-90%	0	77388	0	0	0	0	77388	0	100.00
EC-N37 : Out		0	0	0	0	0	0			
EC-N37 : In	25yr-6hr-10%	0	40233	0	0	0	0	40233	0	100.00
EC-N37 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N38

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N38	100yr-24hr-90%	0.00	0.00	0.0000	0.955	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N38	100yr-6hr-10%	0.00	0.00	0.0000	1.071	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N38	10yr-24hr-90%	0.00	0.00	0.0000	0.488	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N38	10yr-6hr-10%	0.00	0.00	0.0000	0.602	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N38	25yr-24hr-90%	0.00	0.00	0.0000	0.657	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N38	25yr-6hr-10%	0.00	0.00	0.0000	0.775	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N38 : In	100yr-24 hr-90%	0	11076	0	0	0	0	11076	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	100yr-6h r-10%	0	5147	0	0	0	0	5147	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-24h r-90%	0	5079	0	0	0	0	5079	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	10yr-6hr-10%	0	2880	0	0	0	0	2880	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-24h r-90%	0	7215	0	0	0	0	7215	0	100.00
EC-N38 : Out		0	0	0	0	0	0			
EC-N38 : In	25yr-6hr-10%	0	3732	0	0	0	0	3732	0	100.00
EC-N38 : Out		0	0	0	0	0	0			

Node: EC-N39

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N39	100yr-24hr-90%	0.00	0.00	0.0000	0.797	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N39	100yr-6hr-10%	0.00	0.00	0.0000	0.910	0.000	0.0	0.0000	0.0000	0.6873	0.0000
EC-N39	10yr-24hr-90%	0.00	0.00	0.0000	0.409	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N39	10yr-6hr-10%	0.00	0.00	0.0000	0.515	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N39	25yr-24hr-90%	0.00	0.00	0.0000	0.550	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N39	25yr-6hr-10%	0.00	0.00	0.0000	0.663	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N39 : In	100yr-24hr-90%	0	9337	0	0	0	0	9337	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	100yr-6hr-10%	0	4378	0	0	0	0	4378	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-24hr-90%	0	4321	0	0	0	0	4321	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	10yr-6hr-10%	0	2473	0	0	0	0	2473	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-24hr-90%	0	6110	0	0	0	0	6110	0	100.00
EC-N39 : Out		0	0	0	0	0	0			
EC-N39 : In	25yr-6hr-10%	0	3190	0	0	0	0	3190	0	100.00
EC-N39 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N40

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N40	100yr-24hr-90%	0.00	0.00	0.0000	0.377	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N40	100yr-6hr-10%	0.00	0.00	0.0000	0.422	0.000	0.0	0.0000	0.0000	0.6952	0.0000
EC-N40	10yr-24hr-90%	0.00	0.00	0.0000	0.193	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N40	10yr-6hr-10%	0.00	0.00	0.0000	0.237	0.000	0.0	0.0000	0.0000	0.8527	0.0000
EC-N40	25yr-24hr-90%	0.00	0.00	0.0000	0.259	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N40	25yr-6hr-10%	0.00	0.00	0.0000	0.306	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N40 : In	100yr-24 hr-90%	0	4369	0	0	0	0	4369	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	100yr-6h r-10%	0	2030	0	0	0	0	2030	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-24h r-90%	0	2003	0	0	0	0	2003	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	10yr-6hr-10%	0	1136	0	0	0	0	1136	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-24h r-90%	0	2846	0	0	0	0	2846	0	100.00
EC-N40 : Out		0	0	0	0	0	0			
EC-N40 : In	25yr-6hr-10%	0	1472	0	0	0	0	1472	0	100.00
EC-N40 : Out		0	0	0	0	0	0			

Node: EC-N41

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N41	100yr-24hr-90%	0.00	0.00	0.0000	4.018	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N41	100yr-6hr-10%	0.00	0.00	0.0000	4.492	0.000	0.0	0.0000	0.0000	0.7694	0.0000
EC-N41	10yr-24hr-90%	0.00	0.00	0.0000	2.060	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N41	10yr-6hr-10%	0.00	0.00	0.0000	2.559	0.000	0.0	0.0000	0.0000	0.8944	0.0000
EC-N41	25yr-24hr-90%	0.00	0.00	0.0000	2.770	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N41	25yr-6hr-10%	0.00	0.00	0.0000	3.283	0.000	0.0	0.0000	0.0000	0.8694	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N41 : In	100yr-24hr-90%	0	47143	0	0	0	0	47143	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	100yr-6hr-10%	0	22105	0	0	0	0	22105	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-24hr-90%	0	21816	0	0	0	0	21816	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	10yr-6hr-10%	0	12488	0	0	0	0	12488	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-24hr-90%	0	30849	0	0	0	0	30849	0	100.00
EC-N41 : Out		0	0	0	0	0	0			
EC-N41 : In	25yr-6hr-10%	0	16109	0	0	0	0	16109	0	100.00
EC-N41 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: EC-N42

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N42	100yr-24hr-90%	0.00	0.00	0.0000	0.661	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N42	100yr-6hr-10%	0.00	0.00	0.0000	0.697	0.000	0.0	0.0000	0.0000	0.7031	0.0000
EC-N42	10yr-24hr-90%	0.00	0.00	0.0000	0.333	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N42	10yr-6hr-10%	0.00	0.00	0.0000	0.385	0.000	0.0	0.0000	0.0000	0.8694	0.0000
EC-N42	25yr-24hr-90%	0.00	0.00	0.0000	0.452	0.000	0.0	0.0000	0.0000	23.9944	0.0000
EC-N42	25yr-6hr-10%	0.00	0.00	0.0000	0.502	0.000	0.0	0.0000	0.0000	0.8611	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N42 : In	100yr-24hr-90%	0	7456	0	0	0	0	7456	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	100yr-6hr-10%	0	3370	0	0	0	0	3370	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-24hr-90%	0	3323	0	0	0	0	3323	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	10yr-6hr-10%	0	1831	0	0	0	0	1831	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-24hr-90%	0	4789	0	0	0	0	4789	0	100.00
EC-N42 : Out		0	0	0	0	0	0			
EC-N42 : In	25yr-6hr-10%	0	2406	0	0	0	0	2406	0	100.00
EC-N42 : Out		0	0	0	0	0	0			

Node: EC-N43

Scenario: 38701-EC_S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-EC_S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
EC-N43	100yr-24hr-90%	0.00	0.00	0.0000	10.128	0.000	0.0	0.0000	0.0000	24.2527	0.0000
EC-N43	100yr-6hr-10%	0.00	0.00	0.0000	10.327	0.000	0.0	0.0000	0.0000	1.6527	0.0000
EC-N43	10yr-24hr-90%	0.00	0.00	0.0000	5.166	0.000	0.0	0.0000	0.0000	24.2527	0.0000
EC-N43	10yr-6hr-10%	0.00	0.00	0.0000	5.945	0.000	0.0	0.0000	0.0000	1.7194	0.0000
EC-N43	25yr-24hr-90%	0.00	0.00	0.0000	6.966	0.000	0.0	0.0000	0.0000	24.2527	0.0000
EC-N43	25yr-6hr-10%	0.00	0.00	0.0000	7.601	0.000	0.0	0.0000	0.0000	1.6861	0.0000

Node Mass Balance Detailed [38701-EC_S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
EC-N43 : In	100yr-24hr-90%	0	141675	0	0	0	0	141675	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	100yr-6hr-10%	0	67019	0	0	0	0	67019	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-24hr-90%	0	66157	0	0	0	0	66157	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	10yr-6hr-10%	0	38220	0	0	0	0	38220	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-24hr-90%	0	93122	0	0	0	0	93122	0	100.00
EC-N43 : Out		0	0	0	0	0	0			
EC-N43 : In	25yr-6hr-10%	0	49081	0	0	0	0	49081	0	100.00
EC-N43 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N01

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N01	100yr-24hr-90%	0.00	0.00	0.0000	1.204	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N01	100yr-6hr-10%	0.00	0.00	0.0000	1.350	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N01	10yr-24hr-90%	0.00	0.00	0.0000	0.616	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N01	10yr-6hr-10%	0.00	0.00	0.0000	0.759	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N01	25yr-24hr-90%	0.00	0.00	0.0000	0.829	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N01	25yr-6hr-10%	0.00	0.00	0.0000	0.978	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N01 : In	100yr-24 hr-90%	0	13968	0	0	0	0	13968	0	100.00
PC-N01 : Out		0	0	0	0	0	0			
PC-N01 : In	100yr-6hr-10%	0	6491	0	0	0	0	6491	0	100.00
PC-N01 : Out		0	0	0	0	0	0			
PC-N01 : In	10yr-24hr-90%	0	6405	0	0	0	0	6405	0	100.00
PC-N01 : Out		0	0	0	0	0	0			
PC-N01 : In	10yr-6hr-10%	0	3632	0	0	0	0	3632	0	100.00
PC-N01 : Out		0	0	0	0	0	0			
PC-N01 : In	25yr-24hr-90%	0	9099	0	0	0	0	9099	0	100.00
PC-N01 : Out		0	0	0	0	0	0			
PC-N01 : In	25yr-6hr-10%	0	4707	0	0	0	0	4707	0	100.00
PC-N01 : Out		0	0	0	0	0	0			

Node: PC-N02

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N02	100yr-24hr-90%	0.00	0.00	0.0000	0.734	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N02	100yr-6hr-10%	0.00	0.00	0.0000	1.001	0.000	0.0	0.0000	0.0000	0.5175	0.0000
PC-N02	10yr-24hr-90%	0.00	0.00	0.0000	0.388	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N02	10yr-6hr-10%	0.00	0.00	0.0000	0.624	0.000	0.0	0.0000	0.0000	0.5300	0.0000
PC-N02	25yr-24hr-90%	0.00	0.00	0.0000	0.513	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N02	25yr-6hr-10%	0.00	0.00	0.0000	0.769	0.000	0.0	0.0000	0.0000	0.5175	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N02 : In	100yr-24hr-90%	0	9473	0	0	0	0	9473	0	100.00
PC-N02 : Out		0	0	0	0	0	0			
PC-N02 : In	100yr-6hr-10%	0	4864	0	0	0	0	4864	0	100.00
PC-N02 : Out		0	0	0	0	0	0			
PC-N02 : In	10yr-24hr-90%	0	4810	0	0	0	0	4810	0	100.00
PC-N02 : Out		0	0	0	0	0	0			
PC-N02 : In	10yr-6hr-10%	0	3030	0	0	0	0	3030	0	100.00
PC-N02 : Out		0	0	0	0	0	0			
PC-N02 : In	25yr-24hr-90%	0	6488	0	0	0	0	6488	0	100.00
PC-N02 : Out		0	0	0	0	0	0			
PC-N02 : In	25yr-6hr-10%	0	3730	0	0	0	0	3730	0	100.00
PC-N02 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N03

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N03	100yr-24hr-90%	0.00	0.00	0.0000	1.503	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N03	100yr-6hr-10%	0.00	0.00	0.0000	2.050	0.000	0.0	0.0000	0.0000	0.5175	0.0000
PC-N03	10yr-24hr-90%	0.00	0.00	0.0000	0.795	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N03	10yr-6hr-10%	0.00	0.00	0.0000	1.279	0.000	0.0	0.0000	0.0000	0.5300	0.0000
PC-N03	25yr-24hr-90%	0.00	0.00	0.0000	1.051	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N03	25yr-6hr-10%	0.00	0.00	0.0000	1.574	0.000	0.0	0.0000	0.0000	0.5175	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N03 : In	100yr-24 hr-90%	0	19398	0	0	0	0	19398	0	100.00
PC-N03 : Out		0	0	0	0	0	0			
PC-N03 : In	100yr-6hr-10%	0	9960	0	0	0	0	9960	0	100.00
PC-N03 : Out		0	0	0	0	0	0			
PC-N03 : In	10yr-24hr-90%	0	9849	0	0	0	0	9849	0	100.00
PC-N03 : Out		0	0	0	0	0	0			
PC-N03 : In	10yr-6hr-10%	0	6205	0	0	0	0	6205	0	100.00
PC-N03 : Out		0	0	0	0	0	0			
PC-N03 : In	25yr-24hr-90%	0	13287	0	0	0	0	13287	0	100.00
PC-N03 : Out		0	0	0	0	0	0			
PC-N03 : In	25yr-6hr-10%	0	7638	0	0	0	0	7638	0	100.00
PC-N03 : Out		0	0	0	0	0	0			

Node: PC-N04

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N04	100yr-24hr-90%	0.00	0.00	0.0000	1.537	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N04	100yr-6hr-10%	0.00	0.00	0.0000	2.030	0.000	0.0	0.0000	0.0000	0.5300	0.0000
PC-N04	10yr-24hr-90%	0.00	0.00	0.0000	0.810	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N04	10yr-6hr-10%	0.00	0.00	0.0000	1.242	0.000	0.0	0.0000	0.0000	0.6794	0.0000
PC-N04	25yr-24hr-90%	0.00	0.00	0.0000	1.073	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N04	25yr-6hr-10%	0.00	0.00	0.0000	1.539	0.000	0.0	0.0000	0.0000	0.5363	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N04 : In	100yr-24hr-90%	0	19492	0	0	0	0	19492	0	100.00
PC-N04 : Out		0	0	0	0	0	0			
PC-N04 : In	100yr-6hr-10%	0	9854	0	0	0	0	9854	0	100.00
PC-N04 : Out		0	0	0	0	0	0			
PC-N04 : In	10yr-24hr-90%	0	9741	0	0	0	0	9741	0	100.00
PC-N04 : Out		0	0	0	0	0	0			
PC-N04 : In	10yr-6hr-10%	0	6035	0	0	0	0	6035	0	100.00
PC-N04 : Out		0	0	0	0	0	0			
PC-N04 : In	25yr-24hr-90%	0	13247	0	0	0	0	13247	0	100.00
PC-N04 : Out		0	0	0	0	0	0			
PC-N04 : In	25yr-6hr-10%	0	7490	0	0	0	0	7490	0	100.00
PC-N04 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N05

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N05	100yr-24hr-90%	0.00	0.00	0.0000	5.398	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N05	100yr-6hr-10%	0.00	0.00	0.0000	7.017	0.000	0.0	0.0000	0.0000	0.6177	0.0000
PC-N05	10yr-24hr-90%	0.00	0.00	0.0000	2.845	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N05	10yr-6hr-10%	0.00	0.00	0.0000	4.324	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N05	25yr-24hr-90%	0.00	0.00	0.0000	3.767	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N05	25yr-6hr-10%	0.00	0.00	0.0000	5.350	0.000	0.0	0.0000	0.0000	0.7031	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N05 : In	100yr-24 hr-90%	0	68514	0	0	0	0	68514	0	100.00
PC-N05 : Out		0	0	0	0	0	0			
PC-N05 : In	100yr-6h r-10%	0	34635	0	0	0	0	34635	0	100.00
PC-N05 : Out		0	0	0	0	0	0			
PC-N05 : In	10yr-24h r-90%	0	34238	0	0	0	0	34238	0	100.00
PC-N05 : Out		0	0	0	0	0	0			
PC-N05 : In	10yr-6hr-10%	0	21214	0	0	0	0	21214	0	100.00
PC-N05 : Out		0	0	0	0	0	0			
PC-N05 : In	25yr-24h r-90%	0	46564	0	0	0	0	46564	0	100.00
PC-N05 : Out		0	0	0	0	0	0			
PC-N05 : In	25yr-6hr-10%	0	26326	0	0	0	0	26326	0	100.00
PC-N05 : Out		0	0	0	0	0	0			

Node: PC-N06

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N06	100yr-24hr-90%	0.00	0.00	0.0000	6.300	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N06	100yr-6hr-10%	0.00	0.00	0.0000	8.164	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N06	10yr-24hr-90%	0.00	0.00	0.0000	3.320	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N06	10yr-6hr-10%	0.00	0.00	0.0000	5.027	0.000	0.0	0.0000	0.0000	0.7361	0.0000
PC-N06	25yr-24hr-90%	0.00	0.00	0.0000	4.397	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N06	25yr-6hr-10%	0.00	0.00	0.0000	6.225	0.000	0.0	0.0000	0.0000	0.7194	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N06 : In	100yr-24hr-90%	0	80044	0	0	0	0	80044	0	100.00
PC-N06 : Out		0	0	0	0	0	0			
PC-N06 : In	100yr-6hr-10%	0	40463	0	0	0	0	40463	0	100.00
PC-N06 : Out		0	0	0	0	0	0			
PC-N06 : In	10yr-24hr-90%	0	40000	0	0	0	0	40000	0	100.00
PC-N06 : Out		0	0	0	0	0	0			
PC-N06 : In	10yr-6hr-10%	0	24784	0	0	0	0	24784	0	100.00
PC-N06 : Out		0	0	0	0	0	0			
PC-N06 : In	25yr-24hr-90%	0	54400	0	0	0	0	54400	0	100.00
PC-N06 : Out		0	0	0	0	0	0			
PC-N06 : In	25yr-6hr-10%	0	30756	0	0	0	0	30756	0	100.00
PC-N06 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N07

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N07	100yr-24hr-90%	0.00	0.00	0.0000	4.662	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N07	100yr-6hr-10%	0.00	0.00	0.0000	6.013	0.000	0.0	0.0000	0.0000	0.5684	0.0000
PC-N07	10yr-24hr-90%	0.00	0.00	0.0000	2.454	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N07	10yr-6hr-10%	0.00	0.00	0.0000	3.693	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N07	25yr-24hr-90%	0.00	0.00	0.0000	3.252	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N07	25yr-6hr-10%	0.00	0.00	0.0000	4.578	0.000	0.0	0.0000	0.0000	0.6873	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N07 : In	100yr-24 hr-90%	0	58864	0	0	0	0	58864	0	100.00
PC-N07 : Out		0	0	0	0	0	0			
PC-N07 : In	100yr-6h r-10%	0	29628	0	0	0	0	29628	0	100.00
PC-N07 : Out		0	0	0	0	0	0			
PC-N07 : In	10yr-24h r-90%	0	29287	0	0	0	0	29287	0	100.00
PC-N07 : Out		0	0	0	0	0	0			
PC-N07 : In	10yr-6hr-10%	0	18063	0	0	0	0	18063	0	100.00
PC-N07 : Out		0	0	0	0	0	0			
PC-N07 : In	25yr-24h r-90%	0	39919	0	0	0	0	39919	0	100.00
PC-N07 : Out		0	0	0	0	0	0			
PC-N07 : In	25yr-6hr-10%	0	22466	0	0	0	0	22466	0	100.00
PC-N07 : Out		0	0	0	0	0	0			

Node: PC-N08

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N08	100yr-24hr-90%	0.00	0.00	0.0000	4.618	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N08	100yr-6hr-10%	0.00	0.00	0.0000	6.015	0.000	0.0	0.0000	0.0000	0.5363	0.0000
PC-N08	10yr-24hr-90%	0.00	0.00	0.0000	2.431	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N08	10yr-6hr-10%	0.00	0.00	0.0000	3.677	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N08	25yr-24hr-90%	0.00	0.00	0.0000	3.221	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N08	25yr-6hr-10%	0.00	0.00	0.0000	4.548	0.000	0.0	0.0000	0.0000	0.6794	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N08 : In	100yr-24hr-90%	0	58334	0	0	0	0	58334	0	100.00
PC-N08 : Out		0	0	0	0	0	0			
PC-N08 : In	100yr-6hr-10%	0	29379	0	0	0	0	29379	0	100.00
PC-N08 : Out		0	0	0	0	0	0			
PC-N08 : In	10yr-24hr-90%	0	29041	0	0	0	0	29041	0	100.00
PC-N08 : Out		0	0	0	0	0	0			
PC-N08 : In	10yr-6hr-10%	0	17928	0	0	0	0	17928	0	100.00
PC-N08 : Out		0	0	0	0	0	0			
PC-N08 : In	25yr-24hr-90%	0	39570	0	0	0	0	39570	0	100.00
PC-N08 : Out		0	0	0	0	0	0			
PC-N08 : In	25yr-6hr-10%	0	22287	0	0	0	0	22287	0	100.00
PC-N08 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N09

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N09	100yr-24hr-90%	0.00	0.00	0.0000	2.026	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N09	100yr-6hr-10%	0.00	0.00	0.0000	2.022	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N09	10yr-24hr-90%	0.00	0.00	0.0000	1.003	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N09	10yr-6hr-10%	0.00	0.00	0.0000	1.191	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N09	25yr-24hr-90%	0.00	0.00	0.0000	1.370	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N09	25yr-6hr-10%	0.00	0.00	0.0000	1.503	0.000	0.0	0.0000	0.0000	0.7194	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N09 : In	100yr-24 hr-90%	0	23692	0	0	0	0	23692	0	100.00
PC-N09 : Out		0	0	0	0	0	0			
PC-N09 : In	100yr-6h r-10%	0	10997	0	0	0	0	10997	0	100.00
PC-N09 : Out		0	0	0	0	0	0			
PC-N09 : In	10yr-24h r-90%	0	10853	0	0	0	0	10853	0	100.00
PC-N09 : Out		0	0	0	0	0	0			
PC-N09 : In	10yr-6hr-10%	0	6266	0	0	0	0	6266	0	100.00
PC-N09 : Out		0	0	0	0	0	0			
PC-N09 : In	25yr-24h r-90%	0	15382	0	0	0	0	15382	0	100.00
PC-N09 : Out		0	0	0	0	0	0			
PC-N09 : In	25yr-6hr-10%	0	8034	0	0	0	0	8034	0	100.00
PC-N09 : Out		0	0	0	0	0	0			

Node: PC-N10

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N10	100yr-24hr-90%	0.00	0.00	0.0000	1.739	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N10	100yr-6hr-10%	0.00	0.00	0.0000	1.740	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N10	10yr-24hr-90%	0.00	0.00	0.0000	0.846	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N10	10yr-6hr-10%	0.00	0.00	0.0000	0.988	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N10	25yr-24hr-90%	0.00	0.00	0.0000	1.166	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N10	25yr-6hr-10%	0.00	0.00	0.0000	1.268	0.000	0.0	0.0000	0.0000	0.7031	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N10 : In	100yr-24hr-90%	0	19600	0	0	0	0	19600	0	100.00
PC-N10 : Out		0	0	0	0	0	0			
PC-N10 : In	100yr-6hr-10%	0	8817	0	0	0	0	8817	0	100.00
PC-N10 : Out		0	0	0	0	0	0			
PC-N10 : In	10yr-24hr-90%	0	8697	0	0	0	0	8697	0	100.00
PC-N10 : Out		0	0	0	0	0	0			
PC-N10 : In	10yr-6hr-10%	0	4873	0	0	0	0	4873	0	100.00
PC-N10 : Out		0	0	0	0	0	0			
PC-N10 : In	25yr-24hr-90%	0	12518	0	0	0	0	12518	0	100.00
PC-N10 : Out		0	0	0	0	0	0			
PC-N10 : In	25yr-6hr-10%	0	6339	0	0	0	0	6339	0	100.00
PC-N10 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N11

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N11	100yr-24hr-90%	0.00	0.00	0.0000	5.503	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N11	100yr-6hr-10%	0.00	0.00	0.0000	6.214	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N11	10yr-24hr-90%	0.00	0.00	0.0000	2.799	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N11	10yr-6hr-10%	0.00	0.00	0.0000	3.703	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N11	25yr-24hr-90%	0.00	0.00	0.0000	3.773	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N11	25yr-6hr-10%	0.00	0.00	0.0000	4.661	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N11 : In	100yr-24 hr-90%	0	66127	0	0	0	0	66127	0	100.00
PC-N11 : Out		0	0	0	0	0	0			
PC-N11 : In	100yr-6hr-10%	0	31648	0	0	0	0	31648	0	100.00
PC-N11 : Out		0	0	0	0	0	0			
PC-N11 : In	10yr-24hr-90%	0	31253	0	0	0	0	31253	0	100.00
PC-N11 : Out		0	0	0	0	0	0			
PC-N11 : In	10yr-6hr-10%	0	18465	0	0	0	0	18465	0	100.00
PC-N11 : Out		0	0	0	0	0	0			
PC-N11 : In	25yr-24hr-90%	0	43654	0	0	0	0	43654	0	100.00
PC-N11 : Out		0	0	0	0	0	0			
PC-N11 : In	25yr-6hr-10%	0	23431	0	0	0	0	23431	0	100.00
PC-N11 : Out		0	0	0	0	0	0			

Node: PC-N12

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N12	100yr-24hr-90%	0.00	0.00	0.0000	4.142	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N12	100yr-6hr-10%	0.00	0.00	0.0000	4.845	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N12	10yr-24hr-90%	0.00	0.00	0.0000	2.136	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N12	10yr-6hr-10%	0.00	0.00	0.0000	2.820	0.000	0.0	0.0000	0.0000	0.7527	0.0000
PC-N12	25yr-24hr-90%	0.00	0.00	0.0000	2.861	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N12	25yr-6hr-10%	0.00	0.00	0.0000	3.589	0.000	0.0	0.0000	0.0000	0.7361	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N12 : In	100yr-24hr-90%	0	49739	0	0	0	0	49739	0	100.00
PC-N12 : Out		0	0	0	0	0	0			
PC-N12 : In	100yr-6hr-10%	0	23912	0	0	0	0	23912	0	100.00
PC-N12 : Out		0	0	0	0	0	0			
PC-N12 : In	10yr-24hr-90%	0	23614	0	0	0	0	23614	0	100.00
PC-N12 : Out		0	0	0	0	0	0			
PC-N12 : In	10yr-6hr-10%	0	13916	0	0	0	0	13916	0	100.00
PC-N12 : Out		0	0	0	0	0	0			
PC-N12 : In	25yr-24hr-90%	0	32946	0	0	0	0	32946	0	100.00
PC-N12 : Out		0	0	0	0	0	0			
PC-N12 : In	25yr-6hr-10%	0	17693	0	0	0	0	17693	0	100.00
PC-N12 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N13

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N13	100yr-24hr-90%	0.00	0.00	0.0000	18.395	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N13	100yr-6hr-10%	0.00	0.00	0.0000	20.715	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N13	10yr-24hr-90%	0.00	0.00	0.0000	9.427	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N13	10yr-6hr-10%	0.00	0.00	0.0000	11.961	0.000	0.0	0.0000	0.0000	0.8611	0.0000
PC-N13	25yr-24hr-90%	0.00	0.00	0.0000	12.673	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N13	25yr-6hr-10%	0.00	0.00	0.0000	15.199	0.000	0.0	0.0000	0.0000	0.8527	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N13 : In	100yr-24 hr-90%	0	218208	0	0	0	0	218208	0	100.00
PC-N13 : Out		0	0	0	0	0	0			
PC-N13 : In	100yr-6hr-10%	0	103213	0	0	0	0	103213	0	100.00
PC-N13 : Out		0	0	0	0	0	0			
PC-N13 : In	10yr-24hr-90%	0	101889	0	0	0	0	101889	0	100.00
PC-N13 : Out		0	0	0	0	0	0			
PC-N13 : In	10yr-6hr-10%	0	59028	0	0	0	0	59028	0	100.00
PC-N13 : Out		0	0	0	0	0	0			
PC-N13 : In	25yr-24hr-90%	0	143358	0	0	0	0	143358	0	100.00
PC-N13 : Out		0	0	0	0	0	0			
PC-N13 : In	25yr-6hr-10%	0	75678	0	0	0	0	75678	0	100.00
PC-N13 : Out		0	0	0	0	0	0			

Node: PC-N14

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N14	100yr-24hr-90%	0.00	0.00	0.0000	0.979	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N14	100yr-6hr-10%	0.00	0.00	0.0000	1.345	0.000	0.0	0.0000	0.0000	0.5363	0.0000
PC-N14	10yr-24hr-90%	0.00	0.00	0.0000	0.518	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N14	10yr-6hr-10%	0.00	0.00	0.0000	0.846	0.000	0.0	0.0000	0.0000	0.5614	0.0000
PC-N14	25yr-24hr-90%	0.00	0.00	0.0000	0.684	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N14	25yr-6hr-10%	0.00	0.00	0.0000	1.037	0.000	0.0	0.0000	0.0000	0.5488	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N14 : In	100yr-24hr-90%	0	12738	0	0	0	0	12738	0	100.00
PC-N14 : Out		0	0	0	0	0	0			
PC-N14 : In	100yr-6hr-10%	0	6590	0	0	0	0	6590	0	100.00
PC-N14 : Out		0	0	0	0	0	0			
PC-N14 : In	10yr-24hr-90%	0	6518	0	0	0	0	6518	0	100.00
PC-N14 : Out		0	0	0	0	0	0			
PC-N14 : In	10yr-6hr-10%	0	4141	0	0	0	0	4141	0	100.00
PC-N14 : Out		0	0	0	0	0	0			
PC-N14 : In	25yr-24hr-90%	0	8758	0	0	0	0	8758	0	100.00
PC-N14 : Out		0	0	0	0	0	0			
PC-N14 : In	25yr-6hr-10%	0	5076	0	0	0	0	5076	0	100.00
PC-N14 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N15

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N15	100yr-24hr-90%	0.00	0.00	0.0000	1.554	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N15	100yr-6hr-10%	0.00	0.00	0.0000	2.120	0.000	0.0	0.0000	0.0000	0.5175	0.0000
PC-N15	10yr-24hr-90%	0.00	0.00	0.0000	0.822	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N15	10yr-6hr-10%	0.00	0.00	0.0000	1.322	0.000	0.0	0.0000	0.0000	0.5300	0.0000
PC-N15	25yr-24hr-90%	0.00	0.00	0.0000	1.087	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N15	25yr-6hr-10%	0.00	0.00	0.0000	1.628	0.000	0.0	0.0000	0.0000	0.5175	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N15 : In	100yr-24 hr-90%	0	20060	0	0	0	0	20060	0	100.00
PC-N15 : Out		0	0	0	0	0	0			
PC-N15 : In	100yr-6hr-10%	0	10299	0	0	0	0	10299	0	100.00
PC-N15 : Out		0	0	0	0	0	0			
PC-N15 : In	10yr-24hr-90%	0	10185	0	0	0	0	10185	0	100.00
PC-N15 : Out		0	0	0	0	0	0			
PC-N15 : In	10yr-6hr-10%	0	6417	0	0	0	0	6417	0	100.00
PC-N15 : Out		0	0	0	0	0	0			
PC-N15 : In	25yr-24hr-90%	0	13740	0	0	0	0	13740	0	100.00
PC-N15 : Out		0	0	0	0	0	0			
PC-N15 : In	25yr-6hr-10%	0	7898	0	0	0	0	7898	0	100.00
PC-N15 : Out		0	0	0	0	0	0			

Node: PC-N16

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N16	100yr-24hr-90%	0.00	0.00	0.0000	5.275	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N16	100yr-6hr-10%	0.00	0.00	0.0000	6.489	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N16	10yr-24hr-90%	0.00	0.00	0.0000	2.754	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N16	10yr-6hr-10%	0.00	0.00	0.0000	3.860	0.000	0.0	0.0000	0.0000	0.7111	0.0000
PC-N16	25yr-24hr-90%	0.00	0.00	0.0000	3.666	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N16	25yr-6hr-10%	0.00	0.00	0.0000	4.865	0.000	0.0	0.0000	0.0000	0.7031	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N16 : In	100yr-24hr-90%	0	64613	0	0	0	0	64613	0	100.00
PC-N16 : Out		0	0	0	0	0	0			
PC-N16 : In	100yr-6hr-10%	0	31625	0	0	0	0	31625	0	100.00
PC-N16 : Out		0	0	0	0	0	0			
PC-N16 : In	10yr-24hr-90%	0	31242	0	0	0	0	31242	0	100.00
PC-N16 : Out		0	0	0	0	0	0			
PC-N16 : In	10yr-6hr-10%	0	18705	0	0	0	0	18705	0	100.00
PC-N16 : Out		0	0	0	0	0	0			
PC-N16 : In	25yr-24hr-90%	0	43207	0	0	0	0	43207	0	100.00
PC-N16 : Out		0	0	0	0	0	0			
PC-N16 : In	25yr-6hr-10%	0	23605	0	0	0	0	23605	0	100.00
PC-N16 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N17

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N17	100yr-24hr-90%	0.00	0.00	0.0000	4.517	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N17	100yr-6hr-10%	0.00	0.00	0.0000	5.477	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N17	10yr-24hr-90%	0.00	0.00	0.0000	2.351	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N17	10yr-6hr-10%	0.00	0.00	0.0000	3.223	0.000	0.0	0.0000	0.0000	0.7111	0.0000
PC-N17	25yr-24hr-90%	0.00	0.00	0.0000	3.135	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N17	25yr-6hr-10%	0.00	0.00	0.0000	4.084	0.000	0.0	0.0000	0.0000	0.7031	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N17 : In	100yr-24 hr-90%	0	54834	0	0	0	0	54834	0	100.00
PC-N17 : Out		0	0	0	0	0	0			
PC-N17 : In	100yr-6hr-10%	0	26616	0	0	0	0	26616	0	100.00
PC-N17 : Out		0	0	0	0	0	0			
PC-N17 : In	10yr-24hr-90%	0	26288	0	0	0	0	26288	0	100.00
PC-N17 : Out		0	0	0	0	0	0			
PC-N17 : In	10yr-6hr-10%	0	15602	0	0	0	0	15602	0	100.00
PC-N17 : Out		0	0	0	0	0	0			
PC-N17 : In	25yr-24hr-90%	0	36514	0	0	0	0	36514	0	100.00
PC-N17 : Out		0	0	0	0	0	0			
PC-N17 : In	25yr-6hr-10%	0	19774	0	0	0	0	19774	0	100.00
PC-N17 : Out		0	0	0	0	0	0			

Node: PC-N18

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N18	100yr-24hr-90%	0.00	0.00	0.0000	2.265	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N18	100yr-6hr-10%	0.00	0.00	0.0000	2.614	0.000	0.0	0.0000	0.0000	0.7031	0.0000
PC-N18	10yr-24hr-90%	0.00	0.00	0.0000	1.167	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N18	10yr-6hr-10%	0.00	0.00	0.0000	1.490	0.000	0.0	0.0000	0.0000	0.8611	0.0000
PC-N18	25yr-24hr-90%	0.00	0.00	0.0000	1.565	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N18	25yr-6hr-10%	0.00	0.00	0.0000	1.914	0.000	0.0	0.0000	0.0000	0.7194	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N18 : In	100yr-24hr-90%	0	26762	0	0	0	0	26762	0	100.00
PC-N18 : Out		0	0	0	0	0	0			
PC-N18 : In	100yr-6hr-10%	0	12660	0	0	0	0	12660	0	100.00
PC-N18 : Out		0	0	0	0	0	0			
PC-N18 : In	10yr-24hr-90%	0	12497	0	0	0	0	12497	0	100.00
PC-N18 : Out		0	0	0	0	0	0			
PC-N18 : In	10yr-6hr-10%	0	7220	0	0	0	0	7220	0	100.00
PC-N18 : Out		0	0	0	0	0	0			
PC-N18 : In	25yr-24hr-90%	0	17590	0	0	0	0	17590	0	100.00
PC-N18 : Out		0	0	0	0	0	0			
PC-N18 : In	25yr-6hr-10%	0	9271	0	0	0	0	9271	0	100.00
PC-N18 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N19

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N19	100yr-24hr-90%	0.00	0.00	0.0000	6.999	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N19	100yr-6hr-10%	0.00	0.00	0.0000	7.781	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N19	10yr-24hr-90%	0.00	0.00	0.0000	3.586	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N19	10yr-6hr-10%	0.00	0.00	0.0000	4.431	0.000	0.0	0.0000	0.0000	0.9277	0.0000
PC-N19	25yr-24hr-90%	0.00	0.00	0.0000	4.824	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N19	25yr-6hr-10%	0.00	0.00	0.0000	5.696	0.000	0.0	0.0000	0.0000	0.9027	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N19 : In	100yr-24 hr-90%	0	82357	0	0	0	0	82357	0	100.00
PC-N19 : Out		0	0	0	0	0	0			
PC-N19 : In	100yr-6hr-10%	0	38615	0	0	0	0	38615	0	100.00
PC-N19 : Out		0	0	0	0	0	0			
PC-N19 : In	10yr-24hr-90%	0	38112	0	0	0	0	38112	0	100.00
PC-N19 : Out		0	0	0	0	0	0			
PC-N19 : In	10yr-6hr-10%	0	21816	0	0	0	0	21816	0	100.00
PC-N19 : Out		0	0	0	0	0	0			
PC-N19 : In	25yr-24hr-90%	0	53892	0	0	0	0	53892	0	100.00
PC-N19 : Out		0	0	0	0	0	0			
PC-N19 : In	25yr-6hr-10%	0	28141	0	0	0	0	28141	0	100.00
PC-N19 : Out		0	0	0	0	0	0			

Node: PC-N20

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N20	100yr-24hr-90%	0.00	0.00	0.0000	16.188	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N20	100yr-6hr-10%	0.00	0.00	0.0000	18.560	0.000	0.0	0.0000	0.0000	0.8444	0.0000
PC-N20	10yr-24hr-90%	0.00	0.00	0.0000	8.358	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N20	10yr-6hr-10%	0.00	0.00	0.0000	10.752	0.000	0.0	0.0000	0.0000	0.9111	0.0000
PC-N20	25yr-24hr-90%	0.00	0.00	0.0000	11.195	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N20	25yr-6hr-10%	0.00	0.00	0.0000	13.709	0.000	0.0	0.0000	0.0000	0.8861	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N20 : In	100yr-24hr-90%	0	194216	0	0	0	0	194216	0	100.00
PC-N20 : Out		0	0	0	0	0	0			
PC-N20 : In	100yr-6hr-10%	0	92676	0	0	0	0	92676	0	100.00
PC-N20 : Out		0	0	0	0	0	0			
PC-N20 : In	10yr-24hr-90%	0	91502	0	0	0	0	91502	0	100.00
PC-N20 : Out		0	0	0	0	0	0			
PC-N20 : In	10yr-6hr-10%	0	53344	0	0	0	0	53344	0	100.00
PC-N20 : Out		0	0	0	0	0	0			
PC-N20 : In	25yr-24hr-90%	0	128220	0	0	0	0	128220	0	100.00
PC-N20 : Out		0	0	0	0	0	0			
PC-N20 : In	25yr-6hr-10%	0	68200	0	0	0	0	68200	0	100.00
PC-N20 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N21

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N21	100yr-24hr-90%	0.00	0.00	0.0000	2.153	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N21	100yr-6hr-10%	0.00	0.00	0.0000	2.413	0.000	0.0	0.0000	0.0000	0.7527	0.0000
PC-N21	10yr-24hr-90%	0.00	0.00	0.0000	1.104	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N21	10yr-6hr-10%	0.00	0.00	0.0000	1.373	0.000	0.0	0.0000	0.0000	0.8861	0.0000
PC-N21	25yr-24hr-90%	0.00	0.00	0.0000	1.484	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N21	25yr-6hr-10%	0.00	0.00	0.0000	1.760	0.000	0.0	0.0000	0.0000	0.8694	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N21 : In	100yr-24 hr-90%	0	25247	0	0	0	0	25247	0	100.00
PC-N21 : Out		0	0	0	0	0	0			
PC-N21 : In	100yr-6hr-10%	0	11838	0	0	0	0	11838	0	100.00
PC-N21 : Out		0	0	0	0	0	0			
PC-N21 : In	10yr-24hr-90%	0	11683	0	0	0	0	11683	0	100.00
PC-N21 : Out		0	0	0	0	0	0			
PC-N21 : In	10yr-6hr-10%	0	6688	0	0	0	0	6688	0	100.00
PC-N21 : Out		0	0	0	0	0	0			
PC-N21 : In	25yr-24hr-90%	0	16521	0	0	0	0	16521	0	100.00
PC-N21 : Out		0	0	0	0	0	0			
PC-N21 : In	25yr-6hr-10%	0	8627	0	0	0	0	8627	0	100.00
PC-N21 : Out		0	0	0	0	0	0			

Node: PC-N22

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N22	100yr-24hr-90%	0.00	0.00	0.0000	7.353	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N22	100yr-6hr-10%	0.00	0.00	0.0000	8.255	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N22	10yr-24hr-90%	0.00	0.00	0.0000	3.776	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N22	10yr-6hr-10%	0.00	0.00	0.0000	4.727	0.000	0.0	0.0000	0.0000	0.9277	0.0000
PC-N22	25yr-24hr-90%	0.00	0.00	0.0000	5.073	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N22	25yr-6hr-10%	0.00	0.00	0.0000	6.060	0.000	0.0	0.0000	0.0000	0.9027	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N22 : In	100yr-24hr-90%	0	87111	0	0	0	0	87111	0	100.00
PC-N22 : Out		0	0	0	0	0	0			
PC-N22 : In	100yr-6hr-10%	0	41085	0	0	0	0	41085	0	100.00
PC-N22 : Out		0	0	0	0	0	0			
PC-N22 : In	10yr-24hr-90%	0	40554	0	0	0	0	40554	0	100.00
PC-N22 : Out		0	0	0	0	0	0			
PC-N22 : In	10yr-6hr-10%	0	23356	0	0	0	0	23356	0	100.00
PC-N22 : Out		0	0	0	0	0	0			
PC-N22 : In	25yr-24hr-90%	0	57171	0	0	0	0	57171	0	100.00
PC-N22 : Out		0	0	0	0	0	0			
PC-N22 : In	25yr-6hr-10%	0	30039	0	0	0	0	30039	0	100.00
PC-N22 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N23

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N23	100yr-24hr-90%	0.00	0.00	0.0000	17.671	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N23	100yr-6hr-10%	0.00	0.00	0.0000	19.763	0.000	0.0	0.0000	0.0000	0.8694	0.0000
PC-N23	10yr-24hr-90%	0.00	0.00	0.0000	9.069	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N23	10yr-6hr-10%	0.00	0.00	0.0000	11.300	0.000	0.0	0.0000	0.0000	0.9361	0.0000
PC-N23	25yr-24hr-90%	0.00	0.00	0.0000	12.188	0.000	0.0	0.0000	0.0000	24.0027	0.0000
PC-N23	25yr-6hr-10%	0.00	0.00	0.0000	14.499	0.000	0.0	0.0000	0.0000	0.9111	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N23 : In	100yr-24 hr-90%	0	209376	0	0	0	0	209376	0	100.00
PC-N23 : Out		0	0	0	0	0	0			
PC-N23 : In	100yr-6h r-10%	0	98631	0	0	0	0	98631	0	100.00
PC-N23 : Out		0	0	0	0	0	0			
PC-N23 : In	10yr-24h r-90%	0	97355	0	0	0	0	97355	0	100.00
PC-N23 : Out		0	0	0	0	0	0			
PC-N23 : In	10yr-6hr-10%	0	56005	0	0	0	0	56005	0	100.00
PC-N23 : Out		0	0	0	0	0	0			
PC-N23 : In	25yr-24h r-90%	0	137330	0	0	0	0	137330	0	100.00
PC-N23 : Out		0	0	0	0	0	0			
PC-N23 : In	25yr-6hr-10%	0	72068	0	0	0	0	72068	0	100.00
PC-N23 : Out		0	0	0	0	0	0			

Node: PC-N24

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N24	100yr-24hr-90%	0.00	0.00	0.0000	1.276	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N24	100yr-6hr-10%	0.00	0.00	0.0000	1.471	0.000	0.0	0.0000	0.0000	0.7111	0.0000
PC-N24	10yr-24hr-90%	0.00	0.00	0.0000	0.657	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N24	10yr-6hr-10%	0.00	0.00	0.0000	0.839	0.000	0.0	0.0000	0.0000	0.8611	0.0000
PC-N24	25yr-24hr-90%	0.00	0.00	0.0000	0.881	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N24	25yr-6hr-10%	0.00	0.00	0.0000	1.077	0.000	0.0	0.0000	0.0000	0.7194	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N24 : In	100yr-24hr-90%	0	15079	0	0	0	0	15079	0	100.00
PC-N24 : Out		0	0	0	0	0	0			
PC-N24 : In	100yr-6hr-10%	0	7133	0	0	0	0	7133	0	100.00
PC-N24 : Out		0	0	0	0	0	0			
PC-N24 : In	10yr-24hr-90%	0	7041	0	0	0	0	7041	0	100.00
PC-N24 : Out		0	0	0	0	0	0			
PC-N24 : In	10yr-6hr-10%	0	4068	0	0	0	0	4068	0	100.00
PC-N24 : Out		0	0	0	0	0	0			
PC-N24 : In	25yr-24hr-90%	0	9911	0	0	0	0	9911	0	100.00
PC-N24 : Out		0	0	0	0	0	0			
PC-N24 : In	25yr-6hr-10%	0	5224	0	0	0	0	5224	0	100.00
PC-N24 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N25

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N25	100yr-24hr-90%	0.00	0.00	0.0000	2.014	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N25	100yr-6hr-10%	0.00	0.00	0.0000	2.303	0.000	0.0	0.0000	0.0000	0.7361	0.0000
PC-N25	10yr-24hr-90%	0.00	0.00	0.0000	1.037	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N25	10yr-6hr-10%	0.00	0.00	0.0000	1.318	0.000	0.0	0.0000	0.0000	0.8777	0.0000
PC-N25	25yr-24hr-90%	0.00	0.00	0.0000	1.391	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N25	25yr-6hr-10%	0.00	0.00	0.0000	1.683	0.000	0.0	0.0000	0.0000	0.7694	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N25 : In	100yr-24hr-90%	0	23825	0	0	0	0	23825	0	100.00
PC-N25 : Out		0	0	0	0	0	0			
PC-N25 : In	100yr-6hr-10%	0	11270	0	0	0	0	11270	0	100.00
PC-N25 : Out		0	0	0	0	0	0			
PC-N25 : In	10yr-24hr-90%	0	11125	0	0	0	0	11125	0	100.00
PC-N25 : Out		0	0	0	0	0	0			
PC-N25 : In	10yr-6hr-10%	0	6427	0	0	0	0	6427	0	100.00
PC-N25 : Out		0	0	0	0	0	0			
PC-N25 : In	25yr-24hr-90%	0	15660	0	0	0	0	15660	0	100.00
PC-N25 : Out		0	0	0	0	0	0			
PC-N25 : In	25yr-6hr-10%	0	8254	0	0	0	0	8254	0	100.00
PC-N25 : Out		0	0	0	0	0	0			

Node: PC-N26

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N26	100yr-24hr-90%	0.00	0.00	0.0000	0.332	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N26	100yr-6hr-10%	0.00	0.00	0.0000	0.379	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N26	10yr-24hr-90%	0.00	0.00	0.0000	0.171	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N26	10yr-6hr-10%	0.00	0.00	0.0000	0.215	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N26	25yr-24hr-90%	0.00	0.00	0.0000	0.229	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N26	25yr-6hr-10%	0.00	0.00	0.0000	0.276	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N26 : In	100yr-24hr-90%	0	3890	0	0	0	0	3890	0	100.00
PC-N26 : Out		0	0	0	0	0	0			
PC-N26 : In	100yr-6hr-10%	0	1824	0	0	0	0	1824	0	100.00
PC-N26 : Out		0	0	0	0	0	0			
PC-N26 : In	10yr-24hr-90%	0	1800	0	0	0	0	1800	0	100.00
PC-N26 : Out		0	0	0	0	0	0			
PC-N26 : In	10yr-6hr-10%	0	1030	0	0	0	0	1030	0	100.00
PC-N26 : Out		0	0	0	0	0	0			
PC-N26 : In	25yr-24hr-90%	0	2546	0	0	0	0	2546	0	100.00
PC-N26 : Out		0	0	0	0	0	0			
PC-N26 : In	25yr-6hr-10%	0	1329	0	0	0	0	1329	0	100.00
PC-N26 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N27

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N27	100yr-24hr-90%	0.00	0.00	0.0000	0.729	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N27	100yr-6hr-10%	0.00	0.00	0.0000	0.818	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N27	10yr-24hr-90%	0.00	0.00	0.0000	0.373	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N27	10yr-6hr-10%	0.00	0.00	0.0000	0.460	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N27	25yr-24hr-90%	0.00	0.00	0.0000	0.502	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N27	25yr-6hr-10%	0.00	0.00	0.0000	0.592	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N27 : In	100yr-24 hr-90%	0	8461	0	0	0	0	8461	0	100.00
PC-N27 : Out		0	0	0	0	0	0			
PC-N27 : In	100yr-6h r-10%	0	3932	0	0	0	0	3932	0	100.00
PC-N27 : Out		0	0	0	0	0	0			
PC-N27 : In	10yr-24h r-90%	0	3880	0	0	0	0	3880	0	100.00
PC-N27 : Out		0	0	0	0	0	0			
PC-N27 : In	10yr-6hr-10%	0	2200	0	0	0	0	2200	0	100.00
PC-N27 : Out		0	0	0	0	0	0			
PC-N27 : In	25yr-24h r-90%	0	5511	0	0	0	0	5511	0	100.00
PC-N27 : Out		0	0	0	0	0	0			
PC-N27 : In	25yr-6hr-10%	0	2851	0	0	0	0	2851	0	100.00
PC-N27 : Out		0	0	0	0	0	0			

Node: PC-N28

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N28	100yr-24hr-90%	0.00	0.00	0.0000	0.515	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N28	100yr-6hr-10%	0.00	0.00	0.0000	0.608	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N28	10yr-24hr-90%	0.00	0.00	0.0000	0.266	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N28	10yr-6hr-10%	0.00	0.00	0.0000	0.351	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N28	25yr-24hr-90%	0.00	0.00	0.0000	0.357	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N28	25yr-6hr-10%	0.00	0.00	0.0000	0.449	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N28 : In	100yr-24hr-90%	0	6142	0	0	0	0	6142	0	100.00
PC-N28 : Out		0	0	0	0	0	0			
PC-N28 : In	100yr-6hr-10%	0	2931	0	0	0	0	2931	0	100.00
PC-N28 : Out		0	0	0	0	0	0			
PC-N28 : In	10yr-24hr-90%	0	2894	0	0	0	0	2894	0	100.00
PC-N28 : Out		0	0	0	0	0	0			
PC-N28 : In	10yr-6hr-10%	0	1687	0	0	0	0	1687	0	100.00
PC-N28 : Out		0	0	0	0	0	0			
PC-N28 : In	25yr-24hr-90%	0	4055	0	0	0	0	4055	0	100.00
PC-N28 : Out		0	0	0	0	0	0			
PC-N28 : In	25yr-6hr-10%	0	2157	0	0	0	0	2157	0	100.00
PC-N28 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N29

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N29	100yr-24hr-90%	0.00	0.00	0.0000	6.894	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N29	100yr-6hr-10%	0.00	0.00	0.0000	7.921	0.000	0.0	0.0000	0.0000	0.7194	0.0000
PC-N29	10yr-24hr-90%	0.00	0.00	0.0000	3.552	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N29	10yr-6hr-10%	0.00	0.00	0.0000	4.542	0.000	0.0	0.0000	0.0000	0.8611	0.0000
PC-N29	25yr-24hr-90%	0.00	0.00	0.0000	4.763	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N29	25yr-6hr-10%	0.00	0.00	0.0000	5.793	0.000	0.0	0.0000	0.0000	0.7361	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N29 : In	100yr-24 hr-90%	0	81636	0	0	0	0	81636	0	100.00
PC-N29 : Out		0	0	0	0	0	0			
PC-N29 : In	100yr-6hr-10%	0	38677	0	0	0	0	38677	0	100.00
PC-N29 : Out		0	0	0	0	0	0			
PC-N29 : In	10yr-24hr-90%	0	38181	0	0	0	0	38181	0	100.00
PC-N29 : Out		0	0	0	0	0	0			
PC-N29 : In	10yr-6hr-10%	0	22096	0	0	0	0	22096	0	100.00
PC-N29 : Out		0	0	0	0	0	0			
PC-N29 : In	25yr-24hr-90%	0	53700	0	0	0	0	53700	0	100.00
PC-N29 : Out		0	0	0	0	0	0			
PC-N29 : In	25yr-6hr-10%	0	28351	0	0	0	0	28351	0	100.00
PC-N29 : Out		0	0	0	0	0	0			

Node: PC-N30

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N30	100yr-24hr-90%	0.00	0.00	0.0000	0.812	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N30	100yr-6hr-10%	0.00	0.00	0.0000	0.895	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N30	10yr-24hr-90%	0.00	0.00	0.0000	0.413	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N30	10yr-6hr-10%	0.00	0.00	0.0000	0.500	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N30	25yr-24hr-90%	0.00	0.00	0.0000	0.558	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N30	25yr-6hr-10%	0.00	0.00	0.0000	0.644	0.000	0.0	0.0000	0.0000	0.8527	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N30 : In	100yr-24hr-90%	0	9336	0	0	0	0	9336	0	100.00
PC-N30 : Out		0	0	0	0	0	0			
PC-N30 : In	100yr-6hr-10%	0	4299	0	0	0	0	4299	0	100.00
PC-N30 : Out		0	0	0	0	0	0			
PC-N30 : In	10yr-24hr-90%	0	4241	0	0	0	0	4241	0	100.00
PC-N30 : Out		0	0	0	0	0	0			
PC-N30 : In	10yr-6hr-10%	0	2382	0	0	0	0	2382	0	100.00
PC-N30 : Out		0	0	0	0	0	0			
PC-N30 : In	25yr-24hr-90%	0	6053	0	0	0	0	6053	0	100.00
PC-N30 : Out		0	0	0	0	0	0			
PC-N30 : In	25yr-6hr-10%	0	3102	0	0	0	0	3102	0	100.00
PC-N30 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N31

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N31	100yr-24hr-90%	0.00	0.00	0.0000	0.279	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N31	100yr-6hr-10%	0.00	0.00	0.0000	0.339	0.000	0.0	0.0000	0.0000	0.6794	0.0000
PC-N31	10yr-24hr-90%	0.00	0.00	0.0000	0.145	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N31	10yr-6hr-10%	0.00	0.00	0.0000	0.200	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N31	25yr-24hr-90%	0.00	0.00	0.0000	0.193	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N31	25yr-6hr-10%	0.00	0.00	0.0000	0.253	0.000	0.0	0.0000	0.0000	0.6873	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N31 : In	100yr-24hr-90%	0	3381	0	0	0	0	3381	0	100.00
PC-N31 : Out		0	0	0	0	0	0			
PC-N31 : In	100yr-6hr-10%	0	1641	0	0	0	0	1641	0	100.00
PC-N31 : Out		0	0	0	0	0	0			
PC-N31 : In	10yr-24hr-90%	0	1621	0	0	0	0	1621	0	100.00
PC-N31 : Out		0	0	0	0	0	0			
PC-N31 : In	10yr-6hr-10%	0	962	0	0	0	0	962	0	100.00
PC-N31 : Out		0	0	0	0	0	0			
PC-N31 : In	25yr-24hr-90%	0	2251	0	0	0	0	2251	0	100.00
PC-N31 : Out		0	0	0	0	0	0			
PC-N31 : In	25yr-6hr-10%	0	1219	0	0	0	0	1219	0	100.00
PC-N31 : Out		0	0	0	0	0	0			

Node: PC-N32

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N32	100yr-24hr-90%	0.00	0.00	0.0000	0.352	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N32	100yr-6hr-10%	0.00	0.00	0.0000	0.416	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N32	10yr-24hr-90%	0.00	0.00	0.0000	0.182	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N32	10yr-6hr-10%	0.00	0.00	0.0000	0.240	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N32	25yr-24hr-90%	0.00	0.00	0.0000	0.244	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N32	25yr-6hr-10%	0.00	0.00	0.0000	0.307	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N32 : In	100yr-24hr-90%	0	4201	0	0	0	0	4201	0	100.00
PC-N32 : Out		0	0	0	0	0	0			
PC-N32 : In	100yr-6hr-10%	0	2004	0	0	0	0	2004	0	100.00
PC-N32 : Out		0	0	0	0	0	0			
PC-N32 : In	10yr-24hr-90%	0	1979	0	0	0	0	1979	0	100.00
PC-N32 : Out		0	0	0	0	0	0			
PC-N32 : In	10yr-6hr-10%	0	1154	0	0	0	0	1154	0	100.00
PC-N32 : Out		0	0	0	0	0	0			
PC-N32 : In	25yr-24hr-90%	0	2773	0	0	0	0	2773	0	100.00
PC-N32 : Out		0	0	0	0	0	0			
PC-N32 : In	25yr-6hr-10%	0	1475	0	0	0	0	1475	0	100.00
PC-N32 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N33

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N33	100yr-24hr-90%	0.00	0.00	0.0000	0.276	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N33	100yr-6hr-10%	0.00	0.00	0.0000	0.341	0.000	0.0	0.0000	0.0000	0.6794	0.0000
PC-N33	10yr-24hr-90%	0.00	0.00	0.0000	0.144	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N33	10yr-6hr-10%	0.00	0.00	0.0000	0.204	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N33	25yr-24hr-90%	0.00	0.00	0.0000	0.192	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N33	25yr-6hr-10%	0.00	0.00	0.0000	0.256	0.000	0.0	0.0000	0.0000	0.6873	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N33 : In	100yr-24 hr-90%	0	3384	0	0	0	0	3384	0	100.00
PC-N33 : Out		0	0	0	0	0	0			
PC-N33 : In	100yr-6h r-10%	0	1656	0	0	0	0	1656	0	100.00
PC-N33 : Out		0	0	0	0	0	0			
PC-N33 : In	10yr-24h r-90%	0	1636	0	0	0	0	1636	0	100.00
PC-N33 : Out		0	0	0	0	0	0			
PC-N33 : In	10yr-6hr-10%	0	980	0	0	0	0	980	0	100.00
PC-N33 : Out		0	0	0	0	0	0			
PC-N33 : In	25yr-24h r-90%	0	2263	0	0	0	0	2263	0	100.00
PC-N33 : Out		0	0	0	0	0	0			
PC-N33 : In	25yr-6hr-10%	0	1236	0	0	0	0	1236	0	100.00
PC-N33 : Out		0	0	0	0	0	0			

Node: PC-N34

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N34	100yr-24hr-90%	0.00	0.00	0.0000	0.376	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N34	100yr-6hr-10%	0.00	0.00	0.0000	0.444	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N34	10yr-24hr-90%	0.00	0.00	0.0000	0.195	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N34	10yr-6hr-10%	0.00	0.00	0.0000	0.256	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N34	25yr-24hr-90%	0.00	0.00	0.0000	0.260	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N34	25yr-6hr-10%	0.00	0.00	0.0000	0.328	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N34 : In	100yr-24hr-90%	0	4487	0	0	0	0	4487	0	100.00
PC-N34 : Out		0	0	0	0	0	0			
PC-N34 : In	100yr-6hr-10%	0	2141	0	0	0	0	2141	0	100.00
PC-N34 : Out		0	0	0	0	0	0			
PC-N34 : In	10yr-24hr-90%	0	2114	0	0	0	0	2114	0	100.00
PC-N34 : Out		0	0	0	0	0	0			
PC-N34 : In	10yr-6hr-10%	0	1232	0	0	0	0	1232	0	100.00
PC-N34 : Out		0	0	0	0	0	0			
PC-N34 : In	25yr-24hr-90%	0	2962	0	0	0	0	2962	0	100.00
PC-N34 : Out		0	0	0	0	0	0			
PC-N34 : In	25yr-6hr-10%	0	1576	0	0	0	0	1576	0	100.00
PC-N34 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N35

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N35	100yr-24hr-90%	0.00	0.00	0.0000	15.233	0.000	0.0	0.0000	0.0000	24.0361	0.0000
PC-N35	100yr-6hr-10%	0.00	0.00	0.0000	16.878	0.000	0.0	0.0000	0.0000	1.0194	0.0000
PC-N35	10yr-24hr-90%	0.00	0.00	0.0000	7.821	0.000	0.0	0.0000	0.0000	24.0361	0.0000
PC-N35	10yr-6hr-10%	0.00	0.00	0.0000	9.695	0.000	0.0	0.0000	0.0000	1.1027	0.0000
PC-N35	25yr-24hr-90%	0.00	0.00	0.0000	10.509	0.000	0.0	0.0000	0.0000	24.0361	0.0000
PC-N35	25yr-6hr-10%	0.00	0.00	0.0000	12.406	0.000	0.0	0.0000	0.0000	1.0611	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N35 : In	100yr-24 hr-90%	0	185323	0	0	0	0	185323	0	100.00
PC-N35 : Out		0	0	0	0	0	0			
PC-N35 : In	100yr-6h r-10%	0	87666	0	0	0	0	87666	0	100.00
PC-N35 : Out		0	0	0	0	0	0			
PC-N35 : In	10yr-24h r-90%	0	86539	0	0	0	0	86539	0	100.00
PC-N35 : Out		0	0	0	0	0	0			
PC-N35 : In	10yr-6hr-10%	0	49994	0	0	0	0	49994	0	100.00
PC-N35 : Out		0	0	0	0	0	0			
PC-N35 : In	25yr-24h r-90%	0	121812	0	0	0	0	121812	0	100.00
PC-N35 : Out		0	0	0	0	0	0			
PC-N35 : In	25yr-6hr-10%	0	64201	0	0	0	0	64201	0	100.00
PC-N35 : Out		0	0	0	0	0	0			

Node: PC-N36

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N36	100yr-24hr-90%	0.00	0.00	0.0000	10.459	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N36	100yr-6hr-10%	0.00	0.00	0.0000	12.050	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N36	10yr-24hr-90%	0.00	0.00	0.0000	5.414	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N36	10yr-6hr-10%	0.00	0.00	0.0000	7.032	0.000	0.0	0.0000	0.0000	0.8777	0.0000
PC-N36	25yr-24hr-90%	0.00	0.00	0.0000	7.242	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N36	25yr-6hr-10%	0.00	0.00	0.0000	8.944	0.000	0.0	0.0000	0.0000	0.8694	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N36 : In	100yr-24hr-90%	0	126548	0	0	0	0	126548	0	100.00
PC-N36 : Out		0	0	0	0	0	0			
PC-N36 : In	100yr-6hr-10%	0	60779	0	0	0	0	60779	0	100.00
PC-N36 : Out		0	0	0	0	0	0			
PC-N36 : In	10yr-24hr-90%	0	60017	0	0	0	0	60017	0	100.00
PC-N36 : Out		0	0	0	0	0	0			
PC-N36 : In	10yr-6hr-10%	0	35229	0	0	0	0	35229	0	100.00
PC-N36 : Out		0	0	0	0	0	0			
PC-N36 : In	25yr-24hr-90%	0	83819	0	0	0	0	83819	0	100.00
PC-N36 : Out		0	0	0	0	0	0			
PC-N36 : In	25yr-6hr-10%	0	44890	0	0	0	0	44890	0	100.00
PC-N36 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N37

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N37	100yr-24hr-90%	0.00	0.00	0.0000	9.790	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N37	100yr-6hr-10%	0.00	0.00	0.0000	11.814	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N37	10yr-24hr-90%	0.00	0.00	0.0000	5.085	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N37	10yr-6hr-10%	0.00	0.00	0.0000	6.983	0.000	0.0	0.0000	0.0000	0.7031	0.0000
PC-N37	25yr-24hr-90%	0.00	0.00	0.0000	6.788	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N37	25yr-6hr-10%	0.00	0.00	0.0000	8.824	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N37 : In	100yr-24hr-90%	0	119142	0	0	0	0	119142	0	100.00
PC-N37 : Out		0	0	0	0	0	0			
PC-N37 : In	100yr-6hr-10%	0	58021	0	0	0	0	58021	0	100.00
PC-N37 : Out		0	0	0	0	0	0			
PC-N37 : In	10yr-24hr-90%	0	57312	0	0	0	0	57312	0	100.00
PC-N37 : Out		0	0	0	0	0	0			
PC-N37 : In	10yr-6hr-10%	0	34213	0	0	0	0	34213	0	100.00
PC-N37 : Out		0	0	0	0	0	0			
PC-N37 : In	25yr-24hr-90%	0	79445	0	0	0	0	79445	0	100.00
PC-N37 : Out		0	0	0	0	0	0			
PC-N37 : In	25yr-6hr-10%	0	43226	0	0	0	0	43226	0	100.00
PC-N37 : Out		0	0	0	0	0	0			

Node: PC-N38

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N38	100yr-24hr-90%	0.00	0.00	0.0000	0.904	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N38	100yr-6hr-10%	0.00	0.00	0.0000	1.014	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N38	10yr-24hr-90%	0.00	0.00	0.0000	0.462	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N38	10yr-6hr-10%	0.00	0.00	0.0000	0.570	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N38	25yr-24hr-90%	0.00	0.00	0.0000	0.623	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N38	25yr-6hr-10%	0.00	0.00	0.0000	0.734	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N38 : In	100yr-24hr-90%	0	10492	0	0	0	0	10492	0	100.00
PC-N38 : Out		0	0	0	0	0	0			
PC-N38 : In	100yr-6hr-10%	0	4875	0	0	0	0	4875	0	100.00
PC-N38 : Out		0	0	0	0	0	0			
PC-N38 : In	10yr-24hr-90%	0	4811	0	0	0	0	4811	0	100.00
PC-N38 : Out		0	0	0	0	0	0			
PC-N38 : In	10yr-6hr-10%	0	2728	0	0	0	0	2728	0	100.00
PC-N38 : Out		0	0	0	0	0	0			
PC-N38 : In	25yr-24hr-90%	0	6834	0	0	0	0	6834	0	100.00
PC-N38 : Out		0	0	0	0	0	0			
PC-N38 : In	25yr-6hr-10%	0	3535	0	0	0	0	3535	0	100.00
PC-N38 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N39

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N39	100yr-24hr-90%	0.00	0.00	0.0000	0.691	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N39	100yr-6hr-10%	0.00	0.00	0.0000	0.789	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N39	10yr-24hr-90%	0.00	0.00	0.0000	0.355	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N39	10yr-6hr-10%	0.00	0.00	0.0000	0.446	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N39	25yr-24hr-90%	0.00	0.00	0.0000	0.477	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N39	25yr-6hr-10%	0.00	0.00	0.0000	0.575	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N39 : In	100yr-24 hr-90%	0	8092	0	0	0	0	8092	0	100.00
PC-N39 : Out		0	0	0	0	0	0			
PC-N39 : In	100yr-6h r-10%	0	3794	0	0	0	0	3794	0	100.00
PC-N39 : Out		0	0	0	0	0	0			
PC-N39 : In	10yr-24h r-90%	0	3745	0	0	0	0	3745	0	100.00
PC-N39 : Out		0	0	0	0	0	0			
PC-N39 : In	10yr-6hr-10%	0	2143	0	0	0	0	2143	0	100.00
PC-N39 : Out		0	0	0	0	0	0			
PC-N39 : In	25yr-24h r-90%	0	5295	0	0	0	0	5295	0	100.00
PC-N39 : Out		0	0	0	0	0	0			
PC-N39 : In	25yr-6hr-10%	0	2765	0	0	0	0	2765	0	100.00
PC-N39 : Out		0	0	0	0	0	0			

Node: PC-N40

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N40	100yr-24hr-90%	0.00	0.00	0.0000	0.359	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N40	100yr-6hr-10%	0.00	0.00	0.0000	0.410	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N40	10yr-24hr-90%	0.00	0.00	0.0000	0.191	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N40	10yr-6hr-10%	0.00	0.00	0.0000	0.240	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N40	25yr-24hr-90%	0.00	0.00	0.0000	0.257	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N40	25yr-6hr-10%	0.00	0.00	0.0000	0.310	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N40 : In	100yr-24hr-90%	0	4201	0	0	0	0	4201	0	100.00
PC-N40 : Out		0	0	0	0	0	0			
PC-N40 : In	100yr-6hr-10%	0	1970	0	0	0	0	1970	0	100.00
PC-N40 : Out		0	0	0	0	0	0			
PC-N40 : In	10yr-24hr-90%	0	2016	0	0	0	0	2016	0	100.00
PC-N40 : Out		0	0	0	0	0	0			
PC-N40 : In	10yr-6hr-10%	0	1154	0	0	0	0	1154	0	100.00
PC-N40 : Out		0	0	0	0	0	0			
PC-N40 : In	25yr-24hr-90%	0	2851	0	0	0	0	2851	0	100.00
PC-N40 : Out		0	0	0	0	0	0			
PC-N40 : In	25yr-6hr-10%	0	1489	0	0	0	0	1489	0	100.00
PC-N40 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N41

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N41	100yr-24hr-90%	0.00	0.00	0.0000	4.083	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N41	100yr-6hr-10%	0.00	0.00	0.0000	4.821	0.000	0.0	0.0000	0.0000	0.6873	0.0000
PC-N41	10yr-24hr-90%	0.00	0.00	0.0000	2.112	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N41	10yr-6hr-10%	0.00	0.00	0.0000	2.782	0.000	0.0	0.0000	0.0000	0.7031	0.0000
PC-N41	25yr-24hr-90%	0.00	0.00	0.0000	2.826	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N41	25yr-6hr-10%	0.00	0.00	0.0000	3.559	0.000	0.0	0.0000	0.0000	0.6952	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N41 : In	100yr-24hr-90%	0	48730	0	0	0	0	48730	0	100.00
PC-N41 : Out		0	0	0	0	0	0			
PC-N41 : In	100yr-6hr-10%	0	23275	0	0	0	0	23275	0	100.00
PC-N41 : Out		0	0	0	0	0	0			
PC-N41 : In	10yr-24hr-90%	0	22980	0	0	0	0	22980	0	100.00
PC-N41 : Out		0	0	0	0	0	0			
PC-N41 : In	10yr-6hr-10%	0	13411	0	0	0	0	13411	0	100.00
PC-N41 : Out		0	0	0	0	0	0			
PC-N41 : In	25yr-24hr-90%	0	32186	0	0	0	0	32186	0	100.00
PC-N41 : Out		0	0	0	0	0	0			
PC-N41 : In	25yr-6hr-10%	0	17137	0	0	0	0	17137	0	100.00
PC-N41 : Out		0	0	0	0	0	0			

Node: PC-N42

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage	Time to Max Total Inflow	Time to Max Total Outflow

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N42	100yr-24hr-90%	0.00	0.00	0.0000	0.667	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N42	100yr-6hr-10%	0.00	0.00	0.0000	0.747	0.000	0.0	0.0000	0.0000	0.6952	0.0000
PC-N42	10yr-24hr-90%	0.00	0.00	0.0000	0.341	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N42	10yr-6hr-10%	0.00	0.00	0.0000	0.420	0.000	0.0	0.0000	0.0000	0.8527	0.0000
PC-N42	25yr-24hr-90%	0.00	0.00	0.0000	0.459	0.000	0.0	0.0000	0.0000	23.9944	0.0000
PC-N42	25yr-6hr-10%	0.00	0.00	0.0000	0.541	0.000	0.0	0.0000	0.0000	0.7031	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N42 : In	100yr-24hr-90%	0	7739	0	0	0	0	7739	0	100.00
PC-N42 : Out		0	0	0	0	0	0			
PC-N42 : In	100yr-6hr-10%	0	3596	0	0	0	0	3596	0	100.00
PC-N42 : Out		0	0	0	0	0	0			
PC-N42 : In	10yr-24hr-90%	0	3548	0	0	0	0	3548	0	100.00
PC-N42 : Out		0	0	0	0	0	0			
PC-N42 : In	10yr-6hr-10%	0	2012	0	0	0	0	2012	0	100.00
PC-N42 : Out		0	0	0	0	0	0			
PC-N42 : In	25yr-24hr-90%	0	5041	0	0	0	0	5041	0	100.00
PC-N42 : Out		0	0	0	0	0	0			
PC-N42 : In	25yr-6hr-10%	0	2608	0	0	0	0	2608	0	100.00
PC-N42 :		0	0	0	0	0	0			

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
Out										

Node: PC-N43

Scenario: 38701-PC-S
Type: Time/Stage
Base Flow: 0.000 cms
Initial Stage: 0.00 m
Warning Stage: 0.00 m
Boundary Stage:

Comment:

Node Max Conditions w/ Times [38701-PC-S]

Node Name	Sim Name	Warning Stage [m]	Max Stage [m]	Min/Max Delta Stage [m]	Max Total Inflow [cms]	Max Total Outflow [cms]	Max Surface Area [m2]	Time to Max Stage [hr]	Time to Min/Max Delta Stage [hr]	Time to Max Total Inflow [hr]	Time to Max Total Outflow [hr]
PC-N43	100yr-24hr-90%	0.00	0.00	0.0000	10.128	0.000	0.0	0.0000	0.0000	24.2527	0.0000
PC-N43	100yr-6hr-10%	0.00	0.00	0.0000	10.327	0.000	0.0	0.0000	0.0000	1.6527	0.0000
PC-N43	10yr-24hr-90%	0.00	0.00	0.0000	5.166	0.000	0.0	0.0000	0.0000	24.2527	0.0000
PC-N43	10yr-6hr-10%	0.00	0.00	0.0000	5.945	0.000	0.0	0.0000	0.0000	1.7194	0.0000
PC-N43	25yr-24hr-90%	0.00	0.00	0.0000	6.966	0.000	0.0	0.0000	0.0000	24.2527	0.0000
PC-N43	25yr-6hr-10%	0.00	0.00	0.0000	7.601	0.000	0.0	0.0000	0.0000	1.6861	0.0000

Node Mass Balance Detailed [38701-PC-S]

Node Name	Sim Name	Total Base [m3]	Total Basin [m3]	Total External [m3]	Total Seepage [m3]	Total Irrigation [m3]	Total Link [m3]	Stored (Flow Based) [m3]	Stored (Geo Based) [m3]	% Error Inflow
PC-N43 : In	100yr-24 hr-90%	0	141675	0	0	0	0	141675	0	100.00
PC-N43 : Out		0	0	0	0	0	0			
PC-N43 : In	100yr-6h r-10%	0	67019	0	0	0	0	67019	0	100.00
PC-N43 : Out		0	0	0	0	0	0			
PC-N43 : In	10yr-24h r-90%	0	66157	0	0	0	0	66157	0	100.00
PC-N43 : Out		0	0	0	0	0	0			
PC-N43 : In	10yr-6hr-10%	0	38220	0	0	0	0	38220	0	100.00
PC-N43 : Out		0	0	0	0	0	0			
PC-N43 : In	25yr-24h r-90%	0	93122	0	0	0	0	93122	0	100.00
PC-N43 : Out		0	0	0	0	0	0			
PC-N43 : In	25yr-6hr-10%	0	49081	0	0	0	0	49081	0	100.00
PC-N43 : Out		0	0	0	0	0	0			

ANEJOS DECLARACIÓN IMPACTO AMBIENTAL

ESENCIA, BOQUERÓN, CABO ROJO

Anejo 5a
Traducción de Cortesía
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Análisis Preliminar de Gestión de Aguas de Tormenta Para Desarrollo Esencia Cabo Rojo, PR

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17 de mayo de 2024

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LISTA DE ABREVIATURAS

ABFE	Elevación aconsejada de la inundación de la
BFE	base (mapa) Elevación de la inundación de la
BLE	base
DEM	Modelo digital de
DNER	elevación del nivel de
EC	base
FEMA	Departamento de Recursos Naturales y Medioambientales Estado
FIRM	actual
HEC-RAS	Mapa de tasas de seguro contra
ICPR	inundaciones de la Agencia Federal de
LiMWA	Gestión de Emergencias
MoWA	Centro de Ingeniería Hidrológica - Sistema de Análisis Fluvial
MSL	Recorrido de canales y estanques interconectados
NOAA	Límite de la acción moderada del oleaje
PRPB	Acción moderada del oleaje
USACE	Nivel medio del mar
USGS	Administración Nacional Oceánica y Atmosférica Junta
WSE	de Planificación de Puerto Rico
	Cuerpo de Ingenieros del Ejército de
	los Estados Unidos Servicio Geológico
	de los Estados Unidos Elevación de la
	superficie del agua

1 INTRODUCCIÓN

Este Estudio de Manejo de Aguas Pluviales (SWM, por sus siglas en inglés) presenta el análisis hidrológico para un desarrollo turístico y residencial propuesto en el Barrio Boquerón en Cabo Rojo, Puerto Rico. **El Apéndice** A provee una vista aérea de la localización del proyecto.

Para garantizar un diseño respetuoso con el medio ambiente, es necesario un análisis hidrológico que evalúe el caudal máximo y el volumen de la escorrentía superficial en condiciones previas y posteriores a la urbanización.

Alvarez-Díaz & Villalón (AD&V) contrató los servicios de PMG & Associates, LLC (PMG) para realizar un estudio de Manejo de Aguas Pluviales para evaluar las condiciones hidrológicas existentes en la propiedad del Proyecto.

1.1 Propósito de este estudio

El propósito de este estudio es estimar el volumen de escorrentía pluvial y los caudales máximos generados dentro del área del proyecto propuesto, incluyendo las contribuciones de aguas pluviales fuera del sitio, y las propiedades vecinas que reciben aguas pluviales aguas abajo del sitio del Proyecto.

Este estudio fue preparado siguiendo las recomendaciones del documento preparado por el Departamento de Recursos Naturales y Ambientales (DRNA) y la Junta de Planificación de Puerto Rico (JPLR) titulado "Guías para la Elaboración de Estudios Hidrológicos- Hidráulicos" (junio 2016) y puede ser considerado como un análisis preliminar de manejo de aguas pluviales para planificar el diseño de aguas pluviales en cumplimiento con el Reglamento Num. 40 "Reglamento para el Diseño, Criterios de Operación y Mantenimiento para Sistemas de Alcantarillados Pluviales de Puerto Rico".

Este estudio también consideró el Plan Maestro de Manejo de Recursos Costeros de Cabo Rojo (Nov. 2023) y los efectos de fuente puntual que el proyecto propuesto pudiera tener sobre los recursos costeros que reciben el exceso de escorrentía de las aguas pluviales del proyecto.

1.2 Alcance del trabajo

El ámbito de trabajo del estudio es recopilar los datos hidrológicos necesarios para determinar la descarga de escorrentía antes del desarrollo del Proyecto. Las siguientes tareas forman parte de este estudio para cumplir con el alcance del trabajo:

- Recopilar y evaluar los datos necesarios para realizar el análisis hidrológico.
- Delineación de las cuencas hidrográficas y determinación del patrón de flujo dentro de la zona de desarrollo propuesta.
- Evaluar la clasificación hidrológica de los suelos y los usos del suelo de las cuencas estudiadas.
- Determinación y asignación de los valores de precipitación para todas las cuencas hidrográficas.
- Cálculo de parámetros hidrológicos: Tiempo de concentración y Número de Curva (CN) del Servicio de Conservación de Recursos Naturales (NRCS).
- Desarrollar un modelo de simulación hidrológica para determinar el caudal máximo generado por tormentas con periodos de recurrencia de 10, 25 y 100 años en condiciones previas y posteriores a la urbanización.

2 DESCRIPCIÓN DEL ESTUDIO AREA

2.1 Proyecto Ubicación

El Proyecto propuesto está localizado cerca de la Bahía de Boquerón, Carreteras Estatales PR-301 y PR- 3301, en el Municipio de Cabo Rojo. El área del proyecto limita al norte y oeste con el Mar Caribe y el Caño Boquerón, al este con la carretera PR-301 y el sector Llanos Costa, y al sur con la carretera PR-3301 y el sector El Combate. **El Apéndice** B muestra la localización del Proyecto sobre los Cuadrángulos Topográficos del Servicio Geológico de los Estados Unidos (USGS) de Puerto Real y Cabo Rojo.

2.2 Descripción del proyecto

El emplazamiento del proyecto está actualmente sin urbanizar y su cubierta vegetal consiste principalmente en una combinación de árboles de densidad media, matorrales y hierbas.

El Proyecto propuesto es un residencial y turístico. **El Apéndice** C muestra el plano esquemático del emplazamiento del Proyecto.

2.3 Existente Topografía

La topografía existente en el emplazamiento del proyecto y las zonas circundantes sigue un patrón de drenaje mayoritariamente hacia el norte, con pequeñas porciones de la zona sur que drenan hacia el sur.

La topografía de la propiedad oscila entre el nivel del mar y los 106 metros (nivel medio del mar, NMM). Los "Peñones de Melones" son una formación montañosa con las mayores elevaciones dentro del área del proyecto. **El Apéndice** D muestra los planos topográficos preparados por el agrimensor profesional José E. Bidot (Lic. 12972).

Los datos topográficos de la NOAA, USGS Lidar: Post Hurricane Maria for Puerto Rico (2018), se utilizaron para desarrollar los contornos topográficos solo para fines de delineación de cuencas hidrográficas fuera de los límites del proyecto.

2.4 Cuerpos de agua existentes

Según el cuadrángulo topográfico del USGS de Puerto Real y Cabo , algunos cursos de agua intermitentes fluyen hacia las zonas norte y sur del Sitio del Proyecto. Los cursos de agua de la zona norte descargan hacia el mar y el Caño Boquerón. Los cursos de agua de la zona sur descargan hacia el interior Caño Boquerón.

La escorrentía superficial de las aguas pluviales fluye por tierra hacia gullas de drenaje con pendientes de pronunciadas a suaves hasta alcanzar la franja costera, donde se extiende antes de desaguar en la línea de costa sin un cauce bien definido.

Una evaluación realizada por Ambienta Inc. ha determinado que estos cursos de agua que actúan como zonas de recogida de drenaje no cumplen los criterios del WOTUS para su clasificación como aguas intermitentes o relativamente permanentes. La evaluación determinó que estas zonas carecen de algunas de las características ecológicas de un arroyo, como un caudal continuo o incluso estacional, y sólo recogen agua durante los episodios de lluvias intensas. En consecuencia, se clasifican como no jurisdiccionales en virtud de la Ley de Aguas Limpias y la definición actual de Aguas de Estados Unidos (WOTUS) según la Norma de Conformidad WOTUS de 2023, identificándose como elementos efímeros. **El Apéndice** E muestra los cursos de agua existentes sobre una foto aérea.

2.5 Estudios de inundaciones cerca de la zona del proyecto

2.5.1 Estudio de seguro contra inundaciones (FIS)

Según el panel 72000C1540J, 72000C1545J, 72000C1905J y 72000C1910J del Mapa de Tasas de Seguro contra Inundaciones (FIRM) de la FEMA (18 de noviembre de 2009), se identifican las siguientes zonas de inundación dentro de los límites del Sitio General del Proyecto: Zona VE Zona de inundación costera con peligro de velocidad "acción de las olas" con Elevaciones de Inundación Base Determinadas, Zona AE Inundación de probabilidad anual del 1,0 por ciento con Elevaciones de Inundación Base Determinadas y Zona X fuera de la inundación de probabilidad anual del 0,2 por ciento.

2.5.2 *Mapas consultivos de elevación de la base de inundación de la FEMA (ABFEs)*

Después del huracán María, FEMA desarrolló los mapas de Puerto Rico Advisory Base Flood Elevations (ABFE), que proporcionan información sobre las elevaciones de inundación base (BFE), y las llanuras de inundación revisadas con probabilidad anual de ocurrencia de 1% y 0,2% en Puerto . Los ABFE pretenden ser una herramienta para las comunidades para ayudar a la recuperación de Puerto Rico y hacerlas más resilientes. Estos nuevos mapas fueron desarrollados para propósitos de diseño con datos limitados considerando una metodología llamada Ingeniería de Nivel Base (BLE, por sus siglas en inglés). El PRPB adoptó los mapas ABFE como un criterio de diseño reglamentario para el Desarrollo. **El Apéndice** F muestra los límites del Sitio del Proyecto sobre el FIRM09 de FEMA y los Mapas de Inundación ABFE; y una copia del documento de Determinación de Inundación del PRPB para el Sitio Oeste.

2.5.3 *Zona de inundación reglamentaria Clasificación*

Según la ABFE, los límites generales del emplazamiento del proyecto se clasifican como Zona AE, Zona VE, Zona costera A, Zona X 0,2pct ACF, y la mayor parte del emplazamiento del proyecto se encuentra fuera de la inundación de probabilidad anual del 0,2% "500-yr".

Las elevaciones reglamentarias de la inundación base cerca del proyecto propuesto resultan de la llanura aluvial del 1 por ciento de acción moderada de las olas (MoWA) para las zonas costeras. En el emplazamiento del Proyecto, las elevaciones reglamentarias de la inundación base del 1 por ciento oscilan aproximadamente entre 3,8 y 4,7 metros en los límites de la costa (Zona VE), entre 3,5 y 3,8 metros dentro de la Zona Costera A (30 a 90 metros tierra adentro medidos desde el límite costero, al noreste de las áreas poco profundas límite del Proyecto), y entre 3,1 y 3,8 metros (Zona AE, 0 a 90 metros tierra adentro medidos desde la línea costera o, donde corresponda, el Límite de Acción Moderada de las Olas "LiMWA").

3 GESTIÓN DE LAS AGUAS PLUVIALES ANÁLISIS

Este estudio es necesario para gestionar el escurrimiento local generado por la propiedad en estudio y el escurrimiento proveniente de áreas externas al Proyecto. En esta primera etapa, se definen las características actuales en el área de estudio, lo que define la condición existente, para calcular el escurrimiento generado en los cursos de agua. En las secciones siguientes se describe el análisis de la gestión de las aguas pluviales.

3.1 Análisis hidrológico Metodología

La simulación hidrológica realizada en este estudio sigue la metodología desarrollada por el Servicio de Conservación del Suelo (SCS). El modelo computacional utilizado fue el Interconnected Channel and Pond Routing Model (ICPR) desarrollado por Streamlines Technologies. El modelo ICPR estima la escorrentía superficial de cualquier tormenta sintética o natural. Las precipitaciones se transforman en escorrentía mediante el método del hidrograma unitario. Como resultado, el modelo calcula el caudal de descarga máxima a la salida de cada subárea (subcuenca).

3.2 Datos sobre tormentas de diseño y precipitaciones

Este análisis de estudio utiliza los datos de precipitación para periodos de retorno de 10, 25 y 100 años y duraciones de 6, 12 y 24 horas. La fuente de los datos de tormentas fue el Atlas de Frecuencia de Precipitación (Atlas 14), Volumen 3 Versión 4.0 para Puerto Rico y las Islas Vírgenes de los Estados Unidos, publicado por la Administración Nacional Oceánica y Atmosférica (NOAA). La Tabla 3-1 muestra los valores promedio de precipitación del Atlas 14 para el centroide del área de estudio en las coordenadas 17.9973°N y 67.^{187oW}. **El Apéndice** G muestra el informe de estimaciones de frecuencia de precipitaciones puntuales del Atlas 14 de la NOAA.

Tabla 3-1. Valores medios de las precipitaciones para diferentes periodos de retorno.

Duración (horas)	Profundidad de la precipitación (mm) Recurrencia		
	10 años	25 años	100 años
6	129	155	197
12	157	201	277
24	195	257	367

3.3 Cuenca hidrográfica Descripción

A efectos de identificación de la cuenca hidrográfica, el emplazamiento del proyecto y sus áreas contribuyentes se dividen en dos zonas principales: la Zona Norte y la Zona Sur. Esta clasificación se basa en la dirección del flujo de los cursos de agua identificados para el análisis de escorrentía. Los cursos de agua de la zona norte descargan hacia el mar y el Caño Boquerón. Los cursos de agua de la zona sur descargan hacia el interior Caño Boquerón.

El primer paso del análisis de las aguas pluviales es delimitar las zonas de drenaje del proyecto. El nombre de la cuenca está relacionado con la dirección del patrón de descarga y la ubicación del emplazamiento del proyecto: las cuencas del emplazamiento norte (BN) y las cuencas del emplazamiento sur (BS). En este estudio se han identificado cuarenta y nueve cuencas generales dentro del área del proyecto. **El Apéndice** H muestra el mapa de límites de la cuenca sobre el mapa de contorno topográfico generado utilizando el NOAA LiDAR/DEM (2018).

3.3.1 Terreno Cubierta

La cobertura del suelo para las cuencas estudiadas en la Condición Existente corresponde a la clasificación de cobertura del suelo y relaciones CN del Documento Técnico TR-55 del NRCS (NRCS, 1986). Se identificaron los siguientes tipos de uso del suelo dentro del área de estudio: Áreas principalmente boscosas combinadas con pastizales, mezcla de maleza y pasto, suelos desnudos y caminos de tierra. **El Apéndice** I muestra el mapa de la cubierta terrestre para el área de estudio de las Condiciones Existentes (EC).

3.3.2 Suelo Tipo

Los tipos de suelo para el área de estudio fueron publicados en el NRCS Soils Survey for the Cabo Rojo Area. Los tipos de suelo encontrados dentro de las cuencas delimitadas son principalmente Altamira gravelly clay (45.56% del área total de las cuencas estudiadas), Guayacán clay, Casabe clay, Melones clay, Fraternidad clay, complejo Bermeja-Cerro Mariquita, entre otros. Las cuencas estudiadas tienen un grupo hidrológico de suelo predominante de Tipo D (95.01%) además de tener los grupos hidrológicos de suelo C (3.99%) y D (0.92%). **En el Apéndice** J se muestra el mapa de tipos de suelo del área de estudio y un informe de suelos con la composición edáfica del área del proyecto.

3.3.3 Curva de escorrentía Número

El método de estimación de la escorrentía de la NRCS implica el cálculo de un número de curva de escorrentía (CN). Este número corresponde a las relaciones hidrológicas suelo-cubierta y a los usos del suelo. Los principales factores que determinan el CN son el grupo hidrológico del suelo, el tipo de cubierta y la condición de humedad antecedente (AMC).

Los valores de las condiciones existentes de CN se obtuvieron de tablas preparadas por el NRCS para el Caribe y se ponderaron según el tipo de suelo y el porcentaje de área de uso de la tierra en cada subcuenca.

Las características de los suelos de la zona de estudio se identificaron utilizando mapas de suelos. El Servicio de Conservación de Suelos Naturales (NRCS) del Departamento de Agricultura de los Estados Unidos ha publicado mapas de suelos y clasificado los suelos en función de sus características hidrológicas.

La fotografía aérea y los planos del lugar ayudan a determinar las condiciones existentes y propuestas de la cubierta terrestre para las cuencas estudiadas. Los valores de CN de escorrentía se determinaron utilizando la información proporcionada en el Mapa de Suelos y el Mapa de Cobertura del Suelo, combinados con las tablas de CN del NRCS para la Condición de Humedad Antecedente II (AMC II). **El Apéndice** K muestra los mapas de CN para cada cuenca para la Condición Existente (EC).

3.3.4 Hora de Concentración

El tiempo de concentración (Tc) se estimó utilizando el método comúnmente conocido como método de la cuenca hidrográfica (Watershed Lag Method). Esta ecuación fue desarrollada por el NRCS utilizando 24 cuencas hidrográficas de los Estados Unidos. Proporciona resultados razonables para áreas de cuencas de hasta 19 millas cuadradas (12.160 ac).

La ecuación de Lag es la siguiente,

$$(T)\ (c) \frac{100 \times L^{(0)\,8[}(1000/IN) - 9]^{07}}{1900 \times SO5}$$

Dónde:

Tc= Tiempo de concentración (minutos), a6 minutos (PRPR Reg. No.40) L=

Longitud del caudal de la cuenca (pies)

S = Pendiente de la cuenca

(%) CN = Número de curva

La Tabla 3-2 y la Tabla 3-3 resumen los parámetros hidrológicos de las cuencas consideradas en este estudio. **El Apéndice** M incluye las propiedades hidrológicas y los cálculos para estimar el Tc para las cuencas estudiadas en Condición Existente.

Tabla 3-2. Propiedades hidrológicas de las cuencas para las cuencas EC - Norte

Identificación de la cuenca	Superficie (ha)	CN	**Longitud Flujo** Trayectoria (metros)	Pendiente °/"	Tc (min)
BN01	4.54	77	233.76	18.94	6.5
BN02	2.72	77	265.89	26.25	6.1
BN03	5.57	77	278.25	29.01	6.0
BN04	5.70	79	510.03	22.94	10.3
BN05	20.02	81	666.54	11.87	16.6
BN06	23.36	82	958.07	15.96	18.5
BN07	17.03	83	929.53	15.27	18.3
BN08A	16.49	83	870.67	20.87	14.8
BN08B	1.23	54	193.89	3.75	23.3

BN09A	5.53	80	394.57	9.48	12.5
BN09B	1.40	57	212.97	2.16	30.2
BN10A	5.72	83	253.11	21.05	6.0
BN10B	1.33	47	168.74	2.47	30.0
BN11A	3.54	84	138.17	14.56	6.0
BN11B	1.09	49	132.59	2.70	22.5
BN11C	14.98	84	704.70	23.06	11.3
BN11D	1.65	57	183.74	2.45	25.2
BN12A	14.81	82	733.53	24.35	12.2
BN12B	0.77	73	121.36	2.83	11.1
BN13A	15.65	82	795.17	23.34	13.3
BN13B	1.76	73	225.17	2.01	21.4
BN13C	50.60	83	1461.53	29.03	19.1
BN13D	1.81	74	256.00	1.58	26.4
BN14	3.62	80	319.52	4.14	16.0
BN15	5.76	83	395.58	15.23	9.2
BN16	19.62	83	646.51	28.75	9.9
BN17	16.85	82	608.99	30.74	9.4
BN18	8.49	82	541.82	30.75	8.6
BN19	26.43	81	891.41	19.54	16.6
BN20	58.42	82	1396.78	20.63	22.0
BN21	8.10	84	415.80	9.93	11.3
BN22	27.75	83	1057.83	13.66	20.9
BN23	66.78	84	952.38	13.23	19.1
BN43	44.93	84	1020.70	1.13	68.8
Total	504.06				

Tabla 3-3. Propiedades hidrológicas de las cuencas CE - Sur

Identificación de la cuenca	Superficie (ha)	CN	**Longitud Flujo Trayectoria (metros)**	Pendiente °/"	Tc (min)
BS24	4.78	84	323.37	12.27	8.3
BS25	7.47	84	460.50	12.20	11.1
BS26	1.78	83	64.52	23.92	6.0
BS27	2.76	82	129.88	26.76	6.0
BS28	3.71	82	191.35	28.68	6.0
BS29A	16.83	82	645.39	18.86	12.5
BS29B	3.65	82	243.46	20.52	6.0
BS29C	5.34	82	309.57	15.08	7.8
BS30	4.74	82	198.47	21.70	6.0

BS31	4.36	82	231.56	20.63	6.0
BS32	1.84	83	115.10	17.79	6.0
BS33	1.73	83	76.42	6.26	6.0
BS34	2.88	83	95.30	5.62	6.0
BS35	51.16	82	1372.17	11.95	28.5
BS36A	10.84	82	444.87	21.53	8.7
BS36B	0.70	82	78.68	12.90	6.0
BS36C	1.59	82	21.96	17.70	6.0
BS36D	25.29	82	869.14	9.43	22.4
BS37A	10.38	82	537.97	20.01	10.2
BS37B	20.16	83	537.97	20.01	10.2
BS37C	7.69	82	209.19	21.32	6.0
BS38	3.60	82	121.60	19.51	6.0
BS39	3.00	83	110.46	15.63	6.0
BS40	1.42	82	585.98	15.49	12.5
BS41	15.12	83	585.98	15.49	12.5
BS42	2.51	79	259.03	16.95	7.0
Total	215.33				

3.4 Simulación hidrológica

El modelo informático hidrológico utilizado para este estudio fue el Interconnected Channel and Pond Routing Model (ICPR) v4.07.08, con licencia de Streamlines Technologies. Las simulaciones hidrológicas realizadas incluyeron tormentas con periodos de retorno de 10, 25 y 100 años, y una duración de 6, 12 y 24 horas. Las simulaciones se basaron en el método del hidrograma unitario sin dimensiones SCS.

La configuración de la ICPR para EC y PC requiere cuencas, nodos y enlaces para completar el proceso de simulación. Las cuencas ICPR (mostradas en gris en la Figura 3-1 a la Figura 3-7) representan las cuencas donde un evento de tormenta genera escorrentía. Las cuencas de la ICPR se conectan a los nodos (puntos rojos). Los nodos de la ICPR reciben la escorrentía generada por las cuencas conectadas a los enlaces. Los nodos pueden incluir datos de etapa-área si se espera o se requiere almacenamiento de escorrentía.

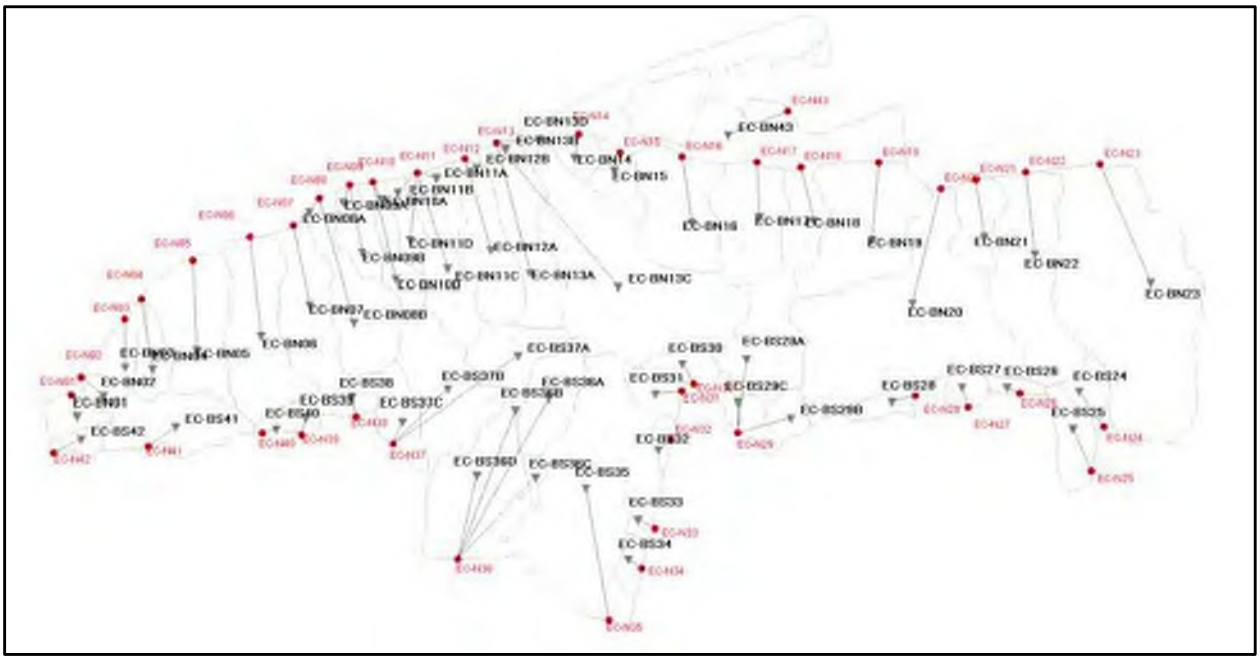

Figura 3-1. Configuración del modelo ICPR en condiciones existentes.

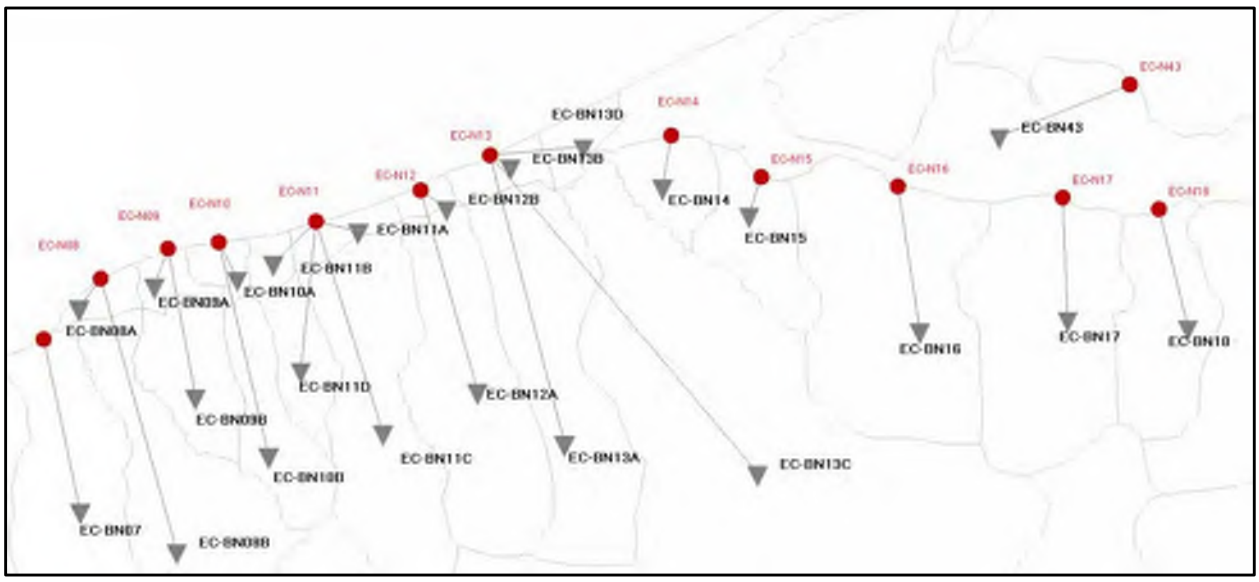

Figura 3-2. Configuración del Modelo ICPR bajo Condiciones Existentes - detalles de interconexión Cuencas Norte (BN07-BN18).

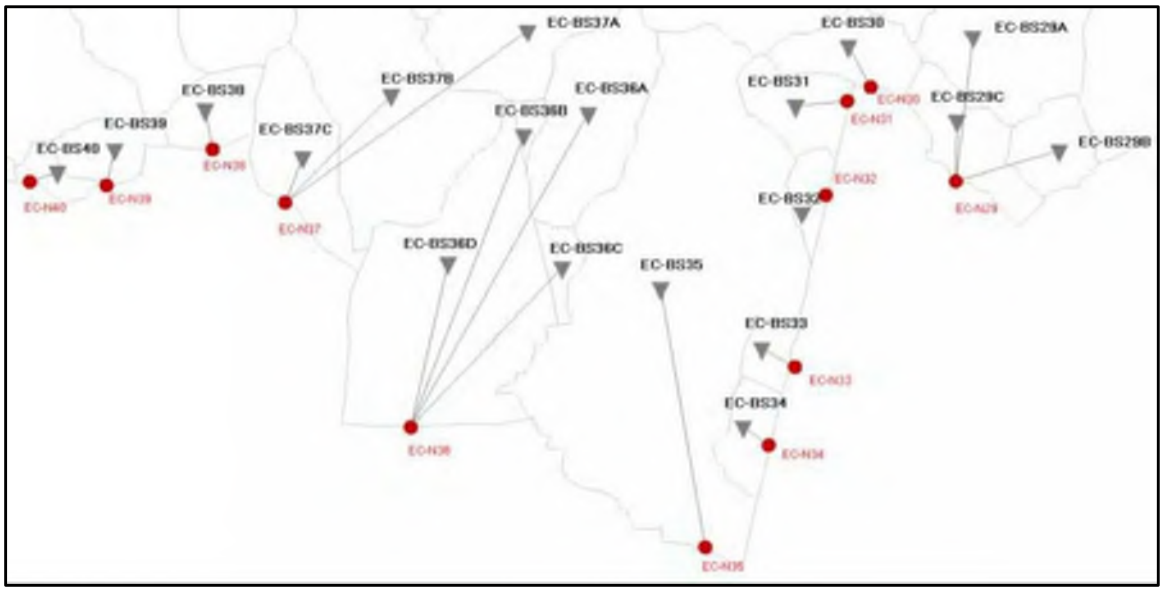

Figura 3-3. Configuración del Modelo ICPR bajo Condiciones Existentes - detalles de interconexión Cuencas Sur (BS29B-BS40).

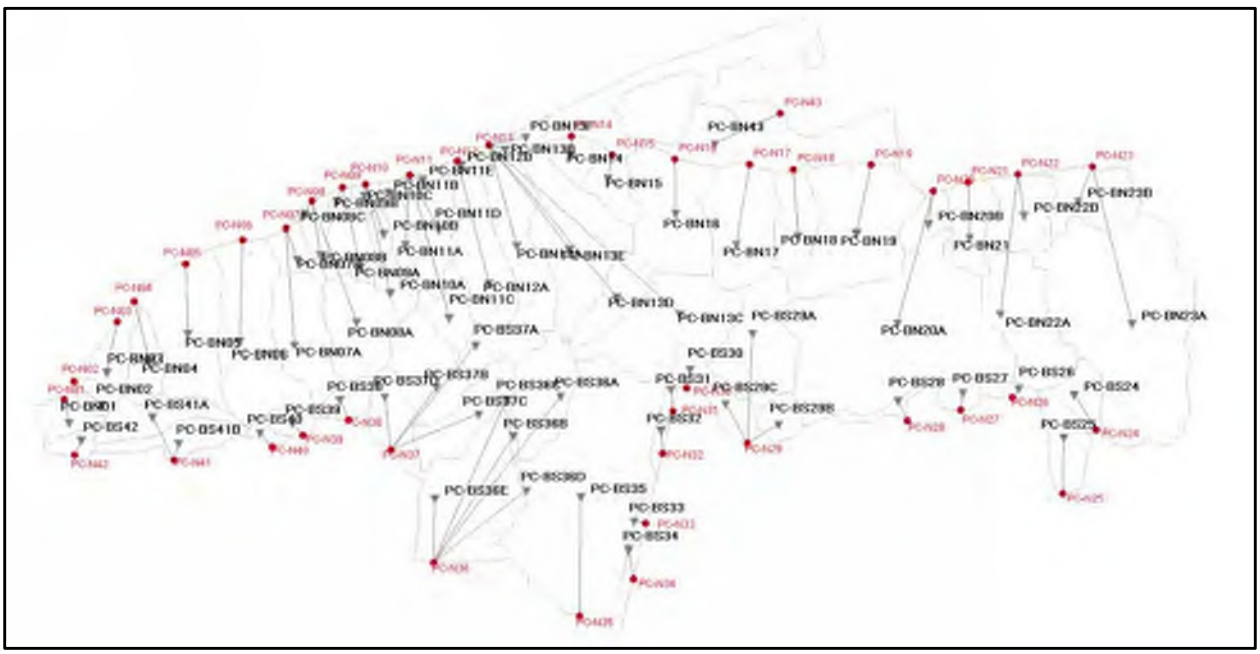

Figura 3-4. Configuración del modelo ICPR en las condiciones propuestas.

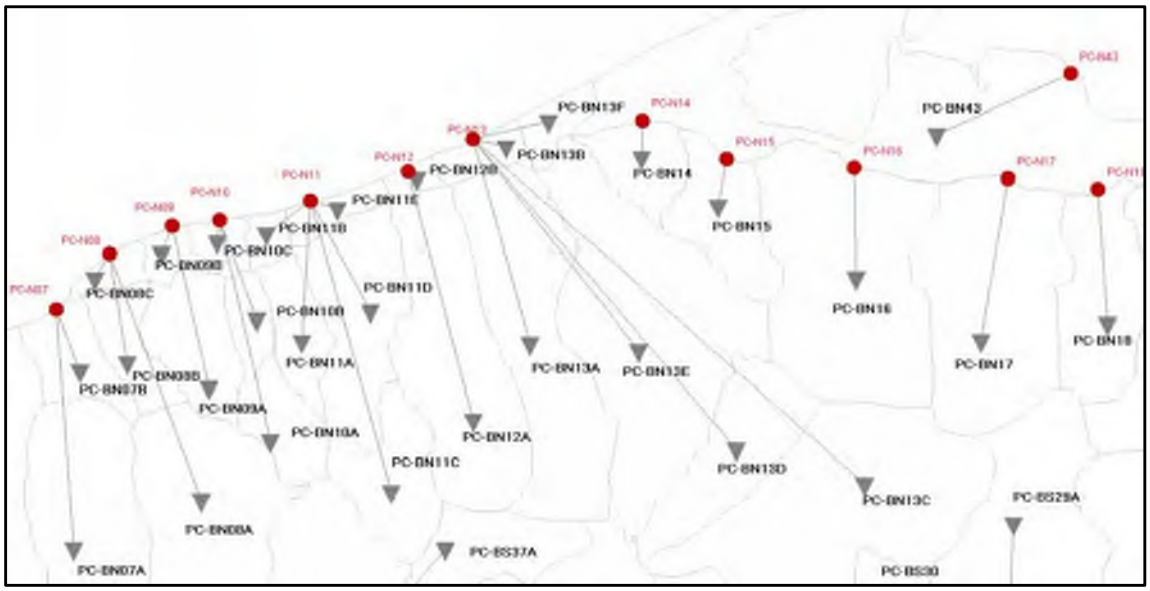

Figura 3-5. Configuración del Modelo ICPR bajo Condiciones Propuestas - detalles de interconexión Cuencas Norte (BN07-BN18).

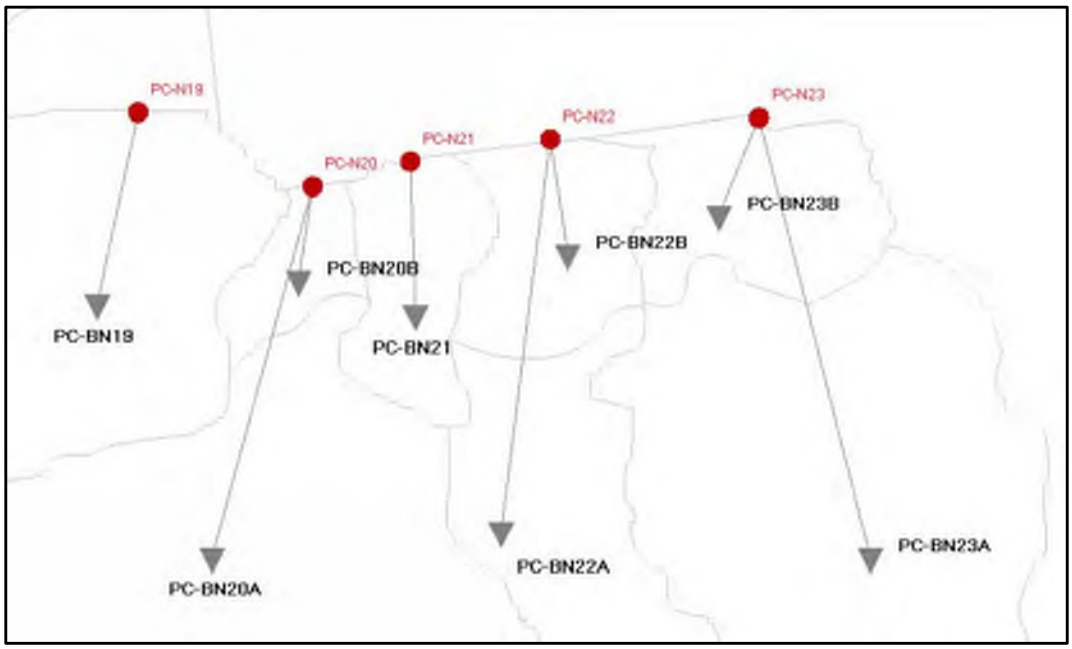

Figura 3-6. Configuración del modelo ICPR bajo condiciones propuestas - detalles de interconexión Cuencas Norte (BN19-BN23B).

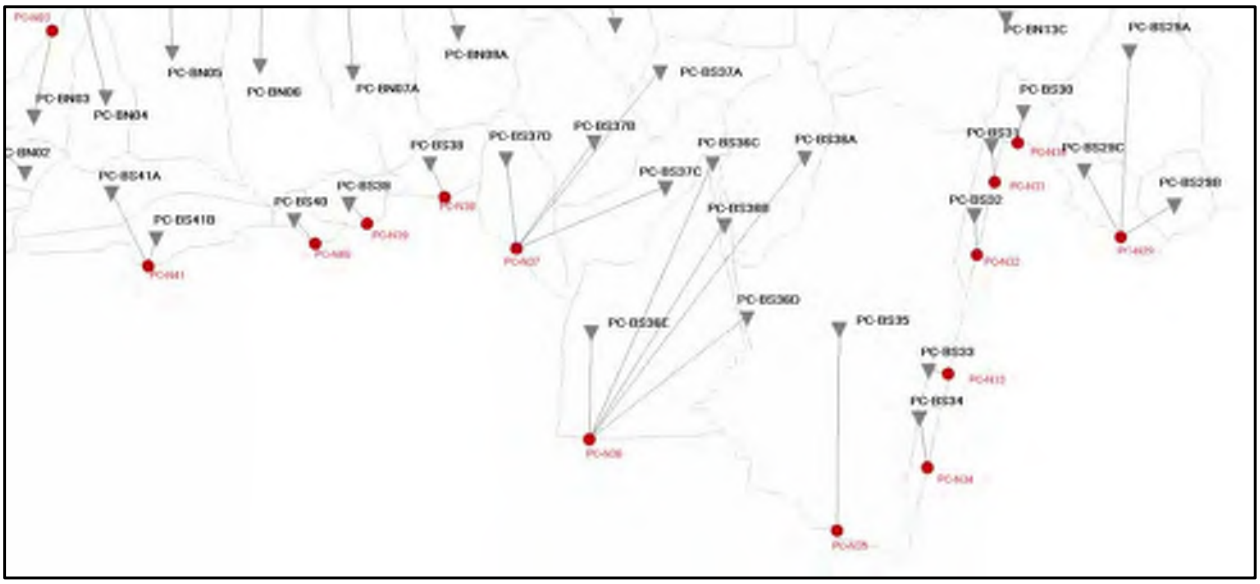

Figura 3-7. Configuración del modelo ICPR en las condiciones propuestas - Detalles de interconexión Cuencas Sur (BS29B-BS41B).

3.4.1 Estado actual (EC)

En el modelo ICPR, los nodos reciben la descarga de las cuencas y calculan la suma de los hidrogramas conectados en el mismo nodo. En este primer análisis, la relación cuenca-nodo es uno a uno para la Condición Existente ya que cada nodo recibe una sola cuenca. Aunque la descarga de cada cuenca se computa en un único punto (nodo), eso no representa necesariamente una descarga puntual (descarga concentrada), y normalmente las descargas en el norte son flujos laminares (descarga superficial distribuida linealmente) en la salida de la cuenca. Las descargas hacia la zona norte, es decir, las descargas hacia la zona costera y los manglares, se considerarán descargas distribuidas.

Basándose en la información recopilada (foto aérea y curvas topográficas) y verificada con el cuadrángulo topográfico de Puerto Real, existen tres estanques dentro del emplazamiento del proyecto; estos estanques existentes no se modelaron y se asumieron como corrientes continuas a efectos de simulación. Esta suposición es un enfoque conservador.

En las condiciones existentes (CE), había un total de cuarenta y tres (43) emisarios de aguas pluviales en la zona de estudio, divididos entre los situados al norte (24) y los situados al sur (24).
(19) del emplazamiento del proyecto.

Para cumplir con la normativa vigente, la descarga pico de escorrentía en estos Nodos de Salida en la Condición Propuesta (CP) deberá ser igual o menor que la Condición Existente (CE) y será materia de análisis posterior.

3.4.1.1 Determinación de la tormenta de diseño Event

El Reglamento n.º 40 del PRPB exige una ejecución inicial del modelo informático para determinar la simulación que genera el caudal de salida máximo para el intervalo de recurrencias de 10, 25 y 100 años, también conocido como "evento de tormenta de diseño". Por lo tanto, este análisis establece qué duración del evento de lluvia (6, 12, y 24-hr) y percentil (10^{th}y 90^{th}) genera el valor pico máximo para cada tormenta de recurrencias simuladas, siguiendo las recomendaciones de las "Guías para la preparación de Estudios HH, (2016)" del DRNA. El caudal pico de "evento de diseño" para cada recurrencia (10, 25 y 100 años) se define como la simulación que produce el caudal pico máximo resultante de seis (6) simulaciones diferentes (3 duraciones por 2 percentiles) en la Condición Existente en cada nodo de salida. El "evento de diseño" determina qué simulación prevalece para el análisis posterior de la Condición Propuesta para cada Cuenca.

3.4.1.2 Resumen de resultados de EC

Los resultados del análisis de la cuenca para las Condiciones Existentes establecen el objetivo para comparar con los resultados de las Condiciones Propuestas y determinar si se produce un aumento de la escorrentía en alguna salida aguas abajo. La Tabla 3-4 muestra el resumen de caudales máximos para todas las salidas aguas abajo (NODES) bajo condiciones existentes. La Tabla 3-5 muestra el resumen de los caudales máximos de todas las cuencas en las condiciones existentes. **El Apéndice** N muestra los resultados del modelo computacional y los parámetros para el modelo ICPR en Condiciones Existentes.

Tabla 3-4. Resultados resumidos del flujo de nodos para EC.

Cuencas	Nodos	Máx. **Caudal** total l ^ /s]	Simulación	Máx. Caudal total **[m^3/s]**	Simulación	Máx. Caudal total l ^ /s]	Simulación
BN01	N01	0.658	10yr-6hr-10%	0.866	25yr-6hr-10%	1.211	100yr-6hr-10%
BN02	N02	0.394	10yr-6hr-10%	0.518	25yr-6hr-10%	0.724	100yr-6hr-10%
BN03	N03	0.807	10yr-6hr-10%	1.063	25yr-6hr-10%	1.483	100yr-6hr-10%
BN04	N04	0.865	10yr-6hr-10%	1.130	25yr-6hr-10%	1.567	100yr-6hr-10%
BN05	N05	3.155	10yr-6hr-10%	4.094	25yr-6hr-10%	5.652	100yr-6hr-10%
BN06	N06	3.760	10yr-6hr-10%	4.858	25yr-6hr-10%	6.675	100yr-6hr-10%
BN07	N07	2.823	10yr-6hr-10%	3.632	25yr-6hr-10%	4.966	100yr-6hr-10%
BN08A, BN08B	N08	2.801	10yr-6hr-10%	3.617	25yr-6hr-10%	4.967	100yr-6hr-10%
BN09A, BN09B	N09	0.895	10yr-6hr-10%	1.189	25yr-24hr-90%	1.763	100yr-24hr-90%
BN10A, BN10B	N10	0.983	10yr-6hr-10%	1.266	25yr-6hr-10%	1.773	100yr-24hr-90%
BN11A, BN11B, BN11C, BN11D	N11	3.278	10yr-6hr-10%	4.218	25yr-6hr-10%	5.772	100yr-6hr-10%
BN12A, BN12B	N12	2.534	10yr-6hr-10%	3.271	25yr-6hr-10%	4.495	100yr-6hr-10%
BN13A, BN13B, BN13C, BN13D	N13	11.310	10yr-6hr-10%	14.592	25yr-6hr-10%	20.016	100yr-6hr-10%
BN14	N14	0.555	10yr-6hr-10%	0.723	25yr-6hr-10%	1.003	100yr-6hr-10%
BN15	N15	0.983	10yr-6hr-10%	1.259	25yr-6hr-10%	1.732	100yr-6hr-10%
BN16	N16	3.344	10yr-6hr-10%	4.279	25yr-6hr-10%	5.887	100yr-6hr-10%
BN17	N17	2.797	10yr-6hr-10%	3.595	25yr-6hr-10%	4.959	100yr-6hr-10%
BN18	N18	1.411	10yr-6hr-10%	1.812	25yr-6hr-10%	2.504	100yr-6hr-10%
BN19	N19	4.165	10yr-6hr-10%	5.405	25yr-6hr-10%	7.461	100yr-6hr-10%
BN20	N20	9.284	10yr-6hr-10%	11.983	25yr-6hr-10%	16.464	100yr-6hr-10%
BN21	N21	1.411	10yr-6hr-10%	1.802	25yr-6hr-10%	2.465	100yr-6hr-10%
BN22	N22	4.554	10yr-6hr-10%	5.856	25yr-6hr-10%	8.008	100yr-6hr-10%
BN23	N23	11.357	10yr-6hr-10%	14.546	25yr-6hr-10%	19.793	100yr-6hr-10%
BS24	N24	0.839	10yr-6hr-10%	1.077	25yr-6hr-10%	1.471	100yr-6hr-10%
BS25	N25	1.303	10yr-6hr-10%	1.663	25yr-6hr-10%	2.275	100yr-6hr-10%
BS26	N26	0.305	10yr-6hr-10%	0.394	25yr-6hr-10%	0.540	100yr-6hr-10%
BS27	N27	0.462	10yr-6hr-10%	0.594	25yr-6hr-10%	0.821	100yr-6hr-10%
BS28	N28	0.620	10yr-6hr-10%	0.799	25yr-6hr-10%	1.104	100yr-6hr-10%
BS29A, BS29B, BS29C	N29	4.258	10yr-6hr-10%	5.488	25yr-6hr-10%	7.512	100yr-6hr-10%
BS30	N30	0.793	10yr-6hr-10%	1.021	25yr-6hr-10%	1.410	100yr-6hr-10%
BS31	N31	0.729	10yr-6hr-10%	0.939	25yr-6hr-10%	1.297	100yr-6hr-10%
BS32	N32	0.316	10yr-6hr-10%	0.407	25yr-6hr-10%	0.558	100yr-6hr-10%

BS33	N33	0.297	10yr-6hr-10%	0.383	25yr-6hr-10%	0.525	100yr-6hr-10%
BS34	N34	0.494	10yr-6hr-10%	0.637	25yr-6hr-10%	0.874	100yr-6hr-10%
BS35	N35	7.901	10yr-6hr-10%	10.191	25yr-6hr-10%	13.989	100yr-6hr-10%
BS36A, BS36B, BS36C, BS36D	N36	6.091	10yr-6hr-10%	7.832	25yr-6hr-10%	10.791	100yr-6hr-10%
BS37A, BS37B, BS37C	N37	6.432	10yr-6hr-10%	8.247	25yr-6hr-10%	11.360	100yr-6hr-10%
BS38	N38	0.602	10yr-6hr-10%	0.775	25yr-6hr-10%	1.071	100yr-6hr-10%
BS39	N39	0.515	10yr-6hr-10%	0.663	25yr-6hr-10%	0.910	100yr-6hr-10%
BS40	N40	0.237	10yr-6hr-10%	0.306	25yr-6hr-10%	0.422	100yr-6hr-10%
BS41	N41	2.559	10yr-6hr-10%	3.283	25yr-6hr-10%	4.492	100yr-6hr-10%
BS42	N42	0.385	10yr-6hr-10%	0.502	25yr-6hr-10%	0.697	100yr-6hr-10%
BN43	N43	5.945	10yr-6hr-10%	7.601	25yr-6hr-10%	10.327	100yr-6hr-10%

Según los caudales punta evaluados en los nudos de salida de la Cuenca hidrográfica, la simulación 6 horas y el percentil 10% producen los valores máximos de caudal punta para todas las cuencas principales estudiadas, excepto para los nudos N09 y N10, cuyos valores máximos en el periodo de retorno de 100 años se obtienen para la simulación de 24 horas y el percentil 90.

Tabla 3-5. Resumen de los resultados de las cuencas para la CE

Cuencas (ICPR Modelo)	**Nodos**	**10 años**		**25 años**		100 años	
		QuAx [m*/s]	**Simulación**	**Quxx** [m*/s]	**Simulación**	**Quxx** [m*/s]	**Simulación**
BN01	N01	0.658	10yr-6hr-10%	0.866	25yr-6hr-10%	1.211	100yr-6hr-10%
BN02	N02	0.394	10yr-6hr-10%	0.519	25yr-6hr-10%	0.724	100yr-6hr-10%
BN03	N03	0.807	10yr-6hr-10%	1.063	25yr-6hr-10%	1.484	100yr-6hr-10%
BN04	N04	0.865	10yr-6hr-10%	1.130	25yr-6hr-10%	1.567	100yr-6hr-10%
BN05	N05	3.155	10yr-6hr-10%	4.094	25yr-6hr-10%	5.652	100yr-6hr-10%
BN06	N06	3.761	10yr-6hr-10%	4.858	25yr-6hr-10%	6.676	100yr-6hr-10%
BN07	N07	2.823	10yr-6hr-10%	3.632	25yr-6hr-10%	4.966	100yr-6hr-10%
BN08A	N08	2.771	10yr-6hr-10%	3.561	25yr-6hr-10%	4.864	100yr-6hr-10%
BN08B	N08	0.066	10yr-6hr-10%	0.100	25yr-6hr-10%	0.163	100yr-6hr-10%
BN09A	N09	0.858	10yr-6hr-10%	1.000	25 años-24 horas-90%.	1.459	100yr-24hr-90%
BN09B	N09	0.085	10yr-6hr-10%	0.192	25 años-24 horas-90%.	0.308	100yr-24hr-90%
BN10A	N10	0.982	10yr-6hr-10%	1.266	25yr-6hr-10%	1.521	100yr-24hr-90%
BN10B	N10	0.043	10yr-6hr-10%	0.071	25yr-6hr-10%	0.256	100yr-24hr-90%

BN11A	N11	0.624	10yr-6hr-10%	0.803	25yr-6hr-10%	1.095	100yr-6hr-10%
BN11B	N11	0.042	10yr-6hr-10%	0.068	25yr-6hr-10%	0.118	100yr-6hr-10%
BN11C	N11	2.611	10yr-6hr-10%	3.333	25yr-6hr-10%	4.558	100yr-6hr-10%
BN11D	N11	0.102	10yr-6hr-10%	0.152	25yr-6hr-10%	0.242	100yr-6hr-10%
BN12A	N12	2.439	10yr-6hr-10%	3.143	25yr-6hr-10%	4.314	100yr-6hr-10%
BN12B	N12	0.096	10yr-6hr-10%	0.129	25yr-6hr-10%	0.186	100yr-6hr-10%
BN13A	N13	2.570	10yr-6hr-10%	3.315	25yr-6hr-10%	4.545	100yr-6hr-10%
BN13B	N13	0.213	10yr-6hr-10%	0.286	25yr-6hr-10%	0.410	100yr-6hr-10%
BN13C	N13	8.369	10yr-6hr-10%	10.767	25yr-6hr-10%	14.723	100yr-6hr-10%
BN13D	N13	0.221	10yr-6hr-10%	0.296	25yr-6hr-10%	0.422	100yr-6hr-10%
BN14	N14	0.555	10yr-6hr-10%	0.723	25yr-6hr-10%	1.003	100yr-6hr-10%
BN15	N15	0.983	10yr-6hr-10%	1.259	25yr-6hr-10%	1.732	100yr-6hr-10%
BN16	N16	3.344	10yr-6hr-10%	4.280	25yr-6hr-10%	5.888	100yr-6hr-10%
BN17	N17	2.797	10yr-6hr-10%	3.595	25yr-6hr-10%	4.959	100yr-6hr-10%
BN18	N18	1.411	10yr-6hr-10%	1.812	25yr-6hr-10%	2.505	100yr-6hr-10%
BN19	N19	4.165	10yr-6hr-10%	5.405	25yr-6hr-10%	7.462	100yr-6hr-10%
BN20	N20	9.284	10yr-6hr-10%	11.984	25yr-6hr-10%	16.465	100yr-6hr-10%
BN21	N21	1.412	10yr-6hr-10%	1.802	25yr-6hr-10%	2.465	100yr-6hr-10%
BN22	N22	4.554	10yr-6hr-10%	5.856	25yr-6hr-10%	8.009	100yr-6hr-10%
BN23	N23	11.357	10yr-6hr-10%	14.546	25yr-6hr-10%	19.794	100yr-6hr-10%
BN43	N43	5.945	10yr-6hr-10%	7.601	25yr-6hr-10%	10.328	100yr-6hr-10%
BS24	N24	0.839	10yr-6hr-10%	1.077	25yr-6hr-10%	1.471	100yr-6hr-10%
BS25	N25	1.303	10yr-6hr-10%	1.664	25yr-6hr-10%	2.275	100yr-6hr-10%
BS26	N26	0.306	10yr-6hr-10%	0.394	25yr-6hr-10%	0.540	100yr-6hr-10%
BS27	N27	0.462	10yr-6hr-10%	0.595	25yr-6hr-10%	0.821	100yr-6hr-10%
BS28	N28	0.621	10yr-6hr-10%	0.800	25yr-6hr-10%	1.104	100yr-6hr-10%
BS29A	N29	2.770	10yr-6hr-10%	3.570	25yr-6hr-10%	4.898	100yr-6hr-10%
BS29B	N29	0.611	10yr-6hr-10%	0.787	25yr-6hr-10%	1.086	100yr-6hr-10%
BS29C	N29	0.890	10yr-6hr-10%	1.143	25yr-6hr-10%	1.580	100yr-6hr-10%
BS30	N30	0.793	10yr-6hr-10%	1.022	25yr-6hr-10%	1.410	100yr-6hr-10%
BS31	N31	0.730	10yr-6hr-10%	0.940	25yr-6hr-10%	1.297	100yr-6hr-10%
BS32	N32	0.316	10yr-6hr-10%	0.407	25yr-6hr-10%	0.558	100yr-6hr-10%
BS33	N33	0.297	10yr-6hr-10%	0.383	25yr-6hr-10%	0.525	100yr-6hr-10%
BS34	N34	0.495	10yr-6hr-10%	0.637	25yr-6hr-10%	0.874	100yr-6hr-10%
BS35	N35	7.902	10yr-6hr-10%	10.191	25yr-6hr-10%	13.990	100yr-6hr-10%
BS36A	N36	0.266	10yr-6hr-10%	0.343	25yr-6hr-10%	0.473	100yr-6hr-10%
BS36B	N36	1.802	10yr-6hr-10%	2.314	25yr-6hr-10%	3.198	100yr-6hr-10%
BS36C	N36	0.117	10yr-6hr-10%	0.151	25yr-6hr-10%	0.208	100yr-6hr-10%
BS36D	N36	4.013	10yr-6hr-10%	5.178	25yr-6hr-10%	7.115	100yr-6hr-10%

BS37A	N37	1.723	10yr-6hr-10%	2.215	25yr-6hr-10%	3.056	100yr-6hr-10%
BS37B	N37	3.430	10yr-6hr-10%	4.390	25yr-6hr-10%	6.037	100yr-6hr-10%
BS37C	N37	1.280	10yr-6hr-10%	1.644	25yr-6hr-10%	2.273	100yr-6hr-10%
BS38	N38	0.602	10yr-6hr-10%	0.776	25yr-6hr-10%	1.071	100yr-6hr-10%
BS39	N39	0.515	10yr-6hr-10%	0.664	25yr-6hr-10%	0.911	100yr-6hr-10%
BS40	N40	0.238	10yr-6hr-10%	0.306	25yr-6hr-10%	0.422	100yr-6hr-10%
BS41	N41	2.559	10yr-6hr-10%	3.283	25yr-6hr-10%	4.492	100yr-6hr-10%
BS42	N42	0.385	10yr-6hr-10%	0.502	25yr-6hr-10%	0.697	100yr-6hr-10%

3.4.2 Condiciones propuestas (PC)

La urbanización propuesta consiste en un proyecto turístico y residencial de usos mixtos. Esto requerirá actividades de movimiento de tierras para proporcionar una nivelación adecuada al desarrollo propuesto. En la mayoría de los casos, la nivelación reducirá la pendiente del caudal, lo que afectará al tiempo de concentración de las cuencas. La cubierta terrestre existente pasará de formada principalmente por césped y arbustos a ser menos permeable, lo que puede dar lugar a un aumento de la escorrentía superficial. Este cambio en la cubierta del suelo se refleja en el número de curva. Sin embargo, la mayor parte del proyecto desaguará en el campo de golf propuesto antes de desembocar en la costa. **El Apéndice** I muestra el mapa de la cubierta terrestre que representa el desarrollo propuesto y el número de curva resultante.

Los parámetros hidrológicos de las cuencas resultantes del desarrollo propuesto se presentan en la Tabla 3-6 y la Tabla 3-7.

Tabla 3-6. Propiedades hidrológicas de las cuencas PC - Norte

Identificación de la cuenca	**Zona** (ha)	CN	**Longitud Flujo** Trayectoria (metros)	Pendiente °/"	Tc (min)
BN01	4.54	82	233.76	18.93	6.0
BN02	2.72	94	265.71	26.26	6.0
BN03	5.57	94	278.25	28.89	6.0
BN04	5.70	92	486.80	23.01	6.2
BN05	20.02	92	666.54	11.86	11.1
BN06	23.36	92	958.07	15.88	12.9
BN07A	13.42	91	725.13	18.11	10.1

BN07B	3.87	93	204.69	5.30	6.2
BN08A	13.49	91	568.59	24.44	7.1
BN08B	3.04	95	301.43	6.63	6.8
BN08C	0.60	85	193.58	4.50	8.8
BN09A	5.90	89	394.57	9.47	9.3
BN09B	2.15	53	209.43	2.17	33.0
BN10A	3.75	86	105.09	27.16	6.0
BN10B	2.02	78	243.33	9.98	8.9
BN10C	1.33	39	156.59	2.47	35.3
BN11A	3.54	89	136.65	14.70	6.0
BN11B	1.09	39	132.38	2.73	29.4
BN11C	6.03	89	198.28	32.74	6.0
BN11D	9.00	88	506.41	16.36	9.0
BN11E	1.66	39	183.23	2.45	40.2
BN12A	14.81	87	733.53	24.37	10.3
BN12B	0.77	55	121.10	2.83	17.7
BN13A	15.61	86	1063.01	23.37	14.6
BN13B	1.80	44	225.17	2.01	45.8
BN13C	19.99	85	517.96	31.33	7.4
BN13D	7.98	83	212.30	38.59	6.0
BN13E	22.61	85	695.17	23.34	10.8
BN13F	1.83	68	256.00	1.60	30.8
BN14	3.62	95	320.16	4.15	9.1
BN15	5.76	94	395.58	15.27	6.0
BN16	19.62	88	646.51	28.75	8.2
BN17	16.85	87	608.99	30.74	7.9
BN18	8.49	84	541.82	30.74	8.0
BN19	26.43	83	891.41	19.56	15.4
BN20A	56.76	85	1142.37	21.78	16.6
BN20B	4.15	85	255.40	8.14	8.2
BN21	8.10	83	415.80	9.90	11.8
BN22A	18.31	84	637.52	10.03	15.9
BN22B	9.44	83	419.53	5.22	16.3
BN23A	56.01	84	704.69	9.70	17.5
BN23B	10.77	81	245.76	5.00	11.6
BN43	44.93	81	1020.70	1.13	76.2
Total	507.45				

Tabla 3-7. Propiedades hidrológicas de las cuencas PC - Sur

Identificación de la cuenca	**Zona** (ha)	CN	**Longitud Flujo Trayectoria (metros)**	Pendiente °/"	Tc (min)
BS24	4.78	84	323.37	12.31	8.3
BS25	7.56	84	460.51	12.16	11.1
BS26	1.25	81	64.52	26.75	6.0
BS27	2.75	82	129.77	26.97	6.0
BS28	1.93	85	152.36	27.91	6.0
BS29A	16.88	85	645.39	18.85	11.3
BS29B	3.65	82	241.02	20.50	6.0
BS29C	5.34	83	309.57	15.08	7.5
BS30	3.07	81	201.67	18.06	6.0
BS31	1.04	87	140.65	16.44	6.0
BS32	1.32	85	115.10	18.44	6.0
BS33	1.03	88	75.36	6.86	6.0
BS34	1.41	85	93.16	5.99	6.0
BS35	58.78	84	1365.74	12.45	26.2
BS36A	12.60	85	432.89	20.45	7.9
BS36B	0.48	87	72.33	12.23	6.0
BS36C	0.60	87	183.00	20.78	6.0
BS36D	0.42	90	16.18	14.93	6.0
BS36E	25.29	86	867.16	9.44	19.5
BS37A	6.29	90	265.24	18.40	6.0
BS37B	12.68	93	500.42	20.64	6.4
BS37C	9.89	82	551.14	22.15	10.2
BS37D	7.70	82	393.74	16.30	9.1
BS38	3.41	82	209.19	21.76	6.0
BS39	2.60	83	121.60	20.69	6.0
BS40	1.35	83	110.46	16.13	6.0
BS41A	8.39	86	325.29	16.03	6.8
BS41B	6.89	84	149.35	14.82	6.0
BS42	2.51	82	259.03	16.92	6.4
Total	211.90				

3.4.2.1 Resumen de resultados de PC

El modelo de simulación de la ICPR fue actualizado para reflejar los parámetros hidrológicos de la cuenca bajo las condiciones propuestas. La Tabla 3-8 muestra el resumen de los caudales pico para todas las salidas aguas abajo (NODES) bajo las condiciones propuestas Estas cuencas deben proveer suficiente almacenamiento para manejar el incremento de volumen de escorrentía para cada salida de cuenca presentado en la Tabla 3-9. **El Apéndice** O muestra los resultados del modelo computacional y los parámetros para el modelo ICPR en Condiciones Propuestas

La Tabla 3-10 muestra una comparación de los caudales máximos para cada nodo de descarga en condiciones previas y posteriores a la urbanización. El exceso de escorrentía debe ser mitigado, por lo que deben implementarse cuencas de detención dentro del desarrollo propuesto. Los requisitos mínimos de almacenamiento también se incluyen en la Tabla 3-10. **El Apéndice** L muestra las áreas sugeridas para incluir las cuencas de detención requeridas. La estructura hidráulica de cada cuenca debe ser diseñada para asegurar que en la salida de cada la escorrentía postdesarrollo no exceda la de la pre-desarrollo.

Tabla 3-8. Resultados del resumen de flujo de nodos para PC.

Cuencas	Nodos	Máx. Caudal total [m*/s]		
		10 años	25 años	100 años
BN01	N01	0.759	0.978	1.350
BN02	N02	0.624	0.769	1.001
BN03	N03	1.279	1.574	2.050
BN04	N04	1.242	1.539	2.030
BN05	N05	4.324	5.350	7.017
BN06	N06	5.027	6.225	8.164
BN07	N07	3.693	4.578	6.013
BN08A, BN08B	N08	3.677	4.548	6.015
BN09A, BN09B	N09	1.191	1.370	2.026
BN10A, BN10B	N10	0.988	1.268	1.739
BN11A, BN11B, BN11C, BN11D	N11	3.703	4.661	6.214
BN12A, BN12B	N12	2.820	3.589	4.845
BN13A, BN13B, BN13C, BN13D	N13	11.961	15.199	20.715
BN14	N14	0.846	1.037	1.345

BN15	N15	1.322	1.628	2.120
BN16	N16	3.860	4.865	6.489
BN17	N17	3.223	4.084	5.477
BN18	N18	1.490	1.914	2.614
BN19	N19	4.431	5.696	7.781
BN20	N20	10.752	13.709	18.560
BN21	N21	1.373	1.760	2.413
BN22	N22	4.727	6.060	8.255
BN23	N23	11.300	14.499	19.763
BS24	N24	0.839	1.077	1.471
BS25	N25	1.318	1.683	2.303
BS26	N26	0.215	0.276	0.379
BS27	N27	0.460	0.592	0.818
BS28	N28	0.351	0.449	0.608
BS29A, BS29B, Bs2gc	N29	4.542	5.793	7.921
BS30	N30	0.500	0.644	0.895
BS31	N31	0.200	0.253	0.339
BS32	N32	0.240	0.307	0.416
BS33	N33	0.204	0.256	0.341
BS34	N34	0.256	0.328	0.444
BS35	N35	9.695	12.406	16.878
BS36A, BS36B, BS36C, BS36D	N36	7.032	8.944	12.050
BS37A, BS37B, BS37C	N37	6.983	8.824	11.814
BS38	N38	0.570	0.734	1.014
BS39	N39	0.446	0.575	0.789
BS40	N40	0.240	0.310	0.410
BS41	N41	2.782	3.559	4.821
BS42	N42	0.420	0.541	0.747
BN43	N43	5.945	7.601	10.327

Tabla 3-9. Resumen de los resultados de las cuencas para PC

Cuencas	**Nodos**	**Máx.** Tasa total [m^/s]		
		10 años	**25 años**	100 años
BN01	N01	0.760	0.978	1.350
BN02	N02	0.624	0.769	1.001
BN03	N03	1.279	1.575	2.051
BN04	N04	1.242	1.539	2.030

BN05	N05	4.325	5.350	7.017
BN06	N06	5.028	6.226	8.165
BN07A	N07	2.839	3.527	4.638
BN07B	N07	0.863	1.069	1.401
BN08A	N08	2.870	3.559	4.704
BN08B	N08	0.716	0.877	1.136
BN08C	N08	0.108	0.138	0.188
BN09A	N09	1.188	1.490	1.978
BN09B	N09	0.176	0.272	0.446
BN10A	N10	0.702	0.893	1.203
BN10B	N10	0.299	0.392	0.546
BN10C	N10	0.063	0.113	0.212
BN11A	N11	0.719	0.900	1.191
BN11B	11	0.054	0.096	0.179
BN11C	N11	1.225	1.533	2.028
BN11D	N11	1.764	2.224	2.969
BN11E	N11	0.145	0.218	0.350
BN12A	N12	2.808	3.563	4.789
BN12B	N12	0.071	0.107	0.173
BN13A	N13	2.849	3.614	4.881
BN13B	N13	0.102	0.172	0.306
BN13C	N13	3.614	4.630	6.282
BN13D	N13	1.370	1.766	2.422
BN13E	N13	4.054	5.177	7.041
BN13F	N13	0.204	0.289	0.438
BN14	N14	0.846	1.037	1.345
BN15	N15	1.322	1.628	2.120
BN16	N16	3.861	4.866	6.490
BN17	N17	3.224	4.085	5.478
BN18	N18	1.490	1.914	2.615
BN19	N19	4.431	5.696	7.781
BN20A	N20	10.023	12.774	17.298
BN20B	N20	0.749	0.960	1.303
BN21	N21	1.373	1.760	2.413
BN22A	N22	3.150	4.032	5.484
BN22B	N22	1.578	2.029	2.773
BN23A	N23	9.584	12.273	16.696
BN23B	N23	1.727	2.235	3.077
BN43	N43	5.945	7.601	10.328

BS24	N24	0.839	1.077	1.471
BS25	N25	1.319	1.684	2.303
BS26	N26	0.215	0.277	0.379
BS27	N27	0.460	0.593	0.818
BS28	N28	0.351	0.449	0.608
BS29A	N29	3.019	3.851	5.240
BS29B	N29	0.611	0.787	1.086
BS29C	N29	0.914	1.174	1.614
BS30	N30	0.500	0.644	0.895
BS31	N31	0.200	0.253	0.339
BS32	N32	0.240	0.307	0.416
BS33	N33	0.204	0.256	0.341
BS34	N34	0.256	0.328	0.444
BS35	N35	9.696	12.407	16.879
BS36A	N36	2.273	2.912	3.954
BS36B	N36	0.092	0.117	0.157
BS36C	N36	0.116	0.146	0.196
BS36D	N36	0.087	0.109	0.144
BS36E	N36	4.537	5.760	7.764
BS37A	N37	1.310	1.631	2.158
BS37B	N37	2.832	3.511	4.599
BS37C	N37	1.648	2.115	2.925
BS37D	N37	1.283	1.646	2.278
BS38	N38	0.571	0.623	1.014
BS39	N39	0.446	0.477	0.789
BS40	N40	0.240	0.257	0.410
BS41A	N41	1.568	1.558	2.690
BS41B	N41	1.215	1.268	2.132
BS42	N42	0.420	0.459	0.747

Tabla 3-10. Comparación del caudal máximo de los nodos

Nodos	10 años			25 años			**100 años**			
	CE -	PC	Diff. -	CE -	PC -	Diff.	CE -	PC -	Diff.	**Almacenamiento Requerido**
	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	[m^3/s]	m^3
N01	0.658	0.759	0.101	0.866	0.978	0.112	1.211	1.350	0.139	796
N02	0.394	0.624	0.230	0.518	0.769	0.251	0.724	1.001	0.277	1,604
N03	0.807	1.279	0.472	1.063	1.574	0.511	1.483	2.050	0.567	3,276
N04	0.865	1.242	0.377	1.130	1.539	0.409	1.567	2.030	0.463	2,552
N05	3.155	4.324	1.169	4.094	5.350	1.256	5.652	7.017	1.365	7,517
N06	3.760	5.027	1.267	4.858	6.225	1.367	6.675	8.164	1.489	8,061
N07	2.823	3.693	0.870	3.632	4.578	0.946	4.966	6.013	1.047	5,776
N08	2.801	3.677	0.876	3.617	4.548	0.931	4.967	6.015	1.048	4,528
N09	0.895	1.191	0.296	1.189	1.370	0.181	1.763	2.026	0.263	4,133
N10	0.983	0.988	0.005	1.266	1.268	0.002	1.773	1.739	-0.034	0
N11	3.278	3.703	0.425	4.218	4.661	0.443	5.772	6.214	0.442	2,495
N12	2.534	2.820	0.286	3.271	3.589	0.318	4.495	4.845	0.350	1,993
N13	11.310	11.961	0.651	14.592	15.199	0.607	20.016	20.715	0.699	2,287
N14	0.555	0.846	0.291	0.723	1.037	0.314	1.003	1.345	0.342	1,844
N15	0.983	1.322	0.339	1.259	1.628	0.369	1.732	2.120	0.388	2,109
N16	3.344	3.860	0.516	4.279	4.865	0.586	5.887	6.489	0.602	3,408
N17	2.797	3.223	0.426	3.595	4.084	0.489	4.959	5.477	0.518	2,903
N18	1.411	1.490	0.079	1.812	1.914	0.102	2.504	2.614	0.110	610
N19	4.165	4.431	0.266	5.405	5.696	0.291	7.461	7.781	0.320	1,830
N20	9.284	10.752	1.468	11.983	13.709	1.726	16.464	18.560	2.096	14,145
N21	1.411	1.373	-0.038	1.802	1.760	-0.042	2.465	2.413	-0.052	0

N22	4.554	4.727	0.173	5.856	6.060	0.204	8.008	8.255	0.247	598
N23	11.357	11.300	-0.057	14.546	14.499	-0.047	19.793	19.763	-0.030	0
N24	0.839	0.839	0.000	1.077	1.077	0.000	1.471	1.471	0.000	0
N25	1.303	1.318	0.015	1.663	1.683	0.020	2.275	2.303	0.028	284
N26	0.305	0.215	-0.090	0.394	0.276	-0.118	0.540	0.379	-0.161	0
N27	0.462	0.460	-0.002	0.594	0.592	-0.002	0.821	0.818	-0.003	0
N28	0.620	0.351	-0.269	0.799	0.449	-0.350	1.104	0.608	-0.496	0
N29	4.258	4.542	0.284	5.488	5.793	0.305	7.512	7.921	0.409	2,080
N30	0.793	0.500	-0.293	1.021	0.644	-0.377	1.410	0.895	-0.515	0
N31	0.729	0.200	-0.529	0.939	0.253	-0.686	1.297	0.339	-0.958	0
N32	0.316	0.240	-0.076	0.407	0.307	-0.100	0.558	0.416	-0.142	0
N33	0.297	0.204	-0.093	0.383	0.256	-0.127	0.525	0.341	-0.184	0
N34	0.494	0.256	-0.238	0.637	0.328	-0.309	0.874	0.444	-0.430	0
N35	7.901	9.695	1.794	10.191	12.406	2.215	13.989	16.878	2.889	27,619
N36	6.091	7.032	0.941	7.832	8.944	1.112	10.791	12.050	1.259	8,164
N37	6.432	6.983	0.551	8.247	8.824	0.577	11.360	11.814	0.454	626
N38	0.602	0.570	-0.032	0.775	0.734	-0.041	1.071	1.014	-0.057	0
N39	0.515	0.446	-0.069	0.663	0.575	-0.088	0.910	0.789	-0.121	0
N40	0.237	0.240	0.003	0.306	0.310	0.004	0.422	0.410	-0.012	0
N41	2.559	2.782	0.223	3.283	3.559	0.276	4.492	4.821	0.329	1,587
N42	0.385	0.420	0.035	0.502	0.541	0.039	0.697	0.747	0.050	283
N43	5.945	5.945	0.000	7.601	7.601	0.000	10.327	10.327	0.000	0

4 CONCLUSIONES Y RECOMENDACIONES

Este Estudio de Manejo de Aguas Pluviales (SWM, por sus siglas en inglés) presenta el análisis hidrológico requerido para proveer una evaluación inicial del almacenamiento de escorrentía pluvial requerido para mitigar un propuesto desarrollo turístico y residencial en el Barrio Boquerón en Cabo Rojo, Puerto Rico. Se hacen las siguientes conclusiones y recomendaciones:

- Para garantizar un diseño respetuoso con el medio ambiente, se completó un análisis hidrológico para evaluar la cantidad de escorrentía superficial en términos de descargas máximas y volumen total para cada cuenca analizada antes del desarrollo del Proyecto propuesto.
- Este estudio estimó el volumen de escorrentía pluvial y los caudales máximos generados en la propiedad del proyecto, sus contribuciones de aguas pluviales dentro y fuera del sitio, y las propiedades vecinas que reciben aguas pluviales aguas abajo sitio del proyecto.
- Los resultados presentados en este informe se basan en los últimos datos disponibles facilitados por los profesionales autorizados por el propietario del proyecto en la fecha de presentación.
- La topografía existente en el emplazamiento del proyecto y las zonas circundantes sigue un patrón de drenaje mayoritariamente hacia el norte, con pequeñas porciones de la zona sur que drenan hacia el sur.
- La topografía de la propiedad oscila entre el nivel del mar y los 106 metros (nivel medio del mar, NMM). Los "Peñones de Melones" son una formación montañosa con las mayores elevaciones dentro del área del proyecto.
- El cuadrángulo topográfico USGS de Puerto Real y Cabo Rojo, algunos cursos de agua intermitentes fluyen hacia las zonas norte y sur del Sitio del Proyecto. Los cursos de agua de la zona norte descargan hacia el mar y el Caño Boquerón. Los cursos de agua de la zona sur desembocan en el

interior del barrio del Boquerón. Sin embargo, según el reconocimiento de campo, estos elementos hídricos no tienen la propiedad típica de un arroyo, sino la de una zona de recogida de escorrentía que sólo presenta caudal durante los episodios de lluvia.

- Las elevaciones reglamentarias de la inundación base cerca del proyecto propuesto resultan de la llanura aluvial del 1 por ciento de acción moderada de las olas (MoWA) para las zonas costeras. En el emplazamiento del Proyecto, las elevaciones reglamentarias de la inundación base del 1 por ciento oscilan aproximadamente entre 3,8 y 4,7 metros en los límites de la costa (Zona VE), entre 3,5 y 3,8 metros dentro de la Zona Costera A (30 a 90 metros tierra adentro medidos desde el límite costero, al noreste de las áreas poco profundas límite del Proyecto), y entre 3,1 y 3,8 metros (Zona AE, 0 a 90 metros tierra adentro medidos desde la línea costera o, donde corresponda, el Límite de Acción Moderada de las Olas "LiMWA").
- A efectos de identificación de la cuenca hidrográfica, el emplazamiento del proyecto y sus áreas contribuyentes se dividen en dos zonas principales: la Zona Norte y la Zona Sur. Esta clasificación se basa en la dirección del flujo de los cursos de agua identificados para el análisis de escorrentía. Los cursos de agua de la zona norte descargan hacia el mar y el Caño Boquerón. Los cursos de agua de la zona sur descargan hacia el interior del Caño Boquerón.
- En la zona de estudio se identificaron los siguientes tipos de uso del suelo: Zonas principalmente arboladas combinadas con pastos, mezcla de maleza y hierba, suelos desnudos y caminos de tierra.
- Los tipos de suelo para el área de estudio fueron publicados en el NRCS Soils Survey for the Cabo Rojo Area. Los tipos de suelo encontrados dentro de las cuencas delimitadas son principalmente Altamira gravelly clay (45.56% del área total de las cuencas estudiadas), Guayacan clay, Casabe clay, Melones clay, Fraternidad clay, Bermeja-Cerro Mariquita complex, entre otros.

- En las condiciones existentes (CE), había un total de (43) emisarios de aguas pluviales en la zona de estudio, divididos entre los situados al norte (24) y los situados al sur (24). (19) del emplazamiento del proyecto.
- La escorrentía de las precipitaciones es recogida por barrancos de drenaje naturales que acaban dispersándose por la franja costera antes de alcanzar el litoral.
- Para cumplir con la normativa vigente, la descarga pico de escorrentía en los Nodos de Salida en la Condición Propuesta (CP) deberá ser igual o menor a la Condición Existente (CE) para cada emisario de la cuenca.
- La urbanización propuesta aumentará la escorrentía de las aguas pluviales, aunque la mayor parte del proyecto acabará desembocando en un campo de golf donde se proponen varios estanques de detención para gestionar el exceso de escorrentía. El campo de golf también contribuirá a reducir la velocidad de la escorrentía y el potencial de erosión.
- Todos los desagües que no desemboquen en el campo de golf deberán proporcionar un almacenamiento adecuado en estanques y una disipación de la energía del flujo antes de verter en el litoral.
- Los volúmenes de almacenamiento de aguas pluviales presentados en este informe deben utilizarse como punto de partida para la base del diseño. No obstante, el diseño final de las aguas pluviales se validará con un modelo de simulación dinámica siguiendo los requisitos del Reglamento n.º 40.
- Siguiendo las recomendaciones establecidas en el Plan Maestro de Manejo de Recursos Costeros de Cabo Rojo, el sistema de aguas pluviales del proyecto deberá diseñarse considerando el mejoramiento de la calidad de las aguas pluviales antes de descargarlas a la costa. Esto podría lograrse mediante la promoción de canales revestidos de hierba, cuencas de detención extendidas con volumen de control biológico de la calidad del agua (es decir, creación de humedales) y almacenamiento de sedimentación. Estos sistemas de drenaje se recomiendan para evitar que la contaminación puntual llegue a la costa.

5 REFERENCIAS

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2. Junta de Planificación de Puerto Rico. "Reglamento Sobre Áreas Especiales de Riesgo a Inundación: "Reglamento de Planificación Núm. 13". (2005).
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10. NOAA Office for Coastal Management (OCM) descargó 4333 archivos PR_PuertoRico_2015/ Digital Elevation Model (DEM) del sitio de USGS: ftp://rockyftp.cr.usgs.gov/vdelivery/Datasets/Staged/Elevation/OPR/ y procesó los datos al Data Access Viewer (DAV).
11. Departamento de Recursos Naturales y Ambientales, Plan Maestro de Manejo de Recursos Costeros de Cabo Rojo (Nov. 2023)

6 CERTIFICACIÓN

Por la presente certifico que la información incluida en este Informe se ha realizado utilizando las mejores prácticas de ingeniería aplicables al Proyecto, tal y como se describe en el mismo y basándose en observaciones sobre el terreno.

En relación con este informe, yo Pedro M. Garcfa Campos, MSCE, PE, certifico que, a mi leal saber y entender, la información incluida en este documento es veraz, correcta y completa.

Pedro M. García Campos, MSCE, PE
Lic. 18874

7 APPENDIXES

Apéndice A: Fotografía aérea del emplazamiento del proyecto

Apéndice B: Mapa de localización sobre cuadrángulo USGS

Apéndice C. Plano esquemático del proyecto

Apéndice D. Topografía del emplazamiento del proyecto

AppendixE. Waterbodies Maps

Apéndice F: Mapas de inundaciones FIRM y ABFE de la FEMA

Apéndice G. Datos de precipitación

Apéndice H: Límites de las cuencas hidrográficas

Apéndice 1. Mapas de ocupación del suelo

Apéndice J: Mapas de tipos de suelo y grupos hidrológicos

Appendix K. CN Maps

Apéndice L: Mapa de cuencas de retención sugerido

Apéndice M: Hojas de cálculo Tc

Apéndice N: Informe sobre el estado actual de la ICPR

Apéndice O: Condición propuesta Informe ICPR

Sistema de coordenadas: NAD 1983 StatePlane Puerto Rico Islas Vírgenes FIPS 5200 Metro

Unidades

1:24,000

400 200 0 400 Metros

Foto aérea

Esencia - Cabo Rojo, PR

N W E S

Fecha: 5/14/2024

PMG AND ASSOCIATES

Ruta del documento: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_Aerial_Photo(10_2).mxd

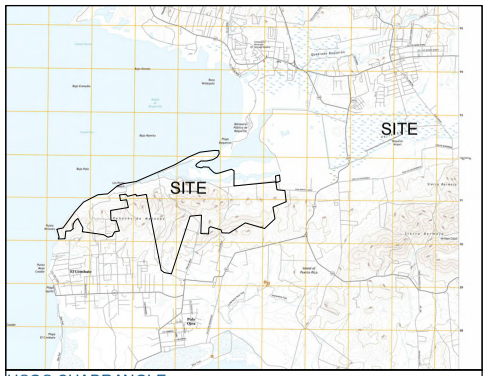
CONCEPTUAL PLAN
DETAILED ILLUSTRATIVE OVERALL PLAN

SCALE: 1:15,000

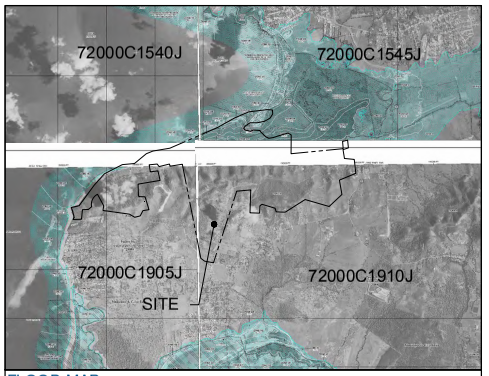
0 250m 500m 1,000m

ESENCIA
CONCEPTUAL PLANNING
MAY 2024

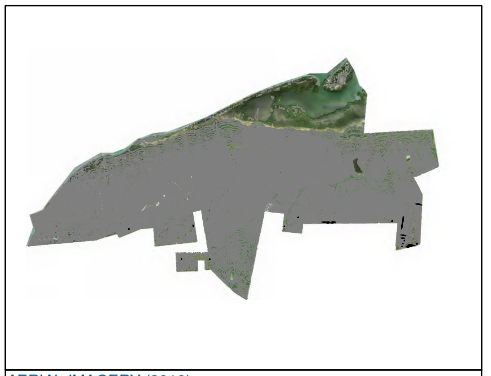
Rees Jones, Inc.
edsa
AD&V
ALVAREZ-DIAZ & VILLALÓN



USGS CUADRANGLE SCALE 1:30,000



FLOOD MAP SCALE 1:10,000



AERIAL IMAGERY (2010) NOT TO SCALE

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

INDEX :

SHEET NO.	DESCRIPTION
VF-1	TITLE, LOCATION PLAN, NOTES, LEGEND & CONTROLS.
VF-2	GENERAL SITE PLAN
VF-3	TRACT REGISTRY
VF-4 - VF-16	EXISTING CONDITIONS AND TOPOGRAPHIC PLAN
VF-17 - VF- 18	INSCRIPTION DATA
VF-19 - VF- 23	GEOMETRIC TABLES

LEGEND:

CONTROL STATION
PROPERTY POINT
SANITARY SEWER MANHOLE
STORM SEWER MANHOLE
ELECTRIC UTILITY MANHOLE
TELEPHONE MANHOLE
WATER MANHOLE
HEAD WALL
CATCH BASINS
WATER METER
WATER VALVE
CONCRETE LIGHT POLE
CONCRETE POWER POLE
CONCRETE POWER & TELEPHONE POLE
UTILITY POLE
WOODEN POWER TELEPHONE POLE
TELEPHONE POLE
WOODEN POWER POLE
WOODEN LIGHT POLE
ELECTRIC BOX
METAL CAP
REBAR

GUY POLE
NOT IN USE POLE
CABLE TV POLE
METAL LIGHT POLE
TWO SIDE METAL LIGHT POLE
METAL POWER POLE
STREET LIGHT POLE
KM ID
SANITARY CLEAN OUT
FIRE HYDRANT
CURB INLET
PUBLIC TELEPHONE BOOTH
STREET LIGHT BOX
HANDICAP RAMP
SIGN
GUY WIRE
EXISTING TREE
PALM TREE
MONITORING WELL
BOLLARDS
VERTICAL PIPE

CONCRETE GUTTER
SANITARY SEWER LINE
STORM SEWER LINE
ABOVEGROUND WATER LINE
AERIAL TELEPHONE LINE
AERIAL POWER LINE
CHAIN LINK FENCE
BARBED WIRE FENCE
UNDERGROUND POWER LINE
UNDERGROUND TELECOMMUNICATION
GUARDRAIL
SPOT ELEVATIONS
CONTOUR INTERVAL EVERY 1.0 METER
CONTOUR INTERVAL EVERY 5.0 METER
EXISTING STRUCTURES
CONCRETE SLAB
UNKNOWN UNDERGROUND PIPE LINE
ABOVEGROUND POWER LINE

FLOOD INFORMATION

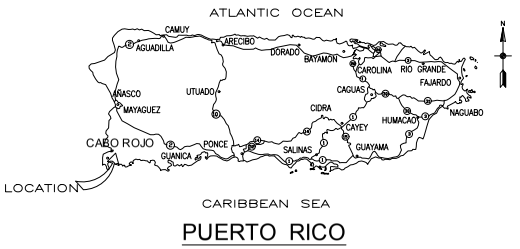
BASED ON MAPS PREPARED BY THE FEDERAL EMERGENCY MANAGEMENT AGENCY (FEMA) AVAILABLE ONLINE AT WWW.MSC.FEMA.GOV., AND BY GRAPHIC PLOTTING ONLY, THIS PROPERTY IS LOCATED WITHIN AN AREA HAVING DESIGNATIONS X, AE & VE ON THE FLOOD INSURANCE RATE MAPS 72000C1905J, 72000C1540J, 72000C1545J & 72000C1910J DATED NOVEMBER 18, 2009. NO FIELD SURVEYING WAS PERFORMED TO DETERMINE THIS ZONE AND AN ELEVATION CERTIFICATE MAY BE NEEDED TO VERIFY THE ACCURACY OF THE MAP AND/OR TO APPLY FOR A VARIANCE FROM THE FEDERAL EMERGENCY MANAGEMENT AGENCY.

ABBREVIATIONS :

CB	CATCH BASIN
SMH	SANITARY SEWER MANHOLE
STMH	STORM SEWER MANHOLE
EMH	ELECTRIC MANHOLE
CONC.	CONCRETE
C.S.	CONCRETE SLAB
B.S.	BUS STOP
F.F.E.	FINISH FLOOR ELEVATION
P.R.H.T.A.	PUERTO RICO HIGHWAY AND TRANSPORTATION AUTHORITY
A.E.P.	PUBLIC BUILDING AUTHORITY
J.P.	"JUNTA DE PLANIFICACION DE PUERTO RICO"
N/A	NO ACCESS
PREPA	PUERTO RICO ELECTRIC POWER AUTHORITY
PRASA	PUERTO RICO AQUEDUCT AND SEWER AUTHORITY
T.W.E.	TOP OF WALL ELEVATION
I.E.	INVERT ELEVATION
T.E.	TOP ELEVATION
Ø	PIPE DIAMETER
HW	HEADWALL
C.I.	CURB INLET
UNK	UNKNOWN
S.F.M.	SANITARY FORCE MAIN
G.I.S.	GEOGRAPHIC INFORMATION SYSTEMS
S.U.S.	SUBSURFACE UTILITY SURVEYING
S.L.P.	STREET LIGHT POST
M.C.	METAL CAP
S.L.	STREET LIGHTING

NOTES:

1. ALL DISTANCES ARE EXPRESSED IN METERS, UNLESS OTHERWISE NOTED.
2. FIELDWORK PERFORMED ON JANUARY 2023.
3. HORIZONTAL CONTROLS ARE REFERRED TO NAD 83 (2011) EPOCH:2010.00.
4. VERTICAL DATUM IS REFERRED TO PRVD02.
5. PLEASE REFER TO SURVEY JEB-3840.
6. THE INFORMATION DEPICTED ON THIS MAP REPRESENTS THE RESULT OF THE SURVEY MADE ON THE DATE INDICATED AND CAN ONLY BE CONSIDERED AS AN INDICATION OF THE GENERAL CONDITIONS EXISTING AT THAT TIME.
7. CONTRACTOR SHALL VERIFY ALL FIELD CONDITIONS AND MEASUREMENTS AND ADVISE ARCHITECT OR OWNER OF ANY DIFFERENCES.
8. PLANIMETRIC MAPPING ENHANCED WITH RECORD AERIAL MAPPING, SHOWN FOR REFERENCE PURPOSES ONLY. INFORMATION COLLECTED ON GROUND SHALL BE USED FOR ENGINEERING DESIGN.



HORIZONTAL AND VERTICAL CONTROL

STA.	COORDINATES NORTHING	COORDINATES EASTING	ELEVATION	DESCRIPTION
3840-2	217,776.294	117,476.073	21.735	1/4" BRONZE DISK
38-40 1 3	218,123.098	119,460.552	78.081	1/4" BRONZE DISK
38-40 1 5	218,402.543	118,994.538	11.985	1/4" BRONZE DISK
38-40 1 6	217,424.796	119,012.499	44.931	1/4" BRONZE DISK
38-40 2 1	218,924.896	119,536.913	0.515	1/4" BRONZE DISK
38-40 2 2	217,894.522	121,094.781	45.529	1/4" BRONZE DISK
38-40 2 3	218,454.933	120,920.666	63.774	1/4" BRONZE DISK
38-40 2 8	217,858.699	122,018.269	64.185	1/4" BRONZE DISK
38-40 2 9	218,041.853	122,568.633	12.263	1/4" BRONZE DISK
38-40 3 0	218,996.415	121,903.630	1.550	1/4" BRONZE DISK

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
16 Cordova St. | Terralinda | Caguas, PR 00727
Phone: (787)746-5486 Fax: (787)704-6215
www.jebpr.com

CERTIFY CORRECT

I, JAVIER E. BIDOT CRUZ, HEREBY CERTIFY THAT THIS PLAN IS AN EXACT AND TRUE GRAPHIC REPRESENTATION OF THE EXISTING CONDITIONS.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR 12972

PROJECT: JEB-3840
CHECKED BY: C.LEBRON
DRAWING BY: J.CAINS
DATE: MAY 14, 2024

VF-1
23

FILE NAME : 3840-EC

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

GENERAL SITE PLAN

SCALE I : 7,500

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

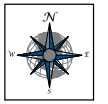
TRACT REGISTRY

TRACT REGISTER (BOQUERÓN)

			REGISTERED DATA			RECORDS (** = NOT PROVIDED)	RECORDED AREA		SURVEYED AREA	
ASSET ID	LAND OWNER	CADASTRAL ID	BOOK	PAGE	PROPERTY #	PROPERTY DESCRIPTION	SQUARE METERS	CUERDAS	SQUARE METERS	CUERDAS
114	ANTONIO L. PALLADINO RIL	402-093-609-24-000	415	212	24346	12	4310.91	1.10	3840.2	1.0
115	MARGARITA DE LOURDES PALLADINO	402-093-609-08-000	415	215	24347	22	4310.91	1.10	3827.75	0.98
105	CG GROUP	379-086-527-75-000	351	295	13859	117	19655.55	5.01	18504.5	4.72
32	MC ACQUISITION CORP	402-048-527-23-000	308	19	13860	21	19655.55	5.01	22346.5	5.7
107		379-086-527-77-000	351	293	13861	1	19654.21	5.01	18,788.45	4.79
108		379-086-527-78-000	351	1	13862	21	19654.21	5.01	16217.5451	4.1356
31	QUIÑONES MORENO PEDRO SC	379-090-003-05-000	305	244	13932	254	19654.21	5	19285.311	4.9155
30		379-090-003-04-000	305	215	13931	251	19654.21	5	19540.9211	4.9844
35		379-090-003-01-000	351	220	13855	13	19654.21	5	19286.9211	4.9458
101		379-090-008-05-000	351	145	13814	8	19654.21	5	19772.9104	5.044
3	DAVI LP GLASER	379-090-006-04-000	351	108	13812	38	19652.92	5.01	17,938.6852	4.5735
79	PLAYA RI STICK, LLC	379-090-009-23-000	351	97	13809	67	19651.98	5.01	19056.2163	4.8593
78		379-090-009-02-000	351	81	13807	67	19651.98	5.01	19772.3027	5.0396
34	CABO ROJO LAND ACQUISITION, LLC	379-086-527-86-000	308	86	13854	22	20188.46	5.14	18612.5904	4.7466
77		379-090-009-01-000	305	99	13804	72	19651.878	5.01	21173.5219	5.3744
54		402-098-527-35-000	364	14	13957	72	19651.878	5.01	22355.3487	5.6984
56		402-098-527-39-000	364	17	13958	72	19651.878	5.01	22315.7434	5.6882
96		402-098-527-28-000	364	41	13934	72	19651.878	5.01	22189.4342	5.6568
57		402-098-527-47-000	364	44	13937	72	19651.878	5.01	24230.3389	6.1749
70		402-097-527-13-000	364	62	13874	72	19651.878	5.01	14758.7104	3.7614
46		402-097-527-24-000	308	134	13873	72	19651.878	5.01	19648.3168	5.0075
82		402-097-527-17-000	308	173	13875	72	19651.878	5.01	14758.2879	3.7613
33		402-097-527-11-000	308	145	13854	72	19651.878	5.01	24232.7503	6.1778
69		402-097-527-08-000	308	115	13851	72	19651.878	5.01	16888.1406	4.3041
58		402-098-527-13-000	308	286	13956	72	19651.878	5.01	24161.1903	6.1584
59		402-097-527-09-000	308	147	13933	72	19651.878	5.01	16730.4113	4.2651
53		402-098-527-38-000	308	23	13959	72	19651.878	5.01	22301.4154	5.6851
138		402-098-527-36-000	364	142	13952	72	19651.878	5.01	21171.9659	5.3961
55		402-098-527-34-000	364	148	13773	72	19651.878	5.01	23127.7787	5.8958
95		402-098-527-33-000	308	15	13934	72	19651.878	5.01	24105.2081	6.1457
178		402-098-527-48-000	364	192	13953	72	19651.878	5.01	13698.3058	3.4915
17		402-098-527-24-000	308	110	13898	72	19651.878	5.01	22552.3306	5.7488
67		402-097-527-10-000	308	127	13912	72	19651.878	5.01	24137.9903	6.1517
**	BAGAC, CARDONA DIANA	402-093-008-07-000	305	79	13802	69	**	**	12385.5415	3.1572
**	VISTA BONITA, LLC	402-093-009-06-000	305	75	13804	2	**	**	17705.1958	4.5127
1	ROD-LYTON PARTS, LLC	402-097-527-21-000	**	**	**	**	**	**	6765.8757	1.7247
2		402-097-527-12-000	**	**	**	**	**	**	4956.3258	1.2633
4		402-097-527-04-000	**	**	**	**	**	**	3836.6351	0.9778
5		402-097-527-16-000	**	**	**	**	**	**	3836.4349	0.9778
7	ISABEL, TEODORA & LUISA EIRE	402-097-527-05-000	PENDING INSCRIPTION AT ENTRY 2015-0100818 5001				2885.2116	0.7371	5218.8233	1.3311
62	PATRICIA TORRES MARSEL	402-093-002-98-000	308	69	13814	26	**	**	14626.7677	3.7291
72	RAMONITA MARTINEZ	402-097-527-18-000	726	310	9971	66	**	**	24132.9376	6.1518
71	MARCO VELEVIUS MAND	402-097-527-14-000	131	308	13917	71	**	**	14757.4974	3.7618

TRACT REGISTER (BOQUERÓN)

			REGISTERED DATA			RECORDS (** = NOT PROVIDED)	RECORDED AREA		SURVEYED AREA	
ASSET ID	LAND OWNER	CADASTRAL ID	BOOK	PAGE	PROPERTY #	PROPERTY DESCRIPTION	SQUARE METERS	CUERDAS	SQUARE METERS	CUERDAS
99	RW BOQUERON PT, LLC	402-093-527-16-000	859	306	14751	5	19655.3751	5.01	20477.3741	5.2206
41	MAXIMO CORPORATION	402-096-527-12-000	418914		13741	**	**	**	22773.4845	5.8054
178	DAVID TUA SUEIR	402-093-527-41-000	322	169	13981	24	19655.3751	5.01	21077.1394	5.3719
44		402-093-527-42-000	322	81	13982	24	19655.3751	5.01	21832.3924	5.5653
6		402-093-527-43-000	322	7	13983	24	19655.3751	5.01	21705.5261	5.5361
5		402-093-527-44-000	322	1	13982	24	19655.3751	5.01	21650.9511	5.5222
1	NORBERTO RIVERA RAMOS	379-090-009-03-000	PENDING INSCRIPTION AT ENTRY 2020-0404113001				20972.171	5.3463	20565.125	5.2427
37	FOREST INDUSTRIES ENGINEERS, P.S.C.	402-097-527-12-000	322	260	13780	12	20674.741	5.271	20675.741	5.271
22	ESTEBAN HERNANDEZ RIVERA	402-093-527-37-000	314	269	14021	23	20457.676	5.2171	20423.7597	5.2085
222	NORMA ROMAN ROMERO & JORGE ROMAN ROMERO	402-093-527-64-000	322	23	13946	3	21334.1	5.4282	20930.4741	5.3321
64	HERMINIO A. RIEFKOHL PEDRONI	402-093-527-31-000	322	1	13781	36	25716.45	55.2961	21650.1754	5.5471
96		402-094-527-66-000	322	25	14796	33	24941.6	5.2385	24830.4981	6.0751
79		402-093-527-13-000	341	159	13754	26	19655.3751	5.01	22962.7526	5.8534
90	LOMA LINDA, LLC	402-093-527-18-000	341	202	13780	35	19798.92	5.034	21927.1322	5.5916
209	ERNESTO MANUEL HERNANDEZ GUEVARA	402-093-527-93-000	303	165	13960	241	21006.17	5.3725	17206.7672	4.3951
40	ESTEBAN HERNANDEZ HORTA	402-093-527-83-000	304	57	14001	28	20457.662	5.2107	20427.8403	5.2067
41		402-093-527-12-000	308	40	13930	31	23955.3845	5.1148	20995.3679	5.3547
170		402-093-527-69-000	322	120	13854	22	20956.2307	5.2303	20956.3204	5.3306
85	SEGUROS REYES, PUERTO RICO	402-094-554-93-000	308	109	13751	51	19651.878	5.01	20501.1425	5.1907
84	CAPTIVE DEVELOPMENT CORP	402-097-527-07-000	308	100	13754	13	19651.8777	5.0102	18904.6557	5.0139
86		402-093-527-05-000	308	110	13753	13	21754.8722	5.2704	20709.2297	5.2967
93	QUIÑONES MORENO PEDRO SC	379-090-007-79-000	322	220	13820	259	**	**	**	**
94	NORBERTO RIVERA RAMOS	402-093-527-16-000	**	**	**	**	**	**	**	**
100	PEDRO GOMEZ V.I.S.	402-093-527-87-000	PENDING INSCRIPTION AT ENTRY 2022-1253036 5001				19655.3	5.01	17345.1205	4.4402
45		402-093-527-86-000					13832.5	5	23007.9024	5.5142
104		402-093-527-82-001					13853.5	5	19525.9884	4.7571
111		402-093-527-89-000					13830.9	5	17525.1883	4.4869
46		402-093-527-66-000	PENDING INSCRIPTION AT ENTRY 2022-1253036 5001				13830.5	5.00	19052.9425	4.7326
24	MC ACQUISITION CORP	402-093-527-85-000	**	**	**	**	**	**	25140.7057	6.3849
6082	RICARDO E. CARLO SMC	402-093-527-90-000	**	**	**	**	**	**	22117.3401	5.6527
109	LUIS ALBERTO TORRES SIRET AND	379-090-007-74-000	314	199	13940	110	19654.19	5	23016.091	5.4
233	PHYMATEX, LLC.	379-090-007-92-000	PENDING INSCRIPTION AT ENTRY 2022-1479461001				13830.5	5	22102.1981	5.425
31	CPD, LLC	402-097-527-10-000	308	281	13705	52	13830.5	5	13679.84	5.6095
47	R&R MARKETS, INC	402-093-527-51-002	448	184	14759	34	13830.5	5	16383.23	5.7153
35	PEDRO GOMEZ V.I.S.	402-093-527-07-000	341	128	13797	35	13459.05	5.0518	18453.48	5.0894
116	DAVID CINTRON DE NATES	402-094-552-12-000	PENDING INSCRIPTION AT ENTRY 2022-1508461001				25.052.97	5	24.614.79	6.1198
0.0	MARGARITA A. GARCIA, ELIZAVETA MERCEDES TEODOR GARCIA	402-093-402-92-000	248	20	7.351		13830.5	5	13.359.17	5.0775



NO.	REVISION	BY	DATE

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Land Surveying & Topographic Engineering
Phone: (787) 844-5888 · Fax: (787) 844-5213
www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE	1 : 1

PLOT SCALE 1:1:1

CERTIFY: CORRECT

I HEREBY CERTIFY THAT THIS SURVEY PLAN WAS PREPARED IN ACCORDANCE WITH THE REGULATIONS ESTABLISHED BY THE PUERTO RICO PLANNING BOARD AND THAT IT MEETS THE MINIMUM STANDARDS FOR SURVEYS ESTABLISHED BY THE PUERTO RICO BOARD OF EXAMINERS OF ENGINEERS, ARCHITECTS AND SURVEYORS. ALL ITEMS AND MONUMENTS SHOWN HEREON WERE FOUND OR SET UNDER MY SUPERVISION AND ARE IN GOOD CONDITION. ALL DIMENSIONS AND OTHER DETAILS ARE CORRECT. THIS SURVEY PLAN WAS PREPARED FOR THE EXCLUSIVE PURPOSE STATED.

JAVIER E. BIGOT ORTIZ
LAND SURVEYOR 4626 CSP

DRAWING TITLE:

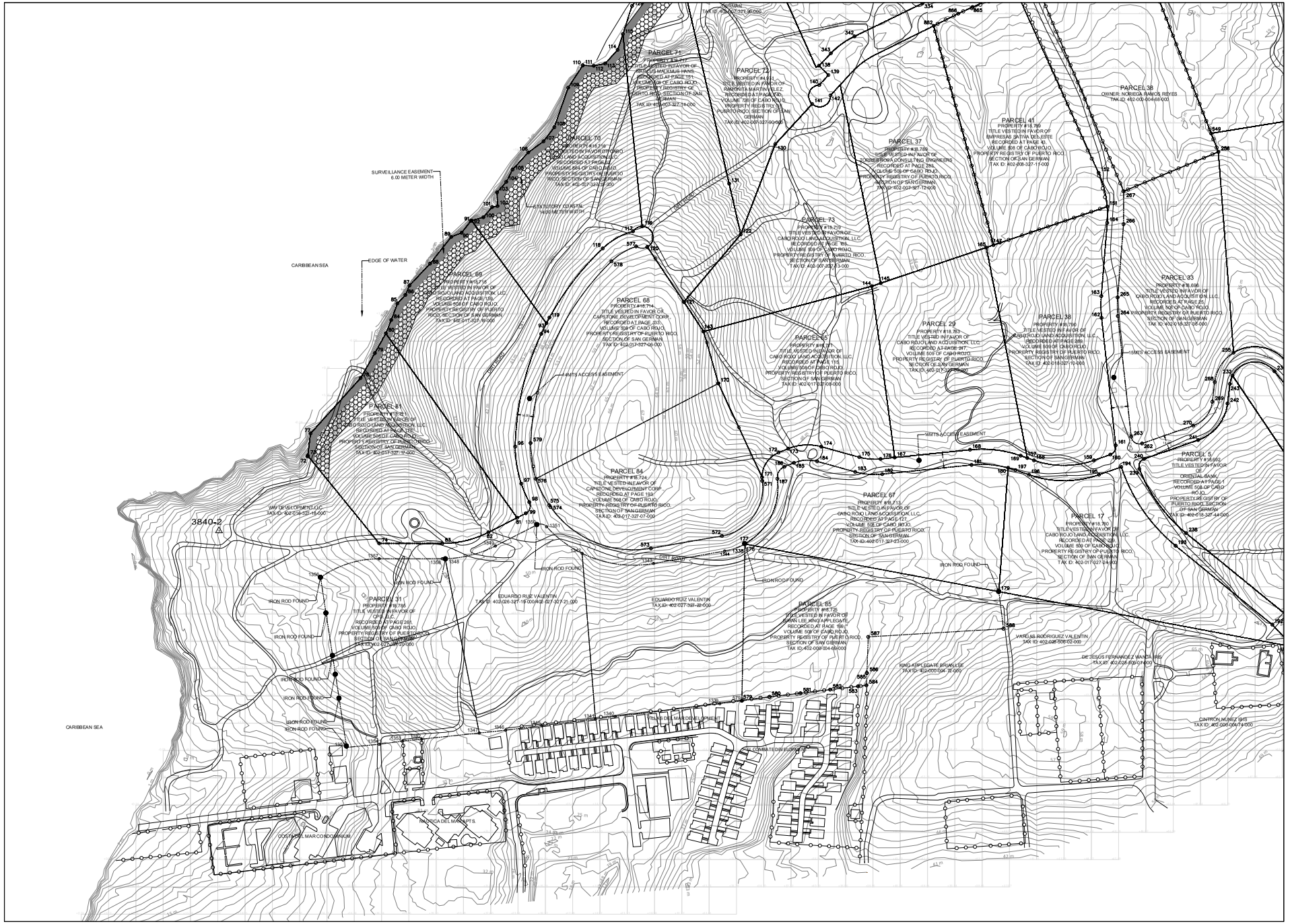
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.: VF-3	SHEET NO.: 3 / 23
PROJECT: JEB-3840		

PAPER SIZE: 30x42

FILE NAME: 3840-EC

PLOT DATE: MAY 14, 2024



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE

24 12 0 24 48 72

SCALE 1 : 1,200

N

BY	DATE	REVISION

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Land Surveyors & Consultants
LIC. # 3840
Phone: (787) 844-2121 Fax: (787) 844-2123
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE NO. 3840

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE	DWG. NO.	SHEET NO.
MAY 14, 2024		4
PROJECT	VF-4	of 23
JEB-3840		

PAPER SIZE: 30x42

PLOT SCALE: 1:1

FILE NAME: 3840-EC

PLOT DATE: MAY 14, 2024

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

BY	REVISION	DATE

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Phone: (787) 769-3434 | Fax: (787) 784-4213
www.ejbpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

FOR PR INVESTCO, LLC.

LOCATED AT BOQUERON BAY

MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR — LICENSE NO. 12870

DRAWING TITLE:

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE	DWG. NO.	SHEET NO.
MAY 14, 2024		OF
PROJECT JEB-3840	VF-5	23

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC

330 of 599

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE NUMBER 12,690 - 3870

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-6	23
PROJECT #JEB-3840		

PAPER SIZE: 30x42

FILE NAME : 3840-EC

PLOT SCALE : 1:1

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SCALE 1 : 1200

GRAPHIC SCALE
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SCALE 1 : 1,200

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EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1200

PLOT SCALE: 1:1

CERTIFY CORRECT

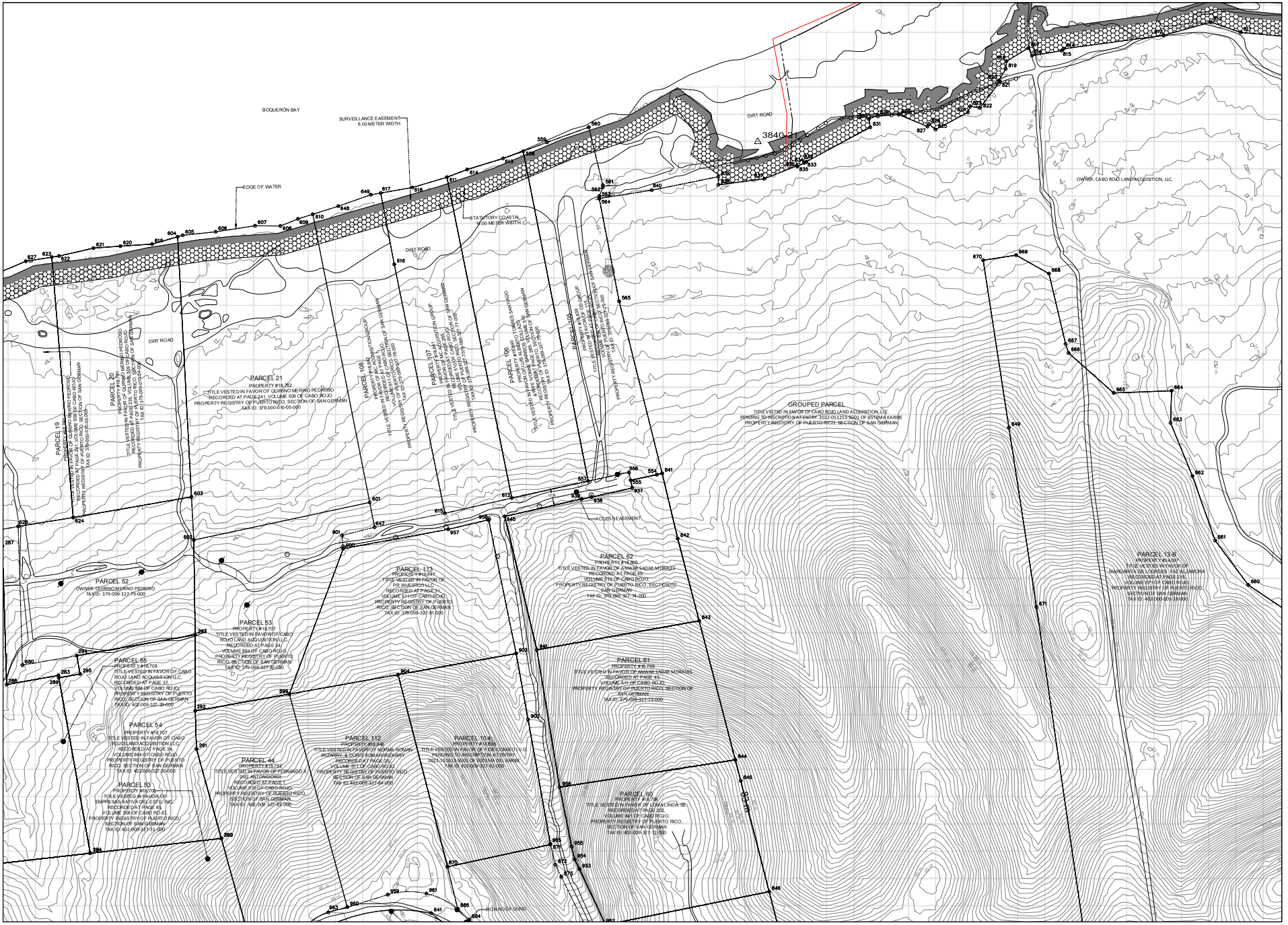
JAVIER E. BIDOT CRUZ

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE:	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-7	7
PROJECT JEB-3840		23

PAPER SIZE: 30x42

FILE NAME : 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
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SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

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BY | DATE | REVISION

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& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1200
PLOT SCALE : 1:1

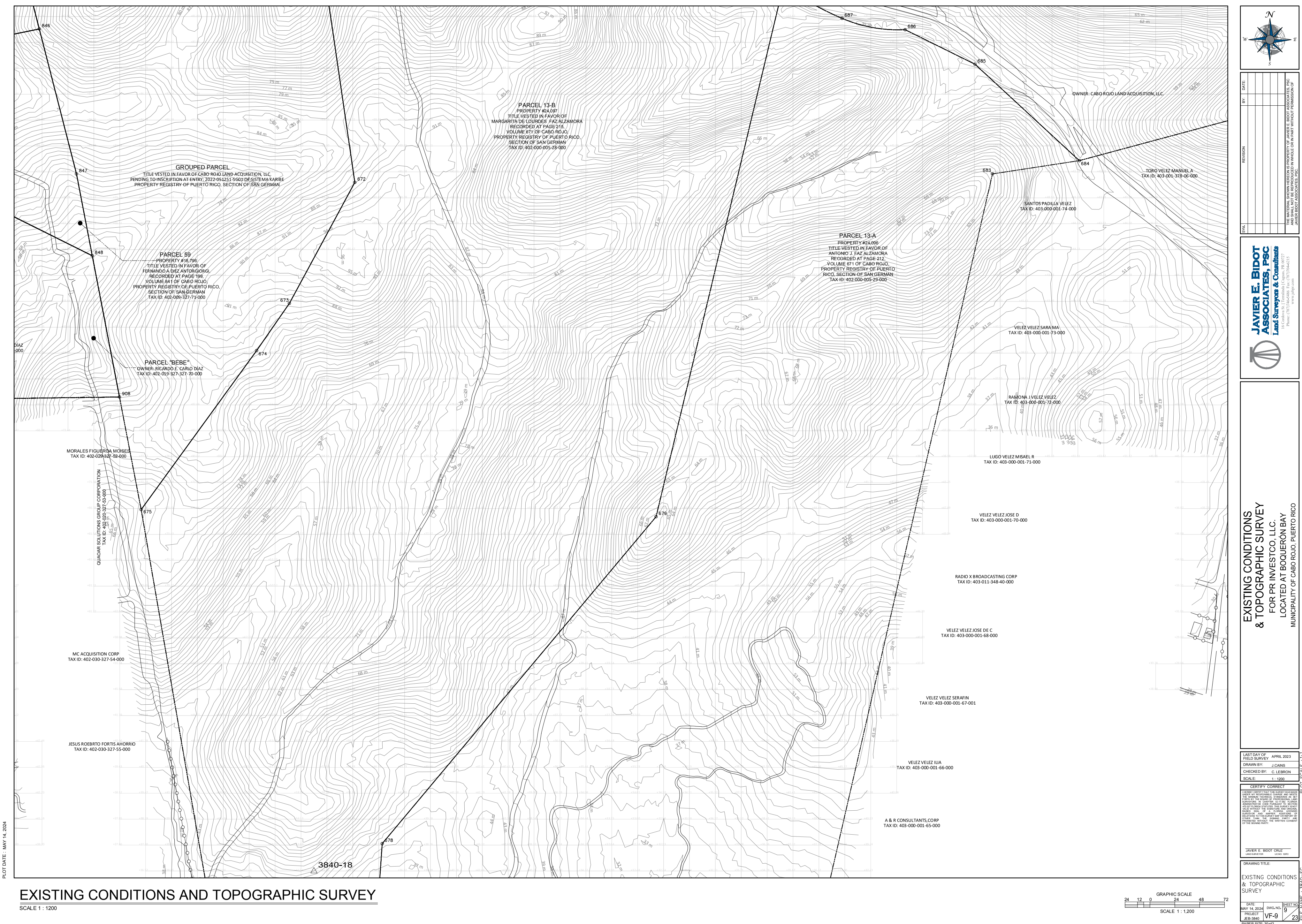
CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE NO. 18761

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024
DWG. NO.
SHEET NO. 01
PROJECT: JEB-3840
VF-8
23
PAPER SIZE: 30x42

FILE NAME : 3840-EC


OWNER: CABO ROJO LAND ACQUISITION, LLC
TORO VELEZ MANUEL A
TAX ID: 403-001-378-06-000
SANTOS PADILLA VELEZ
TAX ID: 403-000-001-74-000
PARCEL 13-B
PROPERTY #24,097
TITLE VESTED IN FAVOR OF
MARGARITA DE LOURDES FAZ ALZAMORA
RECORDED AT PAGE 215,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-000-005-28-000
GROUPED PARCEL
TITLE VESTED IN FAVOR OF CABO ROJO LAND ACQUISITION, LLC
PENDING TO INSCRIPTION AT ENTRY: 2022-051251-SG01 OF SISTEMA KARIBE
PROPERTY REGISTRY OF PUERTO RICO, SECTION OF SAN GERMAN
PARCEL 13-A
PROPERTY #24,096
TITLE VESTED IN FAVOR OF
ANTONIO J. FAZ ALZAMORA
RECORDED AT PAGE 212,
VOLUME 671 OF CABO ROJO,
PROPERTY REGISTRY OF PUERTO
RICO, SECTION OF SAN GERMAN
TAX ID: 402-000-005-29-000
PARCEL 59
PROPERTY #18,796
TITLE VESTED IN FAVOR OF
FERNANDO A DIEZ ANTORGIORGI,
RECORDED AT PAGE 199,
VOLUME 841 OF CABO ROJO
PROPERTY REGISTRY OF PUERTO RICO,
SECTION OF SAN GERMAN
TAX ID: 402-009-327-71-000
PARCEL "BEBE"
OWNER: RICARDO E. CARLO DIAZ
TAX ID: 402-019-327-70-000
VELEZ VELEZ SARA MA
TAX ID: 403-000-001-73-000
RAMONA J VELEZ VELEZ
TAX ID: 403-000-001-72-000
LUGO VELEZ MISAEL R
TAX ID: 403-000-001-71-000
VELEZ VELEZ JOSE D
TAX ID: 403-000-001-70-000
RADIO X BROADCASTING CORP
TAX ID: 403-011-348-40-000
VELEZ VELEZ JOSE DE C
TAX ID: 403-000-001-68-000
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TAX ID: 403-000-001-67-001
VELEZ VELEZ ILIA
TAX ID: 403-000-001-66-000
A & R CONSULTANTS,CORP
TAX ID: 403-000-001-65-000
MORALES FIGUEROA MOISES
TAX ID: 402-029-327-52-000
QUAOAR SOLUTIONS GROUP CORPORATION
TAX ID: 402-020-327-53-000
MC ACQUISITION CORP
TAX ID: 402-030-327-54-000
JESUS ROEBRTO FORTIS AHORRIO
TAX ID: 402-030-327-55-000
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EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO
LAST DAY OF FIELD SURVEY APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1200
CERTIFY CORRECT
JAVIER E. BIDOT CRUZ
LAND SURVEYOR
DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT JEB-3840
DWG. NO. VF-9
SHEET NO. 9 23
PAPER SIZE: 30x42
PLOT SCALE : 1:1
FILE NAME : 3840-EC
PLOT DATE : MAY 14, 2024
EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY
SCALE 1 : 1200
GRAPHIC SCALE
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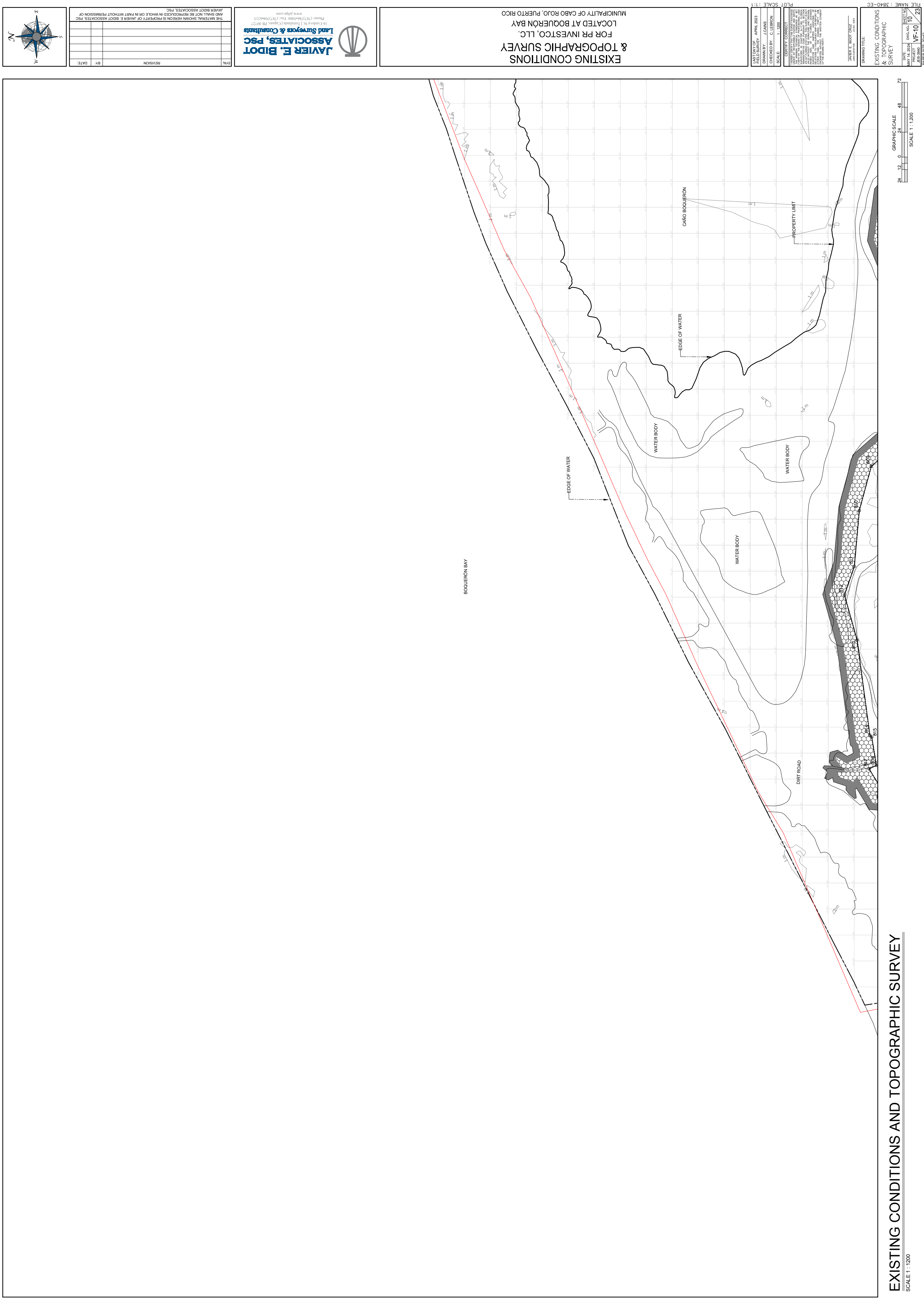
SCALE 1 : 1,200


EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO
JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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SYM.
REVISION
BY:
DATE:
LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1200
CERTIFY CORRECT
JAVIER E. BIDOT CRUZ
LAND SURVEYOR
LIC NO. 12872
PLOT SCALE : 1:1
DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
DWG. NO. VF-10
SHEET NO. 10 / 23
PROJECT JEB-3840
PAPER SIZE: 30x42
FILE NAME : 3840-EC
GRAPHIC SCALE
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SCALE 1 : 1,200
CAÑO BOQUERÓN
PROPERTY LIMIT
EDGE OF WATER
WATER BODY
WATER BODY
WATER BODY
EDGE OF WATER
BOQUERÓN BAY
DIRT ROAD
809
810
811
812
813
814
815
816
817
EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY
SCALE 1 : 1200
PLOT DATE : MAY 14, 2024

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE

24 12 0 24 48 72

SCALE 1 : 1,200

335 of 599

PLOT DATE : MAY 14, 2024

BY | DATE | REVISION

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JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
(A Limited Liability Partnership of Professionals)
Phone: (787) 844-2277 Fax: (787) 844-2215
www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1,200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE NO. 12,467

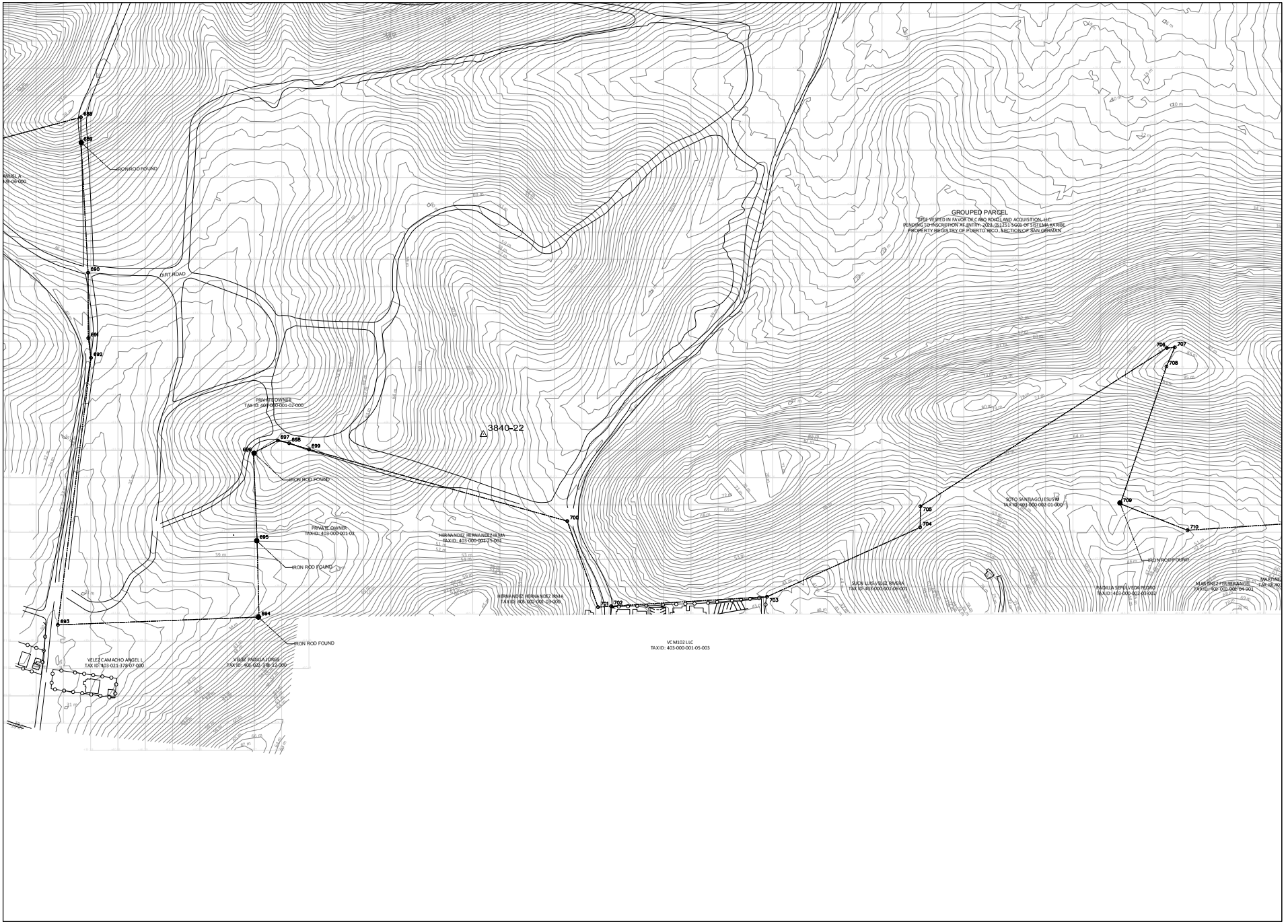
DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.	SHEET NO.
PROJECT: JEB-3840	VF-11	11 of 23

PAPER SIZE: 30x42

PLOT SCALE : 1:1

FILE NAME : 3840-EC



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024

BY	DATE	REVISION

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EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1,200

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE BY ME OR UNDER MY SUPERVISION, AND THAT IT IS CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF. IN ACCORDANCE WITH THE RULES AND REGULATIONS TO GOVERN THE PRACTICE OF LAND SURVEYING IN PUERTO RICO, I FURTHER CERTIFY THAT NO ENCROACHMENTS EXIST, PUBLICLY TO ELECTRIC POLES, TELEPHONE POLES, TELEPHONE BOXES, WATER METERS, WATER VALVES, FIRE HYDRANTS, SEWER MANHOLES, SEWER VALVES, STORM DRAINS, CURB INLETS, MANHOLES, ETC. WITHIN THE LIMITS OF THE PROPERTY SURVEYED, EXCEPT AS SHOWN ON THIS PLAN. I ALSO CERTIFY THAT THIS SURVEY WAS PERFORMED IN ACCORDANCE WITH THE MINIMUM STANDARDS FOR LAND SURVEYING IN PUERTO RICO.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LICENSE NO. 12,967

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE	MAY 14, 2024	DWG. NO.	SHEET NO. 12 of 23
PROJECT	JEB-3840	VF-12	

PAPER SIZE: 30x42

PLOT SCALE 1:1

FILE NAME : 3840-EC

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

JAVIER E. BIDOT
Land Surveyor & Consultant, PSC
Tel. (787)766-4116 Fax. (787)766-6215
www.bidot.com

BY	DATE	REVISION

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PLOT SCALE : 1:1

SURVEY CONTROL		
FIELD WORK	APR. 2023	
DRAWN BY	JCORS	
CHECKED BY	C. LEBRON	
APPROVED	C. LEBRON	

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

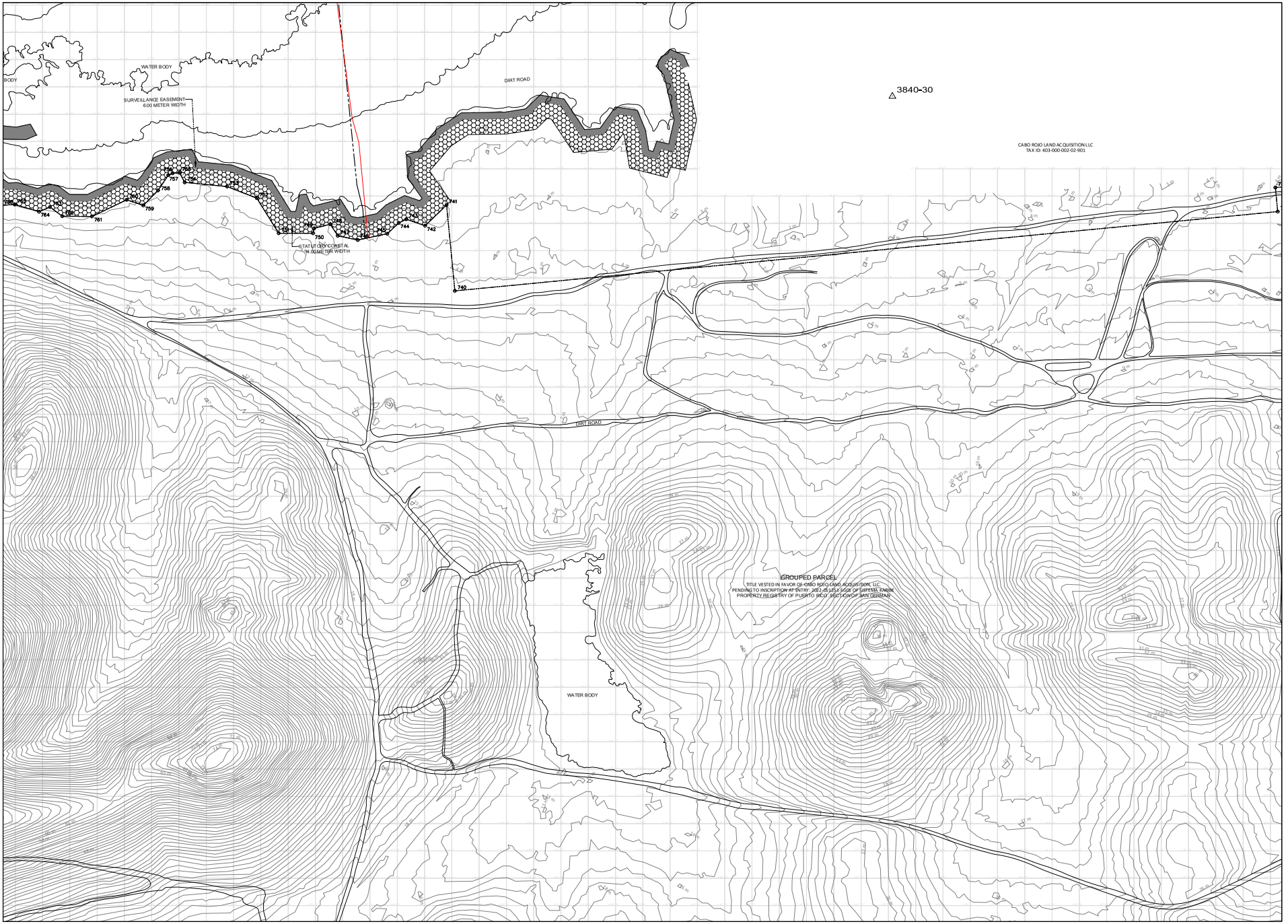
DATE	SHEET NO.
MAY 14, 2024	VF-13
PROJECT NO.	
3840-EC	
PAPER SIZE: 30x42	

FILE NAME : 3840-EC

GRAPHIC SCALE
SCALE 1 : 1,200

EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY
SCALE 1 : 1,200

PLOT DATE : MAY 14, 2024



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE
24 12 0 24 48 72
SCALE 1 : 1,200

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

JAVIER E. BIDOT
ASSOCIATES, PSC
Land Surveyors & Consultants

BY	DATE	REVISION

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1,200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

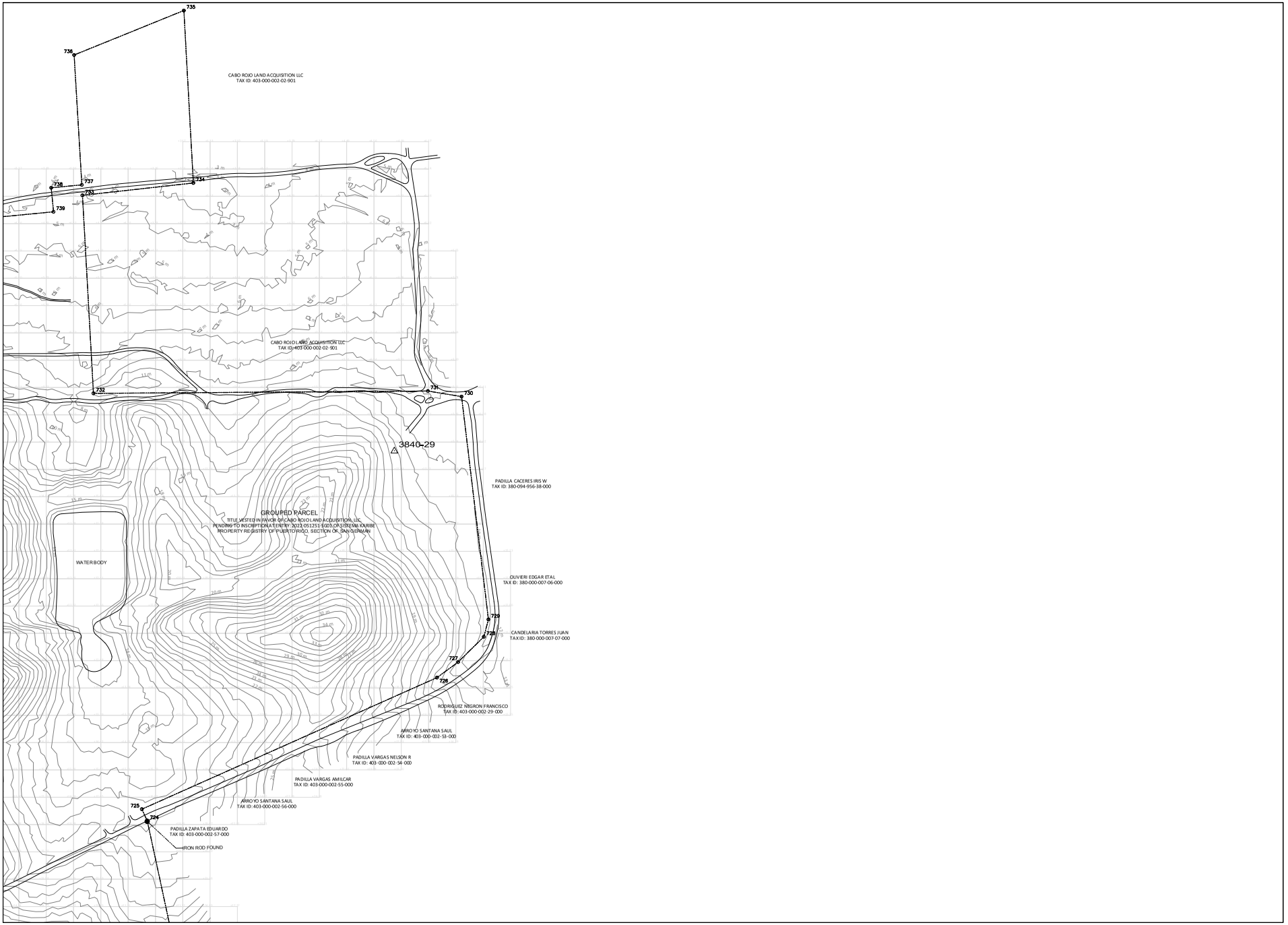
DATE	DWG. NO.	SHEET NO.
MAY 14, 2024	VF-14	14
PROJECT #JEB-3840		23

PAPER SIZE: 30x42

PLOT SCALE: 1:1
FILE NAME : 3840-EC

PLOT DATE : MAY 14, 2024

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO
JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
PLOT SCALE : 1:1
FILE NAME : 3840-EC
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
SCALE 1 : 1,200
PLOT DATE : MAY 14, 2024
GRAPHIC SCALE
SCALE 1 : 1,200
339 of 599



EXISTING CONDITIONS AND TOPOGRAPHIC SURVEY

SCALE 1 : 1200

GRAPHIC SCALE

24 12 0 24 48 72

SCALE 1 : 1,200

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BY	DATE	REVISION

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Phone: (787) 844-2111 Fax: (787) 844-2121
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EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERON BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY	APRIL 2023
DRAWN BY:	J.CAINS
CHECKED BY:	C. LEBRON
SCALE:	1 : 1,200

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LICENSE NUMBER LICENSE DATE

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024	DWG. NO.:	SHEET NO.:
PROJECT: JEB-3840	VF-16	16 of 23

PAPER SIZE: 30x42

PLOT SCALE: 1:1

FILE NAME : 3840-EC

PLOT DATE : MAY 14, 2024

INSCRIPTION DATA

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

PROPERTY: 18,806 (LOT 77)
PAGE: 96
BOOK: 805 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,123.5259 SQ MT =0= 5.3744 CDAS.

RUSTICA: PARCELA NUMERO SETENTA Y SIETE (77) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.) EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES AL NORTE, CON EL MAR CARIBE; POR EL SUR, CON PARCELA NUMERO TREINTA Y OCHO (38) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5)PERTENECEN A ESTA PARCELA; POR EL ESTE, CON PARCELA NUMERO SETENTA Y OCHO (78) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA Y SEIS (76) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 24,096 (LOT 13-A)
PAGE: 212
BOOK: 671 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 422,473.4400 SQ.MT. =O= 107.4890 CDAS.
SURVEYED AREA: 464,921.2455 SQ.MT. =O= 118.2887 CDAS.

RUSTICA: PREDIO DE TERRENO IDENTIFICADO CON EL NÚMERO TRECE GUION "A" (13-A) DEL PLANO DE PARCELACIÓN DE LA FINCA LLAMADA "COROZO", SITO EN EL BARRIO LLANOS COSTA, SECTOR EL COROZO DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CUATROCIENTOS VEINTIDOS MIL CUATROCIENTOS SETENTA Y TRES PUNTO CUARENTA Y CUATRO (422,473.44) METROS CUADRADOS, EQUIVALENTES A CIENTO SIETE PUNTO CUATROCIENTAS OCHENTA Y NUEVE (107.489) CUERDAS. EN LINDES, POR EL NORTE, EN QUINIENTOS CINCO PUNTO CERO CERO OCHENTA Y CINCO (505.0085) METROS LINEALES, CON CAMINO MUNICIPAL DENOMINADO CAMINO PEIiONES; POR EL SUR, EN TRESCIENTOS CUARENTA PUNTO OCHOCIENTOS CUARENTA Y TRES (340.843) METROS LINEALES, CON PREDIO IDENTIFICADO EN EL PIANO DE PARCELACI6N COMO CAMINO DE ACCESO; POR EL OESTE, EN MIL TRESCIENTOS NOVENTA Y DOS PUNTO TRESCIENTOS CUARENTA Y OCHO (1,392.348) METROS LINEALES, CON PREDIO IDENTIFICADO CON EL NUMERO TRECE GUION "B" (13-B) DEL PIANO DE INSCRIPCI6N; Y POR EL ESTE, NOVENTA Y SIETE PUNTO CERO SESENTA Y CUATRO (97.064), CIENTO VEINTINUEVE PUNTO TRESCIENTOS SESENTA Y UNO (129.361) Y MIL DOSCIENTOS SESENTA Y SIETE PUNTO DOS MIL SEISCIENTOS CINCUENTA Y TRES (1,267.2653) METROS LINEALES, CON PREDIOS IDENTIFICADOS EN EL PIANO DE PARCELACI6N CON LOS NUMEROS CATORCE (14) Y QUINCE (15) Y CON PROPIEDADES DE SIGFRIDO VELEZ, SUCESI6N VALENTIN Y SERAFIN VELEZ, RESPECTIVAMENTE, PARA UN TOTAL DE MIL CUATROCIENTOS NOVENTA Y TRES PUNTO SEIS MIL NOVECIENTOS TRES (1,493.6903) METROS LINEALES."

PROPERTY: 18,807 (LOT 78)
PAGE: 91
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.000 CDAS.
SURVEYED AREA: 16,552.0669 SQ.MT. =O= 4.211 CDAS.

RUSTICA: PARCELA NÚMERO SETENTA Y OCHO (78), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5) CUERDAS, EQUIVALENTES A UN (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES; POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO TREINTA Y OCHO (38) Y SERVIDUMBRE DE PASO DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO SETENTA Y NUEVE (79) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO SETENTA Y SIETE (77) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,842 (LOT 108)
PAGE: 1
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2700 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: 19,213.4915 SQ.MT. =O= 4.8884 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO OCHO (108) DE LA FINCA BAHIA BONITA QUE RADICA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE MIL SEISCIENTOS CINCUENTA Y SEIS METROS CUADRADOS CON VEINTISIETE CENTIMETROS CUADRADOS (19,656.27 M.C.), EQUIVALENTES A CINCO CUERDAS CON ONCE DIEZMILESIMAS DE OTRA (5.0011 CUERDAS). EN LINDES, POR EL NORTE, CON LA BAHIA DE BOQUERÓN; POR EL SUR, CON LA PARCELA CIENTO TRECE (113), LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO, DE LOS CUALES SIETE METROS CON CINCUENTA CENTIMETROS (7.50 MTS.) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA CIENTO SIETE (107), LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO; Y POR EL OESTE, CON LA PARCELA CUARENTA Y TRES (43), LA CUAL CONTIENE UNA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE METROS (15 MTS.) DE ANCHO Y CON RICARDO CARLO.

PROPERTY: 18,841 (LOT 107)
PAGE: 295
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: SQ.MT 18,788.0102 =O= 4.7802 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO CIENTO SIETE (107) DE LA BAHIA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE DIECINUEVE MIL SEISCIENTOS CINCUENTA Y SEIS METROS, VEINTICINCO DECIMETROS CUADRADOS (19,656.25 M.C.). EN LINDEROS POR EL NORTE, CON LA BAHIA DE BOQUERÓN; SUR, CON LAS PARCELAS SESENTA Y DOS (62) Y CIENTO TRECE (113) DE LAS CUALES AMBAS CONTIENEN PARTE DE LAS SERVIDUMBRES DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO DE LOS SIETE PUNTO CINCUENTA (7.50) METROS PERTENECEN A ESTA PARCELA; ESTE, CON LA PARCELA CIENTO SEIS (106) LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO; OESTE, CON LA PARCELA NÚMERO CIENTO OCHO (108) LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE QUINCE (15) METROS DE ANCHO. LA COLINDANCIA SUR DE LA FINCA SE HALLA AFECTA A UNA SERVIDUMBRE DE PASO PARA USO VEHICULAR Y PEATONAL DE SIETE PUNTO CINCUENTA (7.50) METROS DE ANCHO POR SESENTA Y CUATRO PUNTO VEINTE (64.20) METROS DE LARGO, AFECTANDO ESTA SERVIDUMBRE TODO LO LARGO DE LA COLINDANCIA SUR Y RESULTANDO EN UN AREA AFECTADA POR DICHA SERVIDUMBRE DE CUATROCIENTOS OCHENTA Y UNO PUNTO CUARENTA Y SIETE (481.47) METROS CUADRADOS, LAS CUALES FORMA PARTE DEL AREA TOTAL DE LA FINCA SEGUN HA SIDO DESCRITA.

PROPERTY: 18,762 (LOT 138)
PAGE: 142
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,171.6639 SQ.MT. =O= 5.3866 CDAS.

RUSTICA: PARCELA NUMERO CIENTO TREINTA Y OCHO (138), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, PARCELA NUMERO TREINTA Y DOS (32) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO SEIS (6) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO QUINCE (15) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO TREINTA (30) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,808 (LOT 79)
PAGE: 97
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 19,659.2923 SQ MT =0= 5.0019 CDAS.

RUSTICA: PARCELA NÚMERO SETENTA Y NUEVE (79), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5) CUERDAS, EQUIVALENTES A UN (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES; POR EL NORTE, EN UNA DISTANCIA DE CINCUENTA Y DOS PUNTO SESENTA Y DOS (52.62) METROS LINEALES, CON EL MAR CARIBE; POR EL SUR, EN UNA DISTANCIA DE CINCUENTA Y DOS PUNTO CINCUENTA Y SIETE (52.57) METROS LINEALES, CON UNA SERVIDUMBRE DE DIEZ (10.00) METROS DE ANCHO, CINCO (5) DE LOS CUALES PERTENECEN A ESTA PARCELA Y QUE LA SEPARA DE LA PARCELA CIENTO SETENTA Y CUATRO (174) DE ENRIQUE CARLO AYMAT; POR EL ESTE, EN UNA DISTANCIA DE TRESCIENTOS SETENTA Y CUATRO PUNTO VEINTICUATRO (374.24) METROS LINEALES, CON LA PARCELA NÚMERO UNO (1) DE LA FINCA SIETE MIL SEISCIENTOS TRES (7,603) DE ENRIQUE CARLO AYMAT; Y POR EL OESTE, EN UNA DISTANCIA DE TRESCIENTOS SETENTA Y CUATRO PUNTO SESENTA Y SEIS (374.66) METROS LINEALES, CON LA PARCEL A SETENTA Y OCHO (78).

PROPERTY:18,839 (LOT. 105)
PAGE: 283
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,364.5933 SQ MT =O= 4.9269 CDAS.

RUSTICA: PARCELA DENOMINADA CIENTO CINCO (105). PARCELA DE TERRENO SITA EN EL BARRIO BOQUERÓN, SECTOR EL COMBATE, CARR. 301, KILOMETRO 7.4 INTERIOR, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO. UBICA EN EL PROYECTO BAHIA BONITA. EL NÚMERO DE LA FINCA PRINCIPAL DE LA CUAL SE SEGREGA ESTA PARCELA ES 55-402-000-02-901. TIENE UNA CABIDA SUPERFICIAL DE 19,653.50 METROS CUADRADOS, EQUIVALENTES A 5.00 CUERDAS. EN LINDEROS: NORTE, EN 64.001 METROS LINEALES, CON LA ZONA MARITIMA TERRESTRE DE LA BAHIA DE BOQUERÓN; SUR, EN DOS ALINEACIONES QUE TOTALIZAN 45.706 METEROS LINEALES, O SEA, 38 METROS LINEALES, CON LA SERVIDUMBRE DE PASO QUE SIRVE AL SOLAR Y EN 7.50 METROS LINEALES, CON LA PARCELA #62 DEL PROYECTO BAHIA BONITA; ESTE, EN DOS ALINEACIONES QUE TOTALIZAN 317.577 METROS LINEALES, CON TERRENOS DE LA SUCESIÓN RAMIREZ DE ARELLANO; OESTE, EN 307.900 METROS LINEALES, CON LA PARCELA #106 DEL PROYECTO BAHIA BONITA. SERVIDUMBRE: EN LA ESQUINA DE LA PARCELA #105 EN LA CUAL CONVERGEN LAS COLINDANCIAS SUR Y OESTE UBICA UNA SERVIDUMBRE DE PASO QUE TIENE UNA CABIDA SUPERFICIAL DE 288.90 METROS CUADRADOS Y SUS COLINDANCIAS SON: NORTE, EN 28.206 METROS LINEALES, CON LOS TERRENOS DE LA PARCELA #105 DEL PROYECTO BAHIA BONITA; POR EL SUR, EN 38.341 METROS LINEALES, CON LA PARCELA #62 DEL PROYECTO BAHIA BONITA; POR EL ESTE, EN 7.50 METROS LINEALES, CON TERRENOS DE LA PARCELA #105 DEL PROYECTO BAHIA BONITA; POR EL OESTE, EN 7.501 METROS LINEALES, CON TERRENOS DE LA PARCELA #106 DEL PROYECTO BAHIA BONITA.

PROPERTY: 18,694 (LOT 16)
PAGE: 13
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 20,033.1585 SQ MT =0= 5.0970 CDAS.

RUSTICA: PARCELA NUMERO DIECISEIS (16), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE LOS HERMANOS RUIZ Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5)METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA· PARCELA NUMERO SESENTA Y CUATRO (64) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO CIENTO OCHENTA (180) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, PARCELA NUMERO QUINCE (15) Y SERVIDUBRE DE PASO DE DIEZ (10.00) METROS, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,779 (LOT 15)
PAGE: 148
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 23027.7787 SQ. MTS =O= 5.8589 CDAS.

RUSTICA: PARCELA NUMERO QUINCE (15) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, PARCELA NUMERO DIECISEIS (16) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5)METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA· PARCELA NUMERO SEIS (6) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN. A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO DIECISEIS (16)Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE· ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON LA PARCELA NUMERO CIENTO TREINTA Y OCHO (138)Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,707 (LOT 54)
PAGE: 34
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 21,551.9387 SQ.MT. =O= 5.4834 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y CUATRO (54) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES AL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y TRES (53) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON TERRENOS DE RICARDO ENRIQUE CARLO DIAZ Y POR EL OESTE, CON LA PARCELA NUMERO CINCUENTA Y CINCO (55).

PROPERTY: 18,696 (LOT 33)
PAGE: 25
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,020.4014 SQ MT. =O= 5.6026 CDAS.

RUSTICA: PARCELA NUMERO TREINTA Y TRES (33), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTE A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE VICTOR QUILES Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) METROS, PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCO (5) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO CIENTO TREINTA Y OCHO (138) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA Y POR EL OESTE, CON SERVIDUMHRE DE PASO DE VEINTE PUNTO SESENTA (20.60) METROS DE ANCHO.

PROPERTY: 18,709 (LOT 56)
PAGE: 41
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: = 22,626.4242 SQ MT. =O= 5.7568 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y SEIS (56), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y DOS (52); POR I EL ESTE, CON LA PARCELA NUMERO CINCUENTA Y CINCO (55) Y POR I (57).

PROPERTY: 18,710 (LOT 57)
PAGE: 44
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,139.3584 SQ MT =0= 5.1240 CDAS.

RUSTICA: PARCELA NÚMERO CINCUENTA Y SIETE (57), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LAS PARCCILAS NUMEROS CIENTO OCHENTA (180) Y CINCUENTA Y DOS (52); POR EL ESTE, CON LA PARCELA NUMERO I CINCUENTA Y SEIS (56) Y POR EL OESTE, CON TERRENOS DE LOS 1 HERMANOS RUIZ Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,813 (LOT 178)
PAGE: 187
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,958.3058 SQ MT. =O= 5.0779 CDAS.

RUSTICA: PARCELA NUMERO CIENTO SETENTA Y OCHO (178), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LAS PARCELAS NUMEROS CINCO (5), SEIS (6) Y SESENTA Y CUATRO (64 Y; SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE IOSL CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR,; CON LAS PARCELAS NUMEROS CIENTO SETENTA Y SEIS (176) Y SESENTA Y SEIS (66) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NUMERO TREINTA Y DOS (32) Y POR EL OESTE, CON LA PARCELA NUMERO CIENTO SETENTA Y SEIS (176) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) ' METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.

PROPERTY: 18,715 (LOT 69)
PAGE: 139
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,691.5244 SQ MT. =O= 5.0101 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y NUEVE (69) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NUMERO OCHENTA Y TRES (83) Y SERVIDUMBRE DE I PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO, (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO SESENTA Y OCHO (68) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA (70) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA (70) Y SERVIDUMBRE DE PASO DE ' DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) , PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO OCHENTA Y UNO (81).

PROPERTY: 18,716 (LOT 70)
PAGE: 62
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,714.7056 SQ MT. =O= 5.0160 CDAS.

RUSTICA: PARCELA NUMERO SETENTA (70) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON EL MAR CARIHE; POR EL SUR, CON LA PARCELA NUMERO OCHENTA Y UNO (81) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO SESENTA Y NUEVE (69) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SETENTA Y UNO (71) Y POR EL OESTE, CON EL MAR CARIHE ANTES, HOY CON LA PARCELA NUMERO SESENTA Y NUEVE (69).

PROPERTY: 18,721 (LOT 81)
PAGE: 142
BOOK: 864 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19744.2876 SQ MT. =O= 5.0235 CDAS.

RUSTICA: PARCELA NUMERO 81 RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.00 CUERDAS, EQUIVALENTES A 1 HECTAREAS, 96 AREAS Y 60 CENTIAREAS. EN LINDES POR EL NORTE, CON PARCELA #70 Y SERVIDUMBRE DE PASO 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA ANTES, HOY EN EL MAR CARIBE; POR EL SUR, CON TERRENOS DEL SR. JOSE FAS ANTES, HOY CON SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA #82 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENCEN A ESTA PARCELA ANTES, HOY #69 POR EL OESTE, CON LA PARCELA #80 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA APARCELA ANTES, HOY CON LA PARCELA #80.

PROPERTY: 18,719 (LOT 73)
PAGE: 163
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20232.7025 SQ MT. =O= 5.1478 CDAS.

RUSTICA: PARCELA NUMERO SETENTA Y TRES (73), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CAHO ROJO, PUERTO RICO, CON UNA CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y DOS (72) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LAS PARCELAS NUMERO SETENTA Y UNO (71) Y SETENTA Y DOS (72); POR EL SUR, CON LAS PARCELAS NUMEROS SESENTA Y SIETE (67) Y SESENTA Y OCHO (68) Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA Y CINCO (65); POR EL ESTE, CON LAS PARCELAS NUMEROS SESENTA Y CINCO (65) Y SESENTA Y SEIS (66) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO TREINTA Y SIETE (37) Y POR EL OESTE, CON LA PARCELA NUMERO SETENTA Y UNO (71) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA ANTES, HOY CON LA PARCELA NUMERO SESENTA Y OCHO (68) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO.

PROPERTY: 18,711 (LOT 65)
PAGE: 115
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 218,289.4300 SQ.MT. =O= 55.5388 CDAS.
SURVEYED AREA: 19,888.3404 SQ.MT. =O= 5.0601 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y CINCO (65) RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) . CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SESENTA Y TRES (73); POR EL SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO VEINTINUEVE (29) Y POR EL OESTE, CON LAS PARCELAS NUMERO SESENTA Y OCHO (68) Y OCHENTA Y CUATRO (84).

PROPERTY: 18,783 (LOT 29)
PAGE: 247
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,750.4213 SQ MT. =O= 5.0250 CDAS.

RUSTICA: PARCELA NUMERO VEINTINUEVE (29), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA NUMERO SETENTA Y SIETE (77) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) METROS PERTENECEN A ESTA PARCELA; POR EL SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NUMERO TREINTA Y OCHO (38) Y POR EL OESTE, CON LA PARCELA NUMERO SESENTA Y CINCO (65).

PROPERTY: 18,708 (LOT 55)
PAGE: 37
BOOK: 867 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 23535.7454 SQ MT. =O= 5.9881 CDAS.

RUSTICA: PARCELA NUMERO CINCUENTA Y CINCO (55), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON CAHIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON TERRENOS DE MERINO QUIRINO PEDROSO Y SERVIDUMHRE DE PASO DE DIEZ (10.00) METROS DE ANCHO DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NUMERO CINCUENTA Y DOS (52); POR EL ESTE, CON LA PARCELA NUMERO CINCUENTA Y CUATRO (54)

PROPERTY: 18,790 (LOT 38)
PAGE: 289
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,021.5593 SQ MT. =O= 5.0940 CDAS.

RUSTICA: PARCELA NUMERO TREINTA Y OCHO (38), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIAREAS. EN LINDES POR EL NORTE, CON LA PARCELA MIMERO CUARENTA Y UNO (41); POR EL, SUR, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL ESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NUMERO VEINTINUEVE (29).

PROPERTY: 18,713 (LOT 67)
PAGE: 127
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.000 CDAS.
SURVEYED AREA: 20,137.9900 SQ MT. =O= 5.1237 CDAS.

RUSTICA: PARCELA NUMERO SESENTA Y SIETE (67), RADICADA EN EL BARRIO BOQUERON DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTAREA, NOVENTA Y SEIS (96) AREAS Y SESENTA (60) CENTIIIREAS. EN LINDES POR EL NORTE, CON SERVIDUMBRE DE I PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL SUR, CON I TERRENOS DE JOSE FAS; POR EL ESTE, CON LA PARCELA NUMERO DIECISIETE (17) Y POR EL OESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO.

PROPERTY: 18,780 (LOT. 17)
PAGE: 229
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2700 SQ.MT. =O= 5.0011 CDAS.
SURVEYED AREA: 21562.3366 SQ MT. =O= 5.4860 CDAS.

RUSTICA: PARCELA NÚMERO DIECISIETE (17) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.00 CDAS.), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDES POR EL NORTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; POR EL SUR, CON TERRENO DE JOSÉ FAS; POR EL ESTE, CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO Y POR EL OESTE, CON LA PARCELA NÚMERO SESENTA Y SIETE (67).

PROPERTY: 24,097 (LOT 13-B)
PAGE: 215
BOOK: 671 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 422,473.440 SQ.MT. =O= 107.489 CDAS.
SURVEYED AREA: 492,773.8943 SQ.MT. =O= 125.3751 CDAS.

RUSTICA: PREDIO DE TERRENO IDENTIFICADO CON EL NUMERO TRECE GUION "B" (13-B) EN EL PIANO DE PARCELACIÓN DE LA FINCA DENOMINADA COROZO, SITO EN EL BARRIO LLANOS COSTA, SECTOR EL COROZO DEL TERMINO MUNICIPAL DE CABO ROJO, PUERTO RICO Y CON UNA CABIDA SUPERFICIAL DE CUATROCIENTOS VEINTIDOS MIL CUATROCIENTOS SETENTA Y TRES PUNTO CUARENTA Y CUATRO (422,473.44) METROS CUADRADOS, EQUIVALENTES A CIENTO SIETE PUNTO CUATROCIENTAS OCHENTA Y NUEVE (107.489) CUERDAS. COLINDA, AL NORTE, EN SEISCIENTOS VEINTIOCHO PUNTO NUEVE MIL SEISCIENTOS OCHENTA Y DOS (628.9682) METROS LINEALES CON CAMINO MUNICIPAL DENOMINADO CAMINO PENONES; POR EL SUR, EN CUATROCIENTOS CUARENTA Y SIETE PUNTO CERO CUARENTA (447.040) Y CIENTO SETENTA Y NUEVE PUNTO TRESCIENTOS CINCUENTA Y NUEVE (179.359) METROS LINEALES, CON PREDIO IDENTIFICADO CON EL NUMERO DOCE (12) Y CAMINO DE ACCESO DEL PIANO DE PARCELACION; AL ESTE, EN MIL TRESCIENTOS NOVENTA Y DOS PUNTO TRESCIENTOS CUARENTA Y OCHO (1,392.348) METROS LINEALES, CON PREDIO IDENTIFICADO EN EL PIANO DE PARCELACION CON EL NUMERO TRECE GUI6N "A" (13-A); Y AL OESTE, EN MIL CUATROCIENTOS VEINTIUNO PUNTO MIL OCHOCIENTOS SESENTA Y DOS (1,421.1862) METROS LINEALES CON PROPIEDAD DE ALFREDO RAMIREZ DE ARELLANO."

PROPERTY: 18,831 (LOT 22)
PAGE: 235
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 20,427.676 SQ.MT. =O= 5.1979 CDAS.
SURVEYED AREA: 20,419.7597 SQ MT =0= 5.19553 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO, PUERTO RICO. SOLAR: 22. CABIDA: 20,427.676 METROS CUADRADOS. LINDEROS: NORTE, CON LA PARCELA NÚMERO 53 DE MONTE CARLO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO. SUR, CON LA PARCELA NÚMERO 89 DE MONTE CARLO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO. ESTE, CON LA PARCELA 45 DEL FIDEICOMISO BAHÍA BONITA, INC., LA CUAL CONTIENE UNA SERVIDUMBRE DE PASO DE 5.00 METROS DE ANCHO PARA EL ESTABLECIMIENTO DE UTILIDADES PÚBLICAS Y CON LA PARCELA 46 DEL FIDEICOMISO BAHÍA BONITA, INC. OESTE, CON LA PARCELA NÚMERO 40 DE MONTE CLARO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO.
NOTE: THIS IS THE DESCRIPTION AFTER MEASUREMENT, PURSUANT TO DEED NUMBER 23, BAYAMÓN, PUERTO RICO, ON JUNE 19, 2018, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT THE KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,831, 14TH INSCRIPTION.

PROPERTY: 18,792 (LOT 44)
PAGE: 1
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 21,718.63 SQ.MT. =O= 5.5258 CDAS.
SURVEYED AREA: 21,490.5754 SQ MT =0= 5.4678 CDAS.

RÚSTICA: PARCELA MARCADA CON EL NÚMERO 44 DE LA FINCA BAHIA BONITA, RADICADA DE BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE VEINTIÚN MIL SETECIENTOS DIECIOCHO METROS, SESENTA Y TRES DECIMETROS CUADRADOS, (21,718.63 M/C). EN LINDES POR NORTE, CON LA PARCELA NÚMERO 43; POR EL SUR, CON LA PARCELA NÚMERO 45 Y CON LA PARCELA 110 QUE CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO 112 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO; Y POR EL OESTE, CON MONTE CARLO DEVELOPMENT CORPORATION. ESTA PARCELA ESTA AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 742.32 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 94.36 METROS LINEALES DE LARGO POR SU COLINDANCIA SUR.
DESCRITA FUEGO DE RECTIFICACIÓN DE CABIDA POR EL AGRIMENSOR FRANK LOZADA DÍAS, MEDIANTE LA ESCRITURA NÚMERO 29, OTORGADA EN CABO ROJO, PUERTO RICO, EL DÍA 13 DE FEBRERO DE 2004, ANTE EL NOTARIO LUIS ROBERTO SANTOS, E INSCRITO AL FOLIO 154 VUELTO DEL TOMO 841 DE CABO ROJO, FINCA NÚMERO 18,792, INSCRIPCIÓN 4TA.
ESTA PARCELA ES PARA USO AGRICOLA.

PROPERTY: 18,796 (LOT 58)
PAGE: 193
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 20,593.40 SQ.MT. =O= 5.2395 CDAS.
SURVEYED AREA: 19,553.9663 SQ MT =0= 4.9751 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 58 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE VEINTE MIL QUINIENTOS NOVENTA Y TRES METROS CUARENTA DECÍMETROS CUADRADOS (20,593.40 M/C),(EQUIVALENTES A CINCO CUERDAS CON DOS MIL TRESCIENTOS NOVENTA Y CINCO DIEZ MILÉSIMAS DE OTRA (5.2395-CDAS). RU. LINDEROS: NORTE, CON LA PARCELA #59 QUE CONTIENE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA; SUR, CON LA PARCELA #34 QUE CONTIENÈ EN SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA; ESTE, CON LA PARCELA #57; OESTE, CON LAS PARCELAS 109, 111 Y 46 LAS CUALES TODAS CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA. ESTA PARCELA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 1647.96 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 220.32 METROS LINEALES DE LARGO POR SU COLINDANCIA OESTE.
RECTIFICADA LA CABIDA POR HABER SIDO OBJETO DE MENSURA POR EL AGRIMENSOR FRANK LOZADA DIAZ, CON LICENCIA # 5787, CERTIFICADA MEDIANTE DECLARACIÓN JURADA 15300 DEL 10 DE FEBRERO DEL 2004 ANTE EL NOTARIO LUIS ROBERTO SANTOS Y ESCRITURA # 37, OTORGADA EN MAYAGÜEZ, EL DÍA 1 DE MARZO DEL 2004 ANTE EL MISMO NOTARIO. INSCRITA AL FOLIO 193 VUELTO DEL TOMO 841 DE CABO ROJO, INSCRIPCIÓN 40.

PROPERTY: 18,797 (LOT 59)
PAGE: 31
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN
RECORDED AREA: 19,656.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 22,912.7218 SQ MT =0= 5.8296 CDAS.

RUSTICA: PARCELA NÚMERO CINCUENTA Y NUEVE (59) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO SESENTA (60) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y TRES DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CUENTO DOCE (112) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO VENTIDOS (22) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
ESTA PARCELA ES PARA USO AGRÍCOLA.

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

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EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1
PLOT SCALE: 1:1

CERTIFY CORRECT
JAVIER E. BIDOT CRUZ, LAND SURVEYOR

DRAWING TITLE: EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO. VF-17
SHEET NO. 17 / 23
PAPER SIZE: 30x42
FILE NAME : 3840-EC

INSCRIPTION DATA

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

PROPERTY: 18,798 (LOT 60)
PAGE: 202
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,706.93 SQ.MT. =O= 5.0140 CDAS.
SURVEYED AREA: SQ MT =0= CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 60 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE DIECINUEVE MIL SETECIENTOS SEIS METROS NOVENTA Y DOS DECÍMETROS CUADRADOS (19,706.92 M/C), EQUIVALENTES A 5.0140 CUERDAS. EN LINDEROS: NORTE, CON PARCELA #61 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO; SUR, CON PARCELA #59 QUE CONTIENE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO PARA ESTA PARCELA, ESTE, CON FINCA DE LOS RAMÍREZ DE ARRELLANO; OESTE, CON LAS PARCELAS 104 Y 109 LAS CUALES AMBAS CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA. ESTA FINCA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO, COMPUESTA DE 1,028.21 M/C LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 137.14 METROS LINEALES DE LARGO POR SU COLINDANCIA OESTE.

RECTIFICADA LA CABIDA POR HABER SIDO OBJETO DE MENSURA POR EL AGRIMENSOR FRANK LOZADA DIAZ, CON LICENCIA # 5787, CERTIFICADA MEDIANTE DECLARACIÓN JURADA 15301 DEL 10 DE FEBRERO DEL 2004 ANTE EL NOTARIO LUIS ROBERTO SANTOS Y ESCRITURA # 38, OTORGADA EN MAYAGÜEZ, EL DÍA 1 DE MARZO DEL 2004 ANTE EL MISMO NOTARIO. INSCRITA AL FOLIO 202 DEL TOMO 841 DE CABO ROJO, INSCRIPCIÓN 4O.

PROPERTY: 18,843 (LOT 109)
PAGE: 165
BOOK: 143 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,905.17 SQ.MT. =O= 5.5736 CDAS.
SURVEYED AREA: SQ MT =0= CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 109 DE LA FINCA BAHIA BONITA RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA DE 21,906.17 METROS CUADRADOS, EQUIVALENTES A 5.5735 CUERDAS. EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO 104; POR EL SUR, CON LA PARCELA NÚMERO 58 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LAS PARCELAS NÚMERO 59 Y 60 QUE CONTIENEN AMBAS PARTES DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LAS PARCELAS NÚMERO 110, 111 Y 112 LAS CUALES CONTIENEN PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA.

ESTA PARCELA ESTÁ AFECTADA POR UNA SERVIDUMBRE DE PASO COMPUESTA DE 3,656.62 METROS CUADRADOS LA CUAL SE COMPONE DE 7.50 METROS LINEALES DE ANCHO POR 492.47 METROS LINEALES DE LARGO POR SUS COLINDANCIAS SUR, ESTE Y OESTE PARA USO AGRÍCOLA. DICHA FINCA FUE MENSURADA POR EL AGRIMENSOR FRANK LOZADA DÍAZ EL DÍA 10 DE FEBRERO DE 2004.

PROPERTY: 18,699 (LOT 41)
PAGE: 43
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,885.9676 SQ.MT. =O= 5.3140 CDAS.
SURVEYED AREA: 20, 885.9678 SQ MT =O= 5.3140 CDAS.

RUSTICA: PARCELA NÚMERO 41, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 20,885.9676 METROS CUADRADOS, EQUIVALENTES A 5.3140 CUERDAS. EN LINDEROS: POR EL NORTE, CON CAMINO A DEDICARSE A USO PÚBLICO; POR EL SUR, CON LA PARCELA 38; POR EL ESTE, CON CAMINO A DEDICARSE A USO PÚBLICO; Y POR EL OESTE, CON LA PARCELA 37.

NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 43, ISSUED IN SAN JUAN, ON NOVEMBER 18, 2004, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, CLARIFIED BY DEED NUMBER 28, ISSUED IN CABO ROJO, PUERTO RICO, ON DECEMBER 29, 2010, BEFORE NOTARY OSVALDO ORTIZ MEDINA, AND RECORDED AT PAGE 23 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,699, 7TH INSCRIPTION.

PROPERTY: 18,814 (LOT 179)
PAGE: 133
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,559.3307 SQ.MT. =O= 5.2309 CDAS.
SURVEYED AREA: 20,559.3304 SQ.MT. =O= 5.2309 CDAS.

RUSTICA: PARCELA NÚMERO, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.2309 CUERDAS, EQUIVALENTES A 20,559.3307 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; POR EL SUR, CON LAS PARCELAS 39 Y 40; POR EL ESTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; Y POR EL OESTE, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 22, ISSUED IN CAGUAS, PUERTO RICO, ON AUGUST 11, 2009, BEFORE NOTARY OSVALDO ORTIZ MEDINA, AND RECORDED AT PAGE 191 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,814, 8TH INSCRIPTION.

PROPERTY: 18,815 (LOT 180)
PAGE: 139
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,529.7153 SQ.MT. =O= 5.4770 CDAS.
SURVEYED AREA: 21,702.9562 SQ.MT. =O= 5.5218 CDAS.

RUSTICA: PARCELA 180, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.477 CUERDAS, EQUIVALENTES A 21,529.7153. EN LINDES POR EL NORTE, CON LA PARCELA 57; POR EL SUR, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA 52 Y SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO; Y POR EL OESTE, CON LA PARCELA 16.

NOTE: THIS IS THE DESCRIPTION AFTER RECTIFIED MEASUREMENT, ISSUED IN CABO ROJO, PUERTO RICO, ON AUGUST 10, 2009, BEFORE NOTARY OSVALDO ORTIZ MEDINA, PROPERTY NUMBER 18,815, AND RECORDED AT PAGE 194 OF VOLUME 864 OF CABO ROJO, 5TH INSCRIPTION.

PROPERTY: 18,697 (LOT 39)
PAGE: 31
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,835.769 SQ.MT. =O= 5.3012 CDAS.
SURVEYED AREA: 20,816.797 SQ.MT. =O= 5.2964 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO, PUERTO RICO, SOLAR: 39. CABIDA: 20,835.769 METROS CUADRADOS. LINDEROS: POR EL NORTE, CON LA PARCELA NÚMERO 179 DE MONTE CARLO; POR EL SUR, CON CAMINO DE ACCESO DE 14 METROS QUE LO SEPARA DE LA PARCELA 103 DE MONTE CARLO; POR EL ESTE, CON LA PARCELA NÚMERO 40 DE MONTE CARLO, PROPIEDAD DE LA SRA. VALERIE M. HERNÁNDEZ ALVARADO; Y POR EL OESTE, CON LA PARCELA NÚMERO 174 DE MONTE CARLO.

NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 22, ISSUED IN BAYAMÓN, ON JUNE 19, 2018, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,697, 13TH INSCRIPTION.

PROPERTY: 18,725 (LOT 85)
PAGE: 199
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19651.9781 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20282.1421 SQ MT. =O= 5.16 CDAS.

RUSTICA: PARCELA NÚMERO OCHENTA Y CINCO (85) RADICADA EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000) EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LAS PARCELAS NÚMERO SESENTA Y SEIS, NÚMERO SESENTA Y SIETE Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON TERRENOS DEL SEÑOR JOSÉ FAS; POR EL ESTE, CON LA PARCELA NÚMERO OCHENTA Y SEIS Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO OCHENTA Y CUATRO Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.

PROPERTY: 18,698 (LOT 40)
PAGE: 37
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,157.842 SQ.MT. =O= 5.1287 CDAS.
SURVEYED AREA: 20,157.6959 SQ MT =O= 5.1287 CDAS.

RUSTICA: BARRIO BOQUERÓN DE CABO ROJO. SOLAR: 40 (MENSURADO). CABIDA: 20,157.842 METROS CUADRADOS. LINDEROS:NORTE, CON SU CAMINO DE ACCESO DE 14.00 METROS Y CON LA PARCELA 179 DE MONTE CARLO. POR EL SUR, CON CAMINO DE ACCESO DE 14.00 METROS DE ANCHO QUE LA SEPARA DE LA PARCELA 97. POR EL ESTE, CON LA PARCELA 22 PROPIEDAD DE VALERIE M. HERNANDEZ ALVARADO Y CON SU CAMINO DE ACCESO DE 14.00 METROS DE ANCHO QUE LA SEPARA DE LA PARCELA 89. Y POR EL OESTE, CON LA PARCELA 39 PROPIEDAD DE VALERIE M. HERNANDEZ ALVARADO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 29, ISSUED IN BAYAMÓN, ON MAY 2, 2019, BEFORE NOTARY ROBERTO ALMODÓVAR RODRÍGUEZ, AND RECORDED AT KARIBE VOLUME OF CABO ROJO, PROPERTY NUMBER 18,698, 13TH INSCRIPTION.

PROPERTY: 18,706 (LOT 53)
PAGE: 85
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,381.4850 SQ.MT. =O= 5.1856 CDAS.
SURVEYED AREA: 19,212.5906 SQ.MT. =O= 4.8882 CDAS.

RUSTICA: PARCELA NÚMERO 53, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 5.1856 CUERDAS, EQUIVALENTES A 20,381.4850 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON LA PARCELA 54; POR EL SUR, CON SERVIDUMBRE DE PASO DE 13.00 METROS DE ANCHO Y LA PARCELA 22; POR EL ESTE, CON TERRENOS DE RICARDO ENRIQUE CARLO DÍAZ; Y POR EL OESTE, CON LA PARCELA 52.
DESCRITA LUEGO DE RECTIFICACIÓN DE CABIDA POR MENSURA, REALIZADA POR EL INGENIERO LUIS S. BERRIOS MONTE, SEGÚN CONSTA DE LA ESCRITURA NÚMERO 22, OTORGADA EN CAGUAS, PUERTO RICO, EL DÍA 11 DE AGOSTO DE 2009, ANTE EL NOTARIO OSVALDO ORTIZ MEDINA, E INSCRITO AL FOLIO 32 VUELTO DEL TOMO 864 DE CABO ROJO, FINCA NÚMERO 18,706, INSCRIPCIÓN 8VA.

PROPERTY: 18,720 (LOT 80)
PAGE: 169
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,651.9781 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,677.9782 sq mt. =O= 5.01 CDAS.

RUSTICA: PARCELA NÚMERO 80, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS Y 60 CENTIÁREAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 70 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LA CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON TERRENOS DE JOSÉ FAS, ANTES, HOY CON LA PARCELA 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NÚMERO 81 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA 81; Y POR EL OESTE, CON LA PARCELA NÚMERO 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE. PARA USOS DE FINES AGRICOLAS.

PROPERTY: 18,695 (LOT 32)
PAGE: 19
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,149.1051 SQ. MT =O= 5.64 CDAS.

RUSTICA: PARCELA NÚMERO TREINTA Y DOS (32) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS ÁREAS (96) Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y UNO (41) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO SESENTA Y CINCO (65) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO TREINTA Y NUEVE (39) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON PARCELA NÚMERO SETENTA Y TRES (73) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.

PROPERTY: 18,844 (LOT 110)
PAGE: 13
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 17,145.1235 SQ MT =O= 4.3622 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO DIEZ (110) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CIENTO NUEVE (109) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO ONCE (111) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y CINCO (45) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,845 (LOT 111)
PAGE: 19
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 17,145.1235 SQ MT =O= 4.3622 CDAS.

RUSTICA: PARCELA DE NÚMERO CIENTO ONCE (111) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CIENTO DIEZ (110) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CINCUENTA Y OCHO (58) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO LE PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,838 (LOT 104)
PAGE: 277
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 18,526.0984 SQ MT =O= 4.7135 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO CUATRO (104) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LAS PARCELAS NÚMEROS CIENTOS DOCE (112) Y CIENTO TRECE (113) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO NUEVE (109) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CUARENTA Y TRES (43) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,830 (LOT 19)
PAGE: 229
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 20,284.0211 SQ.MT. =O= 5.1608 CDAS.

RUSTICA: PARCELA NÚMERO DIECINUEVE (19) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO CATORCE (14) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO UNA (1) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO OCHENTA Y UNA (181) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,781 (LOT 20)
PAGE: 235
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 26,940.6211 SQ.MT. =O= 6.8544 CDAS.

RUSTICA: PARCELA NÚMERO VEINTE (20) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y SIETE (47) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO VEINTIUNO (21) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PIES PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CINCUENTA Y SIETE (57) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO DIEZ (10) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,794 (LOT 46)
PAGE: 13
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 30,321.6115 SQ.MT =O= 7.7146 CDAS.

RUSTICA: PARCELA NÚMERO CUARENTA Y SEIS (46) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000) EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO CUARENTA Y CINCO (45) Y SERVIDUMBRES DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y SIETE (47) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CIENTO ONCE (111) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO (8) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES COMO PERTENECEN A ESTA PARCELA NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,793 (LOT 45)
PAGE: 7
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 30,321.6115 SQ MT =O= 7.7146 CDAS.

RUSTICA: PARCELA NÚMERO CUARENTA Y CINCO (45) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO (5.00) CUERDAS, EQUIVALENTES A 1 HECTÁREAS, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDES POR EL NORTE, CON LA PARCELA CUARENTA Y CUATRO (44) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA CIENTO DIEZ (110) Y SERVIDUMBRE DE PASC DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO OCHO (8) Y SERVIDUMBRE DE PASO DIEZ (10.00) METROS ANCHO, DE LOS CUALES CINCO (5.00) PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,714 (LOT 68)
PAGE: 133
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 20,714.9315 SQ.MT. =O= 5.2704 CDAS.
SURVEYED AREA: 20,715.7279 SQ MT =O= 5.2704 CDAS.

RUSTICA: PARCELA NÚMERO 68, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 20,714.9315 METROS CUADRADOS, EQUIVALENTES A 5.2704 CUERDAS. EN LINDES: POR EL NORTE, CON CAMINO A DEDICARSE A USO PÚBLICO Y LA PARCELA NÚMERO 71; POR EL SUR, CON LA PARCELA NÚMERO 84; POR EL ESTE, CON LAS PARCELAS NÚMEROS 71, 73 Y 65; Y POR EL OESTE, CON CAMINO A DEDICARSE A USO PÚBLICO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 3, ISSUED IN CABO ROJO, ON JANUARY 30, 2008, BEFORE NOTARY OSVALDO ORTIZ MEDINA, CLARIFIED BY DEED NUMBER 15, ISSUED IN CABO ROJO, PUERTO RICO, ON MAY 27, 2009, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, AND RECORDED AT PAGE 56 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,714, 7TH INSCRIPTION.
NOTE:

PROPERTY: 18,724 (LOT 84)
PAGE: 193
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,691.9973 SQ.MT. =O= 5.0102 CDAS.
SURVEYED AREA: 19,694.6833 SQ MT =O= 5.0109 CDAS.

RUSTICA: PARCELA NÚMERO 84, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 19,691.9973 METROS CUADRADOS, EQUIVALENTES A 5.0102 CUERDAS, EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO 68; POR EL SUR, CON CAMINO A DEDICARSE A USO PÚBLICO; POR EL ESTE, CON LA PARCELA NÚMERO 65; Y POR EL OESTE, CON CAMINO A DEDICARSE A USO PÚBLICO.
NOTE: THE DESCRIPTION IS THE RESULT OF A SURVEY CERTIFICATION, PURSUANT TO DEED NUMBER 3, ISSUED IN CABO ROJO, ON JANUARY 30, 2008, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, CLARIFIED BY DEED NUMBER 15, ISSUED IN CABO ROJO, PUERTO RICO, ON MAY 27, 2009, BEFORE NOTARY OSVALDO ORTÍZ MEDINA, AND RECORDED AT PAGE 86 OF VOLUME 864 OF CABO ROJO, PROPERTY NUMBER 18,714, 7TH INSCRIPTION.

PROPERTY: 18,847 (LOT 113)
PAGE: 31
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 21,322.3403 SQ MT =O= 5.4250 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO TRECE (113) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON LA PARCELA NÚMERO CIENTO SIETE (107) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO CIENTO CUATRO (104) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA SUCESIÓN MORALES DÍAZ; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO DOCE (112) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO METROS PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,816 (LOT 181)
PAGE: 145
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 36,733.6034 SQ.MT. =O= 9.3460 CDAS.

RUSTICA: PARCELA NÚMERO CIENTO OCHENTA Y UNA (181) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES: POR EL NORTE, CON EL MAR CARIBE; POR EL SUR, CON LA PARCELA NÚMERO CATORCE (14) Y SERVIDUMBRE DE PASO DE DIEZ METRO DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO DIECINUEVE (19) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTE PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO CIENTO OCHENTA Y DOS (182) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,720 (LOT 80)
PAGE: 169
BOOK: 508 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.5000 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 19,677.9782 SQ.MT. =O= 5.0066 CDAS.

RUSTICA: PARCELA NÚMERO 80, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS Y 60 CENTIÁREAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 70 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LA CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE; POR EL SUR, CON TERRENOS DE JOSÉ FAS, ANTES, HOY CON LA PARCELA 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO; POR EL ESTE, CON LA PARCELA NÚMERO 81 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA 81; Y POR EL OESTE, CON LA PARCELA NÚMERO 48 Y SERVIDUMBRE DE PASO DE 10.00 METROS DE ANCHO, DE LOS CUALES 5 PERTENECEN A ESTA PARCELA, ANTES, HOY CON EL MAR CARIBE.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,782 (LOT 21)
PAGE: 241
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,653.2500 SQ.MT. =O= 5.0000 CDAS.
SURVEYED AREA: 39,286.3110 SQ.MT. =O= 9.9955 CDAS.

RUSTICA: PARCELA NÚMERO VEINTIUNA (21) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS, Y EN LINDES POR EL NORTE, CON LA PARCELA NÚMERO VEINTE Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL SUR, CON LA PARCELA NÚMERO TREINTA Y CUATRO (34) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO CINCUENTA (50) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL OESTE, CON LA PARCELA NÚMERO ONCE (11) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,846 (LOT 112)
PAGE: 25
BOOK: 511 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 21,334.90 SQ.MT. =O= 5.4282 CDAS.
SURVEYED AREA: 20,089.4749 SQ.MT. =O= 5.1113 CDAS.

RUSTICA: PARCELA MARCADA CON EL NÚMERO 112 DE LA FINCA BAHÍA BONITA, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA MENSURADA DE VEINTIÚN MIL TRESCIENTOS TREINTA Y CUATRO METROS CUADRADOS CON NOVENTA CENTÍMETROS CUADRADOS (21,334.90 M.C.) EQUIVALENTES A CINCO CUERDAS CON CUATRO MIL DOSCIENTOS OCHENTA Y DOS DIEZ MILÉSIMAS DE OTRA 5.4282 CUERDAS. EN LINDEROS POR EL NORTE, CON LA PARCELA NÚMERO 113; POR EL SUR, CON LA PARCELA NÚMERO 110 QUE CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA PARCELA; POR EL ESTE, CON LA PARCELA NÚMERO 104 Y CON LA PARCELA NÚMERO 109 LA CUAL CONTIENE PARTE DE LA SERVIDUMBRE DE PASO PARA SU ACCESO DE 15 METROS DE ANCHO; Y POR EL OESTE, CON LA PARCELA NÚMERO 44.
DESCRITA LUEGO DE RECTIFICACIÓN DE CABIDA POR EL AGRIMENSOR FRANK LOZADA DÍAS, MEDIANTE LA ESCRITURA NÚMERO 1, OTORGADA EN MAYAGÜEZ, PUERTO RICO, EL DÍA 12 DE ENERO DE 2004, ANTE EL NOTARIO LUIS ROBERTO SANTOS, E INSCRITO AL FOLIO 70 DEL TOMO 843 DE CABO ROJO, FINCA NÚMERO 18,846, INSCRIPCIÓN 3RA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,840 (LOT 106)
PAGE: 289
BOOK: 510 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 22,018.333 SQ.MT. =O= 5.60 CDAS.

RUSTICA: PARCELA NÚMERO 106 RADICADA EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE 19654.56 METROS CUADRADOS. EN LINDES: POR EL NORTE, CON LA BAHÍA DE BOQUERÓN EN UNA ALINEACIÓN DE 44.88 METROS Y OTRA ALINEACIÓN DE 19.14 METROS CUADRADOS; POR EL SUR, CON UN CAMINO DE SERVIDUMBRE DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA FINCA. ESTA COLINDANCIA MIDE 62.66 METROS; POR EL ESTE, CON LA PARCELA NÚMERO 105, EN UNA DISTANCIA DE 307.90 METROS; Y POR EL OESTE, CON LA PARCELA NÚMERO 107, EN UNA DISTANCIA DE 301.04 METROS. LA COLINDANCIA SUR DE LA FINCA SE HALLA AFECTA A UNA SERVIDUMBRE DE PASO PARA USO VEHICULAR Y PEATONAL, DE 15.00 METROS DE ANCHO DE LOS CUALES 7.50 METROS PERTENECEN A ESTA FINCA, AFECTANDO ESTA SERVIDUMBRE TODO LO LARGO DE LA COLINDANCIA SUR Y RESULTANDO EN UNA ÁREA AFECTA POR DICHA SERVIDUMBRE DE 470.03 METROS CUADRADOS, LOS CUALES FORMAN PARTE DEL ÁREA TOTAL DE LA FINCA.
ESTA ES LA DESCRIPCIÓN LUEGO DE SER MENSURADA POR EL INGENIERO FRANK LOZADA DÍAZ, SEGÚN LA ESCRITURA NÚMERO 153, OTORGADA EN BOQUERÓN, PUERTO RICO, EL DÍA 10 DE JULIO DE 2003, ANTE EL NOTARIO RAFAEL DOITTEAU CRUZ, E INSCRITA AL FOLIO 127 DEL TOMO 843 DE CABO ROJO, FINCA NÚMERO 18,840, INSCRIPCIÓN 4TA.
NOTA: ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,785 (PARCEL 31)
PAGE: 261
BOOK: 509 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,679.86 SQ.MT. =O= 5.01 CDAS.

RÚSTICA: PARCELA NÚMERO TREINTA Y UNO (31), RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS, EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS. EN LINDEROS: NORTE, CON LA PARCELA VEINTINUEVE (#29) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LAS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO; SUR, CON LA PARCELA TREINTA Y NUEVE (#39) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON TERRENOS DE JOSÉ FAS; ESTE, CON LA PARCELA SESENTA Y CUATRO (#64) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON TERRENOS DE JOSÉ FAS; OESTE, CON LA PARCELA CUARENTA Y UNO (#41) Y SERVIDUMBRE DE PASO DE DIEZ (10.00) METROS DE ANCHO, DE LOS CUALES CINCO (5) PERTENECEN A ESTA PARCELA, ANTES, HOY CON LA PARCELA OCHENTA Y TRES (83). PARA USO DE FINES AGRÍCOLAS.

PROPERTY: 18,795 (PARCEL 47)
PAGE: 184
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,654.56 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 20,893.25 SQ.MT. =O= 5.32 CDAS.

RÚSTICA: PARCELA NÚMERO CUARENTA Y SIETE (47) RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE CINCO CUERDAS (5.0000), EQUIVALENTES A UNA (1) HECTÁREA, NOVENTA Y SEIS (96) ÁREAS Y SESENTA (60) CENTIÁREAS Y EN LINDES POR EL **NORTE**, CON LA PARCELA NÚMERO CUARENTA Y SEIS (46) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL **SUR**, CON LA PARCELA NÚMERO VEINTE (20) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; POR EL **ESTE**, CON LA PARCELA NÚMERO CINCUENTA Y OCHO (58) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA; Y POR EL **OESTE**, CON LA PARCELA NÚMERO NUEVE (9) Y SERVIDUMBRE DE PASO DE DIEZ METROS DE ANCHO, DE LOS CUALES CINCO PERTENECEN A ESTA PARCELA. ESTA PARCELA ES PARA USO AGRÍCOLA.

PROPERTY: 18,787 (PARCEL 35)
PAGE: 136
BOOK: 841 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,659.25 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,653.40 SQ.MT. =O= 5.00 CDAS.

RÚSTICA: PARCELA MARCADA CON EL NÚMERO 35 DE LA FINCA BAHÍA BONITA QUE RADICA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, CON UNA CABIDA SUPERFICIAL DE DIEZ Y NUEVE MIL SEISCIENTOS CINCUENTA Y NUEVE PUNTO VEINTICINCO METROS CUADRADOS (19,659.25 M.C.) EQUIVALENTES A (5.0019 CDAS.), EN LINDEROS: POR EL **NORTE**, CON SU CAMINO DE ACCESO DE 11.00 METROS DE ANCHO EL CUAL LO SEPARA DE LA PARCELA 12 DE MONTE CARLO DEVELOPMENT CORPORATION Y DE LA PARCELA 47 DE RICARDO E. CARLO DÍAZ; POR EL **SUR**, CON CARMEN CECILIA FAS; POR EL **ESTE**, CON L PARCELA NÚMERO 52 DE MONTE CARLO DEVELOPMENT CORPORATION; Y POR EL **OESTE**, CON LA PARCEL NÚMERO 36 D CARLOS J. MELÉNDEZ, ANTES MONTE CARLO DEVELOPMENT CORPORATION. LA DESCRIPCIÓN ES RESULTADO DE UNA MENSURA REALIZADA POR EL AGRIMENSOR FRANK LOZADA DÍAZ, SEGÚN CONSTA DE LA ESCRITURA NÚMERO 177, OTORGADA EN BOQUERÓN, PUERTO RICO, EL DÍA 1 DE AGOSTO DE 2003, ANTE RAFAEL DOITTEAU CRUZ, E INSCRITO AL FOLIO 136 DEL TOMO 841 DE CABO ROJO, FINCA NÚMERO 18,787, COMO NOTA MARGINAL EN LA INSCRIPCIÓN 5TA.

PROPERTY: 4,523 (PARCEL 7-B)
PAGE: 135
BOOK: 146 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 23582.37 SQ.MT. =O= 6.00 CDAS.
SURVEYED AREA: 24131.78 SQ.MT. =O= 6.12 CDAS.

RUSTICA: PORCIÓN DE TERRENO CON UNA CABIDA DE SEIS (6) CUERDAS, EQUIVALENTES A DOS (2) HECTÁREAS, TREINTA Y CINCO (35) ÁREAS, OCHENTA Y DOS (82) CENTIÁREAS Y TREINTA Y CUATRO (34) MILIÁREAS, RADICADA EN EL BARRIO BOQUERÓN DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO. EN LINDES, POR EL NORTE, CON TERRENOS PROPIEDAD DE ENRIQUE CARLO AYMAT; POR EL SUR, CON LA CARRETERA ESTATAL NÚMERO TRESCIENTOS UNO (301) QUE DE CABO ROJO CONDUCE AL FARO; POR EL ESTE, CON PORCIÓN DE TERRENO PROPIEDAD DE BELFORD TORRES VÉLEZ, ANTES, HOY JAMES CUEVAS; Y POR EL OESTE, CON TERRENOS DE BELFORD TORRES VÉLEZ.

PROPERTY: 7,351 (PARCEL 8-B)
PAGE: 28
BOOK: 246 DE CABO ROJO, REGISTRO DE LA PROPIEDAD DE SAN GERMAN.
RECORDED AREA: 19,659.25 SQ.MT. =O= 5.00 CDAS.
SURVEYED AREA: 19,958.17 SQ.MT. =O= 5.08 CDAS.

RUSTICA: PORCIÓN DE TERRENO RADICADO EN EL BARRIO BOQUERÓN, DEL TÉRMINO MUNICIPAL DE CABO ROJO, PUERTO RICO, DE UNA CABIDA DE 5.00 CUERDAS, EQUIVALENTES A 1 HECTÁREA, 96 ÁREAS, 51 CENTIÁREA Y 95 MILIÁREAS. EN LINDEROS POR EL NORTE, CON TERRENOS DE LA FINCA PRINCIPAL, PROPIEDAD DE BELFORD TORRES VÉLEZ; POR EL SUR, CON LA CARRETERA ESTATAL #301 QUE DE CABO ROJO CONDUCE AL FARO; POR EL ESTE, CON TERRENOS PROPIEDAD DE ALICIA CARLO AYMAYT; Y POR EL OESTE, CON PORCIÓN DE TERRENO QUE MÁS ADELANTE SE DESCRIBE CON LA LETRA A, PROPIEDAD DE BELFORD TORRES VÉLEZ.

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
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www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1 : 1

CERTIFY CORRECT
I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC NO. 12972

PLOT SCALE: 1:1

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
DWG. NO. VF-18
SHEET NO. 18 / 23
PROJECT JEB-3840
PAPER SIZE: 30x42
FILE NAME : 3840-EC

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

S U R V E Y D A T A
PARCEL 48 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
19	---	217733.5866	117569.0879	---	---	To establish
20	19-20	217577.8453	117593.0066	157.57	S 08°43'52" E	To establish
21	20-21	217575.0108	117563.5252	29.62	S 84°30'30" W	To establish
22	21-22	217571.1589	117526.4553	37.27	S 84°04'03" W	To establish
23	22-23	217565.0124	117470.2144	56.58	S 83°45'47" W	To establish
24	23-24	217563.6426	117448.4916	21.77	S 86°23'30" W	To establish
25	24-25	217563.7123	117439.9763	8.52	N 89°31'51" W	To establish
26	25-26	217563.9994	117433.8215	6.16	N 87°19'44" W	To establish
27	26-27	217579.8825	117437.5291	16.31	N 13°08'21" E	To establish
28	27-28	217588.0926	117441.1008	8.95	N 23°30'41" E	To establish
29	28-29	217599.7457	117443.3895	11.88	N 11°06'42" E	To establish
30	29-30	217619.3578	117447.4590	20.03	N 11°43'21" E	To establish
31	30-31	217634.7059	117452.1566	16.05	N 17°01'04" E	To establish
32	31-32	217638.4198	117449.5655	4.53	N 34°54'08" W	To establish
33	32-33	217641.5028	117449.5804	3.08	N 00°16'38" E	To establish
34	33-34	217660.3567	117446.0959	19.17	N 10°28'16" W	To establish
35	34-35	217666.5136	117440.7298	8.17	N 41°04'28" W	To establish
36	35-36	217672.7822	117424.8336	17.09	N 68°28'42" W	To establish
37	36-37	217677.9591	117420.9095	6.50	N 37°09'45" W	To establish
38	37-38	217685.4022	117425.9833	9.01	N 34°16'53" E	To establish
39	38-39	217696.3132	117425.1460	10.94	N 04°23'17" W	To establish
40	39-40	217700.6712	117424.4799	4.41	N 08°41'25" W	To establish
41	40-41	217706.7540	117519.3294	95.04	N 86°19'50" E	PC. To establish
Center		217706.7542	117529.3294	---	---	Center coord
CURVE DATA		ANGLE 179°08'33"	RADIUS 10.00	TANGENT 1336.13	EXTERNA 1326.17	ARC LENGHT 31.27
42	41-42	217706.6048	117539.3282	20.00	S 89°34'22" E	PT. To establish
43	42-43	217725.0837	117558.7527	26.81	N 46°25'45" E	PC. To establish
Center		217657.7031	117622.8531	---	---	Center coord
CURVE DATA		ANGLE 8°15'09"	RADIUS 93.00	TANGENT 6.71	EXTERNA 0.24	ARC LENGHT 13.39
19	43-19	217733.5866	117569.0879	13.38	N 50°33'19" E	To establish

AREA = 19779.4809 sq mt. =□= 5.0324 cdas.

S U R V E Y D A T A
PARCEL 80 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
41	---	217706.7540	117519.3294	---	---	To establish
40	41-40	217700.6712	117424.4799	95.04	S 86°19'50" W	To establish
44	40-44	217705.0292	117423.8138	4.41	N 08°41'25" W	To establish
45	44-45	217718.9633	117430.0744	15.28	N 24°11'40" E	To establish
46	45-46	217727.9973	117429.0772	9.09	N 06°17'57" W	To establish
47	46-47	217741.9569	117415.5638	19.43	N 44°04'10" W	To establish
48	47-48	217756.3058	117410.0124	15.39	N 21°09'03" W	To establish
49	48-49	217769.5636	117402.1551	15.41	N 30°39'13" W	To establish
50	49-50	217778.2256	117403.0718	8.71	N 06°02'30" E	To establish
51	50-51	217783.0326	117401.4747	5.07	N 18°22'45" W	To establish
52	51-52	217792.9832	117385.4155	18.89	N 58°13'01" W	To establish
53	52-53	217799.1023	117389.1803	7.18	N 31°36'08" E	To establish
54	53-54	217802.4514	117395.9482	7.55	N 63°40'16" E	To establish
55	54-55	217799.3756	117404.1303	8.74	S 69°23'52" E	To establish
56	55-56	217802.1519	117412.4722	8.79	N 71°35'33" E	To establish
57	56-57	217804.1240	117419.4222	7.22	N 74°09'28" E	To establish
58	57-58	217803.9504	117432.0012	12.58	S 89°12'32" E	To establish
59	58-59	217805.5945	117438.5131	6.72	N 75°49'47" E	To establish
60	59-60	217800.8540	117454.2252	16.41	S 73°12'38" E	To establish
61	60-61	217800.8610	117454.2192	0.01	N 40°36'10" W	To establish
62	61-62	217812.1371	117457.7630	11.82	N 17°26'46" E	To establish
63	62-63	217816.8432	117462.7058	6.82	N 46°24'20" E	To establish
64	63-64	217824.3807	117482.2616	20.96	N 68°55'18" E	To establish
65	64-65	217834.2820	117494.7054	15.90	N 51°29'28" E	To establish
66	65-66	217834.6743	117503.5034	8.81	N 87°26'50" E	To establish
67	66-67	217836.2455	117514.2873	10.90	N 81°42'36" E	To establish
68	67-68	217846.6088	117522.5010	13.22	N 38°23'59" E	To establish
69	68-69	217848.4560	117530.3460	8.06	N 76°45'01" E	To establish
70	69-70	217829.1953	117542.4845	22.77	S 32°13'12" E	To establish
71	70-71	217835.6587	117557.0623	15.95	N 66°05'20" E	To establish
72	71-72	217844.2717	117557.2651	8.62	N 01°20'55" E	To establish
73	72-73	217845.1571	117557.3804	0.89	N 07°25'20" E	To establish
74	73-74	217764.7031	117622.8503	103.73	S 39°08'14" E	PC. To establish
Center		217657.7031	117622.8531	---	---	Center coord
CURVE DATA		ANGLE 43°34'10"	RADIUS 107.00	TANGENT 42.76	EXTERNA 8.23	ARC LENGHT 81.37
75	74-75	217735.2270	117549.1032	79.42	S 68°12'50" W	PT. To establish
76	75-76	217716.7481	117529.6787	26.81	S 46°25'45" W	PC. To establish
Center		217706.7542	117529.3294	---	---	Center coord
CURVE DATA		ANGLE 92°00'13"	RADIUS 10.00	TANGENT 10.36	EXTERNA 4.40	ARC LENGHT 16.06
41	76-41	217706.7540	117519.3294	14.39	S 46°00'01" W	To establish

AREA = 19677.9782 sq mt. =□= 5.0066 cdas.

S U R V E Y D A T A
PARCEL 81 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
74	---	217764.7031	117622.8503	---	---	To establish
73	74-73	217845.1571	117557.3804	103.73	N 39°08'14" W	To establish
77	73-77	217865.5077	117560.0315	20.52	N 07°25'20" E	To establish
78	77-78	217916.2489	117605.8272	68.35	N 42°04'02" E	To establish
79	78-79	217939.0203	117618.8686	26.24	N 29°48'01" E	To establish
80	79-80	217957.1405	117628.8741	20.70	N 28°54'23" E	To establish
81	80-81	217788.1925	117749.1060	207.36	S 35°26'15" E	To establish
82	81-82	217774.8101	117722.7940	29.52	S 63°02'31" W	PC. To establish
Center		217857.7046	117680.6336	---	---	Center coord
CURVE DATA		ANGLE 26°57'23"	RADIUS 93.00	TANGENT 22.29	EXTERNA 2.63	ARC LENGHT 43.75
83	82-83	217764.7046	117680.6360	43.35	S 76°31'13" W	PT. To establish
74	83-74	217764.7031	117622.8503	57.79	S 89°59'55" W	To establish

AREA = 19744.2876 sq mt. =□= 5.0235 cdas.

S U R V E Y D A T A
PARCEL 73 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
142	---	218175.2084	118036.1525	---	---	PC. To establish
Center		218174.6848	118026.1662	---	---	Center coord
CURVE DATA		ANGLE 135°34'23"	RADIUS 10.00	TANGENT 24.49	EXTERNA 16.45	ARC LENGHT 23.66
141	142-141	218167.3204	118019.4012	18.52	S 64°47'05" W	PT. To establish
130	141-130	218130.4985	117985.5759	50.00	S 42°34'16" W	To establish
122	130-122	218047.8633	117953.9682	88.47	S 20°55'54" W	To establish
121	122-121	217985.9294	117901.9197	80.90	S 40°02'36" W	To establish
143	121-143	217958.8620	117919.9256	32.51	S 33°37'58" E	To establish
144	143-144	218000.3657	118073.9439	159.51	N 74°55'07" E	To establish
145	144-145	218003.1560	118082.1930	8.71	N 71°18'41" E	To establish
146	145-146	218184.8474	118045.0071	185.46	N 11°34'00" W	To establish
142	146-142	218175.2084	118036.1525	13.09	S 42°34'16" W	PC. To establish

AREA = 20232.7025 sq mt. =□= 5.1478 cdas.

S U R V E Y D A T A
PARCEL 56 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
279	---	218251.6131	118734.2133	---	---	To establish
280	537-551	218488.2852	118689.1398	240.93	N 10°46'58" W	To establish
281	551-281	218501.5694	118783.0257	94.82	N 81°56'47" E	To establish
282	281-282	218261.9744	118825.9880	243.42	S 10°09'57" E	To establish
279	282-537	218251.6131	118734.2133	92.36	S 83°33'31" W	To establish

AREA = 22626.4242 sq mt. =□= 5.7568 cdas.

S U R V E Y D A T A
PARCEL 69 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
81	---	217788.1925	117749.1060	---	---	To establish
80	81-80	217957.1405	117628.8741	207.36	N 35°26'15" W	To establish
84	80-84	217969.4327	117633.8738	13.27	N 22°08'00" E	To establish
85	84-85	217984.5918	117639.6054	16.21	N 20°42'41" E	To establish
86	85-86	217992.3280	117646.8482	10.60	N 43°06'48" E	To establish
87	86-87	218001.0531	117650.6290	9.51	N 23°25'41" E	To establish
88	87-88	218021.0256	117669.3945	27.41	N 43°12'55" E	To establish
89	88-89	218045.5451	117688.8058	31.27	N 38°22'03" E	To establish
90	89-90	218049.2824	117698.3477	10.25	N 68°36'41" E	To establish
91	90-91	218060.3346	117706.7354	13.87	N 37°11'44" E	To establish
92	91-92	218060.5389	117707.4761	0.77	N 74°34'31" E	To establish
93	92-93	217966.3496	117775.9847	116.47	S 36°01'49" E	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 2°24'12"	RADIUS 257.08	TANGENT 5.39	EXTERNA 0.06	ARC LENGHT 10.78
94	93-94	217956.6672	117771.2396	10.78	S 26°06'30" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 22°56'49"	RADIUS 257.08	TANGENT 52.18	EXTERNA 5.24	ARC LENGHT 102.96
95	94-95	217857.1913	117747.4803	102.27	S 13°25'59" W	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 2°01'49"	RADIUS 107.00	TANGENT 1.90	EXTERNA 0.02	ARC LENGHT 3.79
96	95-96	217853.4007	117747.4133	3.79	S 01°00'49" W	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 18°27'50"	RADIUS 107.00	TANGENT 17.39	EXTERNA 1.40	ARC LENGHT 34.48
97	96-97	217819.5133	117752.9221	34.33	S 09°14'00" E	PC. To establish
Center		217853.4035	117854.4133	---	---	Center coord
CURVE DATA		ANGLE 9°56'12"	RADIUS 107.00	TANGENT 9.30	EXTERNA 0.40	ARC LENGHT 18.56
98	97-98	217802.5084	117760.2927	18.53	S 23°26'01" E	PC. To establish
Center		217798.9410	117753.6954	---	---	Center coord
CURVE DATA		ANGLE 91°26'38"	RADIUS 7.50	TANGENT 7.69	EXTERNA 3.24	ARC LENGHT 11.97
99	98-99	217792.2559	117757.0955	10.74	S 17°19'12" W	PT. To establish
81	99-81	217788.1925	117749.1060	8.96	S 63°02'31" W	To establish

AREA = 19691.5244 sq mt. =□= 5.0101 cdas.

S U R V E Y D A T A
PARCEL 70 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
93	---	217966.3496	117775.9847	---	---	To establish
92	93-92	218060.5389	117707.4761	116.47	N 36°01'49" W	To establish
100	92-100	218063.5089	117718.2403	11.17	N 74°34'31" E	To establish
101	100-101	218072.8991	117726.3031	12.38	N 40°39'02" E	To establish
102	101-102	218073.7722	117731.1571	4.93	N 79°48'10" E	To establish
103	102-103	218086.3812	117730.8257	12.61	N 01°30'19" W	To establish
104	103-104	218096.0234	117739.1975	12.77	N 40°57'57" E	To establish
105	104-105	218107.3386	117745.0762	12.75	N 27°27'14" E	To establish
106	105-106	218122.9000	117759.2898	21.08	N 42°24'30" E	To establish
107	106-107	218133.1063	117773.3305	17.36	N 53°59'10" E	To establish
108	107-108	218146.0996	117783.2852	16.37	N 37°27'26" E	To establish
109	108-109	218182.3009	117795.9392	38.35	N 19°16'01" E	To establish
110	109-110	218202.6523	117809.2687	24.33	N 33°13'25" E	To establish
111	110-111	218202.6603	117809.3017	0.03	N 76°22'17" E	To establish
112	111-112	218202.3226	117819.3467	10.05	S 88°04'28" E	To establish
113	112-113	218204.3670	117829.7931	10.64	N 78°55'35" E	To establish
114	113-114	218216.9989	117841.2483	17.05	N 42°12'12" E	To establish
115	114-115	218231.4228	117846.0598	15.21	N 18°26'52" E	To establish
116	115-116	218055.1504	117863.6992	177.15	S 05°42'52" E	PC. To establish
Center		218045.1504	117863.6995	---	---	Center coord
CURVE DATA		ANGLE 56°56'58"	RADIUS 10.00	TANGENT 5.42	EXTERNA 1.38	ARC LENGHT 9.94
117	116-117	218050.6040	117855.3174	9.54	S 61°31'26" W	PC. To establish
Center		217989.6725	117871.3285	---	---	Center coord
CURVE DATA		ANGLE 29°16'55"	RADIUS 63.00	TANGENT 16.46	EXTERNA 2.11	ARC LENGHT 32.20
118	117-118	218034.9872	117827.5612	31.85	S 60°38'10" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 17°53'00"	RADIUS 257.08	TANGENT 40.45	EXTERNA 3.16	ARC LENGHT 80.24
119	118-119	217971.6656	117778.8089	79.92	S 37°35'36" W	PC. To establish
Center		217848.4005	118004.4097	---	---	Center coord
CURVE DATA		ANGLE 1°20'30"	RADIUS 257.08	TANGENT 3.01	EXTERNA 0.02	ARC LENGHT 6.02
93	119-93	217966.3496	117775.9847	6.02	S 27°58'51" W	To establish

AREA = 19714.7056 sq mt. =□= 5.0160 cdas.

S U R V E Y D A T A
PARCEL 71 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
116	---	218055.1504	117863.6992	---	---	PC. To establish
Center		218045.1504	117863.6995	---	---	Center coord
CURVE DATA		ANGLE 151°59'00"	RADIUS 10.00	TANGENT 40.08	EXTERNA 31.31	ARC LENGHT 26.53
120	116-120	218036.3224	117868.3970	19.41	S 14°00'36" E	PT. To establish
121	120-121	217985.9294	117901.9197	60.52	S 33°37'58" E	To establish
122	121-122	218047.8633	117953.9682	80.90	N 40°02'36" E	To establish
123	122-123	218305.1836	117895.0130	263.99	N 12°54'16" W	To establish
124	123-124	218303.9621	117892.8132	2.52	S 60°57'29" W	To establish
125	124-125	218291.4164	117884.9129	14.83	S 32°11'58" W	To establish
126	125-126	218288.5923	117881.3089	4.58	S 51°55'02" W	To establish
127	126-127	218283.8513	117878.5691	5.48	S 30°01'24" W	To establish
128	127-128	218270.5695	117864.5142	19.34	S 46°37'12" W	To establish
129	128-129	218257.1132	117854.3375	16.87	S 37°05'58" W	To establish
115	129-115	218231.4228	117846.0598	26.99	S 17°51'34" W	To establish
116	115-116	218055.1504	117863.6992	177.15	S 05°42'52" E	PC. To establish

AREA = 19757.4574 sq mt. =□= 5.0268 cdas.

S U R V E Y D A T A
PARCEL 72 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
130	---	218130.4985	117985.5759	---	---	To establish
122	130-122	218047.8633	117953.9682	88.47	S 20°55'54" W	To establish
131	122-131	218094.3124	117943.3262	47.65	N 12°54'16" W	To establish
123	131-123	218305.1836	117895.0130	216.33	N 12°54'16" W	To establish
132	123-132	218309.0491	117901.9745	7.96	N 60°57'29" E	To establish
133	132-133	218331.7706	117916.4273	26.93	N 32°27'36" E	To establish
134	133-134	218341.1747	117930.3004	16.76	N 55°52'04" E	To establish
135	134-135	218352.6128	117942.7326	16.89	N 47°23'05" E	To establish
136	135-136	218362.7349	117950.5430	12.79	N 37°39'16" E	To establish
137	136-137	218200.9679	118022.8734	177.20	S 24°05'27" E	To establish
138	137-138	218202.4639	118025.6907	3.19	N 62°01'57" E	To establish
139	138-139	218193.8119	118034.2317	12.16	S 44°37'48" E	To establish
140	139-140	218184.6795	118025.8424	12.40	S 42°34'16" W	PC. To establish
Center		218174.6848	118026.1662	---	---	Center coord
CURVE DATA		ANGLE 135°34'23"	RADIUS 10.00	TANGENT 24.49	EXTERNA 16.45	ARC LENGHT 23.66
141	140-141	218167.3204	118019.4012	18.52	S 20°21'28" W	PT. To establish
130	141-130	218130.4985	117985.5759	50.00	S 42°34'16" W	To establish

AREA = 20122.6755 sq mt. =□= 5.1198 cdas.

S U R V E Y D A T A
PARCEL 38 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
157	---	217842.9530	118216.3820	---	---	To establish
158	157-158	217840.8028	118222.5310	6.51	S 70°43'33" E	PC. To establish
Center		217919.1506	118249.9285	---	---	Center coord
CURVE DATA		ANGLE 38°34'54"	RADIUS 83.00	TANGENT 29.05	EXTERNA 4.94	ARC LENGHT 55.89
159	158-159	217840.8187	118277.3715	54.84	N 89°59'00" E	PT. To establish
160	159-160	217846.0910	118292.4205	15.95	N 70°41'33" E	PC. To establish
Center		217853.1692	118289.9407	---	---	Center coord
CURVE DATA		ANGLE 81°33'04"	RADIUS 7.50	TANGENT 6.47	EXTERNA 2.40	ARC LENGHT 10.68
161	160-161	217854.5821	118297.3064	9.80	N 29°55'01" E	PT. To establish
162	161-162	217971.3915	118284.3802	117.52	N 06°18'53" W	PC. To establish
Center		217982.6589	118390.7853	---	---	Center coord
CURVE DATA		ANGLE 10°40'42"	RADIUS 107.00	TANGENT 10.00	EXTERNA 0.47	ARC LENGHT 19.94
163	162-163	217991.3031	118284.1351	19.91	N 00°42'19" W	PT. To establish
164	163-164	218058.3769	118289.5715	67.29	N 04°38'02" E	PC. To establish
Center		218065.8901	118196.8755	---	---	Center coord
CURVE DATA		ANGLE 9°12'27"	RADIUS 93.00	TANGENT 7.49	EXTERNA 0.30	ARC LENGHT 14.95
151	164-151	218073.3062	118289.5793	14.93	N 00°01'48" E	PT. To establish
165	151-165	218035.8549	118178.8614	116.88	S 71°18'41" W	To establish
157	165-157	217842.9530	118216.3820	196.52	S 11°00'25" E	To establish

AREA = 20021.5593 sq mt. =□= 5.0940 cdas.

S U R V E Y D A T A
PARCEL 29 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
145	---	218003.1560	118082.1930	---	---	To establish
144	145-144	218000.3657	118073.9439	8.71	S 71°18'41" W	To establish
167	144-167	217843.4040	118094.9288	158.36	S 07°36'54" E	To establish
168	167-168	217850.5338	118163.9130	69.35	N 84°05'57" E	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 25°10'30"	RADIUS 107.00	TANGENT 23.89	EXTERNA 2.64	ARC LENGHT 47.01
169	168-169	217845.1033	118210.2330	46.64	S 83°18'48" E	PT. To establish
157	169-157	217842.9530	118216.3820	6.51	S 70°43'33" E	To establish
165	157-165	218035.8549	118178.8614	196.52	N 11°00'25" W	To establish
145	165-145	218003.1560	118082.1930	102.05	S 71°18'41" W	To establish

AREA = 19750.4213 sq mt. =□= 5.0250 cdas.

S U R V E Y D A T A
PARCEL 65 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
143	---	217958.8620	117919.9256	---	---	To establish
170	143-170	217911.3068	117933.4857	49.45	S 15°54'54" E	To establish
171	170-171	217825.2678	117973.4163	94.85	S 24°53'46" E	PC. To establish
Center		217825.2685	117997.9163	---	---	Center coord
CURVE DATA		ANGLE 67°46'06"	RADIUS 24.50	TANGENT 16.45	EXTERNA 5.01	ARC LENGHT 28.98
172	171-172	217847.9469	117988.6461	27.32	N 33°52'58" E	PT. To establish
173	172-173	217851.5165	117997.3787	9.43	N 67°46'01" E	PC. To establish
Center		217808.0109	118015.1624	---	---	Center coord
CURVE DATA		ANGLE 37°38'42"	RADIUS 47.00	TANGENT 16.02	EXTERNA 2.66	ARC LENGHT 30.88
174	173-174	217853.3208	118027.6529	30.33	N 86°35'22" E	PT. To establish
175	174-175	217843.7012	118062.5485	36.20	S 74°35'18" E	PC. To establish
Center		217894.7954	118076.6335	---	---	Center coord
CURVE DATA		ANGLE 21°18'45"	RADIUS 53.00	TANGENT 9.97	EXTERNA 0.93	ARC LENGHT 19.71
176	175-176	217842.0762	118082.0822	19.60	S 85°14'40" E	PT. To establish
167	176-167	217843.4040	118094.9288	12.91	N 84°05'57" E	To establish
144	167-144	218000.3657	118073.9439	158.36	N 07°36'54" W	To establish
143	144-143	217958.8620	117919.9256	159.51	S 74°55'07" W	To establish

AREA = 19888.3404 sq mt. =□= 5.0601 cdas.

S U R V E Y D A T A
PARCEL 67 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
177	---	217764.3818	117957.7413	---	---	To establish
178	177-178	217764.1702	117957.7372	0.21	S 01°06'40" W	To establish
179	178-179	217720.5337	118190.2937	236.61	S 79°22'22" E	To establish
180	179-180	217833.9774	118198.8128	113.76	N 04°17'41" E	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 20°47'31"	RADIUS 93.00	TANGENT 17.06	EXTERNA 1.55	ARC LENGHT 33.75
181	180-181	217836.6080	118165.3523	33.56	N 85°30'17" W	PT. To establish
182	181-182	217828.1504	118083.5215	82.27	S 84°05'57" W	PC. To establish
Center		217894.7954	118076.6335	---	---	Center coord
CURVE DATA		ANGLE 21°18'45"	RADIUS 67.00	TANGENT 12.61	EXTERNA 1.18	ARC LENGHT 24.92
183	182-183	217830.2047	118058.8279	24.78	N 85°14'40" W	PT. To establish
184	183-184	217839.8243	118023.9323	36.20	N 74°35'18" W	PC. To establish
Center		217808.0109	118015.1624	---	---	Center coord
CURVE DATA		ANGLE 37°38'42"	RADIUS 33.00	TANGENT 11.25	EXTERNA 1.86	ARC LENGHT 21.68
185	184-185	217838.5574	118002.6760	21.29	S 86°35'22" W	PT. To establish
186	185-186	217834.9878	117993.9434	9.43	S 67°46'01" W	PC. To establish
Center		217825.2685	117997.9163	---	---	Center coord
CURVE DATA		ANGLE 75°26'07"	RADIUS 10.50	TANGENT 8.12	EXTERNA 2.77	ARC LENGHT 13.82
187	186-187	217823.8673	117987.5102	12.85	S 30°02'57" W	PC. To establish
Center		217815.9823	117928.9486	---	---	Center coord
CURVE DATA		ANGLE 68°30'26"	RADIUS 59.09	TANGENT 40.24	EXTERNA 12.40	ARC LENGHT 70.65
177	187-177	217764.3818	117957.7413	66.52	S 26°35'07" W	PT. To establish

AREA = 20137.9900 sq mt. =□= 5.1237 cdas.

S U R V E Y D A T A
TAX ID: 402-007-327-05-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
332	---	218350.4323	118136.8115	---	---	To establish
331	332-331	218280.3606	118167.9504	76.68	S 23°57'35" E	To establish
334	331-334	218259.4378	118120.2150	52.12	S 66°19'54" W	To establish
335	334-335	218329.1686	118090.6453	75.74	N 22°58'47" W	To establish
336	335-336	218341.5670	118119.2250	31.15	N 66°32'53" E	To establish
337	336-337	218343.8894	118123.6280	4.98	N 62°11'25" E	To establish
332	337-332	218350.4323	118136.8115	14.72	N 63°36'18" E	To establish

AREA = 3905.4349 sq mt. =□= 0.9936 cda.

S U R V E Y D A T A
PARCEL 17 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
179	---	217720.5337	118190.2937	---	---	To establish
189	179-189	217670.6203	118456.3027	270.65	S 79°22'22" E	To establish
190	189-190	217672.4192	118457.7762	2.33	N 39°19'20" E	To establish
191	190-191	217672.8220	118457.2844	0.64	N 50°40'40" W	To establish
192	191-192	217690.2699	118440.7126	24.06	N 43°31'29" W	To establish
193	192-193	217762.5221	118352.2166	114.24	N 50°46'13" W	PC. To establish
Center		217884.1658	118451.5320	---	---	Center coord
CURVE DATA		ANGLE 32°26'20"	RADIUS 157.04	TANGENT 45.68	EXTERNA 6.51	ARC LENGHT 88.91
194	193-194	217834.7753	118302.4639	87.73	N 34°33'03" W	PT. To establish
195	194-195	217827.6061	118282.0004	21.68	S 70°41'33" W	PC. To establish
Center		217919.1506	118249.9285	---	---	Center coord
CURVE DATA		ANGLE 38°34'54"	RADIUS 97.00	TANGENT 33.95	EXTERNA 5.77	ARC LENGHT 65.32
196	195-196	217827.5875	118217.9098	64.09	S 89°59'00" W	PT. To establish
197	196-197	217831.8880	118205.6117	13.03	N 70°43'33" W	PC. To establish
Center		217744.1007	118174.9133	---	---	Center coord
CURVE DATA		ANGLE 4°22'59"	RADIUS 93.00	TANGENT 3.56	EXTERNA 0.07	ARC LENGHT 7.11
180	197-180	217833.9774	118198.8128	7.11	N 72°55'02" W	PT. To establish
179	180-179	217720.5337	118190.2937	113.76	S 04°17'41" W	To establish

AREA = 21562.3366 sq mt. =□= 5.4860 cdas.

S U R V E Y D A T A
PARCEL 178 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
198	---	217736.2281	118732.1484	---	---	To establish
199	198-199	217652.0185	118669.7345	104.82	S 36°32'41" W	PC. To establish
Center		217612.0748	118633.6172	---	---	Center coord
CURVE DATA		ANGLE 96°34'58"	RADIUS 53.85	TANGENT 60.42	EXTERNA 27.09	ARC LENGHT 90.78
200	199-200	217643.3750	118589.7963	80.40	S 83°49'43" W	PT. To establish
201	200-201	217635.9445	118584.6119	9.06	S 34°54'15" W	PC. To establish
Center		217651.9663	118561.6489	---	---	Center coord
CURVE DATA		ANGLE 94°25'05"	RADIUS 28.00	TANGENT 30.25	EXTERNA 13.22	ARC LENGHT 46.14
202	201-202	217630.3056	118543.9058	41.09	S 82°06'48" W	PT. To establish
203	202-203	217653.5768	118515.4966	36.72	N 50°40'40" W	To establish
204	203-204	217652.0296	118514.2292	2.00	S 39°19'20" W	To establish
205	204-205	217675.3007	118485.8200	36.72	N 50°40'40" W	PC. To establish
Center		217680.5224	118490.0974	---	---	Center coord
CURVE DATA		ANGLE 107°27'23"	RADIUS 6.75	TANGENT 9.20	EXTERNA 4.66	ARC LENGHT 12.66
206	205-206	217686.1692	118486.3992	10.88	N 03°03'02" E	PT. To establish
207	206-207	217738.1380	118565.7512	94.86	N 56°46'43" E	PC. To establish
Center		217605.9615	118652.3155	---	---	Center coord
CURVE DATA		ANGLE 26°39'13"	RADIUS 158.00	TANGENT 37.43	EXTERNA 4.37	ARC LENGHT 73.50
208	207-208	217762.9246	118634.2439	72.84	N 70°06'20" E	PT. To establish
209	208-209	217767.1043	118670.5474	36.54	N 83°25'56" E	PC. To establish
Center		217727.3668	118675.1224	---	---	Center coord
CURVE DATA		ANGLE 49°36'55"	RADIUS 40.00	TANGENT 18.49	EXTERNA 4.07	ARC LENGHT 34.64
210	209-210	217756.5983	118702.4267	33.57	S 71°45'36" E	PT. To establish
211	210-211	217748.3504	118711.2567	12.08	S 46°57'09" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 25°50'48"	RADIUS 54.00	TANGENT 12.39	EXTERNA 1.40	ARC LENGHT 24.36
198	211-198	217736.2281	118732.1484	24.15	S 59°52'33" E	To establish

AREA = 19958.3058 sq mt. =□= 5.0779 cdas.

S U R V E Y D A T A
PARCEL 55 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
283	---	218436.0427	118896.1205	---	---	To establish
284	283-284	218273.1892	118925.3221	165.45	S 10°09'57" E	To establish
282	284-282	218261.9744	118825.9880	99.97	S 83°33'31" W	To establish
281	282-281	218501.5694	118783.0257	243.42	N 10°09'57" W	To establish
285	281-285	218502.5647	118790.0605	7.10	N 81°56'47" E	To establish
286	285-286	218543.1932	118782.7753	41.28	N 10°09'57" W	To establish
287	286-287	218554.6097	118844.8058	63.07	N 79°34'18" E	To establish
288	287-288	218427.6543	118848.6974	127.02	S 01°45'21" E	To establish
283	288-283	218436.0427	118896.1205	48.16	N 79°58'09" E	To establish

AREA = 23535.7454 sq mt. =□= 5.9881 cdas.

S U R V E Y D A T A
PARCEL 54 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
289	---	218433.8773	118896.5088	---	---	To establish
284	289-284	218273.1892	118925.3221	163.25	S 10°09'57" E	To establish
290	284-290	218286.7434	119045.3777	120.82	N 83°33'31" E	To establish
291	290-291	218368.7251	119022.5972	85.09	N 15°31'45" W	To establish
292	291-292	218403.5672	119021.5333	34.86	N 01°44'56" W	To establish
293	292-293	218473.2371	119021.4266	69.67	N 00°05'16" W	To establish
294	293-294	218454.0847	118913.0012	110.10	S 79°58'57" W	To establish
295	294-295	218437.3260	118916.0062	17.03	S 10°09'57" E	To establish
289	295-289	218433.8773	118896.5088	19.80	S 79°58'09" W	To establish

AREA = 21551.9387 sq mt. =□= 231983.1377 sq ft..

S U R V E Y D A T A
PROPERTY 18,805 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
323	---	218515.1550	118219.5540	---	---	To establish
324	323-324	218528.3360	118245.8020	29.37	N 63°20'08" E	To establish
325	324-325	218536.7540	118262.3240	18.54	N 63°00'04" E	To establish
502	325-502	218548.2320	118280.5400	21.53	N 57°47'05" E	To establish
501	502-501	218355.9600	118348.4120	203.90	S 19°26'35" E	To establish
326	501-326	218334.2650	118297.4980	55.34	S 66°55'14" W	To establish
323	326-323	218515.1550	118219.5540	196.97	N 23°18'39" W	To establish

AREA = 12385.5425 sq mt. =□= 3.1512 cdas.

S U R V E Y D A T A
PROPERTY #29,700 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
340	---	218423.4200	118051.3560	---	---	To establish
335	340-335	218329.1686	118090.6453	102.11	S 22°37'45" E	To establish
336	335-336	218341.5670	118119.2250	31.15	N 66°32'53" E	To establish
341	336-341	218442.1232	118076.1185	109.41	N 23°12'14" W	To establish
340	341-340	218423.4200	118051.3560	31.03	S 52°56'10" W	To establish

AREA = 3238.5275 sq mt. =□= 0.8240 cda.

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1

CERTIFY CORRECT
[illegible]

JAVIER E. BIDOT CRUZ
LAND SURVEYOR

DRAWING TITLE: EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO.: VF-19
SHEET NO.: 19 / 23
PAPER SIZE: 30x42
FILE NAME : 3840-EC
PLOT SCALE :1:1

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SURVEY DATA
PARCEL 174 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
212	---	218012.8414	118745.9881	---	---	PC. To establish
Center		218030.8995	118700.4369	---	---	Center coord
CURVE DATA		ANGLE 69°43'17"	RADIUS 49.00	TANGENT 34.13	EXTERNA 10.72	ARC LENGHT 59.63
213	212-213	217981.9130	118699.2855	56.02	S 56°29'09" W	PT. To establish
214	213-214	217982.2509	118684.9117	14.38	N 88°39'12" W	To establish
215	214-215	217751.3643	118731.6402	235.57	S 11°26'29" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 32°58'19"	RADIUS 40.00	TANGENT 11.84	EXTERNA 1.71	ARC LENGHT 23.02
216	215-216	217748.2675	118754.1305	22.70	S 82°09'35" E	PT. To establish
217	216-217	217755.6137	118802.4438	48.87	N 81°21'15" E	PC. To establish
Center		217778.3524	118798.9863	---	---	Center coord
CURVE DATA		ANGLE 104°37'35"	RADIUS 23.00	TANGENT 29.77	EXTERNA 14.62	ARC LENGHT 42.00
218	217-218	217787.4396	118820.1150	36.40	N 29°02'28" E	PT. To establish
219	218-219	217797.9280	118815.6040	11.42	N 23°16'20" W	PC. To establish
Center		217812.5467	118849.5936	---	---	Center coord
CURVE DATA		ANGLE 34°32'45"	RADIUS 37.00	TANGENT 11.51	EXTERNA 1.75	ARC LENGHT 22.31
220	219-220	217819.7800	118813.3076	21.97	N 05°59'57" W	PT. To establish
212	220-212	218012.8414	118745.9881	204.46	N 19°13'24" W	To establish

AREA = 20377.1854 sq mt. =□= 5.1845 cdas.

SURVEY DATA
PARCEL 64 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
214	---	217982.2509	118684.9117	---	---	To establish
215	214-215	217751.3643	118731.6402	235.57	S 11°26'29" E	PC. To establish
Center		217787.8129	118748.1174	---	---	Center coord
CURVE DATA		ANGLE 18°43'17"	RADIUS 40.00	TANGENT 6.59	EXTERNA 0.54	ARC LENGHT 13.07
222	215-222	217758.5815	118720.8131	13.01	N 56°18'47" W	PT. To establish
223	222-223	217766.8293	118711.9832	12.08	N 46°57'09" W	PC. To establish
Center		217727.3668	118675.1224	---	---	Center coord
CURVE DATA		ANGLE 49°36'55"	RADIUS 54.00	TANGENT 24.96	EXTERNA 5.49	ARC LENGHT 46.76
224	223-224	217781.0124	118668.9461	45.31	N 71°45'36" W	PT. To establish
225	224-225	217776.8327	118632.6427	36.54	S 83°25'56" W	To establish
226	225-226	217903.8879	118580.9523	137.17	N 22°08'17" W	PC. To establish
Center		217939.2258	118569.9870	---	---	Center coord
CURVE DATA		ANGLE 88°36'28"	RADIUS 37.00	TANGENT 36.11	EXTERNA 14.70	ARC LENGHT 57.22
227	226-227	217949.3292	118605.5809	51.69	N 28°27'26" E	PT. To establish
228	227-228	217954.3421	118604.1579	5.21	N 15°50'48" W	PC. To establish
Center		217960.6226	118626.2838	---	---	Center coord
CURVE DATA		ANGLE 107°11'36"	RADIUS 23.00	TANGENT 31.19	EXTERNA 15.76	ARC LENGHT 43.03
229	228-229	217983.6163	118626.8243	37.02	N 37°45'00" E	PT. To establish
214	229-214	217982.2509	118684.9117	58.10	S 88°39'12" E	To establish

AREA = 20818.9024 sq mt. =□= 5.2969 cdas.

SURVEY DATA
PARCEL 6 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
226	---	217903.8879	118580.9523	---	---	To establish
225	226-225	217776.8327	118632.6427	137.17	S 22°08'17" E	PC. To establish
Center		217605.9615	118652.3155	---	---	Center coord
CURVE DATA		ANGLE 26°39'13"	RADIUS 172.00	TANGENT 40.74	EXTERNA 4.76	ARC LENGHT 80.01
230	225-230	217749.8498	118558.0809	79.29	S 70°06'20" W	PT. To establish
231	230-231	217731.6298	118530.2604	33.26	S 56°46'43" W	To establish
232	231-232	217918.4539	118404.2762	225.33	N 33°59'37" W	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 114°12'31"	RADIUS 23.00	TANGENT 35.56	EXTERNA 19.35	ARC LENGHT 45.85
233	232-233	217922.4164	118442.6968	38.62	N 84°06'42" E	PT. To establish
234	233-234	217892.8687	118466.4401	37.91	S 38°47'02" E	PC. To establish
Center		217916.0450	118495.2821	---	---	Center coord
CURVE DATA		ANGLE 68°27'18"	RADIUS 37.00	TANGENT 25.17	EXTERNA 7.75	ARC LENGHT 44.21
235	234-235	217880.7071	118506.2474	41.62	S 73°00'41" E	PT. To establish
226	235-226	217903.8879	118580.9523	78.22	N 72°45'40" E	To establish

AREA = 20705.5316 sq mt. =□= 5.2681 cdas.

SURVEY DATA
PARCEL 79 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
296	---	218601.5840	118563.6710	---	---	To establish
307	296-307	218597.8340	118562.5700	3.91	S 16°21'44" W	To establish
306	307-306	218527.7730	118575.9370	71.32	S 10°48'06" E	To establish
305	306-305	218525.9880	118579.2570	3.77	S 61°44'07" E	To establish
304	305-304	218521.3030	118580.2150	4.78	S 11°33'24" E	To establish
303	304-303	218518.1310	118577.7780	4.00	S 37°32'04" W	To establish
308	303-308	218437.4387	118593.2519	82.16	S 10°51'20" E	To establish
309	308-309	218428.3470	118536.2896	57.68	S 80°55'54" W	To establish
310	309-310	218578.9140	118507.5580	153.28	N 10°48'12" W	To establish
296	310-296	218601.5840	118563.6710	60.52	N 68°00'04" E	To establish

AREA = 9232.2195 sq mt. =□= 2.3489 cdas.

SURVEY DATA
PARCEL 78 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
310	---	218578.9140	118507.5580	---	---	To establish
311	310-311	218563.8841	118437.5978	71.56	S 77°52'31" W	To establish
312	311-312	218559.1980	118404.9790	32.95	S 81°49'29" W	To establish
313	312-313	218510.6980	118413.9160	49.32	S 10°26'26" E	To establish
314	313-314	218450.4027	118425.6454	61.43	S 11°00'30" E	To establish
315	314-315	218425.0060	118430.0850	25.78	S 09°54'56" E	To establish
316	315-316	218397.5679	118435.2227	27.91	S 10°36'20" E	To establish
309	316-309	218428.3470	118536.2896	105.65	N 73°03'44" E	To establish
310	309-310	218578.9140	118507.5580	153.28	N 10°48'12" W	To establish

AREA = 16552.0669 sq mt. =□= 4.2113 cdas.

SURVEY DATA
PARCEL 5 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
232	---	217918.4539	118404.2762	---	---	To establish
231	232-231	217731.6298	118530.2604	225.33	S 33°59'37" E	To establish
236	231-236	217692.9094	118471.1376	70.67	S 56°46'43" W	PC. To establish
Center		217700.4384	118466.2067	---	---	Center coord
CURVE DATA		ANGLE 72°27'04"	RADIUS 9.00	TANGENT 6.59	EXTERNA 2.16	ARC LENGHT 11.38
237	236-237	217693.4669	118460.5149	10.64	N 86°59'45" W	PT. To establish
238	237-238	217774.1413	118361.7031	127.56	N 50°46'13" W	PC. To establish
Center		217884.1658	118451.5320	---	---	Center coord
CURVE DATA		ANGLE 29°37'38"	RADIUS 142.04	TANGENT 37.56	EXTERNA 4.88	ARC LENGHT 73.45
239	238-239	217832.9335	118319.0561	72.63	N 35°57'24" W	PC. To establish
Center		217835.4584	118325.5849	---	---	Center coord
CURVE DATA		ANGLE 91°50'07"	RADIUS 7.00	TANGENT 7.23	EXTERNA 3.06	ARC LENGHT 11.22
240	239-240	217842.0647	118323.2704	10.06	N 24°46'29" E	PT. To establish
241	240-241	217859.4315	118372.8413	52.52	N 70°41'33" E	PC. To establish
Center		217897.7712	118359.4093	---	---	Center coord
CURVE DATA		ANGLE 63°41'42"	RADIUS 40.62	TANGENT 25.23	EXTERNA 7.20	ARC LENGHT 45.16
242	241-242	217892.8220	118399.7312	42.87	N 38°50'42" E	PT. To establish
243	242-243	217910.8115	118401.9393	18.12	N 06°59'51" E	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 20°00'35"	RADIUS 23.00	TANGENT 4.06	EXTERNA 0.36	ARC LENGHT 8.03
232	243-232	217918.4539	118404.2762	7.99	N 17°00'09" E	To establish

AREA = 21160.8633 sq mt. =□= 5.3839 cdas.

SURVEY DATA
PARCEL 15 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
244	---	217970.5420	118590.6383	---	---	PC. To establish
Center		217960.6226	118626.2838	---	---	Center coord
CURVE DATA		ANGLE 31°23'51"	RADIUS 37.00	TANGENT 10.40	EXTERNA 1.43	ARC LENGHT 20.28
251	244-251	217950.5192	118590.6900	20.02	S 00°08'53" E	PT. To establish
252	251-252	217945.5063	118592.1129	5.21	S 15°50'48" E	PC. To establish
Center		217939.2258	118569.9870	---	---	Center coord
CURVE DATA		ANGLE 88°36'28"	RADIUS 23.00	TANGENT 22.45	EXTERNA 9.14	ARC LENGHT 35.57
253	252-253	217917.2590	118576.8033	32.13	S 28°27'26" W	PT. To establish
254	253-254	217898.5945	118516.6530	62.98	S 72°45'40" W	To establish
249	254-249	218160.5278	118467.2904	266.54	N 10°40'21" W	To establish
250	249-250	218175.6013	118560.2963	94.22	N 80°47'39" E	To establish
244	250-244	217970.5420	118590.6383	207.29	S 08°25'01" E	To establish

AREA = 23027.7787 sq mt. =□= 5.8589 cdas.

SURVEY DATA
PARCEL 33 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
262	---	217856.2628	118321.4543	---	---	PC. To establish
Center		217863.3409	118318.9745	---	---	Center coord
CURVE DATA		ANGLE 102°59'34"	RADIUS 7.50	TANGENT 9.43	EXTERNA 4.55	ARC LENGHT 13.48
263	262-263	217862.5160	118311.5200	11.74	N 57°48'40" W	PT. To establish
264	263-264	217973.0049	118299.2933	111.16	N 06°18'53" W	PC. To establish
Center		217982.6589	118390.7853	---	---	Center coord
CURVE DATA		ANGLE 10°39'26"	RADIUS 92.00	TANGENT 8.58	EXTERNA 0.40	ARC LENGHT 17.11
265	264-265	217990.0913	118299.0860	17.09	N 00°41'41" W	PT. To establish
266	265-266	218057.1651	118304.5225	67.29	N 04°38'02" E	To establish
267	266-267	218087.3283	118304.5865	30.16	N 00°07'18" E	To establish
256	267-256	218123.4397	118391.3096	93.94	N 67°23'36" E	To establish
255	256-255	217939.4526	118405.2660	184.52	S 04°20'16" E	PC. To establish
Center		217908.0095	118424.7680	---	---	Center coord
CURVE DATA		ANGLE 51°11'38"	RADIUS 37.00	TANGENT 17.73	EXTERNA 4.03	ARC LENGHT 33.06
268	255-268	217912.5171	118388.0436	31.97	S 32°35'40" W	PT. To establish
269	268-269	217894.5276	118385.8355	18.12	S 06°59'51" W	PC. To establish
Center		217897.7712	118359.4093	---	---	Center coord
CURVE DATA		ANGLE 63°41'42"	RADIUS 26.62	TANGENT 16.54	EXTERNA 4.72	ARC LENGHT 29.60
270	269-270	217872.6441	118368.2124	28.10	S 38°50'42" W	PT. To establish
262	270-262	217856.2628	118321.4543	49.54	S 70°41'33" W	To establish

AREA = 22020.4014 sq mt. =□= 5.6026 cdas.

SURVEY DATA
PROPERTY #18,804 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
323	---	218515.1550	118219.5540	---	---	To establish
327	323-327	218479.9200	118137.6470	89.16	S 66°43'24" W	To establish
328	327-328	218370.1060	118183.6372	119.06	S 22°43'26" E	To establish
329	328-329	218298.6580	118215.5030	78.23	S 24°02'13" E	To establish
326	329-326	218334.2650	118297.4980	89.39	N 66°31'36" E	To establish
323	326-323	218515.1550	118219.5540	196.97	N 23°18'39" W	To establish

AREA = 17705.3569 sq mt. =□= 4.5047 cdas.

SURVEY DATA
TAX ID: 402-007-327-03-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
327	---	218479.9200	118137.6470	---	---	To establish
338	327-338	218464.4977	118108.6734	32.82	S 61°58'27" W	To establish
333	338-333	218359.0227	118154.1207	114.85	S 23°18'37" E	To establish
328	333-328	218370.1060	118183.6372	31.53	N 69°25'09" E	To establish
327	328-327	218479.9200	118137.6470	119.06	N 22°43'26" W	To establish

AREA = 3753.9717 sq mt. =□= 0.9551 cda.

SURVEY DATA
TAX ID: 402-007-327-04-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
328	---	218370.1060	118183.6372	---	---	To establish
330	328-330	218298.9635	118215.3668	77.90	S 24°02'13" E	To establish
331	330-331	218280.3606	118167.9504	50.94	S 68°34'42" W	To establish
332	331-332	218350.4323	118136.8115	76.68	N 23°57'35" W	To establish
333	332-333	218359.0227	118154.1207	19.32	N 63°36'18" E	To establish
328	333-328	218370.1060	118183.6372	31.53	N 69°25'09" E	To establish

AREA = 3959.5333 sq mt. =□= 1.0074 cdas.

SURVEY DATA
TAX ID: 402-007-327-02-000 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
338	---	218464.4977	118108.6734	---	---	To establish
339	338-339	218449.4973	118072.9574	38.74	S 67°13'05" W	To establish
336	339-336	218341.5670	118119.2250	117.43	S 23°12'14" E	To establish
337	336-337	218343.8894	118123.6280	4.98	N 62°11'25" E	To establish
332	337-332	218350.4323	118136.8115	14.72	N 63°36'18" E	To establish
333	332-333	218359.0227	118154.1207	19.32	N 63°36'18" E	To establish
338	333-338	218464.4977	118108.6734	114.85	N 23°18'37" W	To establish

AREA = 4509.3138 sq mt. =□= 1.1473 cdas.

SURVEY DATA
PROPERTY #18,700 (AS SURVEYED)

POINT	LINE	(Y) NORTH	(X) EAST	DISTANCE	BEARINGS	DESCRIPTION
136	---	218362.7349	117950.5430	---	---	To establish
340	136-340	218423.4200	118051.3560	117.67	N 58°57'14" E	To establish
335	340-335	218329.1686	118090.6453	102.11	S 22°37'45" E	To establish
334	335-334	218259.4378	118120.2150	75.74	S 22°58'47" E	To establish
342	334-342	218229.2683	118058.1477	69.01	S 64°04'36" W	PC. To establish
Center		218163.1793	118089.1517	---	---	Center coord
CURVE DATA		ANGLE 21°05'20"	RADIUS 73.00	TANGENT 13.59	EXTERNA 1.25	ARC LENGHT 26.87
343	342-343	218213.6861	118036.4444	26.72	S 54°19'23" W	PT. To establish
138	343-138	218202.4639	118025.6907	15.54	S 43°46'43" W	To establish
137	138-137	218200.9679	118022.8734	3.19	S 62°01'57" W	To establish
136	137-136	218362.7349	117950.5430	177.20	N 24°05'27" W	To establish

AREA = 19926.7077 sq mt. =□= 5.0699 cdas.

SURVEY DATA
PARCEL 78 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
507	---	---	---	218,566.3180	118,403.4130	TO BE ESTABLISHED
508	507-508	27.307	S88°28'58"E	218,565.5950	118,430.7102	TO BE ESTABLISHED
509	508-509	13.829	N83°24'51"E	218,567.1810	118,444.4476	TO BE ESTABLISHED
510	509-510	11.603	N83°24'47"E	218,568.5120	118,455.9740	TO BE ESTABLISHED
511	510-511	374.661	S10°46'42"E	218,200.4610	118,526.0390	TO BE ESTABLISHED
512	511-512	52.600	S78°30'31"W	218,189.9820	118,474.4930	TO BE ESTABLISHED
513	512-513	93.000	N10°41'44"W	218,281.3665	118,457.2329	TO BE ESTABLISHED
507	513-507	289.990	N10°41'45"W	218,566.3180	118,403.4130	TO BE ESTABLISHED

Area: 19,772.2027 sq mt =0= 5.0306 cuerda(s).

SURVEY DATA
PARCEL 79 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
510	---	---	---	218,568.5120	118,455.9740	TO BE ESTABLISHED
514	510-514	6.220	N83°25'04"E	218,569.2250	118,462.1530	TO BE ESTABLISHED
515	514-515	33.639	N78°18'33"E	218,576.0412	118,495.0940	TO BE ESTABLISHED
516	515-516	12.879	N75°03'06"E	218,579.3633	118,507.5370	TO BE ESTABLISHED
517	516-517	26.051	S10°35'08"E	218,553.7560	118,512.3226	TO BE ESTABLISHED
518	517-518	348.196	S10°46'12"E	218,211.6938	118,577.3893	TO BE ESTABLISHED
511	518-511	52.565	S77°39'40"W	218,200.4610	118,526.0390	TO BE ESTABLISHED
519	511-519	348.591	N10°46'42"W	218,542.9019	118,460.8493	TO BE ESTABLISHED
520	519-520	20.054	N10°46'42"W	218,562.6017	118,457.0991	TO BE ESTABLISHED
510	520-510	6.016	N10°46'41"W	218,568.5120	118,455.9740	TO BE ESTABLISHED

Area: 19,659.2923 sq mt =0= 5.0019 cuerda(s).

SURVEY DATA
PARCEL 1 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
521	---	---	---	218,598.8828	118,557.5833	TO BE ESTABLISHED
522	521-522	170.225	S10°45'38"E	218,431.6510	118,589.3650	TO BE ESTABLISHED
523	522-523	14.063	S10°14'34"E	218,417.8126	118,591.8656	TO BE ESTABLISHED
524	523-524	8.068	S11°33'23"E	218,409.9086	118,593.4818	TO BE ESTABLISHED
525	524-525	192.050	S10°54'12"E	218,221.3253	118,629.8086	TO BE ESTABLISHED
518	525-518	53.297	S79°35'19"W	218,211.6938	118,577.3893	TO BE ESTABLISHED
516	518-516	374.246	N10°45'26"W	218,579.3633	118,507.5370	TO BE ESTABLISHED
526	516-526	12.861	N70°32'12"E	218,583.6486	118,519.6630	TO BE ESTABLISHED
527	526-527	22.846	N68°51'29"E	218,591.8886	118,540.9711	TO BE ESTABLISHED
528	527-528	15.556	N65°47'27"E	218,598.2676	118,555.1589	TO BE ESTABLISHED
521	528-521	2.501	N75°45'42"E	218,598.8828	118,557.5833	TO BE ESTABLISHED

Area: 20,064.1250 sq mt =0= 5.1049 cuerda(s).

SURVEY DATA
PARCEL 105 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
554	---	---	---	218,619.9384	119,444.4718	TO BE ESTABLISHED
555	554-555	24.586	S77°49'18"W	218,614.7517	119,420.4386	TO BE ESTABLISHED
556	555-556	7.500	N12°10'42"W	218,622.0830	119,418.8565	TO BE ESTABLISHED
557	556-557	38.206	S77°49'18"W	218,614.0233	119,381.5107	TO BE ESTABLISHED
558	557-558	307.900	N11°08'45"W	218,916.1162	119,321.9915	TO BE ESTABLISHED
559	558-559	23.302	N69°21'53"E	218,924.3283	119,343.7987	TO BE ESTABLISHED
560	559-560	40.699	N70°06'50"E	218,938.1721	119,382.0708	TO BE ESTABLISHED
561	560-561	54.558	S13°38'27"E	218,885.1528	119,394.9375	TO BE ESTABLISHED
ARC	561-ARC	L: 2.334	A: 35°21'57"	R: 3.782	T: 1.206	ARC DATA
562	ARC-562	2.297	S04°02'32"W	218,882.8611	119,394.7756	TO BE ESTABLISHED
563	562-563	8.278	S20°43'49"W	218,875.1188	119,391.8454	TO BE ESTABLISHED
ARC	563-ARC	L: 2.212	A: 31°41'05"	R: 4.000	T: 1.135	ARC DATA
564	ARC-564	2.184	S04°53'16"W	218,872.9426	119,391.6593	TO BE ESTABLISHED
565	564-565	95.986	S10°57'21"E	218,778.7058	119,409.9018	TO BE ESTABLISHED
554	565-554	162.487	S12°17'02"E	218,619.9384	119,444.4718	TO BE ESTABLISHED

Area: 19,364.5933 sq mt =0= 4.9269 cuerda(s).

SURVEY DATA
PROPERTY 77 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
500	---	---	---	218,397.5955	118,435.2803	TO BE ESTABLISHED
501	500-501	96.331	S64°23'31"W	218,355.9600	118,348.4120	TO BE ESTABLISHED
502	501-502	203.900	N19°26'35"W	218,548.2320	118,280.5400	TO BE ESTABLISHED
503	502-503	62.403	N69°51'08"E	218,569.7260	118,339.1240	TO BE ESTABLISHED
504	503-504	15.475	S85°02'24"E	218,568.3880	118,354.5410	TO BE ESTABLISHED
505	504-505	25.435	S88°46'20"E	218,567.8430	118,379.9700	TO BE ESTABLISHED
506	505-506	26.211	S70°55'52"E	218,559.2798	118,404.7423	TO BE ESTABLISHED
500	506-500	164.543	S10°41'45"E	218,397.5955	118,435.2803	TO BE ESTABLISHED

Area: 21,123.5259 sq mt =0= 5.3744 cuerda(s).

SURVEY DATA
PARCEL 7 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
521	---	---	---	218,598.8828	118,557.5833	TO BE ESTABLISHED
529	521-529	29.960	N60°17'17"E	218,613.7320	118,583.6040	TO BE ESTABLISHED
530	529-530	21.903	N57°45'06"E	218,625.4190	118,602.1280	TO BE ESTABLISHED
531	530-531	53.652	N47°54'55"E	218,661.3780	118,641.9460	TO BE ESTABLISHED
532	531-532	164.577	S10°51'58"E	218,499.7520	118,672.9710	TO BE ESTABLISHED
533	532-533	51.432	S10°45'07"E	218,449.2230	118,682.5660	TO BE ESTABLISHED
534	533-534	94.843	S79°20'53"W	218,431.6919	118,589.3572	TO BE ESTABLISHED
521	534-521	170.183	N10°45'38"W	218,598.8828	118,557.5833	TO BE ESTABLISHED

Area: 18,009.9359 sq mt =0= 4.5822 cuerda(s).

SURVEY DATA
PARCEL 57 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
535	---	---	---	218,239.3945	118,626.3341	TO BE ESTABLISHED
524	535-524	173.650	N10°54'19"W	218,409.9086	118,593.4818	TO BE ESTABLISHED
523	524-523	8.068	N11°33'23"W	218,417.8126	118,591.8656	TO BE ESTABLISHED
536	523-536	108.741	N79°19'54"E	218,437.9430	118,698.7273	TO BE ESTABLISHED
537	536-537	189.679	S10°46'58"E	218,251.6131	118,734.2133	TO BE ESTABLISHED
535	537-535	108.569	S83°32'17"W	218,239.3945	118,626.3341	TO BE ESTABLISHED

Area: 20,139.3584 sq mt =0= 5.1240 cuerda(s).

SURVEY DATA
PARCEL 16 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
538	---	---	---	218,213.9932	118,469.9579	TO BE ESTABLISHED
539	538-639	10.893	S80°47'39"W	218,212.2505	118,459.2051	TO BE ESTABLISHED
540	539-540	52.351	S08°53'04"E	218,160.5278	118,467.2904	TO BE ESTABLISHED
541	540-541	94.219	N80°47'39"E	218,175.6013	118,560.2963	TO BE ESTABLISHED
542	541-542	207.292	S08°25'01"E	217,970.5420	118,590.6383	TO BE ESTABLISHED
ARC	542-ARC	L: 48.947	A: 75°47'45"	R: 37.000	T: 28.802	ARC DATA
543	ARC-543	45.455	N53°26'55"E	217,997.6124	118,627.1533	TO BE ESTABLISHED
544	543-544	36.989	S88°39'13"E	217,996.7432	118,664.1324	TO BE ESTABLISHED
525	544-525	227.190	N08°41'22"W	218,221.3253	118,629.8086	TO BE ESTABLISHED
518	525-518	53.297	S79°35'19"W	218,211.6938	118,577.3893	TO BE ESTABLISHED
511	518-511	52.565	S77°39'40"W	218,200.4610	118,526.0390	TO BE ESTABLISHED
512	511-512	52.600	S78°30'31"W	218,189.9820	118,474.4930	TO BE ESTABLISHED
538	512-538	24.436	N10°41'44"W	218,213.9932	118,469.9579	TO BE ESTABLISHED

Area: 20,033.1585 sq mt =0= 5.0970 cuerda(s).

SURVEY TABLE
PARCEL 32 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
545	---	---	---	218,352.7631	118,443.7479	TO BE ESTABLISH
546	545-546	68.254	S75°49'45W	218,336.0536	118,377.5712	TO BE ESTABLISH
547	546-547	10.017	N09°46'20W	218,345.9254	118,375.8710	TO BE ESTABLISH
548	547-548	66.460	S67°37'03W	218,320.6183	118,314.4180	TO BE ESTABLISH
549	548-549	193.431	S21°18'14E	218,140.4046	118,384.6940	TO BE ESTABLISH
550	549-550	84.715	N80°47'39E	218,153.9575	118,468.3175	TO BE ESTABLISH
540	550-540	6.650	N08°53'04W	218,160.5278	118,467.2904	TO BE ESTABLISH
539	540-539	52.351	N08°53'04W	218,212.2505	118,459.2051	TO BE ESTABLISH
538	539-538	10.893	N80°47'39E	218,213.9932	118,469.9579	TO BE ESTABLISH
513	538-513	68.564	N10°41'44W	218,281.3665	118,457.2329	TO BE ESTABLISH
545	513-545	72.659	N10°41'45W	218,352.7631	118,443.7479	TO BE ESTABLISH

Area: 22,149.1063 sq mt =0= 5.6353 cuerda(s).

SURVEY TABLE
PARCEL 37 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
V1	---	---	---	218,184.8474	118,045.0071	TO BE ESTABLISH
145	V1-145	185.458	S11°34'00E	218,003.1560	118,082.1930	TO BE ESTABLISH
165	145-165	102.049	N71°18'41E	218,035.8549	118,178.8614	TO BE ESTABLISH
147	165-147	6.916	N71°18'41E	218,038.0709	118,185.4126	TO BE ESTABLISH
862	147-862	208.181	N15°17'00W	218,238.8894	118,130.5372	TO BE ESTABLISH
V2	862-V2	59.860	S63°39'36W	218,212.3297	118,076.8921	TO BE ESTABLISH
ARC	V2-V3	L: 26.869	A: 21°05'20	R: 73.000	T: 13.588	ARC DATA
V3	V2-V3	26.718	S53°06'56W	218,196.2938	118,055.5220	CHORD
V1	V3-V1	15.543	S42°34'17W	218,184.8474	118,045.0071	TO BE ESTABLISH

Area: 20,470.7412 sq mt =0= 5.2083 cuerda(s).

SURVEY TABLE
PARCEL 32 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
545	---	---	---	218,352.7631	118,443.7479	TO BE ESTABLISH
546	545-546	68.254	S75°49'45W	218,336.0536	118,377.5712	TO BE ESTABLISH
547	546-547	10.017	N09°46'20W	218,345.9254	118,375.8710	TO BE ESTABLISH
548	547-548	66.460	S67°37'03W	218,320.6183	118,314.4180	TO BE ESTABLISH
549	548-549	193.431	S21°18'14E	218,140.4046	118,384.6940	TO BE ESTABLISH
550	549-550	84.715	N80°47'39E	218,153.9575	118,468.3175	TO BE ESTABLISH
540	550-540	6.650	N08°53'04W	218,160.5278	118,467.2904	TO BE ESTABLISH
539	540-539	52.351	N08°53'04W	218,212.2505	118,459.2051	TO BE ESTABLISH
538	539-538	10.893	N80°47'39E	218,213.9932	118,469.9579	TO BE ESTABLISH
513	538-513	68.564	N10°41'44W	218,281.3665	118,457.2329	TO BE ESTABLISH
545	513-545	72.659	N10°41'45W	218,352.7631	118,443.7479	TO BE ESTABLISH

Area: 22,149.1063 sq mt =0= 5.6353 cuerda(s).

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR

DRAWING TITLE: EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO. VF-20
SHEET NO. 20 / 23
PAPER SIZE: 30x42
PLOT SCALE :1:1
FILE NAME : 3840-EC

SURVEY TABLE
PARCEL 41 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
862	---	---	---	218,238.8894	118,130.5372	TO BE ESTABLISH
147	862-147	208.181	S15°17'00E	218,038.0709	118,185.4126	TO BE ESTABLISH
151	147-151	109.965	N71°18'41E	218,073.3062	118,289.5793	PC.TO BE ESTABLISH
ARC	151-152	L: 32.131	A: 19°47'43	R: 93.000	T: 16.227	ARC DATA
152	151-152	31.971	N14°28'17W	218,104.2631	118,281.5898	PT.TO BE ESTABLISH
863	152-863	177.930	N24°22'09W	218,266.3410	118,208.1734	TO BE ESTABLISH
ARC	863-864	L: 11.667	A: 89°07'46	R: 7.500	T: 7.387	ARC DATA
864	863-864	10.526	N68°56'02W	218,270.1244	118,198.3512	TO BE ESTABLISH
865	864-865	35.027	S66°30'06W	218,256.1584	118,166.2291	TO BE ESTABLISH
ARC	865-866	L: 14.531	A: 2°50'29	R: 293.001	T: 7.267	ARC DATA
866	865-866	14.529	S65°04'51W	218,250.0365	118,153.0523	TO BE ESTABLISH
862	866-862	25.123	S63°39'36W	218,238.8894	118,130.5372	TO BE ESTABLISH

Area: 20,885.9678 sq mt =0= 5.3140 cuerda(s).

SURVEY TABLE
PARCEL 38 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
867	---	---	---	218,278.2040	118,224.1830	TO BE ESTABLISH
267	867-267	207.119	S22°50'33E	218,087.3283	118,304.5865	TO BE ESTABLISH
256	267-256	93.941	N67°23'36E	218,123.4397	118,391.3096	TO BE ESTABLISH
549	256-549	18.209	N21°18'14W	218,140.4046	118,384.6940	TO BE ESTABLISH
548	549-548	193.431	N21°18'14W	218,320.6183	118,314.4180	TO BE ESTABLISH
867	548-867	99.706	S64°49'28W	218,278.2040	118,224.1830	TO BE ESTABLISH

Area: 20,255.2677 sq mt =0= 5.1535 cuerda(s).

SURVEY TABLE
PARCEL 181 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
629	---	---	---	218,565.6901	118,822.1400	TO BE ESTABLISH
625	629-625	226.278	N03°47'57W	218,791.4713	118,807.1472	TO BE ESTABLISH
630	625-630	34.404	S69°04'11W	218,779.1810	118,775.0130	TO BE ESTABLISH
631	630-631	73.470	S59°41'00W	218,742.0950	118,711.5900	TO BE ESTABLISH
632	631-632	49.422	S50°09'18W	218,710.4300	118,673.6450	TO BE ESTABLISH
633	632-633	43.216	S46°48'15W	218,680.8490	118,642.1400	TO BE ESTABLISH
531	633-531	19.472	S00°34'15W	218,661.3780	118,641.9460	TO BE ESTABLISH
532	531-532	164.577	S10°51'58E	218,499.7520	118,672.9710	TO BE ESTABLISH
534	532-534	100.775	N81°09'41E	218,515.2364	118,772.5491	TO BE ESTABLISH
635	534-635	40.644	N10°09'57W	218,555.2427	118,765.3755	TO BE ESTABLISH
629	635-629	57.718	N79°34'18E	218,565.6901	118,822.1400	TO BE ESTABLISH

Area: 36,733.6034 sq mt =0= 9.3460 cuerda(s).

SURVEY TABLE
PARCEL 19 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
625	---	---	---	218,791.4713	118,807.1472	TO BE ESTABLISH
625	625-625	---	South	218,791.4713	118,807.1472	TO BE ESTABLISH
626	625-626	24.968	N69°19'53E	218,800.2840	118,830.5080	TO BE ESTABLISH
627	626-627	38.889	N67°05'42E	218,815.4200	118,866.3310	TO BE ESTABLISH
623	627-623	24.020	N81°08'23E	218,819.1197	118,890.0640	TO BE ESTABLISH
624	623-624	239.260	S04°41'52E	218,580.6635	118,909.6598	TO BE ESTABLISH
628	624-628	51.049	S80°49'26W	218,572.5226	118,859.2637	TO BE ESTABLISH
629	628-629	37.747	S79°34'18W	218,565.6901	118,822.1400	TO BE ESTABLISH
625	629-625	226.278	N03°47'57W	218,791.4713	118,807.1472	TO BE ESTABLISH

Area: 20,284.0211 sq mt =0= 5.1608 cuerda(s).

SURVEY TABLE
PARCEL 20 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
604	---	---	---	218,837.8260	119,005.4090	TO BE ESTABLISH
619	604-619	24.344	S73°55'46W	218,831.0870	118,982.0160	TO BE ESTABLISH
620	619-620	29.136	S86°18'16W	218,829.2090	118,952.9410	TO BE ESTABLISH
621	620-621	24.714	S85°47'18W	218,827.3940	118,928.2940	TO BE ESTABLISH
622	621-622	32.323	S77°04'55W	218,820.1680	118,896.7890	TO BE ESTABLISH
623	622-623	6.806	S81°08'23W	218,819.1197	118,890.0640	TO BE ESTABLISH
624	623-624	239.260	S04°41'52E	218,580.6635	118,909.6598	TO BE ESTABLISH
603	624-603	110.035	N80°04'03E	218,599.6433	119,018.0454	TO BE ESTABLISH
604	603-604	238.518	N03°02'13W	218,837.8260	119,005.4090	TO BE ESTABLISH

Area: 26,940.6211 sq mt =0= 6.8544 cuerda(s).

SURVEY TABLE
PARCEL 21 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
601	---	---	---	218,594.5120	119,181.3645	TO BE ESTABLISH
602	601-602	164.862	S77°55'49W	218,560.0386	119,020.1466	TO BE ESTABLISH
603	602-603	39.660	N03°02'13W	218,599.6433	119,018.0454	TO BE ESTABLISH
604	603-604	238.518	N03°02'13W	218,837.8260	119,005.4090	TO BE ESTABLISH
605	604-605	4.783	N73°55'46E	218,839.1500	119,010.0050	TO BE ESTABLISH
606	605-606	30.394	N83°57'23E	218,842.3500	119,040.2300	TO BE ESTABLISH
607	606-607	36.537	N81°16'10E	218,847.8960	119,076.3440	TO BE ESTABLISH
608	607-608	23.229	S89°26'24E	218,847.6690	119,099.5720	TO BE ESTABLISH
609	608-609	17.177	N68°01'15E	218,854.0980	119,115.5010	TO BE ESTABLISH
610	609-610	14.336	N72°31'14E	218,858.4040	119,129.1751	TO BE ESTABLISH
601	610-601	269.003	S11°11'13E	218,594.5120	119,181.3645	TO BE ESTABLISH

Area: 39,286.3110 sq mt =0= 9.9955 cuerda(s).

SURVEY TABLE
PARCEL 108 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
615	---	---	---	218,584.5332	119,250.2115	TO BE ESTABLISH
647	615-647	65.603	S78°49'21W	218,571.8160	119,185.8530	TO BE ESTABLISH
610	647-610	292.139	N11°11'13W	218,858.4040	119,129.1751	TO BE ESTABLISH
648	610-648	24.574	N72°31'14E	218,865.7850	119,152.6140	TO BE ESTABLISH
649	648-649	31.556	N70°32'57E	218,876.2930	119,182.3690	TO BE ESTABLISH
617	649-617	9.240	N80°08'19E	218,877.8755	119,191.4724	TO BE ESTABLISH
616	617-616	66.461	S10°43'22E	218,812.5750	119,203.8380	TO BE ESTABLISH
615	616-615	232.709	S11°29'41E	218,584.5332	119,250.2115	TO BE ESTABLISH

Area: 19,213.4915 sq mt =0= 4.8884 cuerda(s).

SURVEY TABLE
PARCEL 107 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
612	---	---	---	218,598.5200	119,311.5550	TO BE ESTABLISH
615	612-615	62.918	S77°09'21W	218,584.5332	119,250.2115	TO BE ESTABLISH
616	615-616	232.709	N11°29'41W	218,812.5750	119,203.8380	TO BE ESTABLISH
617	616-617	66.461	N10°43'22W	218,877.8755	119,191.4724	TO BE ESTABLISH
618	617-618	29.443	N80°08'19E	218,882.9180	119,220.4800	TO BE ESTABLISH
611	618-611	32.967	N73°25'59E	218,892.3180	119,252.0780	TO BE ESTABLISH
612	611-612	299.758	S11°26'40E	218,598.5200	119,311.5550	TO BE ESTABLISH

Area: 18,788.0102 sq mt =0= 4.7802 cuerda(s).

SURVEY TABLE
PROPERTY 18,829 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
628	---	---	---	218,572.5226	118,859.2637	TO BE ESTABLISH
624	628-624	51.049	N80°49'26E	218,580.6635	118,909.6598	TO BE ESTABLISH
603	624-603	110.035	N80°04'03E	218,599.6433	119,018.0454	TO BE ESTABLISH
602	603-602	39.660	S03°02'13E	218,560.0386	119,020.1466	TO BE ESTABLISH
293	602-293	86.811	S00°50'42E	218,473.2371	119,021.4266	TO BE ESTABLISH
294	293-294	110.104	S79°58'57W	218,454.0847	118,913.0012	TO BE ESTABLISH
680	294-680	50.585	S80°09'59W	218,445.4452	118,863.1591	TO BE ESTABLISH
628	680-628	127.137	N01°45'21W	218,572.5226	118,859.2637	TO BE ESTABLISH

Area: 20,229.2849 sq mt =0= 5.1469 cuerda(s).

SURVEY TABLE
PARCEL 53 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
647	---	---	---	218,571.8160	119,185.8530	TO BE ESTABLISH
601	647-601	23.136	N11°11'13W	218,594.5120	119,181.3645	TO BE ESTABLISH
602	601-602	164.862	S77°55'49W	218,560.0386	119,020.1466	TO BE ESTABLISH
293	602-293	86.811	S00°50'42E	218,473.2371	119,021.4266	TO BE ESTABLISH
292	293-292	69.670	S00°05'16E	218,403.5672	119,021.5333	TO BE ESTABLISH
899	292-899	87.539	N79°52'09E	218,418.9651	119,107.7072	TO BE ESTABLISH
900	899-900	142.131	N20°21'43E	218,552.2150	119,157.1620	TO BE ESTABLISH
901	900-901	12.136	N05°07'45W	218,564.3024	119,156.0770	TO BE ESTABLISH
647	901-647	30.709	N75°50'16E	218,571.8160	119,185.8530	TO BE ESTABLISH

Area: 19,212.5906 sq mt =0= 4.8882 cuerda(s).

SURVEY TABLE
PARCEL 113 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
899	---	---	---	218,418.9651	119,107.7072	TO BE ESTABLISH
900	899-900	142.131	N20°21'43E	218,552.2150	119,157.1620	TO BE ESTABLISH
957	900-957	97.835	N79°36'10E	218,569.8713	119,253.3902	TO BE ESTABLISH
958	957-958	37.973	N76°42'45E	218,578.5988	119,290.3463	TO BE ESTABLISH
903	958-903	125.060	S11°36'19E	218,456.0950	119,315.5042	TO BE ESTABLISH
904	903-904	109.864	S79°52'09W	218,436.7701	119,207.3528	TO BE ESTABLISH
899	904-899	101.224	S79°52'09W	218,418.9651	119,107.7072	TO BE ESTABLISH

Area: 21,322.3403 sq mt =0= 5.4250 cuerda(s).

SURVEY TABLE
PARCEL 62 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
843	---	---	---	218,486.0569	119,483.1852	TO BE ESTABLISH
842	843-842	77.819	N14°34'55W	218,561.3696	119,463.5929	TO BE ESTABLISH
841	842-841	61.412	N13°28'29W	218,621.0912	119,449.2829	TO BE ESTABLISH
554	841-554	4.947	S76°31'31W	218,619.9384	119,444.4718	TO BE ESTABLISH
555	554-555	24.586	S77°49'18W	218,614.7517	119,420.4386	TO BE ESTABLISH
937	555-937	7.165	S12°10'42E	218,607.7484	119,421.9501	TO BE ESTABLISH
938	937-938	38.212	S77°21'03W	218,599.3807	119,384.6653	TO BE ESTABLISH
939	938-939	9.217	S79°37'57W	218,597.7219	119,375.5986	TO BE ESTABLISH
940	939-940	72.366	S77°10'11W	218,581.6521	119,305.0399	TO BE ESTABLISH
941	940-941	125.664	S13°33'16E	218,459.4878	119,334.4919	TO BE ESTABLISH
843	941-843	151.048	N79°52'09E	218,486.0569	119,483.1852	TO BE ESTABLISH

Area: 19,527.7895 sq mt =0= 4.9684 cuerda(s).

SURVEY TABLE
PARCEL 44 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
962	---	---	---	218,192.1686	119,113.6097	TO BE ESTABLISH
656	962-656	42.816	S21°13'25W	218,152.2568	119,098.1099	TO BE ESTABLISH
655	656-655	14.829	S69°59'58W	218,147.1850	119,084.1757	TO BE ESTABLISH
290	655-290	144.851	N15°32'10W	218,286.7434	119,045.3777	TO BE ESTABLISH
291	290-291	85.088	N15°31'45W	218,368.7251	119,022.5972	TO BE ESTABLISH
292	291-292	34.858	N01°44'56W	218,403.5672	119,021.5333	TO BE ESTABLISH
899	292-899	87.539	N79°52'09E	218,418.9651	119,107.7072	TO BE ESTABLISH
960	899-960	202.142	S15°15'07E	218,223.9428	119,160.8837	TO BE ESTABLISH
963	960-963	18.150	S73°53'12W	218,218.9055	119,143.4465	TO BE ESTABLISH
ARC	963-962	L: 41.445	A: 51°30'01	R: 46.109	T: 22.240	ARC DATA
962	963-962	40.064	S48°08'11W	218,192.1686	119,113.6097	TO BE ESTABLISH

Area: 21,490.5754 sq mt =0= 5.4678 cuerda(s).

SURVEY TABLE
PARCEL 112 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
959	---	---	---	218,235.2629	119,197.9341	TO BE ESTABLISH
960	959-960	38.741	S73°00'37W	218,223.9428	119,160.8837	TO BE ESTABLISH
899	960-899	202.142	N15°15'07W	218,418.9651	119,107.7072	TO BE ESTABLISH
904	899-904	101.224	N79°52'09E	218,436.7701	119,207.3528	TO BE ESTABLISH
870	904-870	181.768	S14°27'11E	218,260.7546	119,252.7192	TO BE ESTABLISH
885	870-885	39.473	S13°37'38E	218,222.3930	119,262.0191	TO BE ESTABLISH
ARC	885-961	L: 32.137	A: 24°15'34	R: 75.901	T: 16.313	ARC DATA
961	885-961	31.898	N64°15'10W	218,236.2494	119,233.2882	TO BE ESTABLISH
ARC	961-959	L: 35.760	A: 29°25'33	R: 69.629	T: 18.283	ARC DATA
959	961-959	35.368	S88°24'07W	218,235.2629	119,197.9341	TO BE ESTABLISH

Area: 20,089.4749 sq mt =0= 5.1113 cuerda(s).

SURVEY TABLE
PARCEL 104 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
902	---	---	---	218,395.6115	119,326.4366	TO BE ESTABLISH
903	902-903	61.464	N10°14'44W	218,456.0950	119,315.5042	TO BE ESTABLISH
904	903-904	109.864	S79°52'09W	218,436.7701	119,207.3528	TO BE ESTABLISH
870	904-870	181.768	S14°27'11E	218,260.7546	119,252.7192	TO BE ESTABLISH
871	870-871	96.470	N77°46'55E	218,281.1707	119,347.0042	TO BE ESTABLISH
905	871-905	0.524	N13°45'27W	218,281.6792	119,346.8797	TO BE ESTABLISH
902	905-902	115.752	N10°10'21W	218,395.6115	119,326.4366	TO BE ESTABLISH

Area: 18,526.0984 sq mt =0= 4.7135 cuerda(s).

SURVEY TABLE
PARCEL 61 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
843	---	---	---	218,486.0569	119,483.1852	TO BE ESTABLISH
941	843-941	151.048	S79°52'09W	218,459.4878	119,334.4919	TO BE ESTABLISH
956	941-956	127.532	S09°26'24E	218,333.6833	119,355.4092	TO BE ESTABLISH
844	956-844	162.838	N81°09'19E	218,358.7208	119,516.3112	TO BE ESTABLISH
843	844-843	131.574	N14°34'55W	218,486.0569	119,483.1852	TO BE ESTABLISH

Area: 20,290.0349 sq mt =0= 5.1623 cuerda(s).

SURVEY TABLE
PARCEL 60 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
952	---	---	---	218,207.5428	119,397.5613	TO BE ESTABLISH
953	952-953	56.455	N25°12'37W	218,258.6202	119,373.5149	TO BE ESTABLISH
954	953-954	10.121	N26°33'53W	218,267.6731	119,368.9886	TO BE ESTABLISH
955	954-955	11.988	N12°43'29W	218,279.3663	119,366.3481	TO BE ESTABLISH
956	955-956	55.408	N11°23'11W	218,333.6833	119,355.4092	TO BE ESTABLISH
844	956-844	162.838	N81°09'19E	218,358.7208	119,516.3112	TO BE ESTABLISH
845	844-845	19.855	S14°34'55E	218,339.5054	119,521.3100	TO BE ESTABLISH
846	845-846	104.763	S14°23'31E	218,238.0300	119,547.3491	TO BE ESTABLISH
952	846-952	152.859	S78°29'43W	218,207.5428	119,397.5613	TO BE ESTABLISH

Area: 20,727.1922 sq mt =0= 5.2736 cuerda(s).

SURVEY TABLE
PARCEL 180 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
946	---	---	---	218,189.4099	118,744.6436	TO BE ESTABLISH
537	946-537	63.072	N09°31'08W	218,251.6131	118,734.2133	TO BE ESTABLISH
535	537-535	108.569	S83°32'17W	218,239.3945	118,626.3341	TO BE ESTABLISH
525	535-525	18.400	S10°53'04E	218,221.3253	118,629.8086	TO BE ESTABLISH
544	525-544	227.190	S08°41'22E	217,996.7432	118,664.1324	TO BE ESTABLISH
947	544-947	35.529	S88°32'50E	217,995.8425	118,699.6503	TO BE ESTABLISH
ARC	947-948	L: 65.921	A: 107°54'51	R: 35.000	T: 48.097	ARC DATA
948	947-948	56.600	N37°23'28E	218,040.8119	118,734.0210	TO BE ESTABLISH
949	948-949	34.039	N16°33'58W	218,073.4378	118,724.3159	TO BE ESTABLISH
ARC	949-950	L: 16.393	A: 25°23'08	R: 37.000	T: 8.333	ARC DATA
950	949-950	16.260	N03°52'23W	218,089.6602	118,723.2176	TO BE ESTABLISH
951	950-951	79.095	N08°49'11E	218,167.8200	118,735.3447	TO BE ESTABLISH
ARC	951-946	L: 23.760	A: 28°57'52	R: 47.000	T: 12.139	ARC DATA
946	951-946	23.507	N23°18'06E	218,189.4099	118,744.6436	TO BE ESTABLISH

Area: 21,702.9562 sq mt =0= 5.5218 cuerda(s).

SURVEY TABLE
PROPERTY 53 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
284	---	---	---	218,273.1892	118,925.3221	TO BE ESTABLISH
537	284-537	192.323	S83°33'31W	218,251.6131	118,734.2133	TO BE ESTABLISH
946	537-946	63.072	S09°31'08E	218,189.4099	118,744.6436	TO BE ESTABLISH
ARC	946-965	L: 23.760	A: 28°57'52	R: 47.000	T: 12.139	ARC DATA
965	946-965	23.507	N52°15'58E	218,203.7963	118,763.2347	TO BE ESTABLISH
ARC	965-966	L: 47.519	A: 57°55'43	R: 47.000	T: 26.014	ARC DATA
966	965-966	45.521	S84°17'15E	218,199.2654	118,808.5294	TO BE ESTABLISH
967	966-967	86.219	S55°19'24E	218,150.2117	118,879.4335	TO BE ESTABLISH
ARC	967-968	L: 22.767	A: 5°04'33	R: 256.996	T: 11.391	ARC DATA
968	967-968	22.760	S52°47'08E	218,136.4466	118,897.5587	TO BE ESTABLISH
969	968-969	45.568	S50°14'51E	218,107.3070	118,932.5922	TO BE ESTABLISH
970	969-970	30.811	S50°14'51E	218,087.6045	118,956.2799	TO BE ESTABLISH
ARC	970-942	L: 7.954	A: 45°34'23	R: 10.000	T: 4.201	ARC DATA
942	970-942	7.746	S73°02'03E	218,085.3442	118,963.6887	TO BE ESTABLISH
655	942-655	135.430	N62°49'50E	218,147.1850	119,084.1757	TO BE ESTABLISH
290	655-290	144.851	N15°32'10W	218,286.7434	119,045.3777	TO BE ESTABLISH
284	290-284	120.818	S83°33'31W	218,273.1892	118,925.3221	TO BE ESTABLISH

Area: 40,666.1093 sq mt =0= 10.3466 cuerda(s).

SURVEY TABLE
PARCEL 85 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
178	---	---	---	217,764.1702	117,957.7372	TO BE ESTABLISH
579	178-579	143.729	S01°06'02W	217,620.4679	117,954.9770	TO BE ESTABLISH
580	579-580	25.268	N81°55'15E	217,624.0191	117,979.9943	TO BE ESTABLISH
581	580-581	28.895	N83°08'53E	217,627.4665	118,008.6832	TO BE ESTABLISH
582	581-582	27.335	N83°08'52E	217,630.7279	118,035.8231	TO BE ESTABLISH
583	582-583	25.686	N83°08'52E	217,633.7924	118,061.3254	TO BE ESTABLISH
584	583-584	7.759	N83°08'53E	217,634.7181	118,069.0294	TO BE ESTABLISH
585	584-585	10.943	N02°06'38E	217,645.6541	118,069.4324	TO BE ESTABLISH
586	585-586	0.398	N07°56'48E	217,646.0481	118,069.4874	TO BE ESTABLISH
587	586-587	33.051	N02°06'24E	217,679.0770	118,070.7022	TO BE ESTABLISH
588	587-588	124.072	N86°34'40E	217,686.4835	118,194.5533	TO BE ESTABLISH
179	588-179	34.316	N07°07'50W	217,720.5337	118,190.2937	TO BE ESTABLISH
178	179-178	236.615	N79°22'22W	217,764.1702	117,957.7372	TO BE ESTABLISH

Area: 20,282.1421 sq mt =0= 5.1603 cuerda(s).

SURVEY TABLE
PARCEL 179 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
858	---	---	---	218,097.0721	118,923.0042	TO BE ESTABLISH
891	858-891	44.742	N50°14'51W	218,125.6832	118,888.6061	TO BE ESTABLISH
ARC	891-892	L: 21.527	A: 5°04'33	R: 242.996	T: 10.770	ARC DATA
892	891-892	21.520	N52°47'08W	218,138.6984	118,871.4682	TO BE ESTABLISH
893	892-893	86.219	N55°19'24W	218,187.7521	118,800.5642	TO BE ESTABLISH
ARC	893-894	L: 66.729	A: 115°51'25	R: 33.000	T: 52.665	ARC DATA
894	893-894	55.928	S66°44'53W	218,165.6734	118,749.1792	TO BE ESTABLISH
888	894-888	79.095	S08°49'11W	218,087.5137	118,737.0520	TO BE ESTABLISH
857	888-857	160.933	S56°52'22E	217,999.5638	118,871.8264	TO BE ESTABLISH
858	857-858	110.123	N27°41'35E	218,097.0721	118,923.0042	TO BE ESTABLISH

Area: 20,559.3304 sq mt =0= 5.2309 cuerda(s).

SURVEY TABLE
PARCEL 39 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
220	---	---	---	217,819.7800	118,813.3076	PT.TO BE ESTABLISH
ARC	220-886	L: 22.251	A: 33°59'44	R: 37.502	T: 11.464	ARC DATA
886	220-886	21.926	N28°42'24E	217,839.0111	118,823.8393	TO BE ESTABLISH
887	886-887	86.240	N45°49'15E	217,899.1121	118,885.6876	TO BE ESTABLISH
ARC	887-856	L: 17.702	A: 27°24'42	R: 37.000	T: 9.024	ARC DATA
856	887-856	17.533	N59°31'36E	217,908.0038	118,900.7989	TO BE ESTABLISH
857	856-857	96.035	N17°33'32W	217,999.5638	118,871.8264	TO BE ESTABLISH
888	857-888	160.933	N56°52'22W	218,087.5137	118,737.0520	TO BE ESTABLISH
ARC	888-889	L: 10.190	A: 25°23'08	R: 23.000	T: 5.180	ARC DATA
889	888-889	10.107	S03°52'23E	218,077.4295	118,737.7348	TO BE ESTABLISH
890	889-890	34.039	S16°33'58E	218,044.8036	118,747.4398	TO BE ESTABLISH
ARC	890-212	L: 32.606	A: 38°32'39	R: 48.469	T: 16.947	ARC DATA
212	890-212	31.995	S02°36'02W	218,012.8414	118,745.9881	PC.TO BE ESTABLISH
220	212-220	204.462	S19°13'24E	217,819.7800	118,813.3076	PT.TO BE ESTABLISH

Area: 20,816.7973 sq mt =0= 5.2964 cuerda(s).

SURVEY TABLE
PARCEL 40 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
850	---	---	---	217,956.9024	119,048.7791	TO BE ESTABLISH
851	850-851	31.668	S15°21'54W	217,926.3666	119,040.3883	TO BE ESTABLISH
ARC	851-852	L: 40.492	A: 82°51'30	R: 28.000	T: 24.711	ARC DATA
852	851-852	37.055	S56°47'39W	217,906.0735	119,009.3842	TO BE ESTABLISH
853	852-853	14.231	N81°46'36W	217,908.1090	118,995.2995	TO BE ESTABLISH
ARC	853-854	L: 49.291	A: 10°11'43	R: 277.003	T: 24.711	ARC DATA
854	853-854	49.226	N86°52'28W	217,910.7929	118,946.1472	TO BE ESTABLISH
855	854-855	35.969	S88°01'40W	217,909.5550	118,910.1996	TO BE ESTABLISH
ARC	855-856	L: 9.554	A: 14°47'43	R: 37.000	T: 4.804	ARC DATA
856	855-856	9.528	S80°37'49W	217,908.0038	118,900.7989	TO BE ESTABLISH
857	856-857	96.035	N17°33'32W	217,999.5638	118,871.8264	TO BE ESTABLISH
858	857-858	110.123	N27°41'35E	218,097.0721	118,923.0042	TO BE ESTABLISH
859	858-859	31.637	S50°14'51E	218,076.8411	118,947.3273	TO BE ESTABLISH
ARC	859-860	L: 7.954	A: 45°34'23	R: 10.000	T: 4.201	ARC DATA
860	859-860	7.746	S27°27'40E	218,069.9679	118,950.8993	TO BE ESTABLISH
861	860-861	141.342	S38°37'47E	217,959.5520	119,039.1366	TO BE ESTABLISH
850	861-850	10.000	S74°38'06E	217,956.9024	119,048.7791	TO BE ESTABLISH

Area: 20,157.6959 sq mt =0= 5.1287 cuerda(s).

SURVEY TABLE
PARCEL 22 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
850	---	---	---	217,956.9024	119,048.7791	TO BE ESTABLISH
861	850-861	10.000	N74°38'06W	217,959.5520	119,039.1366	TO BE ESTABLISH
860	861-860	141.342	N38°37'47W	218,069.9679	118,950.8993	TO BE ESTABLISH
ARC	860-942	L: 31.416	A: 180°00'00	[illegible]	120,999,980.000	ARC DATA
942	860-942	20.000	N39°45'09E	218,085.3442	118,963.6887	TO BE ESTABLISH
655	942-655	135.430	N62°49'50E	218,147.1850	119,084.1757	TO BE ESTABLISH
943	655-943	0.069	S15°31'39E	218,147.1190	119,084.1940	TO BE ESTABLISH
654	943-654	89.993	S15°34'32E	218,060.4310	119,108.3580	TO BE ESTABLISH
653	654-653	23.000	S15°34'07E	218,038.2750	119,114.5310	TO BE ESTABLISH
652	653-652	75.214	S15°35'51E	217,965.8305	119,134.7546	TO BE ESTABLISH
651	652-651	6.399	S15°33'10E	217,959.6659	119,136.4703	TO BE ESTABLISH
944	651-944	65.190	S81°57'20W	217,950.5432	119,071.9213	TO BE ESTABLISH
945	944-945	10.000	N74°38'06W	217,953.1929	119,062.2788	TO BE ESTABLISH
ARC	945-850	L: 47.324	A: 271°08'46	R: 10.000	T: 9.802	ARC DATA
850	945-850	14.000	N74°38'06W	217,956.9024	119,048.7791	TO BE ESTABLISH

Area: 20,419.7597 sq mt =0= 5.1953 cuerda(s).

SURVEY TABLE
PARCEL 45 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
650	---	---	---	217,989.6023	119,226.7937	TO BE ESTABLISH
651	650-651	95.155	S71°39'47W	217,959.6659	119,136.4703	TO BE ESTABLISH
652	651-652	6.399	N15°33'10W	217,965.8305	119,134.7546	TO BE ESTABLISH
653	652-653	75.214	N15°35'51W	218,038.2750	119,114.5310	TO BE ESTABLISH
654	653-654	23.000	N15°34'07W	218,060.4310	119,108.3580	TO BE ESTABLISH
655	654-655	90.061	N15°34'32W	218,147.1850	119,084.1757	TO BE ESTABLISH
656	655-656	14.829	N69°59'58E	218,152.2568	119,098.1099	TO BE ESTABLISH
639	656-639	15.550	S70°18'45E	218,147.0183	119,112.7506	TO BE ESTABLISH
638	639-638	73.028	S66°14'11E	218,117.5904	119,179.5874	TO BE ESTABLISH
637	638-637	29.479	S87°16'31E	218,116.1891	119,209.0329	TO BE ESTABLISH
ARC	637-636	L: 60.251	A: 48°12'32	R: 71.607	T: 32.038	ARC DATA
636	637-636	58.489	S45°59'18E	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-650	L: 102.576	A: 102°58'11	R: 57.077	T: 71.716	ARC DATA
650	636-650	89.319	S15°47'23W	217,989.6023	119,226.7937	TO BE ESTABLISH

Area: 20,887.0094 sq mt =0= 5.3142 cuerda(s).

SURVEY TABLE
TAX ID: 402-019-327-70-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
848	---	---	---	218,019.0411	119,598.4856	TO BE ESTABLISH
906	848-906	107.220	N63°32'06W	218,066.8235	119,502.5017	TO BE ESTABLISH
907	906-907	193.977	S15°55'04W	217,880.2839	119,449.3019	TO BE ESTABLISH
908	907-908	175.465	N89°13'06E	217,882.6776	119,624.7505	TO BE ESTABLISH
908	908-908	---	South	217,882.6776	119,624.7505	TO BE ESTABLISH
848	908-848	138.870	N10°54'08W	218,019.0411	119,598.4856	TO BE ESTABLISH

Area: 22,217.2462 sq mt =0= 5.6527 cuerda(s).

GEOMETRIC TABLES
* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

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EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1

CERTIFY CORRECT

JAVIER E. BIDOT CRUZ
LAND SURVEYOR

DRAWING TITLE: EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO.: VF-21
SHEET NO.: 21 / 23
PAPER SIZE: 30x42
PLOT SCALE: 1:1
FILE NAME: 3840-EC

SURVEY TABLE
PARCEL 110 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
636	---	---	---	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-637	L: 60.251	A: 48°12'31	R: 71.608	T: 32.038	ARC DATA
637	636-637	58.489	N45°59'18W	218,116.1891	119,209.0329	TO BE ESTABLISH
638	637-638	29.479	N87°16'31W	218,117.5904	119,179.5874	TO BE ESTABLISH
639	638-639	73.028	N66°14'11W	218,147.0183	119,112.7506	TO BE ESTABLISH
640	639-640	57.022	N20°12'55E	218,200.5274	119,132.4543	TO BE ESTABLISH
ARC	640-641	L: 109.196	A: 42°23'11	R: 147.606	T: 57.232	ARC DATA
641	640-641	106.723	N80°25'24E	218,218.2829	119,237.6900	TO BE ESTABLISH
642	641-642	39.125	S51°18'24E	218,193.8236	119,268.2274	TO BE ESTABLISH
643	642-643	9.210	S38°53'21E	218,186.6549	119,274.0096	TO BE ESTABLISH
644	643-644	18.420	S38°06'28E	218,172.1613	119,285.3773	TO BE ESTABLISH
645	644-645	27.629	S36°48'21E	218,150.0393	119,301.9301	TO BE ESTABLISH
646	645-646	27.629	S35°14'35E	218,127.4742	119,317.8735	TO BE ESTABLISH
636	646-636	84.587	S52°07'55W	218,075.5506	119,251.0980	TO BE ESTABLISH

Area: 17,145.1235 sq mt =0= 4.3622 cuerda(s).

SURVEY TABLE
PARCEL 109 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
870	---	---	---	218,260.7546	119,252.7192	TO BE ESTABLISH
871	870-871	96.470	N77°46'55E	218,281.1707	119,347.0042	TO BE ESTABLISH
872	871-872	19.025	S13°45'39E	218,262.6921	119,351.5296	TO BE ESTABLISH
873	872-873	12.478	S25°46'11E	218,251.4548	119,356.9546	TO BE ESTABLISH
874	873-874	114.028	S26°13'00E	218,149.1569	119,407.3285	TO BE ESTABLISH
ARC	874-875	L: 35.611	A: 34°04'30	R: 59.879	T: 18.350	ARC DATA
875	874-875	35.089	S43°12'36E	218,123.5824	119,431.3530	TO BE ESTABLISH
876	875-876	18.158	S50°11'40E	218,111.9577	119,445.3028	TO BE ESTABLISH
ARC	876-877	L: 6.619	A: 70°16'08	R: 5.397	T: 3.798	ARC DATA
877	876-877	6.212	S03°34'35W	218,105.7578	119,444.9153	TO BE ESTABLISH
878	877-878	45.694	S39°29'40W	218,070.4960	119,415.8534	TO BE ESTABLISH
ARC	878-879	L: 6.835	A: 83°19'30	R: 4.700	T: 4.182	ARC DATA
879	878-879	6.248	S82°52'30W	218,069.7210	119,409.6535	TO BE ESTABLISH
880	879-880	82.757	N49°44'53W	218,123.1949	119,346.4922	TO BE ESTABLISH
881	880-881	22.783	N48°26'50W	218,138.3072	119,329.4426	TO BE ESTABLISH
882	881-882	20.153	N37°58'18W	218,154.1943	119,317.0428	TO BE ESTABLISH
883	882-883	37.046	N37°20'58W	218,183.6437	119,294.5683	TO BE ESTABLISH
884	883-884	36.195	N37°36'22W	218,212.3181	119,272.4813	TO BE ESTABLISH
885	884-885	14.525	N46°04'50W	218,222.3930	119,262.0191	TO BE ESTABLISH
870	885-870	39.473	N13°37'38W	218,260.7546	119,252.7192	TO BE ESTABLISH

Area: 17,266.7672 sq mt =0= 4.3931 cuerda(s).

SURVEY TABLE
PARCEL 59 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
952	---	---	---	218,207.5428	119,397.5613	TO BE ESTABLISH
ARC	952-964	L: 121.269	A: 31°01'45	R: 223.924	T: 62.161	ARC DATA
964	952-964	119.792	S38°16'38E	218,113.5030	119,471.7687	TO BE ESTABLISH
932	964-932	28.910	S37°54'20W	218,090.6927	119,454.0078	TO BE ESTABLISH
931	932-931	53.813	S63°47'39E	218,066.9290	119,502.2897	TO BE ESTABLISH
848	931-848	107.457	S63°32'06E	218,019.0411	119,598.4856	TO BE ESTABLISH
847	848-847	80.476	N10°54'08W	218,098.0647	119,583.2649	TO BE ESTABLISH
846	847-846	144.500	N14°23'31W	218,238.0300	119,547.3491	TO BE ESTABLISH
952	846-952	152.859	S78°29'43W	218,207.5428	119,397.5613	TO BE ESTABLISH

Area: 22,912.7218 sq mt =0= 5.8296 cuerda(s).

SURVEY TABLE
PARCEL 111 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
868	---	---	---	217,946.3944	119,341.4304	TO BE ESTABLISH
ARC	868-869	L: 125.681	A: 24°20'16	R: 295.878	T: 63.803	ARC DATA
869	868-869	124.738	N25°31'27E	218,058.9584	119,395.1788	TO BE ESTABLISH
646	869-646	103.298	N48°26'58W	218,127.4742	119,317.8735	TO BE ESTABLISH
636	646-636	84.587	S52°07'55W	218,075.5506	119,251.0980	TO BE ESTABLISH
ARC	636-650	L: 102.576	A: 102°58'11	R: 57.077	T: 71.716	ARC DATA
650	636-650	89.319	S15°47'23W	217,989.6023	119,226.7937	TO BE ESTABLISH
868	650-868	122.509	S69°20'53E	217,946.3944	119,341.4304	TO BE ESTABLISH

Area: 17,515.1883 sq mt =0= 4.4563 cuerda(s).

SURVEY TABLE
PARCEL 46 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
868	---	---	---	217,946.3944	119,341.4304	TO BE ESTABLISH
895	868-895	279.148	S26°29'47W	217,696.5670	119,216.8910	TO BE ESTABLISH
896	895-896	29.546	S83°59'40W	217,693.4758	119,187.5072	TO BE ESTABLISH
897	896-897	181.772	N02°26'17E	217,875.0828	119,195.2398	TO BE ESTABLISH
898	897-898	38.509	S38°29'50W	217,844.9438	119,171.2686	TO BE ESTABLISH
651	898-651	119.884	N16°52'26W	217,959.6659	119,136.4703	TO BE ESTABLISH
650	651-650	95.155	N71°39'47E	217,989.6023	119,226.7937	TO BE ESTABLISH
868	650-868	122.509	S69°20'53E	217,946.3944	119,341.4304	TO BE ESTABLISH

Area: 30,321.6115 sq mt =0= 7.7146 cuerda(s).

SURVEY TABLE
PARCEL 58 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
906	---	---	---	218,066.8235	119,502.5017	TO BE ESTABLISH
931	906-931	0.237	N63°32'35W	218,066.9290	119,502.2897	TO BE ESTABLISH
932	931-932	53.813	N63°47'39W	218,090.6927	119,454.0078	TO BE ESTABLISH
933	932-933	30.198	S44°09'47W	218,069.0299	119,432.9689	TO BE ESTABLISH
934	933-934	24.067	S35°10'51W	218,049.3593	119,419.1026	TO BE ESTABLISH
935	934-935	15.381	S35°10'50W	218,036.7874	119,410.2405	TO BE ESTABLISH
936	935-936	28.193	S30°24'39W	218,012.4733	119,395.9692	TO BE ESTABLISH
910	936-910	120.110	S27°48'20W	217,906.2315	119,339.9412	TO BE ESTABLISH
909	910-909	126.532	S62°50'30E	217,848.4759	119,452.5230	TO BE ESTABLISH
907	909-907	31.971	N05°46'57W	217,880.2839	119,449.3019	TO BE ESTABLISH
906	907-906	193.977	N15°55'04E	218,066.8235	119,502.5017	TO BE ESTABLISH

Area: 19,553.9663 sq mt =0= 4.9751 cuerda(s).

SURVEY TABLE
PARCEL 34 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
909	---	---	---	217,848.4759	119,452.5230	TO BE ESTABLISH
910	909-910	126.532	N62°50'30W	217,906.2315	119,339.9412	TO BE ESTABLISH
911	910-911	226.890	S27°06'10W	217,704.2563	119,236.5732	TO BE ESTABLISH
912	911-912	5.562	S24°15'34W	217,699.1852	119,234.2878	TO BE ESTABLISH
913	912-913	1.058	S53°07'58E	217,698.5502	119,235.1346	TO BE ESTABLISH
914	913-914	55.737	N84°21'24E	217,704.0311	119,290.6011	TO BE ESTABLISH
915	914-915	24.982	N84°21'24E	217,706.4877	119,315.4622	TO BE ESTABLISH
916	915-916	40.331	N80°38'12E	217,713.0493	119,355.2556	TO BE ESTABLISH
917	916-917	13.169	N76°31'19E	217,716.1186	119,368.0615	TO BE ESTABLISH
918	917-918	8.930	N58°34'14E	217,720.7752	119,375.6815	TO BE ESTABLISH
919	918-919	1.620	N51°20'27E	217,721.7871	119,376.9464	TO BE ESTABLISH
920	919-920	56.508	N42°41'36E	217,763.3203	119,415.2633	TO BE ESTABLISH
921	920-921	44.877	N42°24'51E	217,796.4526	119,445.5323	TO BE ESTABLISH
922	921-922	3.569	N44°37'57W	217,798.9922	119,443.0250	TO BE ESTABLISH
923	922-923	0.018	N13°04'59E	217,799.0100	119,443.0291	TO BE ESTABLISH
924	923-924	6.315	N49°28'17W	217,803.1137	119,438.2291	TO BE ESTABLISH
925	924-925	3.691	N27°28'47E	217,806.3880	119,439.9321	TO BE ESTABLISH
926	925-926	6.740	N42°21'26E	217,811.3687	119,444.4734	TO BE ESTABLISH
927	926-927	15.231	S51°49'34E	217,801.9555	119,456.4468	TO BE ESTABLISH
928	927-928	1.730	N47°30'54E	217,803.1241	119,457.7228	TO BE ESTABLISH
929	928-929	11.225	N08°31'01W	217,814.2257	119,456.0603	TO BE ESTABLISH
930	929-930	1.437	N08°30'57W	217,815.6466	119,455.8475	TO BE ESTABLISH
909	930-909	32.997	N05°46'57W	217,848.4759	119,452.5230	TO BE ESTABLISH

Area: 25,149.7093 sq mt =0= 6.3988 cuerda(s).

SURVEY TABLE
PARCEL 13-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
657	---	---	---	218,280.1690	120,265.6959	TO BE ESTABLISH
ARC	657-658	L: 88.637	A: 17°20'21	R: 292.895	T: 44.660	ARC DATA
658	657-658	88.300	N45°33'09W	218,342.0014	120,202.6596	TO BE ESTABLISH
ARC	658-659	L: 190.171	A: 55°24'51	R: 196.628	T: 103.263	ARC DATA
659	658-659	182.845	N47°52'19W	218,464.6519	120,067.0526	TO BE ESTABLISH
660	659-660	97.256	N56°05'50W	218,518.8998	119,986.3317	TO BE ESTABLISH
661	660-661	50.863	N36°40'28W	218,559.6943	119,955.9529	TO BE ESTABLISH
662	661-662	62.590	N19°26'24W	218,618.7160	119,935.1217	TO BE ESTABLISH
663	662-663	52.546	N22°19'43W	218,667.3221	119,915.1585	TO BE ESTABLISH
664	663-664	29.430	N01°44'40E	218,696.7386	119,916.0544	TO BE ESTABLISH
665	664-665	53.094	S87°50'12W	218,694.7345	119,862.9983	TO BE ESTABLISH
666	665-666	55.304	N48°24'26W	218,731.4467	119,821.6378	TO BE ESTABLISH
667	666-667	8.750	N18°02'50W	218,739.7664	119,818.9269	TO BE ESTABLISH
668	667-668	66.065	N13°18'48W	218,804.0561	119,803.7135	TO BE ESTABLISH
669	668-669	34.471	N60°38'11W	218,820.9592	119,773.6709	TO BE ESTABLISH
670	669-670	30.579	S81°15'27W	218,816.3115	119,743.4475	TO BE ESTABLISH
671	670-671	321.447	S08°44'33E	218,498.5997	119,792.3055	TO BE ESTABLISH
672	671-672	413.025	S08°18'14E	218,089.9044	119,851.9550	TO BE ESTABLISH
673	672-673	132.743	S28°23'46W	217,973.1332	119,788.8275	TO BE ESTABLISH
674	673-674	55.597	S34°43'40W	217,927.4402	119,757.1552	TO BE ESTABLISH
675	674-675	189.711	S35°58'50W	217,773.9228	119,645.6977	TO BE ESTABLISH
676	675-676	712.597	S09°50'04E	217,071.7969	119,767.4088	TO BE ESTABLISH
677	676-677	110.350	S45°54'22E	216,995.0118	119,846.6621	TO BE ESTABLISH
678	677-678	457.491	N03°58'36E	217,451.4010	119,878.3880	TO BE ESTABLISH
679	678-679	411.730	N39°57'04E	217,767.0298	120,142.7745	TO BE ESTABLISH
657	679-657	527.657	N13°28'16E	218,280.1690	120,265.6959	TO BE ESTABLISH

Area: 492,773.8943 sq mt =0= 125.3751 cuerda(s).

SURVEY TABLE
PARCEL 13-A (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
657	---	---	---	218,280.1690	120,265.6959	TO BE ESTABLISH
679	657-679	527.657	S13°28'16W	217,767.0298	120,142.7745	TO BE ESTABLISH
678	679-678	411.730	S39°57'04W	217,451.4010	119,878.3880	TO BE ESTABLISH
677	678-677	457.491	S03°58'36W	216,995.0118	119,846.6621	TO BE ESTABLISH
681	677-681	258.130	S43°38'58E	216,808.2347	120,024.8349	TO BE ESTABLISH
682	681-682	154.562	S53°54'21E	216,717.1800	120,149.7290	TO BE ESTABLISH
683	682-683	1,416.992	N12°57'37E	218,098.0756	120,467.5259	TO BE ESTABLISH
684	683-684	84.817	N81°18'16E	218,110.8984	120,551.3678	TO BE ESTABLISH
685	684-685	137.125	N47°15'38W	218,203.9607	120,450.6566	TO BE ESTABLISH
686	685-686	75.255	N63°41'00W	218,237.3237	120,383.2012	TO BE ESTABLISH
ARC	686-687	L: 62.408	A: 25°43'04	R: 139.036	T: 31.738	ARC DATA
687	686-687	61.885	N79°48'58W	218,248.2656	120,322.2912	TO BE ESTABLISH
ARC	687-657	L: 65.102	A: 12°44'07	R: 292.895	T: 32.686	ARC DATA
657	687-657	64.968	N60°35'22W	218,280.1690	120,265.6959	TO BE ESTABLISH

Area: 464,921.2499 sq mt =0= 118.2887 cuerda(s).

SURVEY TABLE
PROPERTY 14,608 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
999	---	---	---	220,294.4970	125,060.3590	TO BE ESTABLISH
998	999-998	9.848	N68°58'59E	220,298.0290	125,069.5520	TO BE ESTABLISH
997	998-997	30.717	N74°31'15E	220,306.2270	125,099.1550	TO BE ESTABLISH
1287	997-1287	7.686	N73°48'14E	220,308.3709	125,106.5363	TO BE ESTABLISH
1288	1287-1288	84.894	S15°44'31E	220,226.6611	125,129.5684	TO BE ESTABLISH
1289	1288-1289	73.559	S74°11'19W	220,206.6183	125,058.7921	TO BE ESTABLISH
1001	1289-1001	27.579	N00°31'02E	220,234.1960	125,059.0410	TO BE ESTABLISH
1000	1001-1000	17.844	N01°34'25E	220,252.0330	125,059.5310	TO BE ESTABLISH
999	1000-999	42.472	N01°07'01E	220,294.4970	125,060.3590	TO BE ESTABLISH

Area: 5,164.4563 sq mt =0= 1.3140 cuerda(s).

SURVEY TABLE
PARCEL 68 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
576	---	---	---	217,823.9054	117,766.2327	TO BE ESTABLISH
170	576-170	188.713	N62°25'35E	217,911.3068	117,933.4857	TO BE ESTABLISH
143	170-143	49.451	N15°54'54W	217,958.8620	117,919.9256	TO BE ESTABLISH
121	143-121	32.509	N33°37'58W	217,985.9294	117,901.9197	TO BE ESTABLISH
120	121-120	60.525	N33°37'38W	218,036.3224	117,868.3970	TO BE ESTABLISH
ARC	120-577	L: 10.797	A: 63°05'58	R: 9.804	T: 6.019	ARC DATA
577	120-577	10.259	N87°15'53W	218,036.8121	117,858.1496	TO BE ESTABLISH
ARC	577-578	L: 26.628	A: 25°53'23	R: 58.930	T: 13.545	ARC DATA
578	577-578	26.402	S58°51'53W	218,023.1605	117,835.5505	TO BE ESTABLISH
ARC	578-579	L: 186.762	A: 43°53'23	R: 243.808	T: 98.232	ARC DATA
579	578-579	182.229	S23°58'30W	217,856.6536	117,761.5038	TO BE ESTABLISH
ARC	579-576	L: 33.265	A: 20°29'38	R: 93.000	T: 16.812	ARC DATA
576	579-576	33.088	S08°13'01E	217,823.9054	117,766.2327	TO BE ESTABLISH

Area: 20,708.2307 sq mt =0= 5.2687 cuerda(s).

SURVEY TABLE
PARCEL 84 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
171	---	---	---	217,825.2678	117,973.4163	TO BE ESTABLISH
ARC	171-571	L: 3.327	A: 5°38'40	R: 33.772	T: 1.665	ARC DATA
571	571-572	3.326	S04°19'06E	217,821.9516	117,973.6667	TO BE ESTABLISH
ARC	571-572	L: 69.038	A: 87°43'36	R: 45.090	T: 43.336	ARC DATA
572	571-572	62.490	S36°11'47W	217,771.5226	117,936.7631	TO BE ESTABLISH
573	572-573	66.095	S80°03'36W	217,760.1134	117,871.6605	TO BE ESTABLISH
ARC	573-574	L: 104.952	A: 64°39'33	R: 93.000	T: 58.859	ARC DATA
574	573-574	99.471	N67°36'38W	217,798.0018	117,779.6883	TO BE ESTABLISH
575	574-575	2.011	N35°16'52W	217,799.6434	117,778.5268	TO BE ESTABLISH
ARC	576-577	L: 27.297	A: 16°49'02	R: 93.000	T: 13.747	ARC DATA
576	575-576	27.199	N26°52'21W	217,823.9054	117,766.2327	TO BE ESTABLISH
170	576-170	188.713	N62°24'35E	217,911.3068	117,933.4857	TO BE ESTABLISH
171	170-171	94.853	S24°53'46E	217,825.2678	117,973.4163	TO BE ESTABLISH

Area: 19,699.1112 sq mt =0= 5.0120 cuerda(s).

SURVEY TABLE
PARCEL 7-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1310	---	---	---	217,386.5550	122,234.0880	TO BE ESTABLISHED
718	1310-718	37.889	N76°08'48"E	217,395.6270	122,270.8750	TO BE ESTABLISHED
717	718-717	648.827	N08°52'29"E	218,036.6860	122,370.9710	TO BE ESTABLISHED
716	717-716	68.943	S45°51'10"W	217,988.6670	122,321.5010	TO BE ESTABLISHED
1310	716-1310	608.424	S08°15'37"W	217,386.5550	122,234.0880	TO BE ESTABLISHED

Area: 24,131.7812 sq mt =0= 6.1398 cuerda(s).

SURVEY TABLE
PARCEL 8-B (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
720	---	---	---	218,007.7560	122,405.8370	TO BE ESTABLISHED
721	720-721	34.062	S84°40'34"E	218,004.5956	122,439.7516	TO BE ESTABLISHED
1311	721-1311	598.436	S09°20'49"W	217,414.1045	122,342.5587	TO BE ESTABLISHED
719	1311-719	34.983	S75°44'28"W	217,405.4880	122,308.6530	TO BE ESTABLISHED
720	719-720	610.059	N09°09'59"E	218,007.7560	122,405.8370	TO BE ESTABLISHED

Area: 19,958.1697 sq mt =0= 5.0779 cuerda(s).

SURVEY TABLE
TAX ID: 402-000-005-54-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1312	---	---	---	217,072.9158	119,267.1821	TO BE ESTABLISHED
1313	1312-1313	232.762	N01°54'32"W	217,305.5484	119,259.4287	TO BE ESTABLISHED
1314	1313-1314	444.955	N89°06'23"E	217,312.4883	119,704.3298	TO BE ESTABLISHED
1315	1314-1315	217.174	S10°40'58"E	217,099.0785	119,744.5870	TO BE ESTABLISHED
1316	1315-1316	106.144	S87°38'23"W	217,094.7070	119,638.5329	TO BE ESTABLISHED
1317	1316-1317	124.253	N01°24'33"W	217,218.9227	119,635.4772	TO BE ESTABLISHED
1318	1317-1318	99.512	S88°53'17"W	217,216.9915	119,535.9842	TO BE ESTABLISHED
1319	1318-1319	140.014	S01°56'47"E	217,077.0580	119,540.7394	TO BE ESTABLISHED
1312	1319-1312	273.589	S89°07'57"W	217,072.9158	119,267.1821	TO BE ESTABLISHED

Area: 92,045.3210 sq mt =0= 23.4188 cuerda(s).

SURVEY TABLE
TAX ID: 403-000-002-16-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
716	---	---	---	217,988.6670	122,321.5010	TO BE ESTABLISHED
1320	716-1320	112.843	S45°27'36"W	217,909.5183	122,241.0713	TO BE ESTABLISHED
1321	1320-1321	4.740	S25°37'26"E	217,905.2446	122,243.1212	TO BE ESTABLISHED
1322	1321-1322	13.782	S14°32'23"E	217,891.9038	122,246.5812	TO BE ESTABLISHED
1323	1322-1323	11.441	S03°14'02"E	217,880.4813	122,247.2266	TO BE ESTABLISHED
1324	1323-1324	40.694	S09°18'42"W	217,840.3234	122,240.6421	TO BE ESTABLISHED
1325	1324-1325	66.352	S09°18'59"W	217,774.8466	122,229.9008	TO BE ESTABLISHED
1326	1325-1326	105.652	S09°40'25"W	217,670.6965	122,212.1476	TO BE ESTABLISHED
1327	1326-1327	6.410	S08°20'09"W	217,664.3546	122,211.2184	TO BE ESTABLISHED
1328	1327-1328	36.996	S07°53'13"W	217,627.7090	122,206.1419	TO BE ESTABLISHED
1329	1328-1329	24.043	S81°42'30"E	217,624.2417	122,229.9339	TO BE ESTABLISHED
1330	1329-1330	10.278	N08°11'15"E	217,634.4149	122,231.3977	TO BE ESTABLISHED
1331	1330-1331	5.251	S80°44'57"E	217,633.5708	122,236.5804	TO BE ESTABLISHED
1332	1331-1332	12.781	S81°09'13"E	217,631.6053	122,249.2091	TO BE ESTABLISHED
1333	1332-1333	2.807	S81°09'18"E	217,631.1737	122,251.9826	TO BE ESTABLISHED
1334	1333-1334	6.424	S07°36'54"W	217,624.8060	122,251.1313	TO BE ESTABLISHED
1335	1334-1335	3.615	S07°36'47"W	217,621.2224	122,250.6523	TO BE ESTABLISHED
1336	1335-1336	16.424	S81°42'31"E	217,618.8540	122,266.9042	TO BE ESTABLISHED
1337	1336-1337	0.925	S81°42'23"E	217,618.7206	122,267.8194	TO BE ESTABLISHED
716	1337-716	373.821	N08°15'23"E	217,988.6670	122,321.5010	TO BE ESTABLISHED

Area: 20,071.5734 sq mt =0= 5.1068 cuerda(s).

SURVEY TABLE
TAX ID: 402-027-327-22-000 (AS SURVEYED)

LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
---	---	---	217,764.3346	117,957.7711	TO BE ESTABLISHED
1338-579	143.894	S01°06'46"W	217,620.4679	117,954.9770	TO BE ESTABLISHED
579-1339	20.325	S82°35'37"W	217,617.8480	117,934.8220	TO BE ESTABLISHED
1339-1340	96.679	S83°00'35"W	217,606.0820	117,838.8620	TO BE ESTABLISHED
1340-1341	18.158	S82°59'08"W	217,603.8645	117,820.8396	TO BE ESTABLISHED
1341-1342	152.199	N04°35'44"W	217,755.5738	117,808.6451	TO BE ESTABLISHED
1342-1343	L: 67.181	A: 35°58'25"	R: 107.000	T: 34.739	ARC DATA
1342-1343	66.083	S81°57'12"E	217,746.3236	117,874.0772	TO BE ESTABLISHED
1343-1344	66.095	N80°03'36"E	217,757.7328	117,939.1798	TO BE ESTABLISHED
1344-1338	L: 19.821	A: 19°13'10"	R: 59.090	T: 10.005	ARC DATA
1344-1338	19.729	N70°27'00"E	217,764.3346	117,957.7711	TO BE ESTABLISHED

Area: 19,671.4617 sq mt =0= 5.0050 cuerda(s).

SURVEY TABLE
TAX ID: 402-026-327-19-000/402-027-327-21-000 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1342	---	---	---	217,755.5738	117,808.6451	TO BE ESTABLISHED
1341	1342-1341	152.199	S04°35'44"E	217,603.8645	117,820.8396	TO BE ESTABLISHED
1345	1341-1345	49.619	S82°59'08"W	217,597.8050	117,771.5920	TO BE ESTABLISHED
1346	1345-1346	33.183	S82°38'10"W	217,593.5520	117,738.6830	TO BE ESTABLISHED
1347	1346-1347	24.369	S83°55'27"W	217,590.9727	117,714.4512	TO BE ESTABLISHED
1348	1347-1348	162.735	N11°02'19"W	217,750.6970	117,683.2920	TO BE ESTABLISHED
ARC	1348-1349	L: 47.715	A: 25°33'01"	R: 107.000	T: 24.261	ARC DATA
1349	1348-1349	47.321	N75°49'07"E	217,762.2902	117,729.1704	TO BE ESTABLISHED
1350	1349-1350	42.710	N63°02'37"E	217,781.6510	117,767.2397	TO BE ESTABLISHED
ARC	1350-1351	L: 9.800	A: 74°51'54"	R: 7.500	T: 5.741	ARC DATA
1351	1350-1351	9.117	S79°31'27"E	217,779.9933	117,776.2051	TO BE ESTABLISHED
ARC	1351-1342	L: 40.851	A: 21°52'30"	R: 107.000	T: 20.678	ARC DATA
1342	1351-1342	40.604	S53°01'45"E	217,755.5738	117,808.6451	TO BE ESTABLISHED

Area: 19,717.2213 sq mt =0= 5.0166 cuerda(s).

SURVEY TABLE
PARCEL 31 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1348	---	---	---	217,750.6970	117,683.2920	TO BE ESTABLISHED
1347	1348-1347	162.735	S11°02'19"E	217,590.9727	117,714.4512	TO BE ESTABLISHED
1352	1347-1352	52.895	S83°55'27"W	217,585.3740	117,661.8530	TO BE ESTABLISHED
1353	1352-1353	17.801	S84°13'56"W	217,583.5850	117,644.1420	TO BE ESTABLISHED
1354	1353-1354	21.425	S82°12'26"W	217,580.6800	117,622.9150	TO BE ESTABLISHED
1355	1354-1355	30.021	S84°30'35"W	217,577.8077	117,593.0315	TO BE ESTABLISHED
1356	1355-1356	157.567	N08°43'47"W	217,733.5496	117,569.1169	TO BE ESTABLISHED
ARC	1356-1357	L: 57.325	A: 35°19'01"	R: 93.000	T: 29.606	ARC DATA
1357	1356-1357	56.422	N72°20'30"E	217,750.6647	117,622.8801	TO BE ESTABLISHED
1358	1357-1358	57.786	East	217,750.6647	117,680.6658	TO BE ESTABLISHED
ARC	1358-1348	L: 2.626	A: 1°24'23"	R: 107.000	T: 1.313	ARC DATA
1348	1358-1348	2.626	N89°17'49"E	217,750.6970	117,683.2920	TO BE ESTABLISHED

Area: 19,679.8355 sq mt =0= 5.0071 cuerda(s).

SURVEY TABLE
PARCEL 47 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
896	---	---	---	217,693.4758	119,187.5072	TO BE ESTABLISHED
897	896-897	181.772	N02°26'17"E	217,875.0828	119,195.2398	TO BE ESTABLISHED
898	897-898	38.509	S38°29'50"W	217,844.9438	119,171.2686	TO BE ESTABLISHED
1359	898-1359	164.633	S46°30'19"W	217,731.6286	119,051.8376	TO BE ESTABLISHED
1360	1359-1360	149.694	South	217,581.9348	119,051.8376	TO BE ESTABLISHED
1361	1360-1361	11.820	N42°35'48"E	217,590.6357	119,059.8376	TO BE ESTABLISHED
1362	1361-1362	93.722	N42°35'48"E	217,659.6276	119,123.2717	TO BE ESTABLISHED
ARC	1362-896	L: 73.987	A: 38°26'05"	R: 110.295	T: 38.446	ARC DATA
896	1362-896	72.608	N62°12'49"E	217,693.4758	119,187.5072	TO BE ESTABLISHED

Area: 20,893.2509 sq mt =0= 5.3158 cuerda(s).

SURVEY TABLE
PARCEL 35 (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
1363	---	---	---	217,691.6527	119,269.9228	TO BE ESTABLISHED
1364	1363-1364	80.324	S83°15'39"W	217,682.2268	119,190.1540	TO BE ESTABLISHED
ARC	1364-1365	L: 68.691	A: 41°25'42"	R: 95.000	T: 35.924	ARC DATA
1365	1364-1365	67.204	S62°32'48"W	217,651.2441	119,130.5179	TO BE ESTABLISHED
1366	1365-1366	238.858	S30°52'38"E	217,446.2395	119,253.0998	TO BE ESTABLISHED
1367	1366-1367	14.346	N01°43'58"W	217,460.5790	119,252.6660	TO BE ESTABLISHED
1368	1367-1368	83.392	N00°59'47"W	217,543.9580	119,251.2160	TO BE ESTABLISHED
1369	1368-1369	36.552	S85°58'38"E	217,541.3939	119,287.6775	TO BE ESTABLISHED
1363	1369-1363	151.304	N06°44'20"W	217,691.6527	119,269.9228	TO BE ESTABLISHED

Area: 19,653.4048 sq mt =0= 5.0004 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

JAVIER E. BIDOT ASSOCIATES, PSC
Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1
PLOT SCALE: 1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR

DRAWING TITLE: EXISTING CONDITIONS & TOPOGRAPHIC SURVEY
DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO. VF-22
SHEET NO. 22 / 23
PAPER SIZE: 30x42
FILE NAME : 3840-EC

SURVEY TABLE

GROUPED PARCEL (AS SURVEYED)

POINT	LINE	DIST.	BEARING	(Y)NORTH	(X)EAST	DESCRIPTION
684	---	---	---	218,110.8984	120,551.3678	TO BE ESTABLISH
688	684-688	170.508	N74°56'54E	218,155.1780	120,716.0260	TO BE ESTABLISH
689	688-689	23.095	S00°22'47E	218,132.0840	120,716.1790	TO BE ESTABLISH
690	689-690	119.513	S03°06'05E	218,012.7460	120,722.6450	TO BE ESTABLISH
691	690-691	59.936	S00°09'14E	217,952.8100	120,722.8060	TO BE ESTABLISH
692	691-692	18.222	S07°53'19E	217,934.7600	120,725.3070	TO BE ESTABLISH
693	692-693	246.575	S07°04'13W	217,690.0600	120,694.9570	TO BE ESTABLISH
694	693-694	184.394	N87°45'57E	217,697.2480	120,879.2110	TO BE ESTABLISH
695	694-695	70.152	N01°24'18W	217,767.3790	120,877.4910	TO BE ESTABLISH
696	695-696	80.336	N02°25'01W	217,847.6440	120,874.1030	TO BE ESTABLISH
697	696-697	25.149	N63°09'43E	217,858.9980	120,896.5430	TO BE ESTABLISH
698	697-698	10.602	S76°21'02E	217,856.4960	120,906.8460	TO BE ESTABLISH
699	698-699	18.967	S72°43'23E	217,850.8630	120,924.9570	TO BE ESTABLISH
700	699-700	245.648	S74°29'26E	217,785.1770	121,161.6600	TO BE ESTABLISH
701	700-701	83.762	S19°39'47E	217,706.2990	121,189.8450	TO BE ESTABLISH
702	701-702	12.144	N85°45'51E	217,707.1960	121,201.9560	TO BE ESTABLISH
703	702-703	142.996	N86°31'49E	217,715.8500	121,344.6900	TO BE ESTABLISH
704	703-704	154.032	N65°37'40E	217,779.4130	121,484.9950	TO BE ESTABLISH
705	704-705	19.301	N00°42'23E	217,798.7130	121,485.2330	TO BE ESTABLISH
706	705-706	268.341	N57°17'25E	217,943.7200	121,711.0200	TO BE ESTABLISH
707	706-707	7.298	N85°35'28E	217,944.2810	121,718.2960	TO BE ESTABLISH
708	707-708	18.980	S23°34'29W	217,926.8850	121,710.7050	TO BE ESTABLISH
709	708-709	132.790	S18°33'09W	217,800.9960	121,668.4550	TO BE ESTABLISH
710	709-710	66.115	S68°28'33E	217,776.7390	121,729.9590	TO BE ESTABLISH
711	710-711	100.099	N86°13'08E	217,783.3400	121,829.8400	TO BE ESTABLISH
712	711-712	120.001	N03°23'48E	217,903.1300	121,836.9500	TO BE ESTABLISH
713	712-713	174.593	S77°37'42E	217,865.7230	122,007.4890	TO BE ESTABLISH
714	713-714	161.339	S79°48'45E	217,837.1870	122,166.2840	TO BE ESTABLISH
715	714-715	113.192	N45°57'23E	217,915.8790	122,247.6480	TO BE ESTABLISH
716	715-716	103.694	N45°24'58E	217,988.6670	122,321.5010	TO BE ESTABLISH
717	716-717	68.943	N45°51'10E	218,036.6860	122,370.9710	TO BE ESTABLISH
718	717-718	648.827	S08°52'29W	217,395.6270	122,270.8750	TO BE ESTABLISH
719	718-719	39.044	N75°22'15E	217,405.4880	122,308.6530	TO BE ESTABLISH
720	719-720	610.059	N09°09'59E	218,007.7560	122,405.8370	TO BE ESTABLISH
721	720-721	34.062	S84°40'34E	218,004.5956	122,439.7516	TO BE ESTABLISH
722	721-722	76.854	N09°29'46E	218,080.3970	122,452.4310	TO BE ESTABLISH
723	722-723	61.506	S67°33'06W	218,056.9110	122,395.5860	TO BE ESTABLISH
724	723-724	252.072	N12°09'01W	218,303.3360	122,342.5310	TO BE ESTABLISH
725	724-725	11.849	N24°56'35W	218,314.0800	122,337.5340	TO BE ESTABLISH
726	725-726	295.769	N65°58'37E	218,434.4890	122,607.6840	TO BE ESTABLISH
727	726-727	24.008	N53°39'22E	218,448.7170	122,627.0220	TO BE ESTABLISH
728	727-728	33.048	N45°29'56E	218,471.8810	122,650.5930	TO BE ESTABLISH
729	728-729	16.368	N14°43'39E	218,487.7110	122,654.7540	TO BE ESTABLISH
730	729-730	205.454	N06°52'06W	218,691.6910	122,630.1840	TO BE ESTABLISH
731	730-731	31.235	N80°35'09W	218,696.8000	122,599.3700	TO BE ESTABLISH
732	731-732	306.135	S89°35'52W	218,694.6510	122,293.2430	TO BE ESTABLISH
733	732-733	181.527	N03°10'38W	218,875.8990	122,283.1820	TO BE ESTABLISH
734	733-734	102.119	N83°39'33E	218,887.1771	122,384.6762	TO BE ESTABLISH
735	734-735	158.114	N03°08'24W	219,045.0541	122,376.0156	TO BE ESTABLISH
736	735-736	108.391	S67°56'13W	219,004.3396	122,275.5616	TO BE ESTABLISH
737	736-737	119.054	S03°23'41E	218,885.4942	122,282.6115	TO BE ESTABLISH
738	737-738	28.148	S84°28'16W	218,882.7821	122,254.5941	TO BE ESTABLISH
739	738-739	22.062	S05°31'45E	218,860.8232	122,256.7198	TO BE ESTABLISH
740	739-740	757.412	S84°29'41W	218,788.1589	121,502.8012	TO BE ESTABLISH
741	740-741	79.026	N05°32'09W	218,866.8165	121,495.1776	TO BE ESTABLISH
742	741-742	27.297	S45°58'18W	218,847.8451	121,475.5515	TO BE ESTABLISH
743	742-743	18.304	N70°53'57W	218,853.8346	121,458.2555	TO BE ESTABLISH
744	743-744	7.750	S63°18'15W	218,850.3531	121,451.3319	TO BE ESTABLISH
745	744-745	14.351	S46°46'37W	218,840.5253	121,440.8748	TO BE ESTABLISH
746	745-746	27.612	S77°55'18W	218,834.7474	121,413.8739	TO BE ESTABLISH
747	746-747	18.795	N78°14'14W	218,838.5789	121,395.4737	TO BE ESTABLISH
748	747-748	12.612	N32°27'29W	218,849.2205	121,388.7052	TO BE ESTABLISH
749	748-749	15.289	S75°47'17W	218,845.4670	121,373.8845	TO BE ESTABLISH
750	749-750	4.671	S13°00'42W	218,840.9162	121,372.8329	TO BE ESTABLISH
751	750-751	31.438	West	218,840.9162	121,341.3953	TO BE ESTABLISH
752	751-752	37.912	N31°54'46W	218,873.0980	121,321.3539	TO BE ESTABLISH
753	752-753	29.245	N68°40'39W	218,883.7318	121,294.1112	TO BE ESTABLISH
754	753-754	39.053	N84°21'39W	218,887.5692	121,255.2476	TO BE ESTABLISH
755	754-755	10.221	N28°15'44W	218,896.5718	121,250.4079	TO BE ESTABLISH
756	755-756	6.339	S83°46'20W	218,895.8842	121,244.1066	TO BE ESTABLISH
757	756-757	4.280	S65°56'20W	218,894.1391	121,240.1983	TO BE ESTABLISH
758	757-758	16.775	S33°59'52W	218,880.2313	121,230.8181	TO BE ESTABLISH
759	758-759	19.338	S44°20'52W	218,866.4026	121,217.3008	TO BE ESTABLISH
760	759-760	16.061	N71°09'47W	218,871.5884	121,202.0997	TO BE ESTABLISH
761	760-761	35.290	S64°21'35W	218,856.3179	121,170.2850	TO BE ESTABLISH
762	761-762	27.245	N89°29'37W	218,856.5588	121,143.0412	TO BE ESTABLISH
763	762-763	14.010	N52°58'06W	218,864.9964	121,131.8569	TO BE ESTABLISH
764	763-764	10.909	S66°47'10W	218,860.6965	121,121.8311	TO BE ESTABLISH
765	764-765	23.285	N73°36'14W	218,867.2693	121,099.4931	TO BE ESTABLISH
766	765-766	11.972	S86°45'21W	218,866.5918	121,087.5406	TO BE ESTABLISH
767	766-767	32.650	N53°12'39W	218,886.1449	121,061.3932	TO BE ESTABLISH
768	767-768	16.370	N01°52'06E	218,902.5060	121,061.9268	TO BE ESTABLISH
769	768-769	10.763	N87°06'56W	218,903.0476	121,051.1779	TO BE ESTABLISH
770	769-770	8.499	S43°45'12W	218,896.9088	121,045.3007	TO BE ESTABLISH
771	770-771	18.650	S83°14'07W	218,894.7120	121,026.7805	TO BE ESTABLISH
772	771-772	4.148	S68°16'44W	218,893.1769	121,022.9271	TO BE ESTABLISH
773	772-773	6.690	S55°19'11W	218,889.3702	121,017.4254	TO BE ESTABLISH
774	773-774	6.921	S53°43'56W	218,885.2761	121,011.8454	TO BE ESTABLISH
775	774-775	8.397	S09°20'57W	218,876.9912	121,010.4814	TO BE ESTABLISH
776	775-776	11.088	S70°34'17W	218,873.3031	121,000.0252	TO BE ESTABLISH
777	776-777	9.840	S49°19'17W	218,866.8891	120,992.5627	TO BE ESTABLISH
778	777-778	17.973	N79°19'49W	218,870.2168	120,974.9002	TO BE ESTABLISH
779	778-779	2.959	N50°24'41W	218,872.1026	120,972.6198	TO BE ESTABLISH
780	779-780	7.055	N75°35'40W	218,873.8577	120,965.7870	TO BE ESTABLISH
781	780-781	6.382	N81°10'52W	218,874.8361	120,959.4807	TO BE ESTABLISH
782	781-782	26.336	N85°24'29W	218,876.9445	120,933.2288	TO BE ESTABLISH
783	782-783	12.177	S28°47'30W	218,866.2726	120,927.3639	TO BE ESTABLISH
784	783-784	20.841	N87°31'57W	218,867.1698	120,906.5426	TO BE ESTABLISH
785	784-785	18.569	N56°59'20W	218,877.2862	120,890.9714	TO BE ESTABLISH
786	785-786	16.435	N70°55'31W	218,882.6571	120,875.4391	TO BE ESTABLISH
787	786-787	35.496	S85°36'44W	218,879.9414	120,840.0474	TO BE ESTABLISH
788	787-788	38.377	N81°13'38W	218,885.7946	120,802.1191	TO BE ESTABLISH
789	788-789	10.394	N00°37'05E	218,896.1878	120,802.2312	TO BE ESTABLISH
790	789-790	35.034	N56°45'37W	218,915.3917	120,772.9289	TO BE ESTABLISH
791	790-791	42.274	N84°08'12W	218,919.7101	120,730.8763	TO BE ESTABLISH
792	791-792	40.016	S78°34'12W	218,911.7801	120,691.6535	TO BE ESTABLISH
793	792-793	44.845	S67°39'26W	218,894.7324	120,650.1750	TO BE ESTABLISH
794	793-794	49.963	N86°29'28W	218,897.7904	120,600.3062	TO BE ESTABLISH
795	794-795	140.131	N79°06'41W	218,924.2611	120,462.6978	TO BE ESTABLISH
796	795-796	32.174	N79°34'14W	218,930.0854	120,431.0553	TO BE ESTABLISH
797	796-797	17.834	N67°08'30W	218,937.0130	120,414.6222	TO BE ESTABLISH
798	797-798	24.983	N74°07'21W	218,943.8479	120,390.5923	TO BE ESTABLISH
799	798-799	26.643	N30°13'03W	218,966.8705	120,377.1833	TO BE ESTABLISH
800	799-800	21.049	N88°48'49W	218,967.3064	120,356.1389	TO BE ESTABLISH
801	800-801	29.170	N48°52'51W	218,986.4892	120,334.1641	TO BE ESTABLISH
802	801-802	39.148	N82°07'59W	218,991.8476	120,295.3842	TO BE ESTABLISH
803	802-803	32.187	S67°53'28W	218,979.7336	120,265.5641	TO BE ESTABLISH
804	803-804	4.336	S47°36'11W	218,976.8100	120,262.3620	TO BE ESTABLISH
805	804-805	15.903	S17°12'18W	218,961.6186	120,257.6580	TO BE ESTABLISH
806	805-806	54.793	S64°34'52W	218,938.0995	120,208.1689	TO BE ESTABLISH
807	806-807	55.377	S87°39'42W	218,935.8400	120,152.8379	TO BE ESTABLISH
808	807-808	41.768	N54°46'30W	218,959.9315	120,118.7176	TO BE ESTABLISH
809	808-809	64.925	N41°23'38W	219,008.6368	120,075.7874	TO BE ESTABLISH
810	809-810	44.027	N74°50'25W	219,020.1502	120,033.2924	TO BE ESTABLISH
811	810-811	53.909	N84°56'08W	219,024.9092	119,979.5942	TO BE ESTABLISH
812	811-812	29.026	N70°52'08W	219,034.4219	119,952.1714	TO BE ESTABLISH
813	812-813	45.162	S74°24'11W	219,022.2794	119,908.6728	TO BE ESTABLISH
814	813-814	92.253	S82°20'40W	219,009.9896	119,817.2421	TO BE ESTABLISH
815	814-815	2.495	S44°40'50W	219,008.2156	119,815.4878	TO BE ESTABLISH
816	815-816	27.687	S80°32'30W	219,003.6658	119,788.1775	TO BE ESTABLISH
817	816-817	7.789	N25°14'04W	219,010.7116	119,784.8568	TO BE ESTABLISH
818	817-818	23.443	S58°51'36W	218,998.5886	119,764.7919	TO BE ESTABLISH
819	818-819	7.090	S05°20'30W	218,991.5296	119,764.1319	TO BE ESTABLISH
820	819-820	12.282	S30°56'40W	218,980.9954	119,757.8162	TO BE ESTABLISH
821	820-821	1.456	S41°43'20E	218,979.9086	119,758.7852	TO BE ESTABLISH
822	821-822	30.325	S37°20'08W	218,955.7973	119,740.3937	TO BE ESTABLISH
823	822-823	8.939	N80°24'14W	218,957.2875	119,731.5795	TO BE ESTABLISH
824	823-824	5.895	S20°55'27W	218,951.7815	119,729.4743	TO BE ESTABLISH
825	824-825	33.623	S61°57'53W	218,935.9780	119,699.7965	TO BE ESTABLISH
826	825-826	7.856	N50°30'07W	218,940.9750	119,693.7343	TO BE ESTABLISH
827	826-827	2.520	S30°29'03W	218,938.8031	119,692.4557	TO BE ESTABLISH
828	827-828	28.569	N67°34'27W	218,949.7019	119,666.0471	TO BE ESTABLISH
829	828-829	19.550	S87°43'47W	218,948.9274	119,646.5123	TO BE ESTABLISH
830	829-830	8.498	S67°14'51W	218,945.6407	119,638.6752	TO BE ESTABLISH
831	830-831	7.719	S09°53'34E	218,938.0364	119,640.0014	TO BE ESTABLISH
832	831-832	66.714	S61°46'20W	218,906.4821	119,581.2215	TO BE ESTABLISH
833	832-833	0.231	S31°43'08E	218,906.2854	119,581.3431	TO BE ESTABLISH
834	833-834	2.062	S68°11'48W	218,905.5194	119,579.4283	TO BE ESTABLISH
835	834-835	7.026	S61°46'20W	218,902.1961	119,573.2375	TO BE ESTABLISH
836	835-836	0.789	N26°53'03W	218,902.9001	119,572.8806	TO BE ESTABLISH
837	836-837	32.265	S68°11'48W	218,890.9162	119,542.9238	TO BE ESTABLISH
838	837-838	42.474	S82°27'12W	218,885.3380	119,500.8176	TO BE ESTABLISH
839	838-839	7.493	North	218,892.8310	119,500.8176	TO BE ESTABLISH
840	839-840	62.271	S78°31'54W	218,880.4497	119,439.7895	TO BE ESTABLISH
564	840-564	48.712	S81°08'05W	218,872.9426	119,391.6593	TO BE ESTABLISH
565	564-565	95.986	S10°57'21E	218,778.7058	119,409.9018	TO BE ESTABLISH
841	565-841	162.460	S14°01'43E	218,621.0912	119,449.2829	TO BE ESTABLISH
842	841-842	61.412	S13°28'29E	218,561.3696	119,463.5929	TO BE ESTABLISH
843	842-843	77.819	S14°34'55E	218,486.0569	119,483.1852	TO BE ESTABLISH
844	843-844	131.574	S14°34'55E	218,358.7208	119,516.3112	TO BE ESTABLISH
845	844-845	19.855	S14°34'55E	218,339.5054	119,521.3100	TO BE ESTABLISH
846	845-846	104.763	S14°23'31E	218,238.0300	119,547.3491	TO BE ESTABLISH
847	846-847	144.500	S14°23'31E	218,098.0647	119,583.2649	TO BE ESTABLISH
848	847-848	80.476	S10°54'08E	218,019.0411	119,598.4856	TO BE ESTABLISH
675	848-675	249.624	S10°54'08E	217,773.9228	119,645.6977	TO BE ESTABLISH
674	675-674	189.711	N35°58'50E	217,927.4402	119,757.1552	TO BE ESTABLISH
673	674-673	55.597	N34°43'40E	217,973.1332	119,788.8275	TO BE ESTABLISH
672	673-672	132.743	N28°23'46E	218,089.9044	119,851.9550	TO BE ESTABLISH
671	672-671	413.025	N08°18'14W	218,498.5997	119,792.3055	TO BE ESTABLISH
849	671-849	166.445	N08°44'33W	218,663.1108	119,767.0068	TO BE ESTABLISH
670	849-670	155.002	N08°44'33W	218,816.3115	119,743.4475	TO BE ESTABLISH
669	670-669	30.579	N81°15'27E	218,820.9592	119,773.6709	TO BE ESTABLISH
668	669-668	34.471	S60°38'11E	218,804.0561	119,803.7135	TO BE ESTABLISH
667	668-667	66.065	S13°18'48E	218,739.7664	119,818.9269	TO BE ESTABLISH
666	667-666	8.750	S18°02'50E	218,731.4467	119,821.6378	TO BE ESTABLISH
665	666-665	55.304	S48°24'26E	218,694.7345	119,862.9983	TO BE ESTABLISH
664	665-664	53.094	N87°50'12E	218,696.7386	119,916.0544	TO BE ESTABLISH
663	664-663	29.430	S01°44'40W	218,667.3221	119,915.1585	TO BE ESTABLISH
662	663-662	52.546	S22°19'43E	218,618.7160	119,935.1217	TO BE ESTABLISH
661	662-661	62.590	S19°26'24E	218,559.6943	119,955.9529	TO BE ESTABLISH
660	661-660	50.863	S36°40'28E	218,518.8998	119,986.3317	TO BE ESTABLISH
659	660-659	97.256	S56°05'50E	218,464.6519	120,067.0526	TO BE ESTABLISH
ARC	659-658	L: 190.171	A: 55°24'51	R: 196.628	T: 103.263	ARC DATA
658	659-658	182.845	S47°52'19E	218,342.0014	120,202.6596	TO BE ESTABLISH
ARC	658-657	L: 88.637	A: 17°20'21	R: 292.895	T: 44.660	ARC DATA
657	658-657	88.300	S45°33'09E	218,280.1690	120,265.6959	TO BE ESTABLISH
ARC	657-687	L: 65.102	A: 12°44'07	R: 292.895	T: 32.686	ARC DATA
687	657-687	64.968	S60°35'22E	218,248.2656	120,322.2912	TO BE ESTABLISH
ARC	687-686	L: 62.408	A: 25°43'04	R: 139.036	T: 31.738	ARC DATA
686	687-686	61.885	S79°48'58E	218,237.3237	120,383.2012	TO BE ESTABLISH
685	686-685	75.255	S63°41'00E	218,203.9607	120,450.6566	TO BE ESTABLISH
684	685-684	137.125	S47°15'38E	218,110.8984	120,551.3678	TO BE ESTABLISH

Area: 2,689,262.2584 sq mt =0= 684.2218 cuerda(s).

GEOMETRIC TABLES

* FOR IMPORTANT AND GENERAL NOTES PLEASE REFER TO V-1

SYM.	REVISION	BY:	DATE:

THE MATERIAL SHOWN HEREON IS PROPERTY OF JAVIER E. BIDOT ASSOCIATES, PSC AND SHALL NOT BE REPRODUCED IN WHOLE OR IN PART WITHOUT PERMISSION OF JAVIER BIDOT ASSOCIATES, PSC.

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Land Surveyors & Consultants
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www.jebpr.com

EXISTING CONDITIONS
& TOPOGRAPHIC SURVEY
FOR PR INVESTCO, LLC.
LOCATED AT BOQUERÓN BAY
MUNICIPALITY OF CABO ROJO, PUERTO RICO

LAST DAY OF FIELD SURVEY: APRIL 2023
DRAWN BY: J.CAINS
CHECKED BY: C. LEBRON
SCALE: 1:1

PLOT SCALE :1:1

CERTIFY CORRECT

I HEREBY CERTIFY THAT THIS SURVEY WAS MADE UNDER MY RESPONSIBLE CHARGE AND MEETS THE MINIMUM TECHNICAL STANDARDS AS SET FORTH BY THE BOARD OF PROFESSIONAL LAND SURVEYORS IN CHAPTER 5J-17.052 FLORIDA ADMINISTRATIVE CODE PURSUANT TO SECTION 472.027 FLORIDA STATUTES. THIS SURVEY IS NOT VALID WITHOUT THE SIGNATURE AND ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER. ADDITIONS OR DELETIONS TO THIS SURVEY MAP OR REPORT BY OTHER THAN THE SIGNING PARTY ARE PROHIBITED WITHOUT THE WRITTEN CONSENT OF THE SIGNING PARTY.

JAVIER E. BIDOT CRUZ
LAND SURVEYOR LIC NO. 12972

DRAWING TITLE:
EXISTING CONDITIONS & TOPOGRAPHIC SURVEY

DATE: MAY 14, 2024
PROJECT: JEB-3840
DWG. NO. VF-23
SHEET NO. 23/23
PAPER SIZE: 30x42

FILE NAME : 3840-EC

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:24,000

500 250 0 500 Meters

Water Courses - Existing Condition

Esencia - Cabo Rojo, PR

N
W E
S

Date: 5/15/2024

PMC AND ASSOCIATES

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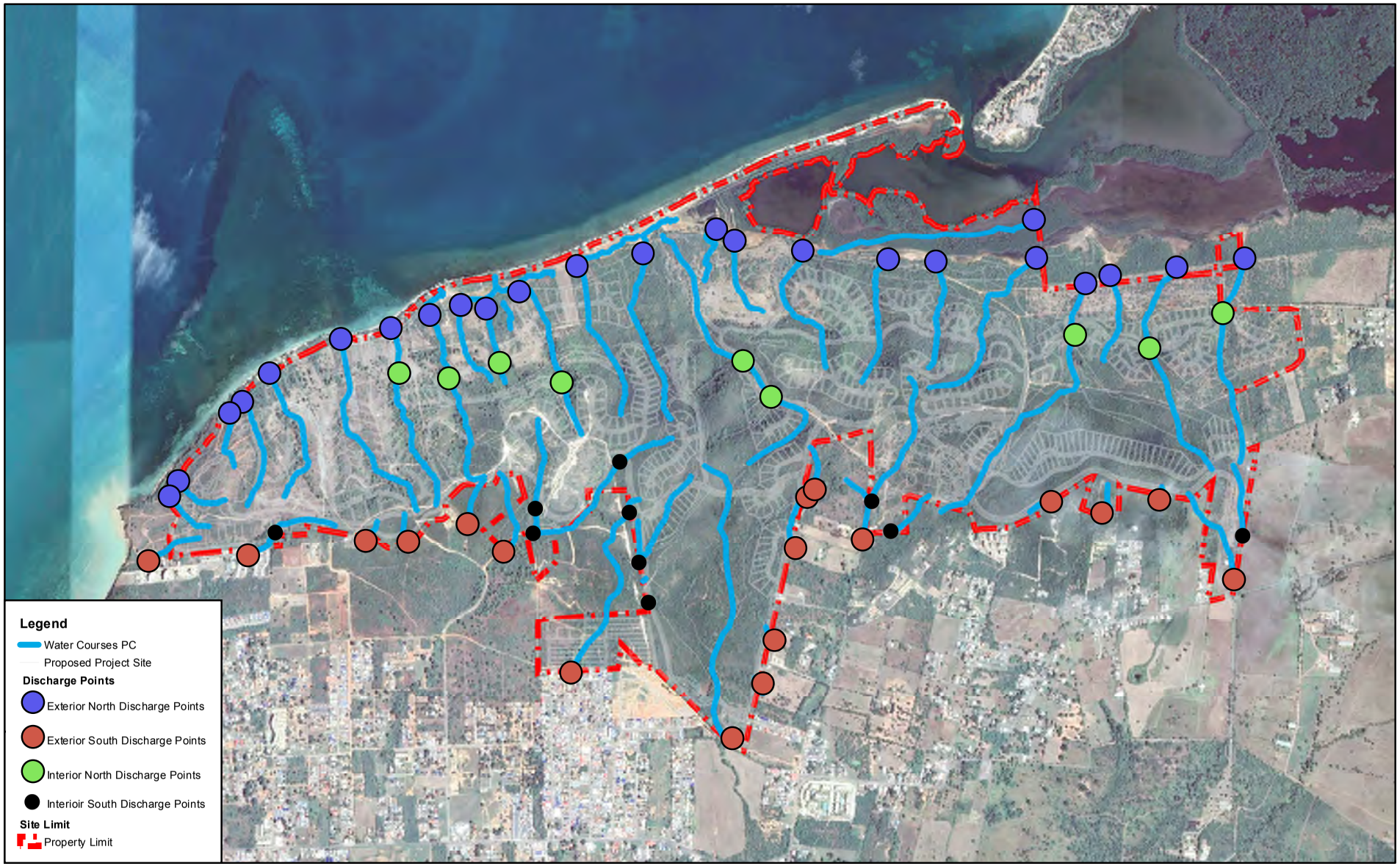


Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:24,000

500 250 0 500 Meters

Water Courses - Proposed Condition

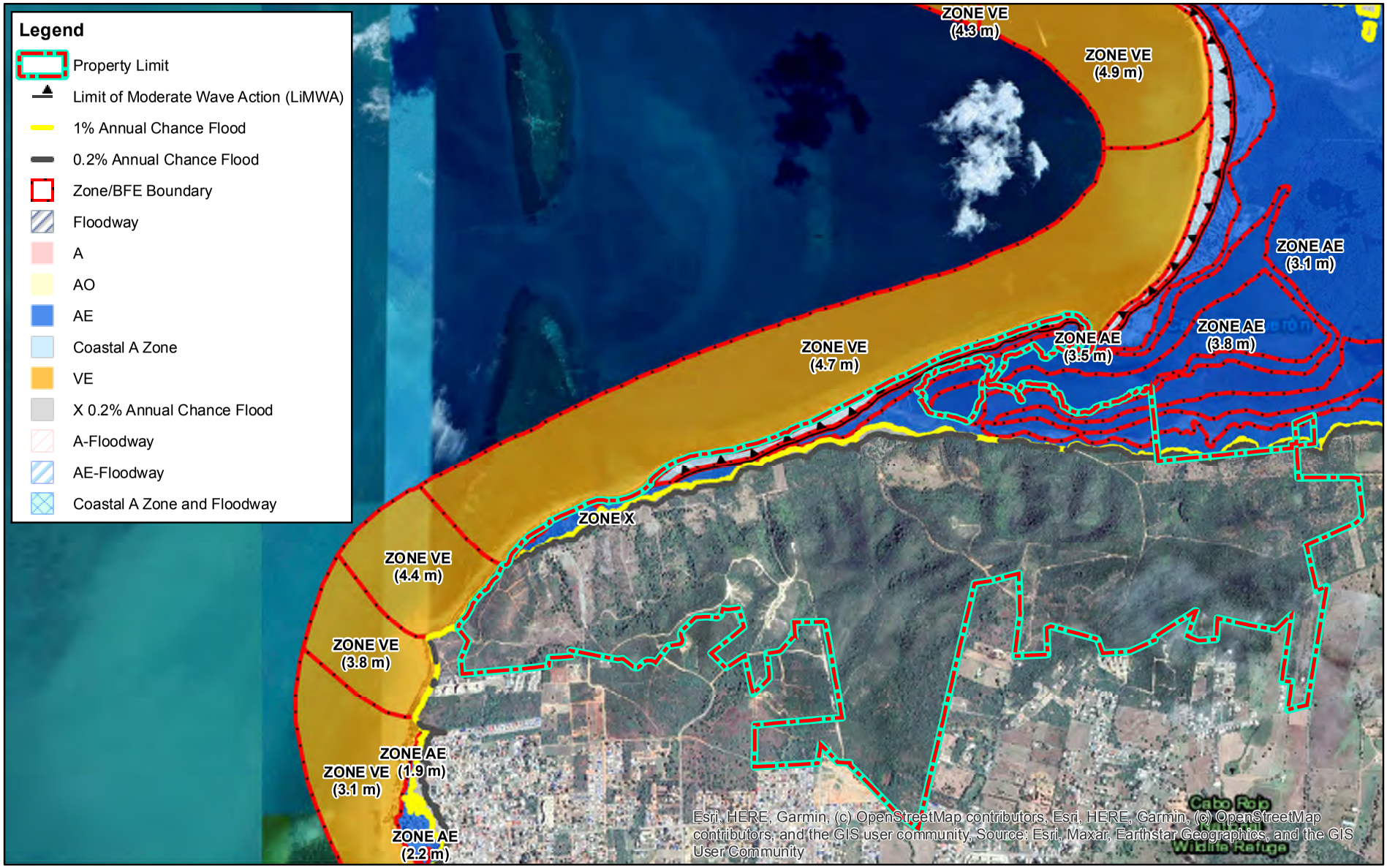
Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMG AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_WaterCoursesLFP_(10_2)_Comp.mxd



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:30,000

600 300 0 600 Meters

FEMA's Advisory Base Flood Elevation Map (ABFE)

(General Project Site)

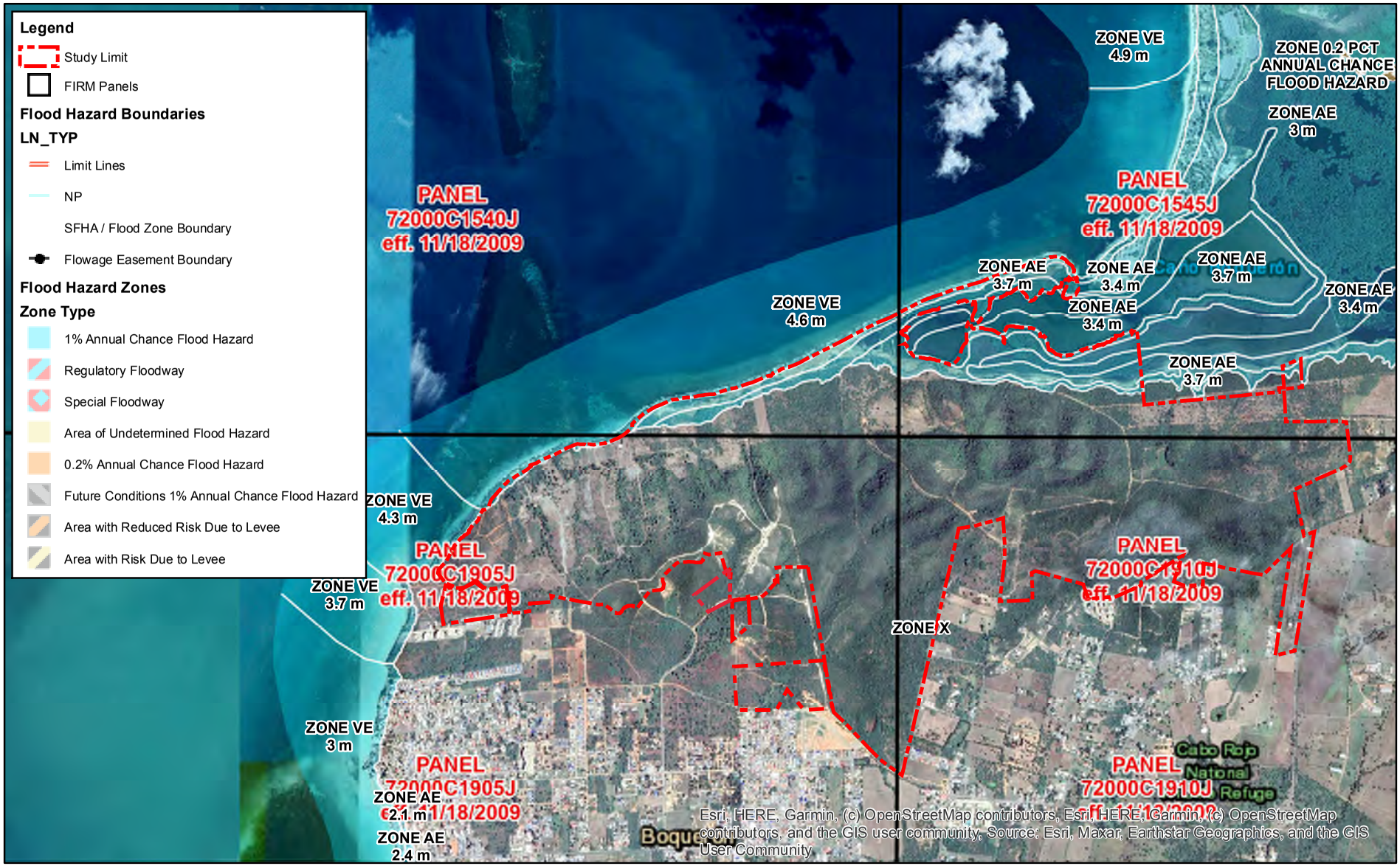
Esencia - Cabo Rojo, PR

N W E S

Date: 5/15/2024

PMC AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_FloodMap-ABFE_(10_2).mxd



Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:30,000

600 300 0 600 Meters

FEMA Flood Insurance Rate Map (FIRM)

Escencia - Cabo Rojo, PR

N W E S

Date: 12/19/2023

PMC AND ASSOCIATES

Document Path: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH\38701_FloodMap-FIRM(10_2).mxd

NOAA Atlas 14, Volume 3, Version 4
Location name: Boquerón, Puerto Rico, PRI*
Latitude: 17.9973°, Longitude: -67.187°
Elevation: 41 m**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

AMS-based point precipitation frequency estimates with 90% confidence intervals (in millimeters)[1]

Duration	Annual exceedance probability (1/years)								
	1/2	1/5	1/10	1/25	1/50	1/100	1/200	1/500	1/1000
5-min	13 (12-14)	16 (15-17)	18 (16-19)	20 (18-21)	21 (20-23)	22 (21-25)	24 (22-26)	26 (24-29)	27 (25-31)
10-min	18 (17-19)	22 (20-23)	24 (22-26)	27 (25-29)	29 (27-31)	31 (29-34)	33 (30-36)	35 (32-39)	37 (34-42)
15-min	23 (21-24)	28 (26-30)	31 (29-33)	34 (32-37)	37 (34-40)	39 (37-43)	42 (39-46)	45 (41-50)	48 (44-54)
30-min	37 (34-39)	44 (42-47)	49 (46-53)	55 (51-59)	59 (55-64)	63 (59-69)	67 (62-74)	72 (66-81)	76 (70-86)
60-min	54 (51-58)	66 (62-70)	73 (68-78)	82 (76-88)	88 (82-95)	94 (87-102)	99 (92-109)	107 (99-120)	113 (104-127)
2-hr	69 (64-74)	86 (80-92)	97 (90-103)	110 (102-119)	120 (111-131)	131 (119-144)	141 (128-157)	154 (139-174)	164 (147-187)
3-hr	72 (67-78)	92 (85-99)	105 (97-113)	123 (112-134)	136 (123-150)	150 (134-167)	164 (145-185)	183 (159-210)	198 (170-230)
6-hr	81 (74-89)	109 (99-119)	129 (116-141)	155 (138-172)	176 (154-198)	197 (170-226)	220 (187-256)	252 (210-300)	278 (228-336)
12-hr	90 (80-101)	127 (113-143)	157 (138-177)	201 (173-229)	237 (200-274)	277 (228-327)	320 (259-386)	384 (301-474)	437 (334-549)
24-hr	103 (91-117)	154 (136-174)	195 (171-221)	257 (221-293)	309 (263-356)	367 (307-427)	432 (355-509)	528 (423-631)	609 (478-736)
2-day	124 (110-141)	182 (161-207)	230 (201-262)	301 (258-345)	361 (305-418)	427 (354-502)	500 (407-597)	609 (483-742)	701 (545-866)
3-day	128 (114-146)	188 (167-213)	236 (207-267)	304 (263-348)	362 (309-420)	429 (357-505)	503 (408-600)	612 (486-745)	704 (548-870)
4-day	133 (118-151)	195 (173-219)	242 (213-273)	308 (268-350)	364 (312-422)	431 (360-507)	505 (410-603)	615 (488-749)	708 (550-875)
7-day	154 (139-174)	221 (198-248)	271 (241-303)	338 (298-381)	395 (344-448)	454 (391-521)	518 (441-609)	618 (517-757)	715 (577-883)
10-day	174 (156-195)	245 (220-274)	296 (265-331)	366 (324-409)	420 (369-473)	478 (416-543)	539 (464-618)	639 (541-764)	720 (602-892)
20-day	239 (218-264)	323 (294-357)	382 (345-423)	459 (411-510)	518 (461-578)	579 (511-650)	641 (561-725)	731 (631-835)	801 (685-924)
30-day	290 (265-319)	388 (353-427)	454 (412-501)	539 (485-597)	603 (539-672)	668 (593-749)	734 (647-829)	823 (716-939)	896 (773-1030)
45-day	363 (334-396)	474 (435-517)	547 (500-597)	637 (579-698)	703 (636-773)	768 (692-850)	834 (746-928)	922 (817-1034)	988 (869-1116)
60-day	425 (392-462)	550 (506-599)	631 (578-687)	728 (664-796)	799 (725-876)	869 (784-957)	938 (842-1037)	1028 (916-1147)	1097 (971-1231)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of annual maxima series (AMS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and annual exceedance probability) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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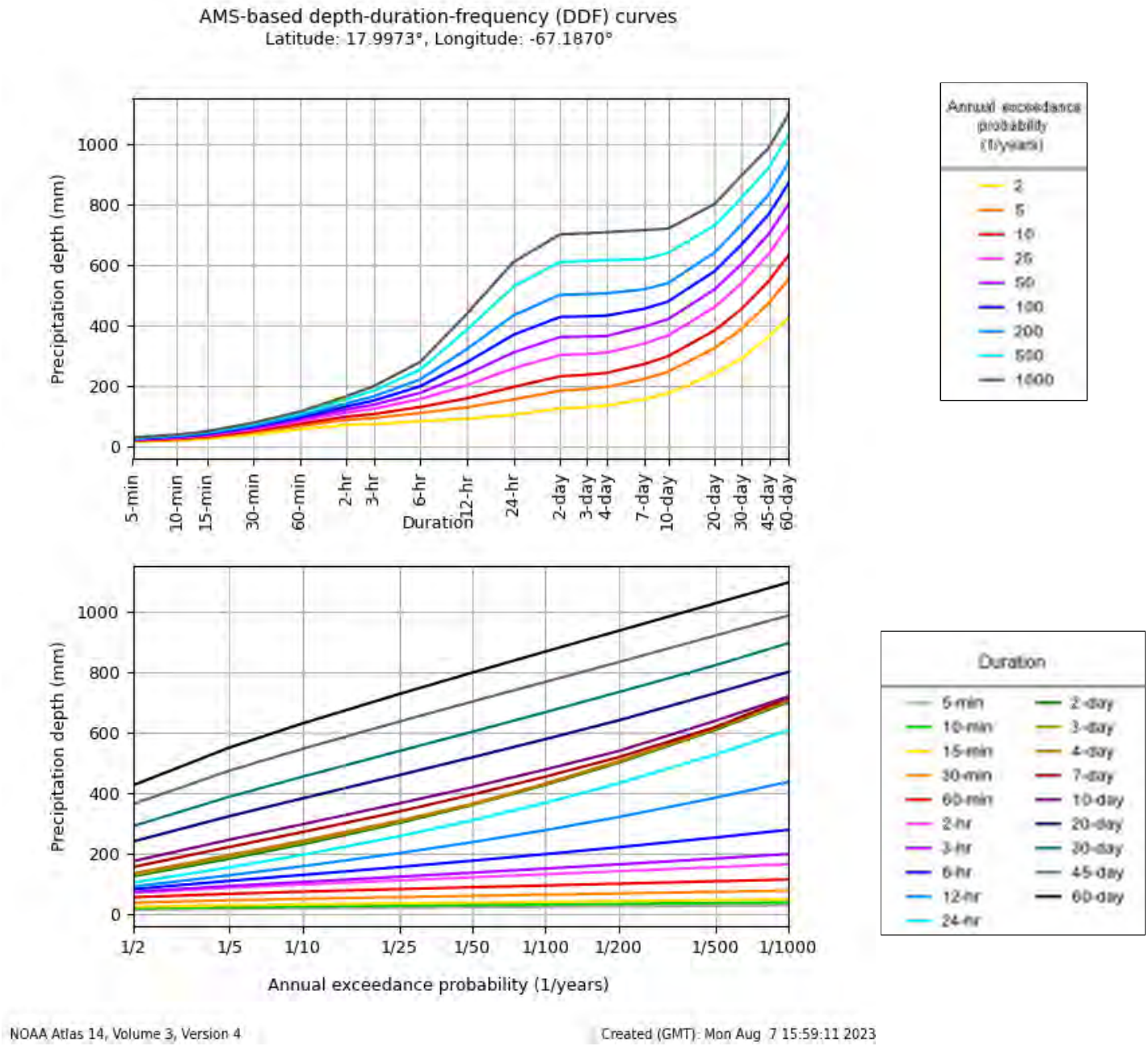
PF graphical



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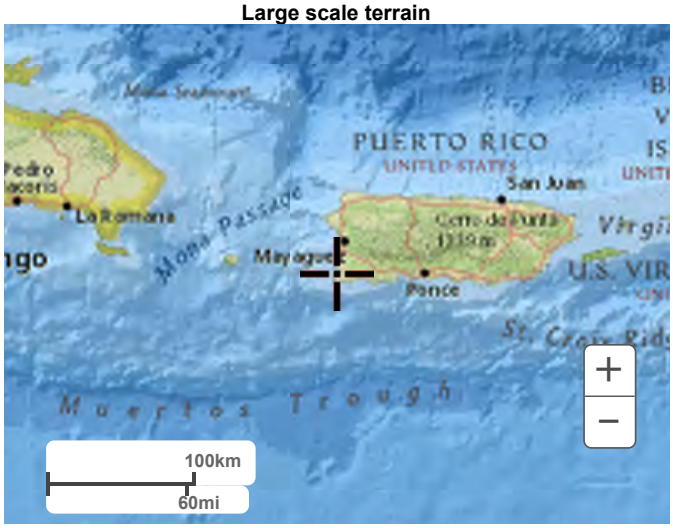
Small scale terrain

Large scale terrain



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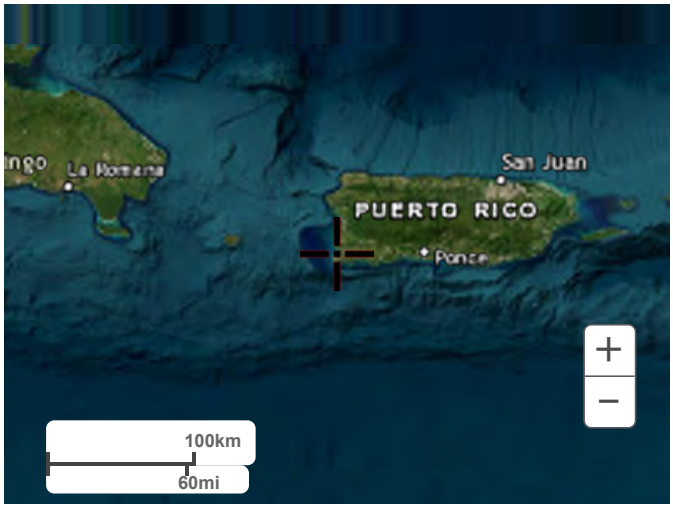

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NOAA Atlas 14, Volume 3, Version 4
Location name: Boquerón, Puerto Rico, PRI*
Latitude: 17.9973°, Longitude: -67.187°
Elevation: 41 m**
* source: ESRI Maps
** source: USGS

POINT PRECIPITATION FREQUENCY ESTIMATES

G.M. Bonnin, D. Martin, B. Lin, T. Parzybok, M.Yekta, and D. Riley

NOAA, National Weather Service, Silver Spring, Maryland

PF_tabular | PF_graphical | Maps_&_aerials

PF tabular

AMS-based point precipitation frequency estimates with 90% confidence intervals (in millimeters/hour)[1]

Duration	Annual exceedance probability (1/years)								
	1/2	1/5	1/10	1/25	1/50	1/100	1/200	1/500	1/1000
5-min	**157** (147-167)	**190** (177-203)	**211** (197-226)	**235** (219-253)	**252** (236-273)	**269** (251-294)	**287** (265-315)	**309** (284-344)	**327** (298-367)
10-min	**107** (100-114)	**130** (121-139)	**144** (134-154)	**160** (150-173)	**173** (161-186)	**184** (171-201)	**196** (181-215)	**212** (194-235)	**223** (204-251)
15-min	**92** (86-98)	**111** (104-119)	**123** (115-132)	**137** (128-148)	**148** (138-160)	**158** (147-172)	**168** (155-184)	**181** (166-201)	**191** (174-215)
30-min	**73** (69-78)	**89** (83-95)	**99** (92-106)	**110** (103-118)	**118** (110-128)	**126** (117-138)	**134** (124-148)	**145** (133-161)	**153** (140-172)
60-min	**54** (51-58)	**66** (62-70)	**73** (68-78)	**82** (76-88)	**88** (82-95)	**94** (87-102)	**99** (92-109)	**107** (99-120)	**113** (104-127)
2-hr	**34** (32-37)	**43** (40-46)	**48** (45-52)	**55** (51-60)	**60** (56-66)	**65** (60-72)	**70** (64-78)	**77** (69-87)	**82** (73-94)
3-hr	**24** (22-26)	**31** (28-33)	**35** (32-38)	**41** (37-45)	**45** (41-50)	**50** (45-56)	**54** (48-62)	**61** (53-70)	**66** (57-77)
6-hr	**14** (12-15)	**18** (17-20)	**21** (19-24)	**26** (23-29)	**29** (26-33)	**33** (28-38)	**37** (31-43)	**42** (35-50)	**46** (38-56)
12-hr	**7** (7-8)	**11** (9-12)	**13** (11-15)	**17** (14-19)	**20** (17-23)	**23** (19-27)	**27** (21-32)	**32** (25-39)	**36** (28-46)
24-hr	**4** (4-5)	**6** (6-7)	**8** (7-9)	**11** (9-12)	**13** (11-15)	**15** (13-18)	**18** (15-21)	**22** (18-26)	**25** (20-31)
2-day	**3** (2-3)	**4** (3-4)	**5** (4-5)	**6** (5-7)	**8** (6-9)	**9** (7-10)	**10** (8-12)	**13** (10-15)	**15** (11-18)
3-day	**2** (2-2)	**3** (2-3)	**3** (3-4)	**4** (4-5)	**5** (4-6)	**6** (5-7)	**7** (6-8)	**9** (7-10)	**10** (8-12)
4-day	**1** (1-2)	**2** (2-2)	**3** (2-3)	**3** (3-4)	**4** (3-4)	**4** (4-5)	**5** (4-6)	**6** (5-8)	**7** (6-9)
7-day	**1** (1-1)	**1** (1-1)	**2** (1-2)	**2** (2-2)	**2** (2-3)	**3** (2-3)	**3** (3-4)	**4** (3-5)	**4** (3-5)
10-day	**1** (1-1)	**1** (1-1)	**1** (1-1)	**2** (1-2)	**2** (2-2)	**2** (2-2)	**2** (2-3)	**3** (2-3)	**3** (3-4)
20-day	**0** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-2)	**2** (1-2)	**2** (1-2)
30-day	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)
45-day	**0** (0-0)	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)
60-day	**0** (0-0)	**0** (0-0)	**0** (0-0)	**1** (0-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)	**1** (1-1)

[1] Precipitation frequency (PF) estimates in this table are based on frequency analysis of annual maxima series (AMS).

Numbers in parenthesis are PF estimates at lower and upper bounds of the 90% confidence interval. The probability that precipitation frequency estimates (for a given duration and annual exceedance probability) will be greater than the upper bound (or less than the lower bound) is 5%. Estimates at upper bounds are not checked against probable maximum precipitation (PMP) estimates and may be higher than currently valid PMP values.

Please refer to NOAA Atlas 14 document for more information.

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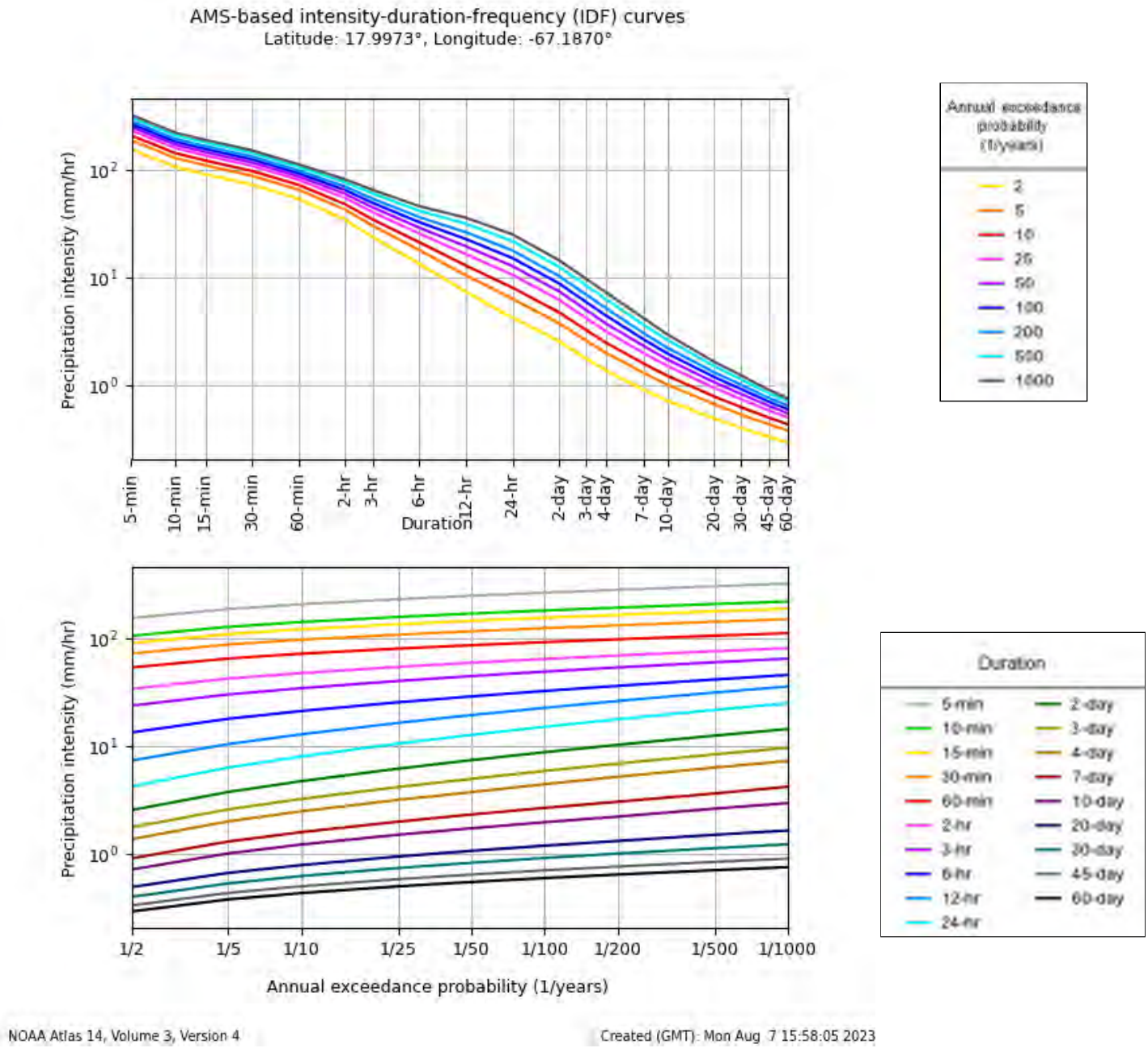
PF graphical



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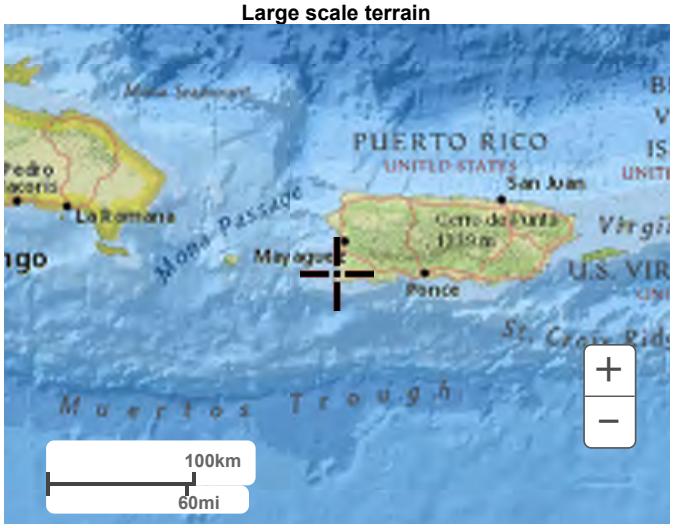

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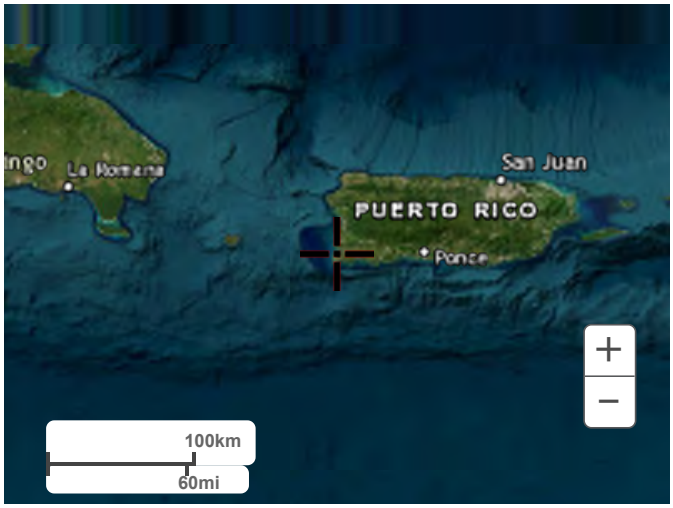
Large scale aerial



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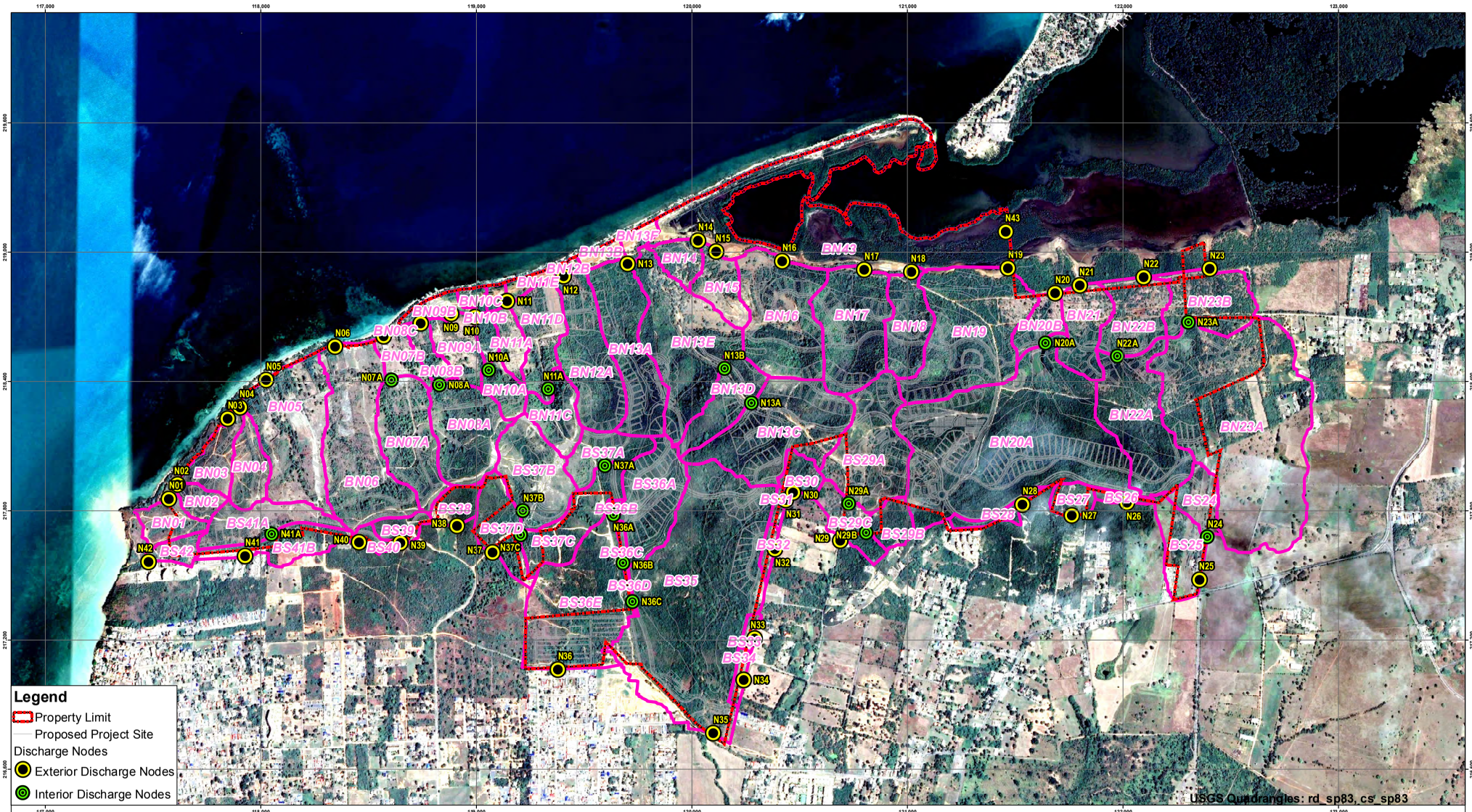
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Property Limit
Proposed Project Site
Discharge Nodes
Exterior Discharge Nodes
Interior Discharge Nodes
USGS Quadrangles: rd_sp83, cs_sp83
Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter
1:8,000
500 250 0 500 Meters
Watershed Areas - Proposed Condition
Esencia - Cabo Rojo, PR
N
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Date: 5/15/2024
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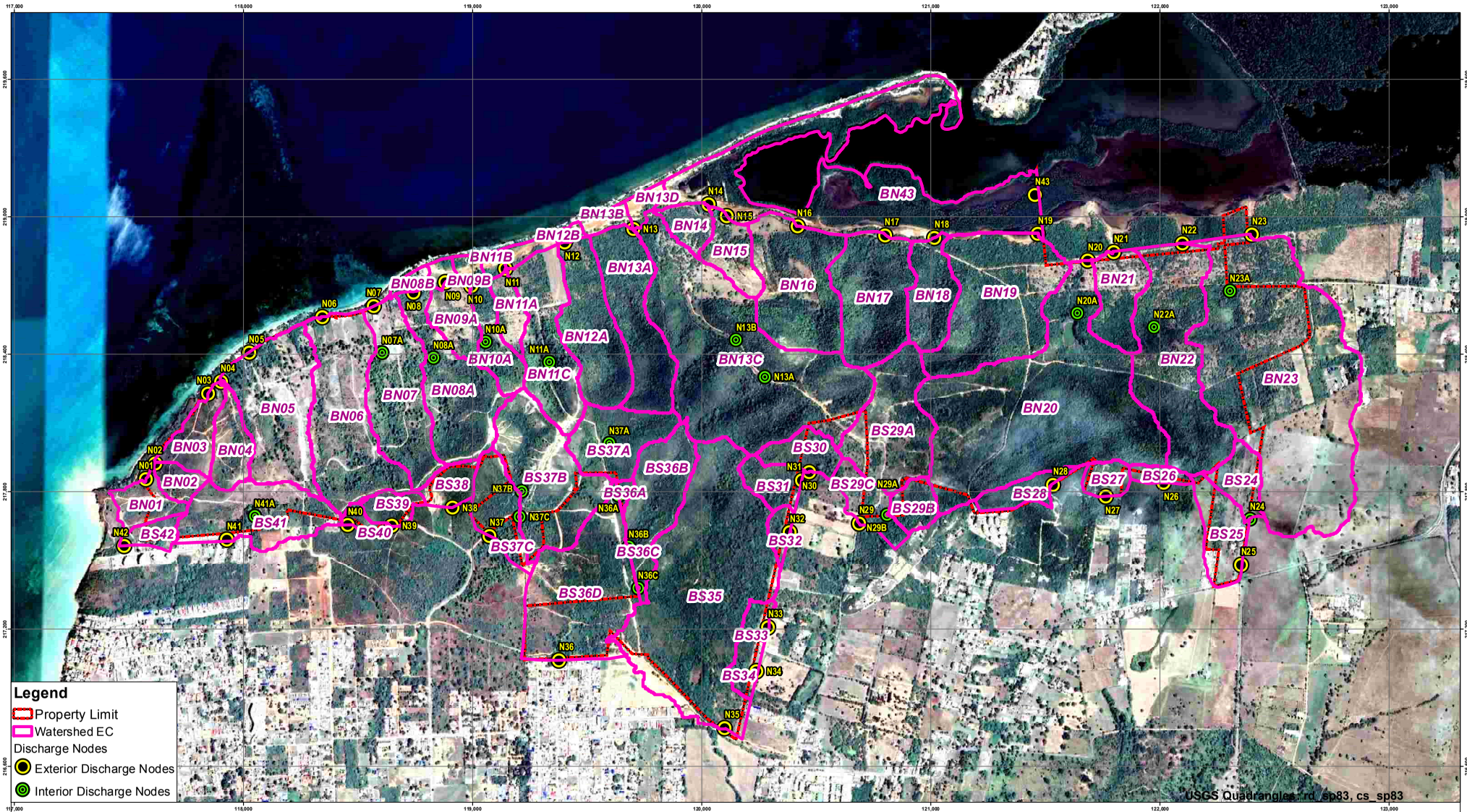

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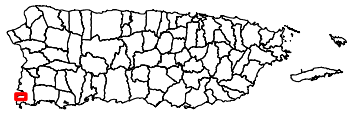

Watershed Areas - Existing Condition

Esencia - Cabo Rojo, PR

N W E S

Date: 5/17/2024

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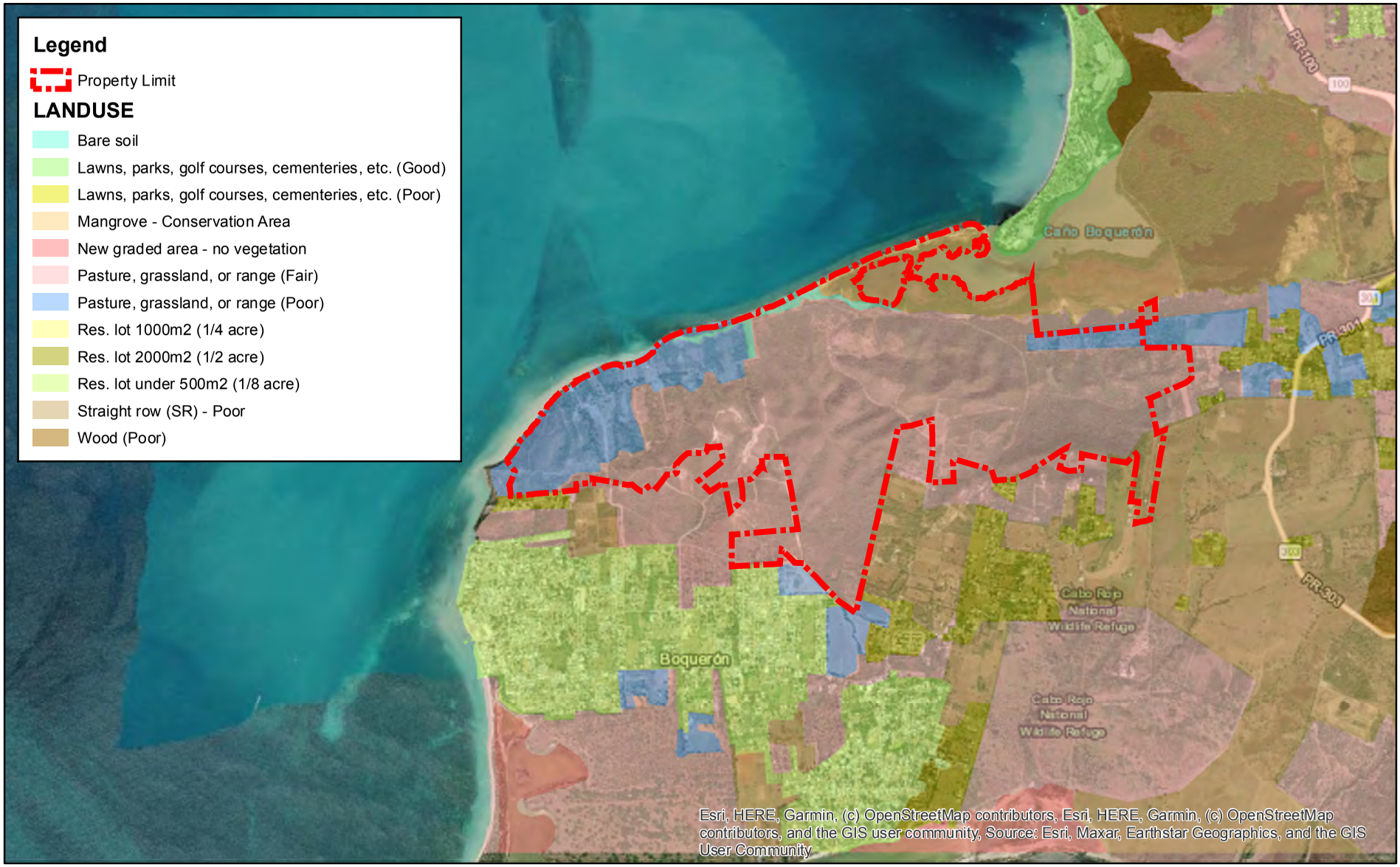

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:40,000

400 200 0 400 Meters

Land Cover Map

Escencia - Cabo Rojo, PR

N
W E
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Date: 5/15/2024

PMG AND ASSOCIATES

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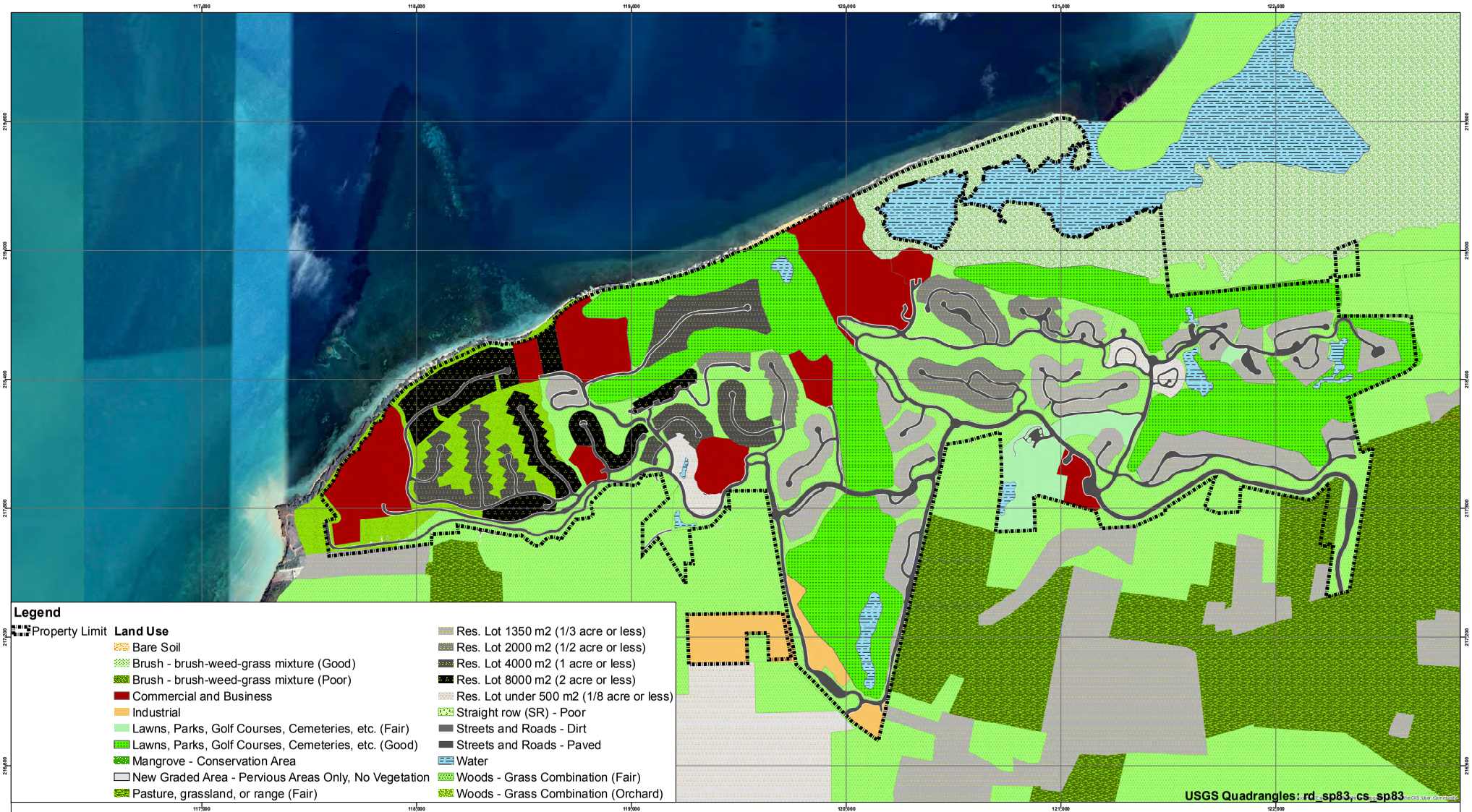

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

1:8,000

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Land Cover Map - PC

Esencia - Cabo Rojo, PR

N W E S

Date: 8/13/2024

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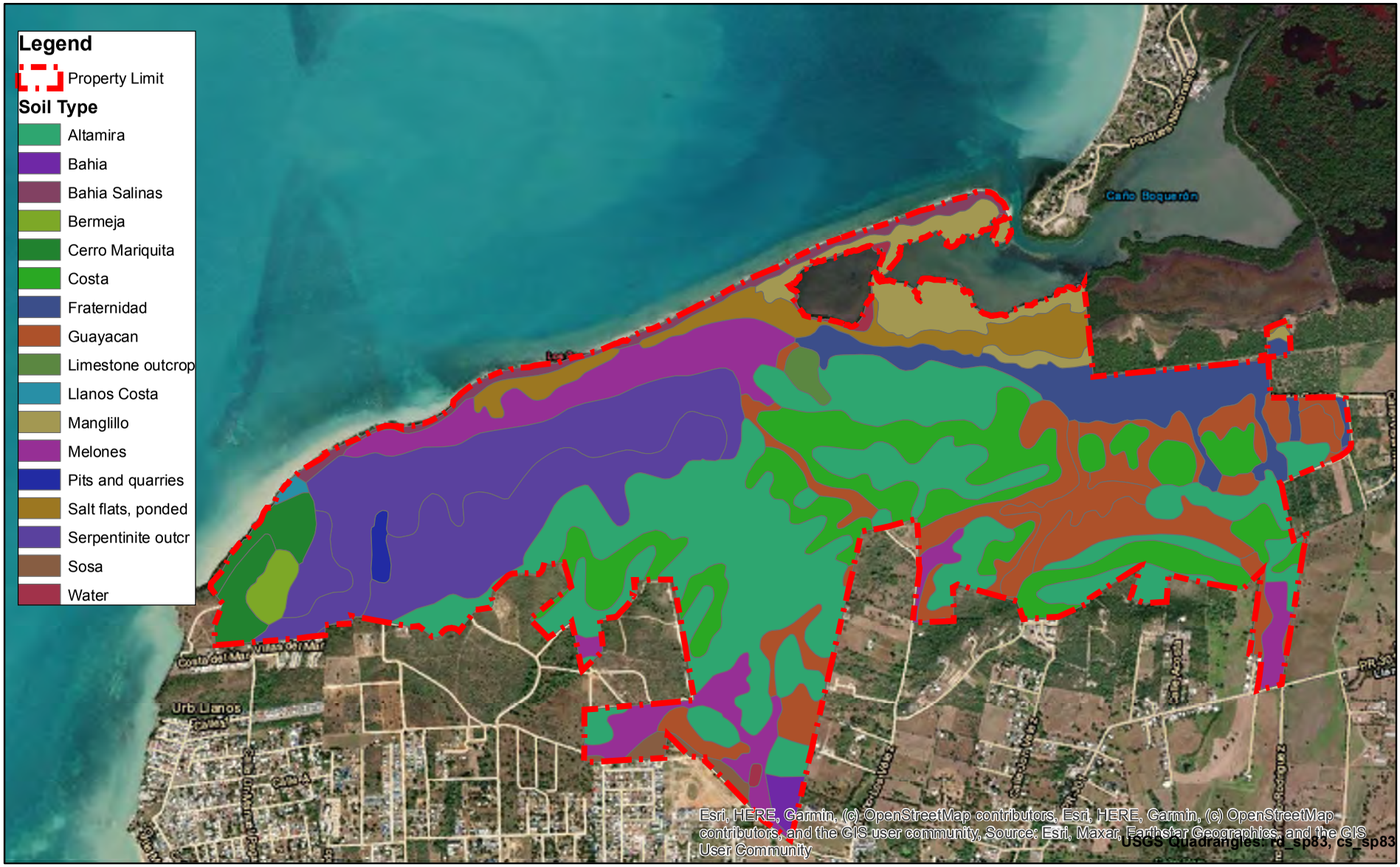

Coordinate System: NAD 1983 StatePlane Puerto Rico Virgin Islands FIPS 5200 | Units: Meter

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Soil Type Map

Escencia - Cabo Rojo, PR

N W E S

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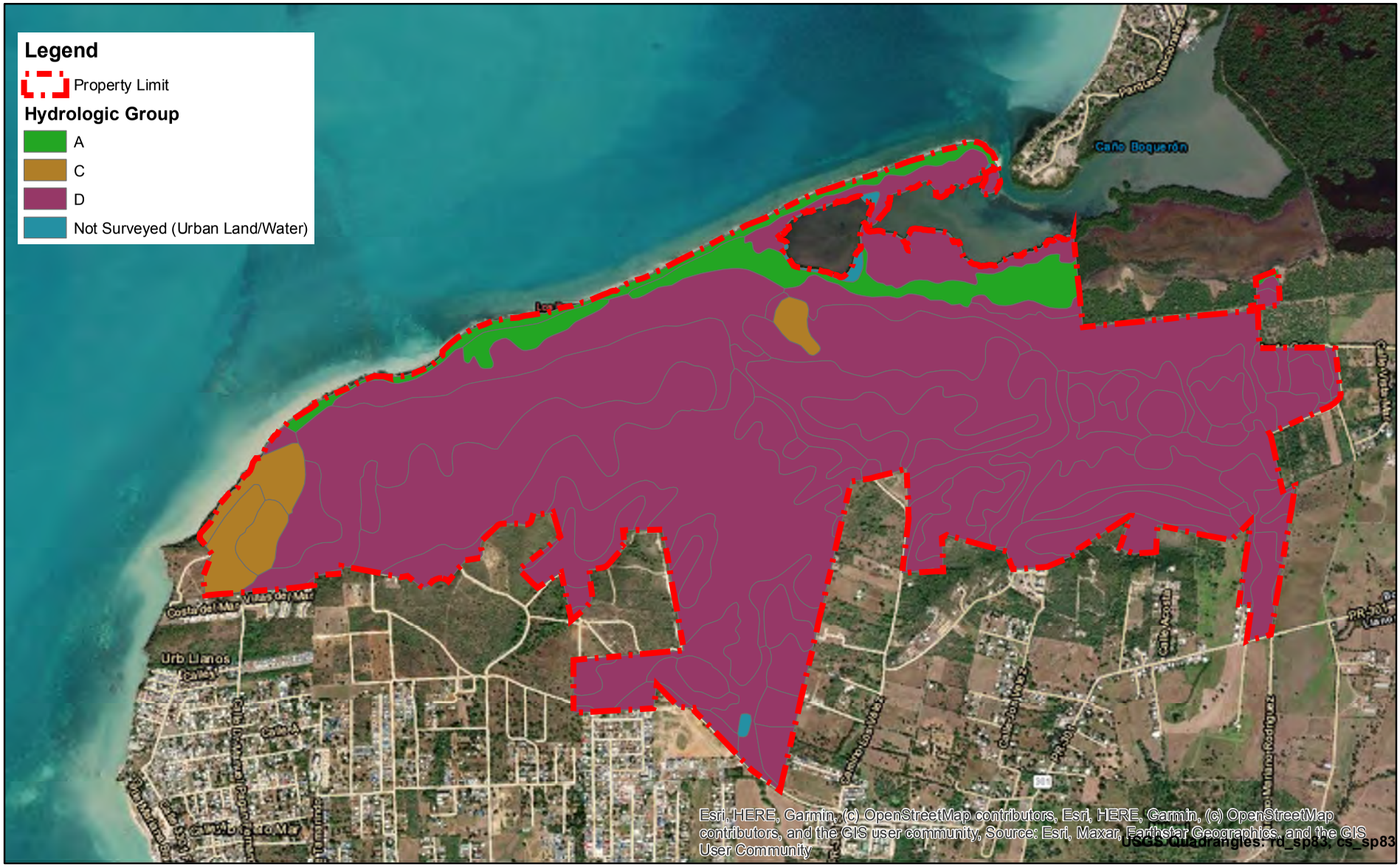

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Soil Type Map

Esencia - Cabo Rojo, PR

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Date: 5/15/2024

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United States Department of Agriculture

National Resource Conservation Service

Un producto del Estudio Cooperativo Nacional del Suelo, una iniciativa conjunta del Departamento de Agricultura de los Estados Unidos y otras agencias federales, agencias estatales, incluidas las Estaciones Experimentales Agrícolas, y participantes locales.

Informe personalizado sobre los recursos del suelo para área de San Germán, suroeste de Puerto Rico

Esencia - Desarrollo en Cabo Rojo

15 de mayo de 2024

Prefacio

Los estudios del suelo contienen información que afecta a la planificación del uso del suelo en las áreas estudiadas. Destacan las limitaciones del suelo que afectan a diversos usos del suelo y proporcionan información sobre las propiedades de los suelos en las áreas estudiadas. Los estudios del suelo están diseñados para muchos usuarios diferentes, entre ellos agricultores, ganaderos, silvicultores, agrónomos, urbanistas, funcionarios municipales, ingenieros, promotores inmobiliarios, constructores y compradores de viviendas. Además, los conservacionistas, maestros, estudiantes y especialistas en recreación, eliminación de residuos y control de la contaminación pueden utilizar los estudios para ayudarles a comprender, proteger o mejorar el medio ambiente.

Diversas regulaciones sobre el uso de la tierra de los gobiernos federal, estatales y locales pueden imponer restricciones especiales al uso o tratamiento de la tierra. Los estudios del suelo identifican las propiedades del suelo que se utilizan para tomar diversas decisiones sobre el uso o tratamiento de la tierra.
La información tiene por objeto ayudar a los usuarios de la tierra a identificar y reducir los efectos de las limitaciones del suelo en diversos usos de la tierra. El propietario o usuario de la tierra es responsable de identificar y cumplir con las leyes y reglamentos vigentes.

Aunque la información de los estudios del suelo puede utilizarse para la planificación general de explotaciones agrícolas, locales y de áreas más amplias, en algunos casos es necesario realizar investigaciones in situ para complementar esta información. Algunos ejemplos son las evaluaciones de la calidad del suelo (http://www.nrcs.usda.gov/wps/portal/nrcs/main/soils/health/) y determinadas aplicaciones de conservación e ingeniería. Para obtener información más detallada, póngase en contacto con su centro de servicios del USDA local (https://offices.sc.egov.usda.gov/locator/app?agency=nrcs) o con su científico de suelos estatal del NRCS (http://www.nrcs.usda.gov/wps/portal/nrcs/detail/soils/contactus/?cid=nrcs142p2_053951).

Pueden darse grandes diferencias en las propiedades del suelo en distancias cortas. Algunos suelos son húmedos estacionalmente o están sujetos a inundaciones. Otros son demasiado inestables para utilizarlos como cimientos de edificios o carreteras. Los suelos arcillosos o húmedos no son adecuados para utilizarlos como campos de absorción de fosas sépticas. Un nivel freático alto hace que un suelo no sea adecuado para sótanos o instalaciones subterráneas.

El Estudio Cooperativo Nacional del Suelo es una iniciativa conjunta del Departamento de Agricultura de los Estados Unidos y otras agencias federales, agencias estatales, incluidas las Estaciones Experimentales Agrícolas, y agencias locales. El Servicio de Conservación de Recursos Naturales (NRCS) lidera la parte federal del Estudio Cooperativo Nacional del Suelo.

La información sobre los suelos se actualiza periódicamente. La información actualizada está disponible a través del Estudio de Suelos en la Web del NRCS, el sitio web oficial de información sobre estudios de suelos.

El Departamento de Agricultura de los Estados Unidos (USDA) prohíbe la discriminación en todos sus programas y actividades por motivos de raza, color, nacionalidad, edad, discapacidad y, cuando corresponda, sexo, estado civil, situación familiar, condición de padre o madre, religión, orientación sexual, información genética, creencias políticas, represalias o porque la totalidad o parte de los ingresos de una persona provengan de algún programa de asistencia pública. (No todas las bases prohibidas se aplican a todos los programas). Las personas con discapacidades que requieran

medios alternativos para comunicarse la información del programa (braille, letra grande, cinta de audio, etc.) deben ponerse en contacto con el Centro TARGET del USDA en el (202) 720-2600 (voz y TDD). Para presentar una queja por discriminación, escriba al USDA, Director, Oficina de Derechos Civiles, 1400 Independence Avenue, S.W., Washington, D.C. 20250-9410 o llame al (800) 795-3272 (voz) o al (202) 720-6382 (TDD). El USDA es un proveedor y empleador que ofrece igualdad de oportunidades.

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Cómo se realizan los estudios de suelos

Los estudios del suelo se realizan para proporcionar información sobre los suelos y otras áreas en una zona específica. Incluyen una descripción de los suelos y otras áreas, así como su ubicación en el paisaje, y tablas que muestran las propiedades y limitaciones del suelo que afectan a diversos usos. Los científicos del suelo observaron la pendiente, la longitud y la forma de las laderas; el patrón general de drenaje; los tipos de cultivos y plantas autóctonas; y los tipos de lecho rocoso. Observaron y describieron muchos perfiles del suelo. Un perfil del suelo es la secuencia de capas naturales, u horizontes, en un suelo. El perfil se extiende desde la superficie hasta el material no consolidado en el que se formó el suelo o desde la superficie hasta el lecho rocoso. El material no consolidado carece de raíces y otros organismos vivos y no ha sido alterado por otra actividad biológica.

Actualmente, los suelos se cartografían según los límites de las principales áreas de recursos terrestres (MLRA). Las MLRA son unidades de recursos terrestres asociadas geográficamente que comparten características comunes relacionadas con la fisiografía, la geología, el clima, los recursos hídricos, los suelos, los recursos biológicos y los usos del suelo (USDA, 2006). Las áreas de estudio del suelo suelen consistir en partes de una o más MLRA.

Los suelos y las áreas diversas de una zona de estudio se presentan en un patrón ordenado que está relacionado con la geología, los accidentes geográficos, el relieve, el clima y la vegetación natural de la zona. Cada tipo de suelo y área diversa está asociado a un tipo particular de accidente geográfico o a un segmento del mismo. Al observar los suelos y las áreas diversas de la zona de estudio y relacionar su posición con segmentos específicos del relieve, un científico del suelo desarrolla un concepto, o modelo, de cómo se formaron. Así, durante la cartografía, este modelo permite al científico del suelo predecir con un grado considerable de precisión el tipo de suelo o área diversa en un lugar específico del paisaje.

Por lo general, los suelos individuales del paisaje se fusionan entre sí a medida que sus características cambian gradualmente. Sin embargo, para elaborar un mapa de suelos preciso, los edafólogos deben determinar los límites entre los suelos. Solo pueden observar un número limitado de perfiles de suelo. No obstante, estas observaciones, complementadas con la comprensión de la relación entre el suelo, la vegetación y el paisaje, son suficientes para verificar las predicciones sobre los tipos de suelo de una zona y determinar los límites.

Los edafólogos registraron las características de los perfiles de suelo que estudiaron. Anotaron el color, la textura, el tamaño y la forma de los agregados del suelo, el tipo y la cantidad de fragmentos de roca, la distribución de las raíces de las plantas, la reacción y otras características que les permiten identificar los suelos. Después de describir los suelos de la zona estudiada y determinar sus propiedades, los edafólogos los asignaron a clases taxonómicas (unidades).
Las clases taxonómicas son conceptos. Cada clase taxonómica tiene un conjunto de características del suelo con límites definidos con precisión. Las clases se utilizan como base de comparación para clasificar los suelos de forma sistemática. La taxonomía del suelo, el sistema de clasificación taxonómica utilizado en Estados Unidos, se basa principalmente en el tipo y el carácter de las propiedades del suelo y en la disposición de los horizontes dentro del perfil. Después de que los científicos del suelo

clasificaron y nombraron los suelos de la zona estudiada, compararon los suelos individuales con suelos similares de la misma clase taxonómica en otras zonas, con el fin de confirmar los datos y recopilar datos adicionales basados en la experiencia y la investigación.

El objetivo de la cartografía del suelo no es delimitar componentes puros de unidades cartográficas, sino separar el paisaje en accidentes geográficos o segmentos de accidentes geográficos que tengan requisitos de uso y gestión similares. Cada unidad cartográfica se define por una combinación única de componentes del suelo y/o áreas diversas en proporciones predecibles. Algunos componentes pueden contrastar mucho con los demás componentes de la unidad cartográfica. La presencia de componentes menores en una unidad cartográfica no disminuye en modo alguno la utilidad o la precisión de los datos. La delimitación de dichos accidentes geográficos y segmentos de accidentes geográficos en el mapa proporciona información suficiente para el desarrollo de planes de recursos. Si se prevé un uso intensivo de áreas pequeñas, es necesario realizar una investigación in situ para definir y localizar los suelos y las áreas diversas.

Los edafólogos realizan numerosas observaciones de campo durante el proceso de elaboración de un mapa de suelos. La frecuencia de las observaciones depende de varios factores, entre ellos la escala de la cartografía, la intensidad de la cartografía, el diseño de las unidades cartográficas, la complejidad del paisaje y la experiencia del científico del suelo. Las observaciones se realizan para probar y perfeccionar el modelo de suelo-paisaje y las predicciones, así como para verificar la clasificación de los suelos en lugares específicos. Una vez perfeccionado el modelo de suelo-paisaje, se realiza y registra un número significativamente menor de mediciones de las propiedades individuales del suelo. Estas mediciones pueden incluir mediciones de campo, como las de color, profundidad hasta el lecho rocoso y textura, y mediciones de laboratorio, como las de contenido de arena, limo, arcilla, sal y otros componentes. Las propiedades de cada suelo suelen variar de un punto a otro del paisaje.

Las observaciones de los componentes de las unidades cartográficas se agregan para desarrollar rangos de características para los componentes. Se presentan los valores agregados. No existen mediciones directas para todas las propiedades presentadas para cada componente de la unidad cartográfica. Los valores de algunas propiedades se estiman a partir de combinaciones de otras propiedades.

Mientras se realiza un estudio del suelo, generalmente se recogen muestras de algunos de los suelos de la zona para realizar análisis de laboratorio y pruebas de ingeniería. Los científicos del suelo interpretan los datos de estos análisis y pruebas, así como las características observadas en el campo y las propiedades del suelo, para determinar el comportamiento esperado de los suelos bajo diferentes usos. Las interpretaciones de todos los suelos se comprueban sobre el terreno mediante la observación de los suelos en diferentes usos y bajo diferentes niveles de gestión. Algunas interpretaciones se modifican para adaptarse a las condiciones locales y se desarrollan otras nuevas para satisfacer las necesidades locales. Los datos se recopilan de otras fuentes, como información de investigaciones, registros de producción y experiencia de campo de especialistas. Por ejemplo, los datos sobre el rendimiento de los cultivos bajo niveles definidos de gestión se recopilan a partir de registros agrícolas y de experimentos de campo o parcelarios en el mismo tipo de suelo.

Las predicciones sobre el comportamiento del suelo se basan no solo en las propiedades del suelo, sino también en variables como el clima y la actividad biológica. Las condiciones del suelo son predecibles a lo largo de largos períodos de tiempo, pero no son predecibles de un año a otro. Por ejemplo, los científicos del suelo pueden predecir con un grado bastante alto de precisión que un suelo determinado tendrá un nivel freático alto a ciertas profundidades en la mayoría de los años, pero no pueden predecir que un nivel freático alto estará siempre en un nivel específico del suelo en una fecha concreta.

Después de que los científicos del suelo localizaran e identificaran los cuerpos naturales significativos de suelo en el área de estudio, trazaron los límites de estos cuerpos en fotografías aéreas e

identificaron cada uno de ellos como una unidad cartográfica específica. Las fotografías aéreas muestran árboles, edificios, campos, carreteras y ríos, lo que ayuda a localizar los límites con precisión.

Mapa del suelo

La sección del mapa de los suelos incluye el mapa de suelos de la zona de interés definida, una lista de las unidades del mapa de suelos y la extensión de cada una de ellas, así como los símbolos cartográficos que aparecen en el mapa. También se presentan diversos metadatos sobre los datos utilizados para elaborar el mapa y una descripción de cada unidad del mapa de suelos.

Informe personalizado de recursos edáficos Mapa de suelos

Escala del mapa: 1:29 300 si se imprime en una hoja apaisada (28 cm x 21,5 cm).

M: 0 400 800 1600 2400

Pies: 0 1000 2000 4000 6000

N

Proyección cartográfica: Web Mercator Coordenadas de las esquinas: WGS84 Marcas de los bordes: UTM Zona 19N WGS84

LEYENDA DEL MAPA

Área de interés (AOI)

Área de interés (AOI)

Suelos

Polígonos de unidades cartográficas de suelos

Líneas de unidades cartográficas de suelos

Puntos de unidades cartográficas de suelos

Características especiales de los puntos

Explosión

Cantera

Mancha arcillosa

Depresión cerrada

Cantera de grava

Punto de grava

Vertedero

Flujo de lava

Pantano o ciénaga

Mina o cantera

Agua diversa

Agua perenne

Afloramiento rocoso

Mancha salina

Zona arenosa

Punto muy erosionado

Sinkhole

D

eslizamiento o resbalón

Zona sódica

Área de escombros

Punto pedregoso

Punto muy pedregoso

Punto húmedo

Otros

Características especiales de la línea

Características del agua

Arroyos y canales

Transporte

Ferrocarriles

Autopistas

Rutas interestatales estadounidenses

Carreteras principales

Carreteras locales

Antecedentes

Fotografía aérea

INFORMACIÓN DEL MAPA

Los estudios del suelo que componen su AOI se cartografiaron a escala 1:20 000.

Para las mediciones del mapa, utilice la escala de cada hoja del mapa.

Fuente del mapa: Servicio de Conservación de Recursos Naturales
URL del estudio de suelos web:
Sistema de coordenadas: Mercator web ( ) (EPSG:3857)

Los mapas del Estudio de suelos web se basan en la proyección Web Mercator, que conserva la dirección y la forma, pero distorsiona la distancia y el área. Si se requieren cálculos más precisos de la distancia o el área, se debe utilizar una proyección que conserve el área, como la proyección cónica de área igual de Albers.

Este producto se genera a partir de los datos certificados por el USDA-NRCS en las fechas de versión que se indican a continuación.

Área de estudio del suelo: Área de San Germán, suroeste de Puerto Rico
Datos del área de estudio: Versión 15, 13 de septiembre de 2023

Las unidades del mapa de suelos están etiquetadas (si el espacio lo permite) para escalas de mapa de 1:50 000 o mayores.

Fechas en las que se tomaron las imágenes aéreas: 23 de enero de 2022-1 de marzo de 2022

Es probable que la ortofoto u otro mapa base en el que se compilaron y digitalizaron las líneas de suelo difiera de las imágenes de fondo que se muestran en estos mapas. Como resultado, es posible que se observe un ligero desplazamiento de los límites de las unidades cartográficas.

Leyenda de las unidades cartográficas

Símbolo de la unidad cartográfica	Nombre de la unidad cartográfica	Acres en el AOI	Porcentaje del AOI
AgF	Aguilita, limo arcilloso, pendientes del 20 al 60 por ciento	7.4	0,4
AtD	Altamira, arcilla grava, pendientes del 2 al 20 por ciento	430,3	25,6
AtF	Arcilla grava de Altamira, pendientes del 20 al 60 por ciento	212,8	12,7
BhB	Arena de Bahía Salinas, pendientes de 0 a 5 por ciento, rara vez se inunda	38,4	2,3
BmC	Complejo Bermeja-Cerro Mariquita, pendientes del 5 al 12 por ciento	11	0,7
BmD	Complejo Bermeja-Cerro Mariquita, pendientes del 12 al 20 por ciento	23	1,4
BmF	Complejo Bermeja-Cerro Mariquita, pendientes del 20 al 60 por ciento	24,8	1,5
CgD	Arcilla Casabe, pendientes del 5 al 20 por ciento	149,5	8,9
CgF	Arcilla Casabe, pendientes del 20 al 60 por ciento	130,7	7,8
FrB	Arcilla Fraternidad, pendientes del 2 al 5 por ciento.	94	5,6
GyB	Arcilla Guayacán, pendientes del 0 al 5 por ciento	1	0,1
GyC	Arcilla de guayacán, pendientes del 5 al 12 por ciento	53,5	3,2
GyD	Arcilla de guayacán, pendientes del 12 al 20 por ciento	141,6	8,4
LnA	Llanos Costa marga, pendientes del 0 al 2 por ciento	2	0,2
MDA	Suelos Mangillo, Boquerón y Serrano, inundados con mucha frecuencia	53	3,2
MnC	Arcilla de Melones, pendientes del 2 al 12 por ciento	134,6	8
Pt	Canteras y minas a cielo abierto	5	0,3
Sa	Salinas, estanques	61,2	3,6
SsB	Sosa, franco arenoso, pendientes del 2 al 5 %	8,5	0,5
SsC	Sosa franco arenoso, pendientes del 5 al 12 por ciento	7.5	0,4
TfA	Arcilla Teresa, encharcada	7	0,4
Ua	Terreno urbano	0,8	0.0

Símbolo de la unidad cartográfica	Nombre de la unidad cartográfica	Acres en AOI	Porcentaje del AOI
W	Agua	54,5	3,2
Totales para el área de interés		**1681,8**	**100**

Descripciones de las unidades cartográficas

Las unidades cartográficas delimitadas en los mapas detallados de suelos de un estudio edafológico representan los suelos o áreas diversas de la zona estudiada. Las descripciones de las unidades cartográficas, junto con los mapas, pueden utilizarse para determinar la composición y las propiedades de una unidad.

La delimitación de una unidad cartográfica en un mapa de suelos representa un área dominada por uno o más tipos principales de suelos o áreas diversas. Una unidad cartográfica se identifica y nombra según la clasificación taxonómica de los suelos dominantes. Dentro de una clase taxonómica existen límites definidos con precisión para las propiedades de los suelos. Sin embargo, en el paisaje, los suelos son fenómenos naturales y tienen la variabilidad característica de todos los fenómenos naturales. Por lo tanto, el rango de algunas propiedades observadas puede extenderse más allá de los límites definidos para una clase taxonómica.
Las áreas de suelos de una sola clase taxonómica rara vez, o nunca, pueden cartografiarse sin incluir áreas de otras clases taxonómicas. En consecuencia, cada unidad cartográfica está compuesta por los suelos o áreas diversas que le dan nombre y algunos componentes menores que pertenecen a clases taxonómicas distintas de las de los suelos principales.

La mayoría de los suelos menores tienen propiedades similares a las del suelo o suelos dominantes en la unidad cartográfica, por lo que no afectan al uso y la gestión. Se denominan componentes no contrastantes o similares. Pueden mencionarse o no en la descripción de una unidad cartográfica concreta. Sin embargo, otros componentes menores tienen propiedades y características de comportamiento lo suficientemente divergentes como para afectar al uso o requerir una gestión diferente. Estos se denominan componentes contrastantes o disímiles. Por lo general, se encuentran en áreas pequeñas y no se pueden cartografiar por separado debido a la escala utilizada. Algunas áreas pequeñas de suelos muy contrastantes o áreas diversas se identifican con un símbolo especial en los mapas. Si se incluyen en la base de datos de una zona determinada, los componentes menores contrastantes se identifican en las descripciones de las unidades cartográficas junto con algunas características de cada uno de ellos. Es posible que algunas áreas de componentes menores no se hayan observado y, por lo tanto, no se mencionen en las descripciones, especialmente cuando el patrón era tan complejo que resultaba poco práctico realizar suficientes observaciones para identificar todos los suelos y áreas diversas del paisaje.

La presencia de componentes menores en una unidad cartográfica no disminuye en modo alguno la utilidad o la precisión de los datos. El objetivo de la cartografía no es delimitar clases taxonómicas puras, sino separar el paisaje en accidentes geográficos o segmentos de accidentes geográficos que tengan requisitos de uso y gestión similares. La delimitación de dichos segmentos en el mapa proporciona información suficiente para el desarrollo de planes de recursos. Sin embargo, si se prevé un uso intensivo de áreas pequeñas, es necesario realizar una investigación in situ para definir y localizar los suelos y las áreas diversas.

Un símbolo identificativo precede al nombre de la unidad cartográfica en las descripciones de las unidades cartográficas. Cada descripción incluye datos generales sobre la unidad y proporciona propiedades y cualidades importantes del suelo.

Los suelos que tienen perfiles casi idénticos conforman una *serie de suelos*. Salvo por las diferencias en la textura de la capa superficial, todos los suelos de una serie tienen horizontes principales similares en cuanto a composición, espesor y disposición.

Los suelos de una serie pueden diferir en la textura de la capa superficial, la pendiente, la pedregosidad, la salinidad, el grado de erosión y otras características que afectan a su uso. Sobre la base de estas diferencias, una serie de suelos se divide en *fases de suelo*. La mayoría de las áreas que se muestran en los mapas detallados de suelos son fases de series de suelos. El nombre de una fase de suelo suele indicar una característica que afecta a su uso o gestión. Por ejemplo, la marga limosa alfa, con pendientes del 0 al 2 %, es una fase de la serie alfa.

Algunas unidades cartográficas están formadas por dos o más suelos principales o áreas diversas. Estas unidades cartográficas son complejos, asociaciones o grupos indiferenciados.

Un *complejo* consta de dos o más suelos o áreas diversas con un patrón tan intrincado o en áreas tan pequeñas que no pueden mostrarse por separado en los mapas. El patrón y la proporción de los suelos o áreas diversas son algo similares en todas las áreas. El complejo alfa-beta, con pendientes del 0 al 6 %, es un ejemplo.

Una *asociación* está formada por dos o más suelos o áreas diversas geográficamente asociados que se muestran como una sola unidad en los mapas. Debido a los usos actuales o previstos de las unidades cartográficas en el área de estudio, no se consideró práctico ni necesario cartografiar los suelos o las áreas diversas por separado. El patrón y la proporción relativa de los suelos o las áreas diversas son bastante similares. Un ejemplo es la asociación alfa-beta, con pendientes del 0 al 2 %.

Un *grupo indiferenciado* está compuesto por dos o más suelos o áreas diversas que podrían cartografiarse individualmente, pero que se cartografían como una sola unidad porque pueden hacerse interpretaciones similares para su uso y gestión. El patrón y la proporción de los suelos o áreas diversas en una zona cartografiada no son uniformes. Una zona puede estar compuesta por uno solo de los principales suelos o áreas diversas, o puede estar compuesta por todos ellos. Los suelos alfa y beta, con pendientes del 0 al 2 %, son un ejemplo.

Algunos estudios incluyen *áreas diversas*. Estas áreas tienen poco o ningún material edáfico y albergan poca o ninguna vegetación. Un ejemplo son los afloramientos rocosos.

Área de San Germán, suroeste de Puerto Rico

AgF: marga arcillosa limosa de Aguilita, pendientes del 20 al 60 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: c78h
Altitud: 160 a 1310 pies
Precipitación media anual: de 14 a 70 pulgadas
Temperatura media anual del aire: d e 67 a 89 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Aguilita y suelos similares: 80 por ciento
Componentes menores: 20 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Aguilita

Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, talud posterior, talud frontal
Posición del relieve (tridimensional): pendiente superior, pendiente nasal, pendiente lateral, pendiente inferior
Forma de la pendiente descendente: convexa, lineal
Forma transversal a la pendiente: lineal, convexa
Material parental: coluviones y residuos erosionados de roca madre de piedra caliza blanda

Perfil típico

Ap - 0 a 6 pulgadas: limo arcilloso
Bk - 6 a 23 pulgadas: limosa arcillosa
C - 23 a 60 pulgadas: marga

Propiedades y cualidades

Pendiente: 20 a 60 por ciento
Profundidad hasta la característica restrictiva: de 40 a 60 pulgadas hasta el lecho rocoso paralítico
Clase de drenaje: bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 91 por ciento
Salinidad máxima: No salina a muy ligeramente salina (0,0 a 3,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 15,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 6.6 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 6e *Grupo hidrológico del suelo:* B
Clasificación hídrica del suelo: No

Componentes menores

Afloramiento de roca caliza, régimen de humedad del suelo ústico
Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas
Posición del relieve (tridimensional): Laderas laterales
Clasificación hídrica del suelo: No

San Germán
Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas
Posición del relieve (bidimensional): Cima, hombro, talud posterior, talud inferior *Posición del relieve (tridimensional):* Cresta, talud superior, talud lateral, talud *inferior Forma del talud:* Cóncava, convexa
Forma transversal a la pendiente: Lineal
Clasificación hídrica del suelo: No

AtD: arcilla grava de Altamira, pendientes del 2 al 20 por ciento

Configuración de la unidad cartográfica
Símbolo de la unidad cartográfica nacional: 1qxh5
Altitud: de 80 a 1310 pies
Precipitación media anual: de 16 a 50 pulgadas
Temperatura media anual del aire: de 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica
Altamira y suelos similares: 85 por ciento
Componentes menores: 15 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Altamira
Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, ladera trasera *Posición del relieve (tridimensional):* pendiente superior, cresta, pendiente lateral
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Material parental: Residuo erosionado de piedra caliza

Perfil típico
Ap - 0 a 8 pulgadas: arcilla muy grava
Bk1 - 8 a 14 pulgadas: arcilla muy grava
C1: de 14 a 43 pulgadas: marga arcillosa muy grava
C2: de 43 a 54 pulgadas: limosa con grava
Cr - 54 a 79 pulgadas: lecho rocoso erosionado

Propiedades y cualidades

Pendiente: 2 a 20 por ciento
Profundidad hasta la característica restrictiva: de 40 a 60 pulgadas hasta el lecho rocoso paralítico
Clase de drenaje: bien drenado
Clase de escorrentía: Media
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: Más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Contenido máximo de carbonato cálcico: 80 por ciento
Salinidad máxima: No salina a muy ligeramente salina (0,0 a 2,2 mmhos/cm)
Índice de adsorción de sodio, máximo: 13,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 8.0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 4c *Grupo hidrológico del suelo:* B
Clasificación hídrica del suelo: No

Componentes menores

Costa

Porcentaje de la unidad cartográfica: 15 por ciento
Relieve: Laderas, crestas
Posición del relieve (bidimensional): cima, hombro, talud trasero *Posición del relieve (tridimensional):* talud frontal, talud lateral, cresta *Forma del talud:* cóncava, convexa
Forma transversal a la pendiente: lineal, convexa
Clasificación hídrica del suelo: No

AtF: arcilla grava de Altamira, pendientes del 20 al 60 % e es

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1qxh6
Altitud: 80 a 1310 pies
Precipitación media anual: 16 a 50 pulgadas
Temperatura media anual del aire: de 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Altamira y suelos similares: 85 por ciento
Componentes menores: 15 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Altamira

Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, ladera trasera *Posición del relieve (tridimensional):* pendiente superior, cresta, pendiente lateral
Forma de la pendiente: convexa
Forma transversal a la pendiente: lineal
Material parental: Residuo erosionado de piedra caliza

Perfil típico

Ap - 0 a 8 pulgadas: arcilla muy grava
Bk1: de 8 a 14 pulgadas: arcilla muy grava
C1 - 14 a 43 pulgadas: marga arcillosa muy grava
C2: de 43 a 54 pulgadas: limosa con grava
Cr - 54 a 79 pulgadas: lecho rocoso erosionado

Propiedades y cualidades

Pendiente: 20 a 60 por ciento
Profundidad hasta la característica restrictiva: de 40 a 60 pulgadas hasta el lecho rocoso paralítico
Clase de drenaje: Bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.01 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 80 por ciento
Salinidad máxima: No salina a muy ligeramente salina (0,0 a 2,2 mmhos/cm)
Índice de adsorción de sodio, máximo: 13,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 8.0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del terreno (regado): Sin especificar *Clasificación de la capacidad del terreno (no regado):* 6e *Grupo hidrológico del suelo:* B
Grupo de idoneidad para forraje: Sin nombre (G271XZ000PR)
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Costa

Porcentaje de la unidad cartográfica: 15 por ciento
Relieve: Laderas, crestas
Posición del relieve (bidimensional): Cima, hombro, ladera trasera *Posición del relieve (tridimensional):* Ladera superior, ladera lateral, cresta *Forma de la ladera descendente:* Cóncava, convexa
Forma transversal a la pendiente: Lineal, convexa
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

BhB: arena de Bahía Salinas, pendientes del 0 al 5 %, rara vez inundada

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1hh8x
Altitud: de 0 a 150 pies
Precipitación media anual: de 18 a 31 pulgadas
Temperatura media anual del aire: de 21 a 30 °C
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Bahía Salinas y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de Bahía

Salinas

Relieve: Playas
Posición del relieve (bidimensional): pie de la pendiente *Posición del relieve (tridimensional):* talud, elevación *Forma de la pendiente:* convexa, lineal
Forma transversal a la pendiente: lineal
Material parental: Arena de playa derivada de roca volcánica y/o depósitos marinos derivados de roca volcánica

Perfil típico

A - 0 a 6 pulgadas: arena
C - 6 a 28 pulgadas: arena

Propiedades y cualidades

Pendiente: 0 a 5 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: excesivamente drenado
Capacidad de la capa más limitante para transmitir agua (Ksat): Muy alta (19.98 a 39.96 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Rara
Frecuencia de encharcamiento: Ninguna
Carbonato cálcico, contenido máximo: 50 por ciento
Salinidad máxima: Moderadamente salina a muy salina (8,0 a 16,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 10.0
Suministro de agua disponible, de 0 a 60 pulgadas: muy bajo (aproximadamente 1.1 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada *Clasificación de la capacidad de la tierra (no regada):* 7s *Grupo hidrológico del suelo:* A
Clasificación hídrica del suelo: No

Componentes menores

Guayabo

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie *de la pendiente Posición del relieve (tridimensional):* Talud
Forma de la pendiente: Lineal
Forma transversal a la pendiente: lineal
Clasificación hídrica del suelo: No

Bahía

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie de la pendiente *Posición del relieve (tridimensional):* Talud
Forma transversal a la pendiente: Lineal
Forma transversal a la pendiente: Lineal
Clasificación hídrica del suelo: No

BmC: complejo Bermeja-Cerro Mariquita, pendientes del 5 al 12 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1vlny
Altitud: 160 a 980 pies
Precipitación media anual: 16 a 50 pulgadas
Temperatura media anual del aire: de 21 a 31 grados Celsius
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Suelos Bermeja y similares: 70 por ciento
Suelos Cerro mariquita y similares: 20 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Bermeja

Relieve: Crestas, laderas de montañas, colinas
Posición del relieve (bidimensional): ladera trasera, hombro, cima
Posición del relieve (tridimensional): flanco de la montaña, cima de la montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: convexa
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos erosionados de basalto

Perfil típico

A - 0 a 2 pulgadas: marga arenosa extremadamente pedregosa

Bw - 2 a 8 pulgadas: marga arcillosa arenosa extremadamente pedregosa
Cr - 8 a 27 pulgadas: arcilla extremadamente pedregosa, lecho rocoso erosionado
R - 27 a 35 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 5 a 12 por ciento
Profundidad hasta la característica restrictiva: de 8 a 20 pulgadas hasta el lecho rocoso paralítico; de 20 a 35 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 0.71 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1,0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 6s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Descripción del entorno de Cerro

Mariquita

Relieve: Crestas, laderas de montañas, colinas
Posición del relieve (bidimensional): ladera trasera, hombro, cima
Posición del relieve (tridimensional): Flanco de montaña, cima de montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos meteorizados de basalto

Perfil típico

Ap - 0 a 2 pulgadas: marga arcillosa con grava
Bt: de 2 a 13 pulgadas: arcilla extremadamente grava
Cr - 13 a 23 pulgadas: lecho rocoso erosionado
R - 23 a 35 pulgadas: lecho rocoso sin meteorizar

Propiedades y cualidades

Pendiente: 5 a 12 por ciento
Profundidad hasta la característica restrictiva: de 11 a 18 pulgadas hasta el lecho rocoso paralítico; de 15 a 25 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: Bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1.7 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No se especifica
Clasificación de la capacidad del suelo (no irrigado): 6s

Grupo hidrológico del suelo: D
Clasificación hídrica del suelo: No

Componentes menores

Casabe
Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas de montañas, laderas de colinas
Posición del relieve (bidimensional): Ladera trasera
Posición del relieve (tridimensional): Base de la montaña, tercio inferior del flanco de la montaña, pendiente lateral, cresta
Forma de la pendiente descendente: lineal *Forma transversal a la pendiente:* convexa *Clasificación hídrica del suelo:* no

BmD: complejo Bermeja-Cerro Mariquita, pendientes del 12 al 20 por ciento

Configuración de la unidad cartográfica
Símbolo de la unidad cartográfica nacional: 1vlnx
Altitud: de 160 a 1310 pies
Precipitación media anual: de 16 a 50 pulgadas
Temperatura media anual del aire: 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica
Suelos Bermeja y similares: 70 por ciento
Suelos Cerro mariquita y similares: 20 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Bermeja
Relieve: Crestas, laderas montañosas, colinas
Posición del relieve (bidimensional): ladera trasera, hombro, cima
Posición del relieve (tridimensional): flanco de la montaña, cima de la montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: convexa
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos meteorizados de basalto

Perfil típico
A - 0 a 2 pulgadas: marga arenosa extremadamente pedregosa
Bw - 2 a 8 pulgadas: marga arcillosa arenosa extremadamente pedregosa
Cr - 8 a 27 pulgadas: arcilla extremadamente pedregosa, lecho rocoso erosionado
R - 27 a 35 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 12 a 20 por ciento
Profundidad hasta la característica restrictiva: de 8 a 20 pulgadas hasta el lecho rocoso paralítico; de 20 a 35 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 0.71 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1,0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Descripción del entorno de Cerro

Mariquita

Relieve: Crestas, laderas de montañas, colinas
Posición del relieve (bidimensional): ladera trasera, hombro, cima
Posición del relieve (tridimensional): Flanco de montaña, cima de montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos erosionados de basalto

Perfil típico

Ap - 0 a 2 pulgadas: franco arcilloso con grava
Bt - 2 a 13 pulgadas: arcilla extremadamente grava
Cr - 13 a 23 pulgadas: lecho rocoso erosionado
R - 23 a 35 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 12 a 20 por ciento
Profundidad hasta la característica restrictiva: de 11 a 18 pulgadas hasta el lecho rocoso paralítico; de 15 a 25 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1.7 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 6s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Componentes menores

Casabe

Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas de montañas, laderas de colinas
Posición del relieve (bidimensional): Ladera trasera
Posición del relieve (tridimensional): Base de la montaña, tercio inferior del flanco de la montaña, pendiente lateral, cresta
Forma de la pendiente descendente: lineal *Forma transversal a la pendiente:* convexa *Clasificación hídrica del suelo:* no

BmF: complejo Bermeja-Cerro Mariquita, laderas con pendientes del 20 al 60 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1vlp0
Altitud: 160 a 1310 pies
Precipitación media anual: 16 a 50 pulgadas
Temperatura media anual del aire: 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de tierras agrícolas: Tierras agrícolas no aptas para el cultivo

Composición de la unidad cartográfica

Suelos bermejos y similares: 70 por ciento
Suelos tipo Cerro Mariquita y similares: 20 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Bermeja

Relieve: Crestas, laderas de montañas, colinas
Posición del relieve (bidimensional): ladera trasera, cima, hombro
Posición del relieve (tridimensional): flanco de la montaña, cima de la montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: convexa
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos meteorizados de basalto

Perfil típico

A - 0 a 2 pulgadas: marga arenosa extremadamente pedregosa
Bw - 2 a 8 pulgadas: marga arcillosa arenosa extremadamente grava
Cr - 8 a 27 pulgadas: arcilla extremadamente grava, lecho rocoso erosionado
R - 27 a 35 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 20 a 60 por ciento

Profundidad hasta la característica restrictiva: de 8 a 20 pulgadas hasta el lecho rocoso paralítico; de 20 a 35 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: Bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1,0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Descripción del entorno de Cerro

Mariquita

Relieve: Crestas, laderas de montañas, colinas
Posición del relieve (bidimensional): ladera trasera, hombro, cima
Posición del relieve (tridimensional): Flanco de montaña, cima de montaña, cresta, ladera lateral, ladera superior
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Material parental: coluviones derivados de riolita y/o coluviones derivados de sílex y/o residuos meteorizados de basalto

Perfil típico

Ap - 0 a 2 pulgadas: marga arcillosa con grava
Bt - 2 a 13 pulgadas: arcilla extremadamente granulosa
Cr - 13 a 23 pulgadas: lecho rocoso erosionado
R - 23 a 35 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 20 a 60 por ciento
Profundidad hasta la característica restrictiva: de 11 a 18 pulgadas hasta el lecho rocoso paralítico; de 15 a 25 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 1.7 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Componentes menores

Casabe

Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas de montañas, laderas de colinas
Posición del relieve (bidimensional): ladera trasera
Posición del relieve (tridimensional): base de la montaña, tercio inferior del flanco de la montaña, pendiente lateral, cresta
Forma de la pendiente descendente: lineal *Forma transversal a la pendiente:* convexa *Clasificación hídrica del suelo:* no

CgD: arcilla Casabe, pendientes del 5 al 20 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 2180t
Altitud: de 30 a 820 pies
Precipitación media anual: de 16 a 35 pulgadas
Temperatura media anual del aire: de 70 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Suelos casabe y similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Casabe

Relieve: Laderas
Posición del relieve (bidimensional): ladera trasera *Posición del relieve (tridimensional):* ladera lateral, cresta *Forma de la pendiente:* lineal
Forma transversal a la pendiente: convexa
Material parental: Residuo erosionado del lecho rocoso de serpentinita

Perfil típico

A - 0 a 7 pulgadas: arcilla
Bt: de 7 a 16 pulgadas: arcilla
Cr: de 16 a 38 pulgadas: roca madre erosionada
R: de 38 a 48 pulgadas: roca madre sin erosionar

Propiedades y cualidades

Pendiente: 5 a 20 por ciento
Profundidad hasta la característica restrictiva: de 9 a 17 pulgadas hasta el lecho rocoso paralítico; de 14 a 41 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: Alta

Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: Más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 0,8 pulgadas)

Grupos interpretativos
Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 4s *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Componentes menores

Afloramiento de serpentinita,

árido
Porcentaje de la unidad cartográfica: 10 %
Relieve: Laderas de colinas, laderas de montañas *Clasificación hídrica del suelo:* No

CgF: arcilla casabe, pendientes del 20 al 60 por ciento

Configuración de la unidad cartográfica
Símbolo de la unidad cartográfica nacional: 25xr7
Altitud: 30 a 820 pies
Precipitación media anual: 16 a 35 pulgadas
Temperatura media anual del aire: 70 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica
Suelos casabe y similares: 90 %
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Casabe
Relieve: Laderas de montañas, laderas de colinas
Posición del relieve (bidimensional): ladera trasera
Posición del relieve (tridimensional): base de la montaña, tercio inferior del flanco de la montaña, ladera lateral, cresta
Forma de la pendiente descendente: lineal
Forma transversal a la pendiente: convexa
Material parental: Residuo erosionado del lecho rocoso de serpentinita

Perfil típico
A - 0 a 7 pulgadas: arcilla
Bt - 7 a 16 pulgadas: arcilla
Cr - 16 a 38 pulgadas: lecho rocoso erosionado
R - 38 a 48 pulgadas: lecho rocoso sin erosionar

Propiedades y cualidades

Pendiente: 20 a 60 por ciento
Profundidad hasta la característica restrictiva: de 9 a 17 pulgadas hasta el lecho rocoso paralítico; de 14 a 41 pulgadas hasta el lecho rocoso lítico
Clase de drenaje: bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 0,8 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7e *Grupo hidrológico del suelo:* D
Clasificación hídrica del suelo: No

Componentes menores

Afloramiento de serpentinita,

árido

Porcentaje de la unidad cartográfica: 10 por ciento
Relieve: Laderas de colinas, laderas de montañas
Posición del relieve (tridimensional): ladera de montaña, pendiente lateral
Clasificación hídrica del suelo: No

FrB: arcilla Fraternidad, pendientes del 2 al 5 %.

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 2yq8y
Altitud: 0 a 160 pies
Precipitación media anual: de 20 a 63 pulgadas
Temperatura media anual del aire: de 71 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: tierras agrícolas de primera calidad si se riegan

Composición de la unidad cartográfica

Fraternidad y suelos similares: 80 por ciento
Componentes menores: 20 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Fraternidad

Relieve: faldas de abanico
Posición del relieve (bidimensional): pie de la pendiente *Posición del relieve (tridimensional):* inclinación, talud *Forma de la pendiente:* convexa, lineal
Forma transversal a la pendiente: cóncava, lineal

Material parental: Aluvión arcilloso derivado de roca ígnea, metamórfica y sedimentaria

Perfil típico

Ap: de 0 a 13 pulgadas: arcilla
ABss: de 13 a 17 pulgadas:
arcilla *Bkss1: de 17 a 42*
pulgadas: arcilla *Bkss2: de 42 a*
80 pulgadas: arcilla

Propiedades y cualidades

Pendiente: 2 a 5 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: moderadamente bien drenado
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0.01 a 0.14 pulgadas/hora)
Profundidad hasta el nivel freático: entre 86 y 109 cm
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Carbonato cálcico, contenido máximo: 8 por ciento
Contenido máximo de yeso: 2 %.
Salinidad máxima: No salina a muy ligeramente salina (0,0 a 2,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 2,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 6.9 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): 2s
Clasificación de la capacidad del suelo (no regado):
2c *Grupo hidrológico del suelo:* C
Clasificación hídrica del suelo: No

Componentes menores

Cartagena

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Faldas de abanico
Posición del relieve (bidimensional): Pies de la pendiente *Posición del relieve (tridimensional):* Inclinación, talud *Forma de la pendiente:* Cóncava, lineal
Forma transversal a la pendiente: Lineal
Clasificación hídrica del suelo: No

Paso seco

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente *Posición del relieve (tridimensional):* Talud, elevación *Forma transversal a la pendiente:* Lineal
Forma transversal a la pendiente: convexa, lineal
Clasificación hídrica del suelo: No

Poncena

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Terrazas
Posición del relieve (bidimensional): Pie *de la pendiente Posición del relieve (tridimensional):* Talud, elevación *Forma transversal a la pendiente:* Cóncava, convexa, lineal *Forma transversal a la pendiente:* Lineal

Clasificación hídrica del suelo: No

Santa Isabel

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Valles, faldas de abanico
Posición del relieve (bidimensional): pie de *la pendiente Posición del relieve (tridimensional):* talud, inclinación *Forma de la pendiente descendente:* cóncava, lineal
Forma transversal a la pendiente: Lineal
Clasificación hídrica del suelo: No

GyB: arcilla guayacán, pendientes del 0 al 5 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1vlnr
Altitud: de 20 a 50 pies
Precipitación media anual: de 18 a 31 pulgadas
Temperatura media anual del aire: 70 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: tierras agrícolas de primera calidad si se riegan

Composición de la unidad cartográfica

Guayacán y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Guayacán

Relieve: Conos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal: Lineal, convexa
Material parental: Residuo erosionado de piedra caliza

Perfil típico

A - 0 a 8 pulgadas: arcilla
B - 8 a 12 pulgadas: arcilla
B - 12 a 26 pulgadas: arcilla
B - 26 a 45 pulgadas: marga grava
C - 45 a 59 pulgadas: limosa
C - 59 a 76 pulgadas: limosa muy grava
C - 76 a 91 pulgadas: limosa

Propiedades y cualidades

Pendiente: 0 a 5 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: Bien drenado
Clase de escorrentía: media

Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja (0.01 a 0.14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 95 por ciento
Salinidad máxima: No salina (0,0 a 1,0 mmhos/cm) *Índice máximo de adsorción de sodio:* 12,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 7.8 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada *Clasificación de la capacidad de la tierra (no regada):* 2c *Grupo hidrológico del suelo:* C
Grupo de idoneidad para forraje: Sin nombre (G271XZ000PR)
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Altamira

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, ladera trasera *Posición del relieve (tridimensional):* pendiente superior, cresta, pendiente lateral
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Guayacán, pendiente más pronunciada

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal a la pendiente: Lineal, convexa
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

GyC: arcilla Guayacan, pendientes del 5 al 12 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1vlnm
Elevación: de 20 a 50 pies
Precipitación media anual: de 45 a 78 cm
Temperatura media anual del aire: 70 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: tierras agrícolas de importancia estatal, si están irrigadas

Composición de la unidad cartográfica

Guayacán y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Guayacán

Relieve: abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal: lineal, convexa
Material parental: Residuo erosionado de piedra caliza

Perfil típico

A - 0 a 8 pulgadas: arcilla
B - De 8 a 12 pulgadas: arcilla
B - 12 a 26 pulgadas: arcilla
B - 26 a 45 pulgadas: marga grava
C - 45 a 59 pulgadas: limosa
C - 59 a 76 pulgadas: limosa muy grava
C - 76 a 91 pulgadas: limosa

Propiedades y cualidades

Pendiente: 5 a 12 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: bien drenado
Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Contenido máximo de carbonato cálcico: 95 por ciento
Salinidad máxima: No salina (0,0 a 1,0 mmhos/cm) *Índice máximo de adsorción de sodio:* 12,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 7.8 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada *Clasificación de la capacidad de la tierra (no regada):* 3c *Grupo hidrológico del suelo:* C
Grupo de idoneidad para forraje: Sin nombre (G271XZ000PR)
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Guayacán

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Conos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal a la pendiente: Lineal, convexa

Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Altamira

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, ladera trasera *Posición del relieve (tridimensional):* pendiente superior, cresta, pendiente lateral
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

GyD: arcilla guayacán, pendientes del 12 al 20 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1vlnp
Altitud: de 20 a 50 pies
Precipitación media anual: 16 a 50 pulgadas
Temperatura media anual del aire: 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Guayacán y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno del

guayacán

Relieve: abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal: lineal, convexa
Material parental: Residuo erosionado de piedra caliza

Perfil típico

A - 0 a 8 pulgadas: arcilla
B - 8 a 12 pulgadas: arcilla
B - 12 a 26 pulgadas: arcilla
B - 26 a 45 pulgadas: marga grava
C - 45 a 59 pulgadas: limosa
C - 59 a 76 pulgadas: limosa arcillosa muy grava
C - 76 a 91 pulgadas: marga

Propiedades y cualidades

Pendiente: 12 a 20 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: bien drenado

Clase de escorrentía: alta
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 95 por ciento
Salinidad máxima: No salina (0,0 a 1,0 mmhos/cm) *Índice máximo de adsorción de sodio:* 12,0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 7.8 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del terreno (regado): Sin especificar *Clasificación de la capacidad del terreno (no regado):* 3c *Grupo hidrológico del suelo:* C
Grupo de idoneidad para forraje: Sin nombre (G271XZ000PR)
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Costa

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Laderas, crestas
Posición del relieve (bidimensional): Cima, hombro, ladera trasera *Posición del relieve (tridimensional):* Ladera superior, ladera lateral, cresta *Forma de la ladera descendente:* Cóncava, convexa
Forma transversal a la pendiente: Lineal, convexa
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Pitahaya

Porcentaje de la unidad cartográfica: 3 por ciento
Relieve: Crestas, laderas
Posición del relieve (bidimensional): Cima, hombro, ladera trasera *Posición del relieve (tridimensional):* Ladera principal, ladera lateral, cresta *Forma de la ladera descendente:* Convexa, lineal
Forma transversal a la pendiente: convexa, lineal
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Altamira

Porcentaje de la unidad cartográfica: 2 por ciento
Relieve: Crestas, laderas
Posición del relieve (bidimensional): cima, hombro, ladera trasera *Posición del relieve (tridimensional):* pendiente superior, cresta, pendiente lateral
Forma de la pendiente descendente: convexa
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

LnA: marga Llanos Costa, pendientes del 0 al 2 %

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: c78m
Altitud: de 30 a 160 pies
Precipitación media anual: de 16 a 50 pulgadas
Temperatura media anual del aire: 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: tierras agrícolas de primera calidad si se riegan

Composición de la unidad cartográfica

Llanos costeros y suelos similares: 75 por ciento
Componentes menores: 25 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción de Llanos Costa

Entorno

Relieve: abanicos aluviales
Posición del relieve (bidimensional): pie de la pendiente, base de *la pendiente Posición del relieve (tridimensional):* base de la montaña, base de la pendiente *Forma de la pendiente descendente:* cóncava, lineal
Forma transversal a la pendiente: lineal, convexa
Material parental: Aluvión grava derivado de basalto y/o aluvión grava derivado de sílex

Perfil típico

Ap - 0 a 9 pulgadas: marga
Bt: de 9 a 15 pulgadas: marga arcillosa con grava
Bt - 15 a 43 pulgadas: arcilla grava
Bt - 43 a 78 pulgadas: marga arcillosa arenosa muy grava

Propiedades y cualidades

Pendiente: 0 a 2 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: Bien drenado
Clase de escorrentía: Muy baja
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente baja a moderadamente alta (0.14 a 1.42 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 6.2 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 2c *Grupo hidrológico del suelo:* C
Grupo de idoneidad para forraje: Sin nombre (G271XZ000PR)
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)

Clasificación hídrica del suelo: No

Componentes menores

Maguayo

Porcentaje de la unidad cartográfica: 25 por ciento
Relieve: Conos aluviales
Posición del relieve (bidimensional): Pie de la pendiente, base de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente descendente: convexa, lineal
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

MDA: suelos Mangillo, Boquerón y Serrano, inundados con mucha frecuencia

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: c7b5
Altitud: de 0 a 20 pies
Precipitación media anual: de 18 a 31 pulgadas
Temperatura media anual del aire: 70 a 87 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Suelos Manglillo y similares: 50 % *Suelos Boquerón y similares:* 30 % *Suelos Serrano y similares:* 20 %
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Manglillo

Relieve: Marismas salinas
Posición del relieve (bidimensional): Pie de la pendiente *Posición del relieve (tridimensional):* Inclinación *Forma de la pendiente:* Lineal
Forma transversal: lineal
Material parental: Material orgánico y/o depósitos marinos

Perfil típico

Oa - 0 a 5 pulgadas: lodo
Oi: de 5 a 24 pulgadas: turba fangosa
C: de 24 a 43 pulgadas: marga fangosa *Cg: de 43 a 60 pulgadas:* marga arenosa

Propiedades y cualidades

Pendiente: 0 a 1 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: Muy mal drenado
Clase de escorrentía: insignificante

Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente alta a muy alta (1.42 a 14.17 pulgadas/hora)
Profundidad hasta el nivel freático: entre 0 y 12 pulgadas *Frecuencia de inundaciones:* frecuente *Frecuencia de encharcamientos:* ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: Alto (aproximadamente 10.8 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada *Clasificación de la capacidad de la tierra (no regada):* 8 *Grupo hidrológico del suelo:* A/D
Clasificación hídrica del suelo: Sí

Descripción del entorno de

Boquerón

Relieve: Marismas, pantanos
Posición del relieve (bidimensional): Pie de la pendiente *Posición del relieve (tridimensional):* Talud, inclinación *Forma de la pendiente:* Cóncava
Forma transversal a la pendiente: Lineal
Material parental: Depósitos marinos derivados de rocas ígneas, metamórficas y sedimentarias

Perfil típico

Oa - 0 a 2 pulgadas: lodo
A - 2 a 4 pulgadas: arcilla limosa
C - 4 a 8 pulgadas: marga arcillosa fangosa
C - 8 a 55 pulgadas: arcilla limosa
C - 55 a 79 pulgadas: arcilla

Propiedades y cualidades

Pendiente: 0 a 1 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: muy mal drenado
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0.01 a 0.14 pulgadas/hora)
Profundidad hasta el nivel freático: entre 0 y 12 pulgadas *Frecuencia de inundaciones:* frecuente *Frecuencia de encharcamientos:* ninguna
Suministro de agua disponible, de 0 a 60 pulgadas: alto (aproximadamente 10.7 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7w *Grupo hidrológico del suelo:* C/D
Clasificación hídrica del suelo: Sí

Descripción del entorno de

Serrano

Rel*ieve:* Marismas
Posición del relieve (bidimensional): Toeslope
Posición del relieve (tridimensional): Talf *Forma de la pendiente descendente:* Lineal
Forma transversal a la pendiente: Lineal
Material parental: Material moderadamente fino sobre sedimentos aluviales de textura gruesa

Perfil típico

A - 0 a 3 pulgadas: marga arenosa
Bwg - 3 a 14 pulgadas: limosa
C - 14 a 65 pulgadas: franco muy grava

Propiedades y cualidades

Pendiente: 0 a 2 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: mal drenado
Clase de escorrentía: insignificante
Capacidad de la capa más limitante para transmitir agua (Ksat): Moderadamente alta a muy alta (1.42 a 14.17 pulgadas/hora)
Profundidad hasta el nivel freático: entre 0 y 12 pulgadas *Frecuencia de inundaciones:* frecuente *Frecuencia de encharcamientos:* ninguna
Salinidad máxima: moderadamente salina a muy salina (8,0 a 16,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 40,0
Suministro de agua disponible, de 0 a 60 pulgadas: Muy bajo (aproximadamente 2.9 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): No especificada *Clasificación de la capacidad del suelo (no regado):* 7s *Grupo hidrológico del suelo:* A/D
Clasificación hídrica del suelo: Sí

MnC: arcilla Melones, pendientes del 2 al 12 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1qs80
Altitud: de 20 a 160 pies
Precipitación media anual: de 16 a 50 pulgadas
Temperatura media anual del aire: de 70 a 88 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: tierras agrícolas de primera calidad si se riegan

Composición de la unidad cartográfica

Melones y suelos similares: 95 por ciento
Componentes menores: 5 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Melones

Relieve: abanicos aluviales
Posición del relieve (bidimensional): pie de la pendiente *Posición del relieve (tridimensional):* talud, elevación *Forma de la pendiente:* cóncava, convexa
Forma transversal a la pendiente: cóncava, lineal

Material parental: Depósitos fluviomarinares derivados de roca caliza y/o depósitos fluviomarinares derivados de roca volcánica

Perfil típico

Ap - 0 a 7 pulgadas: arcilla
Btss - 7 a 18 pulgadas: arcilla
Btk - 18 a 46 pulgadas: arcilla
Bt - 46 a 66 pulgadas: arcilla
Bt: de 66 a 70 pulgadas: arcilla arenosa con grava
2C: de 70 a 79 pulgadas: arcilla

Propiedades y cualidades

Pendiente: del 5 al 12 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: Bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0.01 a 0.14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 30 por ciento
Salinidad máxima: moderadamente salina a muy salina (8,0 a 16,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 35.0
Suministro de agua disponible, de 0 a 60 pulgadas: moderado (aproximadamente 9.0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada *Clasificación de la capacidad de la tierra (no regada):* 3c *Grupo hidrológico del suelo:* C
Clasificación hídrica del suelo: No

Componentes menores

Guayacán

Porcentaje de la unidad cartográfica: 2 por ciento
Relieve: Abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente: Convexa, lineal
Forma transversal a la pendiente: Lineal, convexa
Otra clasificación vegetal: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Maguayo

Porcentaje de la unidad cartográfica: 2 por ciento
Relieve: Conos aluviales
Posición del relieve (bidimensional): Pie de la pendiente, base de la pendiente
Posición del relieve (tridimensional): Pendiente base
Forma de la pendiente descendente: convexa, lineal
Forma transversal a la pendiente: lineal
Clasificación hídrica del suelo: No

Llanos costa

Porcentaje de la unidad cartográfica: 1 por ciento
Relieve: Abanicos aluviales
Posición del relieve (bidimensional): Pie de la pendiente, base de la pendiente

Posición del relieve (tridimensional): base de la montaña, pendiente de la base
Forma de la pendiente descendente: cóncava, lineal
Forma transversal a la pendiente: lineal, convexa
Otra clasificación vegetativa: Sin nombre (G271XZ000PR)
Clasificación hídrica del suelo: No

Pt: Canteras y minas

Composición de la unidad cartográfica

Canteras y minas: 100 %
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción de las minas y canteras

Entorno

Relieve: Laderas de montañas, laderas de colinas

Grupos interpretativos

Clasificación de la capacidad del terreno (regado): No se especifica
Clasificación de la capacidad del suelo (no irrigado): 8
Clasificación hídrica del suelo: No

Sa: Salinas, encharcadas

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: 1hjt6
Altitud: de 0 a 3 metros
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Salinas, encharcadas: 100 %
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción de las salinas inundadas

Entorno

Relieve: Marismas, marismas

Propiedades y cualidades

Pendiente: 0 a 1 por ciento
Clase de escorrentía:
Insignificante
Frecuencia de inundaciones: Frecuente
Frecuencia de encharcamiento: Frecuente

Grupos interpretativos

Clasificación de la capacidad del terreno (regado): No especificada
Clasificación de la capacidad de la tierra (no irrigada): 8
Grupo de idoneidad para forraje: Sin nombre (G273XZ000PR)

Otra clasificación vegetativa: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: Sí

SsB: franco arenoso Sosa, pendientes del 2 al 5 por ciento

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: c7b1
Altitud: de 0 a 150 pies
Precipitación media anual: de 18 a 66 pulgadas
Temperatura media anual del aire: d e 66 a 89 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Sosa y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Sosa

Relieve: Terrazas marinas
Posición del relieve (bidimensional): Pie *de la pendiente Posición del relieve (tridimensional):* Huella
Forma de la pendiente: Convexa, lineal
Forma transversal: Lineal
Material parental: Depósitos marinos arcillosos y/o depósitos marinos arcillosos

Perfil típico

Ap - 0 a 5 pulgadas: marga arenosa
A - 5 a 12 pulgadas: marga arenosa
BA - 12 a 20 pulgadas: arcilla arenosa
Bt1: de 20 a 33 pulgadas: arcilla arenosa
Bt2: de 33 a 63 pulgadas: franco arcilloso arenoso

Propiedades y cualidades

Pendiente: 2 a 5 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamientos: Ninguna
Contenido máximo de carbonato cálcico: 2 por ciento
Salinidad máxima: No salina a muy ligeramente salina (0,0 a 2,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 2.0
Suministro de agua disponible, de 0 a 60 pulgadas: Bajo (aproximadamente 5.0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada

Clasificación de la capacidad del suelo (no irrigado): 3s
Grupo hidrológico del suelo: C
Grupo de idoneidad para forraje: Sin nombre (G273XZ000PR)
Otra clasificación vegetativa: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Guayabo
Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie *de la pendiente Posición del relieve (tridimensional):* Talud
Forma de la pendiente: Lineal
Forma transversal a la pendiente: Lineal
Otra clasificación vegetal: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

Bahía
Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie *de la pendiente Posición del relieve (tridimensional):* Talud
Forma de la pendiente: Lineal
Forma transversal a la pendiente: Lineal
Otra clasificación vegetal: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

SsC: franco arenoso Sosa, pendientes del 5 al 12 por ciento

Configuración de la unidad cartográfica
Símbolo de la unidad cartográfica nacional: c7b2
Altitud: 0 a 150 pies
Precipitación media anual: de 457 a 1676 mm
Temperatura media anual del aire: d e 66 a 89 grados Fahrenheit
Período sin heladas: 365 días
Clasificación de las tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica
Sosa y suelos similares: 90 por ciento
Componentes menores: 10 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción del entorno de

Sosa
Relieve: terrazas marinas
Posición del relieve (bidimensional): Pie de la ladera
Forma de la pendiente descendente: convexa, lineal
Forma transversal: lineal

Material parental: Depósitos marinos arcillosos y/o depósitos marinos arcillosos

Perfil típico

Ap - 0 a 5 pulgadas: franco arenoso
A - 5 a 12 pulgadas: franco arenoso
BA - 12 a 20 pulgadas: arcilla
arenosa
Bt1: de 50 a 83 cm: arcilla arenosa
Bt2: de 83 a 160 cm: franco arcilloso arenoso

Propiedades y cualidades

Pendiente: 5 a 12 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas
Clase de drenaje: bien drenado
Clase de escorrentía: media
Capacidad de la capa más limitante para transmitir agua (Ksat): moderadamente baja (0,01 a 0,14 pulgadas/hora)
Profundidad hasta el nivel freático: más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ninguna
Contenido máximo de carbonato cálcico: 2 por ciento
Salinidad máxima: De no salina a muy ligeramente salina (0,0 a 2,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 2,0
Suministro de agua disponible, de 0 a 60 pulgadas: bajo (aproximadamente 5,0 pulgadas)

Grupos interpretativos

Clasificación de la capacidad del suelo (regado): Sin
especificar *Clasificación de la capacidad del suelo (no regado):*
3s *Grupo hidrológico del suelo:* C
Grupo de idoneidad para forraje: Sin nombre (G273XZ000PR)
Otra clasificación vegetativa: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

Componentes menores

Guayabo

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie de la pendiente
Forma de la pendiente descendente: Lineal
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

Bahía

Porcentaje de la unidad cartográfica: 5 por ciento
Relieve: Llanuras costeras
Posición del relieve (bidimensional): Pie de la pendiente
Forma de la pendiente descendente: lineal
Forma transversal a la pendiente: lineal
Otra clasificación vegetal: Sin nombre (G273XZ000PR)
Clasificación hídrica del suelo: No

TfA: arcilla Teresa, encharcada

Configuración de la unidad cartográfica

Símbolo de la unidad cartográfica nacional: c7b4
Altitud: de 0 a 20 pies
Precipitación media anual: de 18 a 66 pulgadas
Temperatura media anual del aire: 66 a 89 grados F
Período sin heladas: 365 días
Clasificación de tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica

Terraplenes, estanques y suelos similares: 95 por ciento
Componentes menores: 5 por ciento
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción de Teresa, encharcado

Entorno

Relieve: Fondos de valle, llanuras aluviales
Posición del relieve (bidimensional): pie de *la pendiente Posición del relieve (tridimensional):* talud, inclinación *Forma de la pendiente:* lineal
Forma transversal a la pendiente: lineal
Material parental: Depósitos marinos derivados de rocas ígneas, metamórficas y sedimentarias

Perfil típico

Ap: de 0 a 10 pulgadas: arcilla
Bss: de 10 a 38 pulgadas: arcilla *Bssz: de 38 a 44 pulgadas:* arcilla
Bsszg: de 44 a 78 pulgadas: arcilla
Bzg: de 78 a 85 pulgadas: arcilla

Propiedades y cualidades

Pendiente: 0 a 2 por ciento
Profundidad hasta la característica restrictiva: más de 80 pulgadas *Clase de drenaje:* algo mal drenado
Clase de escorrentía: insignificante
Capacidad de la capa más limitante para transmitir agua (Ksat): Muy baja a moderadamente baja (0.00 a 0.01 pulgadas/hora)
Profundidad hasta el nivel freático: Más de 80 pulgadas
Frecuencia de inundaciones: Ninguna
Frecuencia de encharcamiento: Ocasional
Carbonato de calcio, contenido máximo: 3 por ciento
Salinidad máxima: Moderadamente salina a muy salina (8,0 a 18,0 mmhos/cm)
Índice de adsorción de sodio, máximo: 30,0
Suministro de agua disponible, de 0 a 60 pulgadas: alto (aproximadamente 10.2 pulgadas)

Grupos interpretativos

Clasificación de la capacidad de la tierra (regada): No especificada

Clasificación de la capacidad del suelo (no irrigado): 6w
Grupo hidrológico del suelo: D
Clasificación hídrica del suelo: Sí

Componentes menores

Manglillo
Porcentaje de la unidad cartográfica: 3 por ciento
Relieve: Marismas salinas
Posición del relieve (bidimensional): Pie de la pendiente
Forma de la pendiente descendente: lineal *Forma de la pendiente transversal:* lineal
Clasificación hídrica del suelo: sí

Serrano
Porcentaje de la unidad cartográfica: 1 por ciento
Rel*ieve:* Marismas
Posición del relieve (bidimensional): Pie de la p*endiente Posición del relieve (tridimensional):* Talud
Forma de la pendiente descendente: Lineal
Forma transversal a la pendiente: Lineal
Clasificación hidrica del suelo: Sí

Boquerón
Porcentaje de la unidad cartográfica: 1 por ciento
Relieve: Marismas, pantanos
Posición del relieve (bidimensional): Pie de la pendiente *Posición del relieve (tridimensional):* Talud, inclinación *Forma transversal a la pendiente:* Cóncava
Forma transversal a la pendiente: Lineal
Clasificación hidrica del suelo: Sí

Ua: terreno urbano

Configuración de la unidad cartográfica
Símbolo de unidad cartográfica nacional: 2yg1h
Período sin heladas: 365 días
Clasificación de tierras agrícolas: No son tierras agrícolas de primera calidad

Composición de la unidad cartográfica
Terreno urbano: 100 %
Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

Descripción de los grupos

interpretativos de terrenos urbanos
Clasificación de la capacidad de la tierra (regada): No se especifica
Clasificación de la capacidad del suelo (no irrigado): 8
Clasificación hídrica del suelo: No

W—Agua

Composición de la unidad cartográfica

Agua: 100 por ciento

Las estimaciones se basan en observaciones, descripciones y transectos de la unidad cartográfica.

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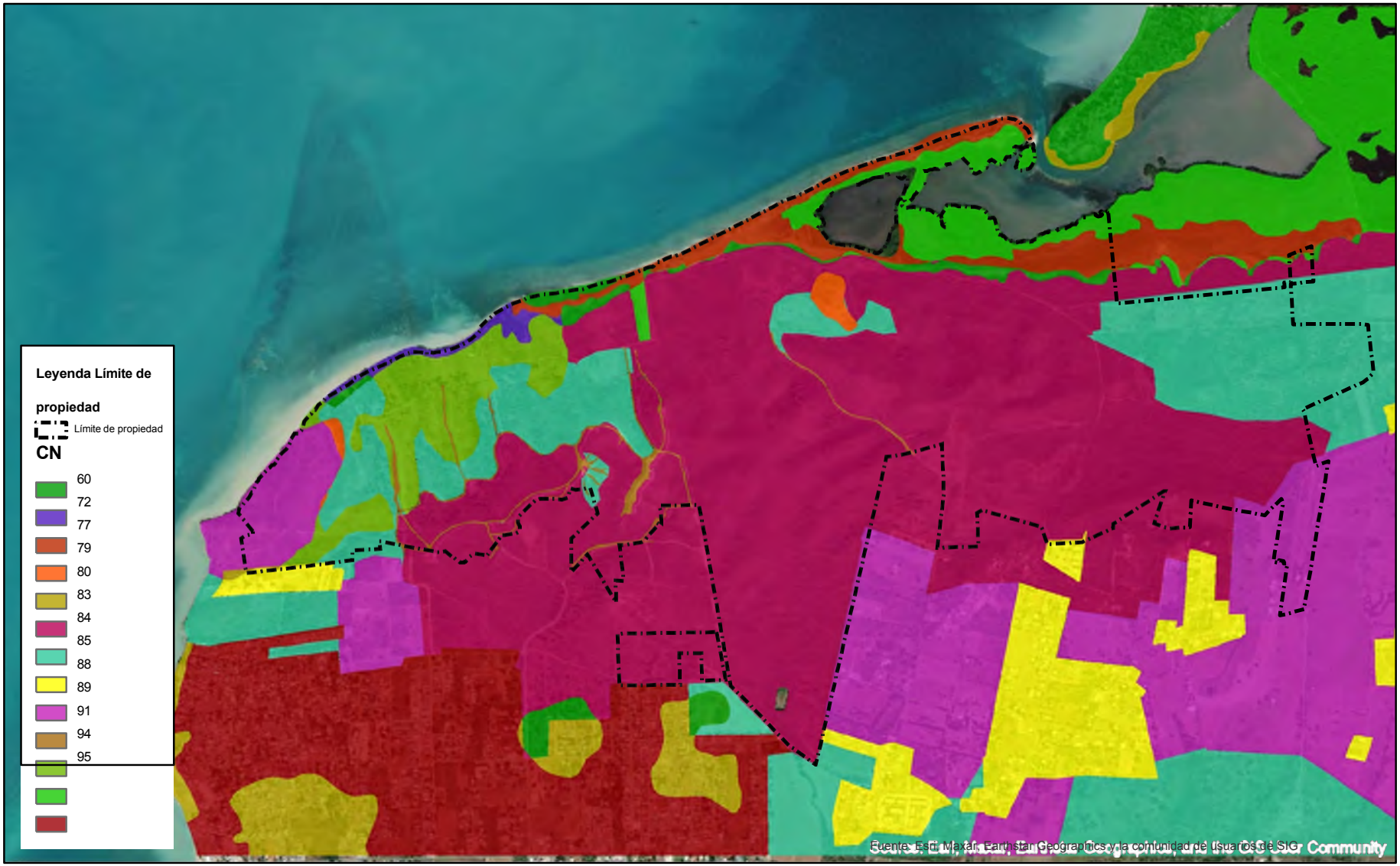


Sistema de coordenadas: NAD 1983 StatePlane Puerto Rico Islas Vírgenes FIPS 5200 | Unidades: metros

1:25 000

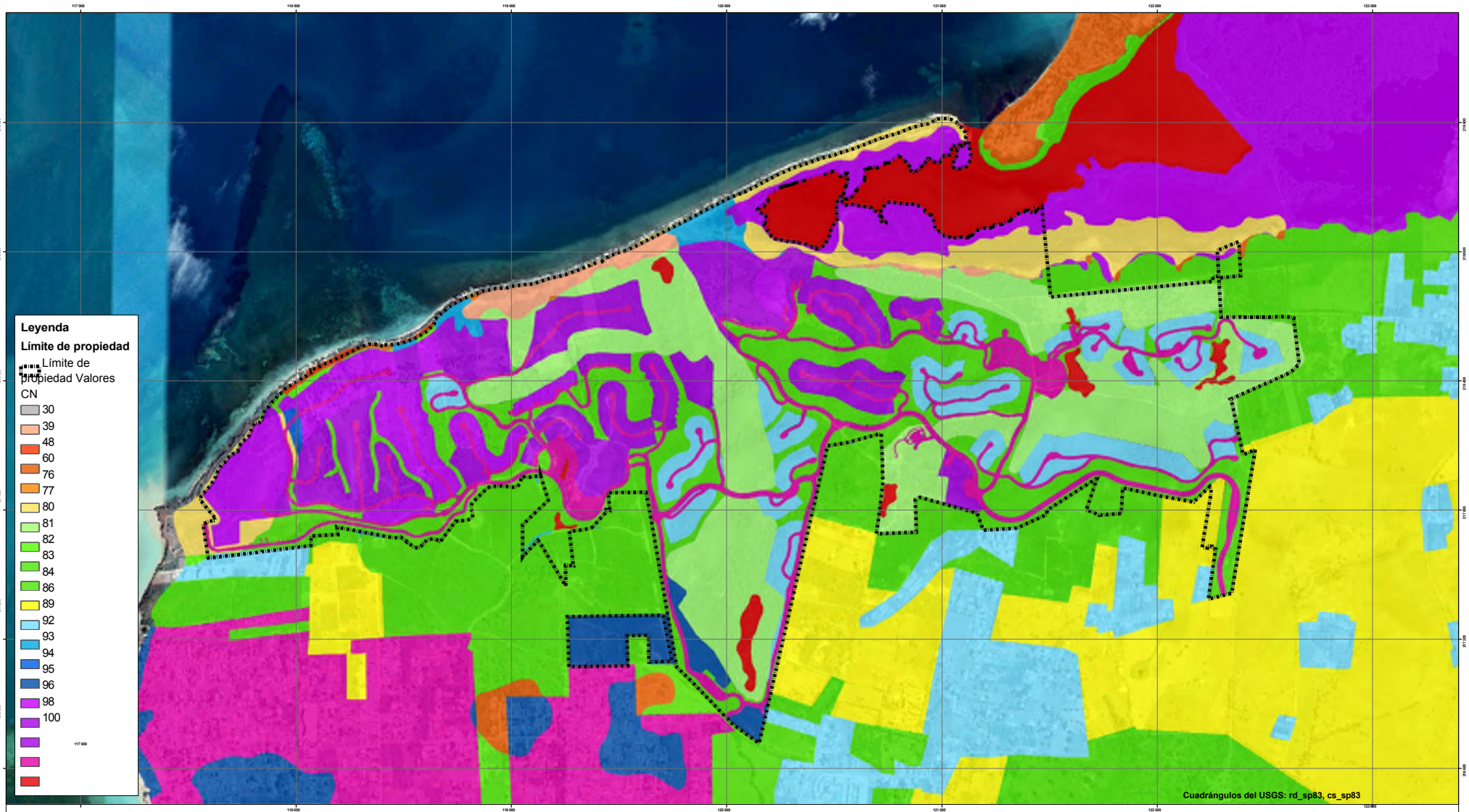
500 250 0 500 metros

Mapa de clasificación de curvas

Escencia - Cabo Rojo, PR

Fecha: 13/08/2024

PMG AND ASSOCIATES



Mapa de clasificación de curvas - Condición propuesta

Esencia - Cabo Rojo, PR

Fecha: 13/08/2024

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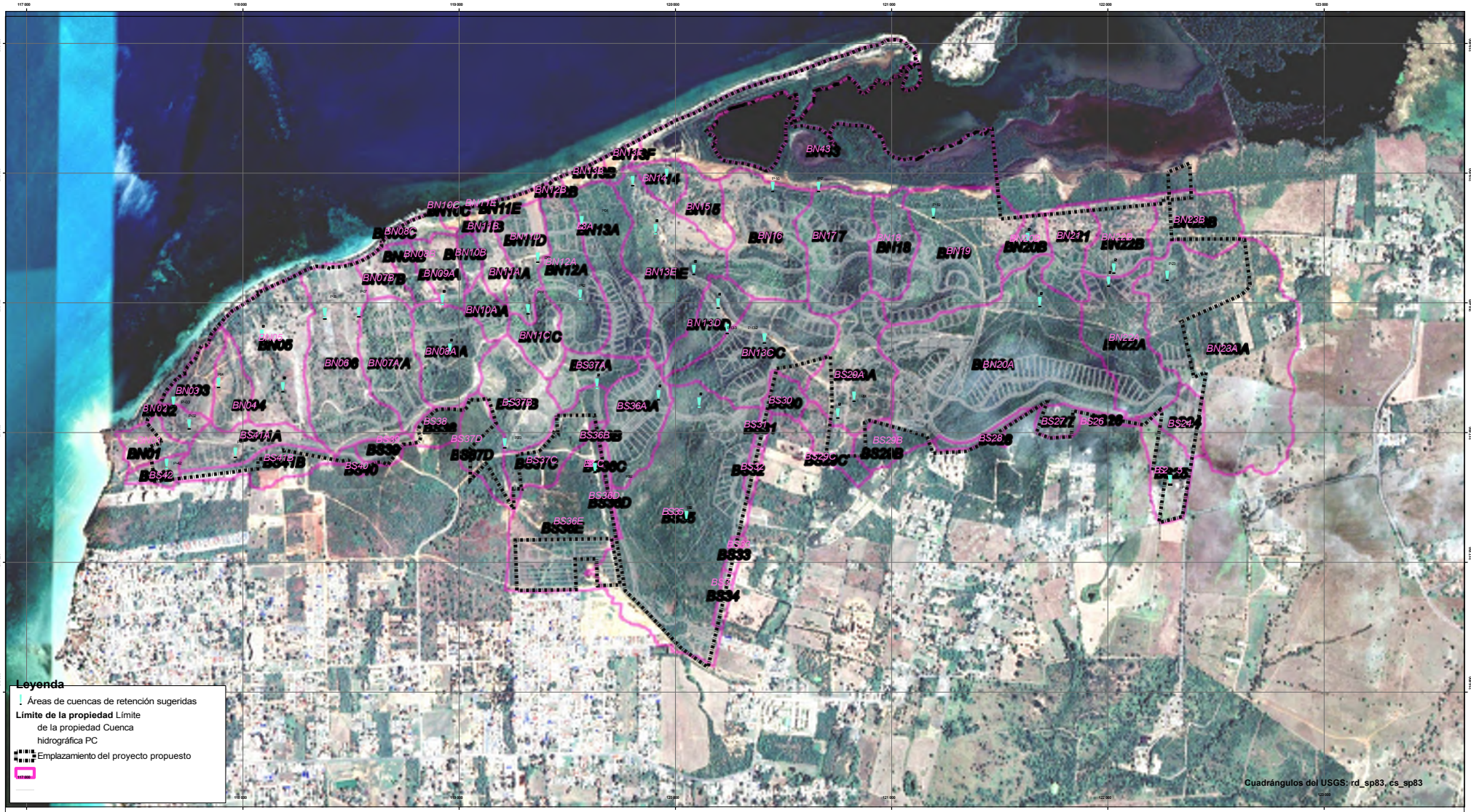

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1:8,000

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Áreas sugeridas para cuencas de retención - PC

Esencia - Cabo Rojo, PR

Fecha: 13/08/2024

PMG AND ASSOCIATES

Ruta del documento: M:\38701-ADV_Cabo_Rojo_HH\GIS\MXD\HH38701_SuggestedDetentionBasin.mxd

Cuencas: 47	Cálculos CN y Tc	EC	ESCENCIA	Cabo Rojo, PR			
Nombre de la cuenca	ÁREA (ac)	Área (ha)	Pendiente (%)	CN Total	LFP (pies)	CN	Tc (min)	Tc ICPR (min)
BN01	11,24	4,55	18,95	88	1098,21	88	6	6
BN02	6,73	2,73	26,23	88	794,93	88	4	6
BN03	13,79	5,58	29,01	88	275,63	88	2	6
BN04	14,07	5,69	22,94	87	1637,19	87	8	8
BN05	49,44	20,01	11,88	85	2612,82	85	17	17
BN06	57,62	23,32	15,96	87	3278,38	87	16	16
BN07	42,04	17,01	15,27	86	3030,52	86	16	16
BN08	40,74	16,49	20,87	84	2802,60	84	14	14
BN09	13,67	5,53	9,48	89	814,00	89	6	6
BN10	14,13	5,72	21,05	83	1583,55	83	9	9
BN11	8,74	3,54	14,56	83	813,97	83	6	6
BN12	36,97	14,96	23,06	85	2509,19	85	12	12
BN13	36,58	14,80	24,35	83	2799,95	83	13	13
BN14	38,68	15,65	23,34	83	2745,52	83	13	13
BN15	112,62	45,58	30,28	83	5116,68	83	19	19
BN16	21,31	8,62	11,98	83	2085,85	83	15	15
BN17	14,22	5,76	15,23	81	1531,90	81	11	11
BN18	48,43	19,60	28,75	83	2090,41	83	10	10
BN19	41,64	16,85	30,74	83	1614,54	83	8	8
BN20	20,97	8,49	30,75	83	1499,19	83	7	7
BN21	65,29	26,42	19,54	82	2873,95	82	16	16
BN22	144,30	58,40	20,63	83	4945,40	83	23	23
BN23	20,01	8,10	9,93	84	1330,38	84	11	11
BN24	68,54	27,74	13,66	84	3577,30	84	21	21
BN25	164,97	66,76	13,23	85	5152,19	85	27	27
BS26	11,79	4,77	12,27	88	845,78	88	6	6
BS27	3,84	1,56	14,85	88	280,62	88	2	6
BS28	9,16	3,71	28,68	83	332,10	83	2	6
BS29	9,02	3,65	20,52	83	652,24	83	5	6
BS30	13,23	5,35	15,08	83	946,06	83	7	7
BS31	41,59	16,83	18,86	83	2295,41	83	13	13
BS32	11,71	4,74	21,70	83	645,03	83	4	6
BS33	10,75	4,35	20,63	83	1071,31	83	7	7
BS34	4,50	1,82	17,79	86	435,18	86	3	6
BS35	4,25	1,72	6,26	85	489,30	85	6	6
BS36	7,08	2,87	5,62	85	909,71	85	11	11
BS37	126,32	51,12	11,95	82	4523,13	82	29	29
BS38	3,94	1,59	17,70	83	548,93	83	4	6
BS39	26,78	10,84	21,53	83	1611,89	83	9	9
BS40	1,74	0,71	12,90	83	298,69	83	3	6
BS41	25,65	10,38	20,10	83	1250,91	83	8	8
BS42	50,67	20,51	19,97	84	1518,56	84	9	9
BS43	8,89	3,60	21,32	83	248,50	83	2	6
BS44	7,42	3,00	19,51	83	582,53	83	4	6
BS45	3,53	1,43	15,63	83	340,98	83	3	6
BS46	37,28	15,09	15,49	87	1385,05	87	8	8
BS47	6,16	2,49	16,93	87	527,72	87	4	6

Cuencas: 72	Cálculos CN y Tc			PC	ESENCIA	Cabo Rojo, PR	
Nombre de la cuenca	ÁREA (ac)	Área (ha)	Pendiente (%)	LFP (pies)	CN Total	Tc (min)	Tc ICPR (min)
BN01	3,76	1,52	18,93	766,93	82	5,54	6,00
BN02	3,63	1,47	26,26	871,75	94	3,27	6,00
BN03	6,72	2,72	28,89	912,89	94	3,23	6,00
BN04	3,81	1,54	23,01	1597.11	92	6,21	6,21
BN05	11,93	4,83	11,86	2186,81	92	11,12	11,12
BN06	11,80	4,78	15,88	3143,27	92	12,85	12,85
BN07A	7,34	2,97	18,11	2379,04	91	10,06	10,06
BN07B	2,96	1,20	5,30	671,56	93	6,19	6,19
BN08A	11,78	4,77	24,44	1865,45	91	7,13	7,13
BN08B	3,55	1,44	6,63	988,94	95	6,84	6,84
BN08C	0,86	0,35	4,50	635,11	85	8,83	8,83
BN09A	4,58	1,85	9,47	1294,52	89	9,28	9,28
BN09B	2,54	1,03	2,17	687,11	53	33,01	33,01
BN10A	3,49	1,41	27,16	344,78	86	2,13	6,00
BN10B	2,35	0,95	9,98	798,33	78	8,93	8,93
BN10C	1,88	0,76	2,47	513,75	39	35,34	35,34
BN11A	3,42	1,38	14,70	448,33	89	3,19	6,00
BN11B	1,87	0,75	2,73	434,32	39	29,39	29,39
BN11C	5,84	2,37	32,74	650,52	89	2,88	6,00
BN11D	5,25	2,13	16,36	1661,45	88	8,96	8,96
BN11E	2,95	1,19	2,45	601,15	39	40,24	40,24
BN12A	5,69	2,30	24,37	2406,59	87	10,25	10,25
BN12B	0.98	0,40	2,83	397,31	55	17,73	17,73
BN13A	7,32	2,96	23,37	3487,57	86	14,61	14,61
BN13B	2,17	0,88	2,01	738,75	44	45,79	45,79
BN13C	6,77	2,74	31,33	1699,34	85	7,36	7,36
BN13D	5,25	2,12	38,59	696,52	83	3,48	6,00
BN13E	9,31	3,77	23,34	2280,74	85	10,78	10,78
BN13F	1,35	0,55	1,60	839,90	68	30,76	30,76
BN14	8,59	3,48	4,15	1050,39	95	9,08	9,08
BN15	4,16	1,68	15,27	1297,83	94	5,89	6,00
BN16	9,86	3,99	28,75	2121,10	88	8,22	8,22
BN17	10.18	4,12	30,74	1998,00	87	7,87	7,87
BN18	3,55	1,44	30,74	1777,62	84	7,97	7,97
BN19	18,23	7,38	19,56	2924,57	83	15,39	15,39
BN20A	12,06	4,88	21,78	3747,93	85	16,61	16,61
BN20B	4,08	1,65	8,14	837,93	85	8,20	8,20
BN21	7,94	3,21	9,90	1364,17	83	11,75	11,75
BN22A	7,52	3,04	10,03	2091,60	84	15,89	15,89
BN22B	11,62	4,70	5,22	1376,41	83	16,30	16,30
BN23A	20,83	8,43	9,70	2311,98	84	17,51	17,51
BN23B	14,81	5,99	5,00	806,30	81	11,59	11,59
BN43	51,53	20,85	1,13	3348,75	81	76,16	76,16
BS24	2,87	1,16	12,31	1060,93	84	8,33	8,33
BS25	5,30	2,15	12,16	1510,86	84	11,13	11,13
BS26	1,44	0,58	26,75	211,68	81	1,72	6,00
BS27	5,29	2.14	26,97	425,75	82	2,90	6,00
BS28	1,51	0,61	27,91	499,87	85	2,93	6,00

Cuencas: 72	Cálculos CN y Tc			PC	ESENCIA	Cabo Rojo, PR	
Nombre de la cuenca	ÁREA (ac)	Área (ha)	Pendiente (%)	LFP (pies)	CN Total	Tc (min)	Tc ICPR (min)
BS29A	9.70	3,92	18,85	2117,42	85	11,31	11,31
BS29B	2,84	1,15	20,50	790,75	82	5,46	6,00
BS29C	2,93	1,19	15,08	1015,65	83	7,52	7,52
BS30	4,85	1,96	18,06	661,65	81	5,21	6,00
BS31	0,60	0,24	16,44	461,45	87	3,33	6,00
BS32	1,29	0,52	18,44	377,62	85	2,88	6,00
BS33	1,49	0,60	6,86	247,24	88	3,01	6,00
BS34	0,95	0,39	5,99	305,64	85	4,26	6,00
BS35	37,63	15:23	12,45	4480,77	84	26,24	26,24
BS36A	7,17	2,90	20,45	1420,24	85	7,89	7,89
BS36B	0,28	0,12	12,23	237,30	87	2,27	6,00
BS36C	0,64	0,26	20,78	600,39	87	3,66	6,00
BS36D	0,32	0,13	14,93	53,08	90	0,55	6,00
BS36E	26,88	10,88	9,44	2845,01	86	19,53	19,53
BS37A	3,89	1,57	18,40	870,21	90	4,65	6,00
BS37B	6,09	2,46	20,64	1641,80	93	6,41	6,41
BS37C	12,29	4,97	22,15	1808,20	82	10,17	10,17
BS37D	7,87	3,18	16,30	1291,80	82	9,06	9,06
BS38	5,20	2,11	21,76	686,32	82	4,73	6,00
BS39	4,43	1,79	20,69	398,95	83	3,04	6,00
BS40	1,70	0,69	16,13	362,40	83	3,19	6,00
BS41A	4,30	1,74	16,03	1067,22	86	6,84	6,84
BS41B	3,19	1,29	14,82	489,99	84	4,09	6,00
BS42	2,14	0,87	16,92	849,84	82	6,36	6,36

Lavabo simple: EC-BN01

Escenario: 38701-EC
Nodo: EC-N01
Método hidrográfico: Método de infiltración hidrográfico unitario
NRCS: Número de curva
Tiempo de concentración: 6,0000 min Q
máximo permitido: 0,000 cms
Desplazamiento temporal:
0,0000 h Hidrograma unitario: UH484
Factor de pico: 484,0
Área: 4.5000 ha
Número de curva: 88.0
% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0,00 Nombre de
la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN01	100 años-12 hr-10 %	1,437	0,7667	27,7	23,9	4,5000	88,0	0	0
EC-BN01	100 años-12 hr-90 %	1,101	12,0000	27,7	23,9	4,5000	88	0	0
EC-BN01	100 años-24 hr-10 %	1,374	0,5167	36,7	32,9	4,5000	88,0	0	0
EC-BN01	100 años-24 hr-90 %	1,207	24,0000	36,7	32,9	4,5000	88,0	0	0
EC-BN01	100 años-6 horas-10	1,491	0,6833	19,7	16,1	4,5000	88,0	0	0
EC-BN01	100 años-6 horas-90	0,982	5,8500	19,7	16,1	4,5000	88,0	0	0
EC-BN01	10 años-12 horas-10	0,723	0,7667	15,7	12,2	4,5000	88	0	0
EC-BN01	10 años-12 horas-90	0,609	12,0000	15,7	12,2	4,5000	88	0	0
EC-BN01	10 años-24 horas-10	0,638	1,0000	19,5	15,9	4,5000	88,0	0	0
EC-BN01	10 años-24 horas-90	0,630	24,00	19,5	15,9	4,5000	88	0	0
EC-BN01	10 años-6 horas-10	0,890	0,6833	12,9	9,5	4,5000	88,0	0	0
EC-BN01	10 años-6 horas-90	0,624	6,0000	12,9	9,5	4,5000	88,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN01	25 años-12 horas-10	0,986	0,7667	20,1	16,5	4,5000	88	0	0
EC-BN01	25 años-12 horas-90	0,790	12,0000	20,1	16,5	4,5000	88	0	0
EC-BN01	25 años-24 horas-10	0,891	1,0000	25,7	22,0	4,5000	88,0	0	0
EC-BN01	25 años-24 horas-90 %	0,839	24,0000	25,7	22	4,5000	88	0	0
EC-BN01	25 años-6 horas-10	1,121	0,6833	15,5	12,0	4,5000	88,0	0	0
EC-BN01	25 años-6 horas-90	0,761	5,8667	15,5	12	4,5000	88,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN01 [cm]	100 años-12 horas-10	27,7	0,0	23,9	0	0	0	3,8
EC-BN01 [m3]	100 años-12 horas-10	12465	0	10773	0	0	0	1692
EC-BN01 [ha-m]	100 años-12 horas-10	1,25	0,00	1,08	0	0	0	0,17
EC-BN01 [cm]	100 años-12 horas-90 %	27,7	0,0	23,9	0	0	0	3,8
EC-BN01 [m3]	100 años-12 horas-90	12465	0	10773	0	0	0	1692
EC-BN01 [ha-m]	100 años-12 horas-90	1,25	0,00	1,08	0,00	0	0	0,17
EC-BN01 [cm]	100 años-24 horas-10	36,7	0	32,9	0	0	0	3,8
EC-BN01 [m3]	100 años-24 horas-10	16515	0	14783	0	0	0	1732
EC-BN01 [ha-m]	100 años-24 horas-10	1,65	0,00	1,48	0,00	0	0	0,17
EC-BN01 [cm]	100 años-24 horas-90	36,7	0	32,9	0	0	0	3,8
EC-BN01 [m3]	100 años-24 horas-90	16515	0	14783	0	0	0	1732

EC-BN01 [ha-m]	100 años-24 horas-90	1,65	0,00	1,48	0,00	0	0	0,17
EC-BN01 [cm]	100 años-6 horas-10	19,7	0	16,1	0	0	0	3,6
EC-BN01 [m3]	100 años-6 horas-10	8865	0	7235	0	0	0	1630

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN01 [ha-m]	100 años-6 horas-1 0	0,89	0	0,72	0	0	0	0,16
EC-BN01 [cm]	100 años-6 horas-9 0	19,7	0	16,1	0	0	0	3,6
EC-BN01 [m3]	100 años-6 horas-9 0	8865	0	7235	0	0	0	1630
EC-BN01 [ha-m]	100 años-6 horas-9 0	0,89	0	0,72	0	0	0	0,16
EC-BN01 [cm]	10 años-12 horas-1 0	15,7	0	12,2	0	0	0	3,5
EC-BN01 [m3]	10 años-12 horas-1 0	7065	0	5487	0	0	0	1578
EC-BN01 [ha-m]	10 años-12 horas-1 0	0,71	0	0,55	0	0	0	0,16
EC-BN01 [cm]	10 años-12 horas-9 0	15,7	0	12,2	0	0	0	3,5
EC-BN01 [m3]	10 años-12 horas-9 0	7065	0	5487	0	0	0	1578
EC-BN01 [ha-m]	10 años-12 horas-9 0	0,71	0	0,55	0	0	0	0,16
EC-BN01 [cm]	10 años-24 horas-1 0	19,5	0	15,9	0	0	0	3,6
EC-BN01 [m3]	10 años-24 horas-1 0	8775	0	7148	0	0	0	1627
EC-BN01 [ha-m]	10 años-24 horas-1 0	0,88	0	0,71	0	0	0	0,16
EC-BN01 [cm]	10 años-24 horas-9 0	19,5	0	15,9	0	0	0.0	3.6
EC-BN01 [m3]	10 años-24 horas-9 0	8775	0	7148	0	0	0	1627
EC-BN01 [ha-m]	10 años-24 horas-9 0	0,88	0	0,71	0	0	0	0,16
EC-BN01 [cm]	10 años-6 horas-10 %	12,9	0	9,5	0	0	0	3,4
EC-BN01 [m3]	10 años-6 horas-10 %	5805	0	4279	0	0	0	1526
EC-BN01 [ha-m]	10 años-6 horas-10 %	0,58	0	0,43	0,00	0	0	0,15
EC-BN01 [cm]	10 años-6 horas-90 %	12,9	0	9,5	0	0	0	3,4
EC-BN01 [m3]	10 años-6 horas-90 %	5805	0	4279	0	0	0	1526

EC-BN01 [ha-m]	10 años-6 horas-90 %	0,58	0	0,43	0,00	0	0	0,15
EC-BN01 [cm]	25 años-12 horas-1 0	20,1	0	16,5	0.0	0.0	0.0	3,6
EC-BN01 [m3]	25 años-12 horas-1 0	9045	0	7411	0	0	0	1634

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN01 [ha-m]	25 años-12 horas-1 0	0,90	0	0,74	0	0	0	0,16
EC-BN01 [cm]	25 años-12 horas-9 0	20,1	0	16,5	0	0	0	3,6
EC-BN01 [m3]	25 años-12 horas-9 0	9045	0	7411	0	0	0	1634
EC-BN01 [ha-m]	25 años-12 horas-9 0	0,90	0	0,74	0	0	0	0,16
EC-BN01 [cm]	25 años-24 horas-1 0	25,7	0	22,0	0	0	0	3,7
EC-BN01 [m3]	25 años-24 horas-1 0	11565	0	9885	0	0	0	1680
EC-BN01 [ha-m]	25 años-24 horas-1 0	1,16	0	0,99	0	0	0.00	0,17
EC-BN01 [cm]	25 años-24 horas-9 0	25,7	0	22,0	0	0	0	3,7
EC-BN01 [m3]	25 años-24 horas-9 0	11565	0	9885	0	0	0	1680
EC-BN01 [ha-m]	25 años-24 horas-9 0	1,16	0	0,99	0	0	0.00	0,17
EC-BN01 [cm]	25 años-6 horas-10 %	15,5	0	12	0	0	0	3,5
EC-BN01 [m3]	25 años-6 horas-10 %	6975	0	5401	0	0	0	1574
EC-BN01 [ha-m]	25 años-6 horas-10 %	0,70	0	0,54	0	0	0	0,16
EC-BN01 [cm]	25 años-6 horas-90 %	15,5	0	12	0	0	0	3,5
EC-BN01 [m3]	25 años-6 horas-90 %	6975	0	5401	0	0	0	1574
EC-BN01 [ha-m]	25 años-6 horas-90 %	0,70	0	0,54	0	0	0	0,16

Lavabo simple: EC-BN02

Escenario: 38701-EC

Nodo: EC-N02

Método hidrográfico: Método de infiltración hidrográfico unitario

NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q

máximo permitido: 0,000 cms

Desplazamiento temporal:

0,0000 h Hidrograma unitario: UH484

Factor de pico: 484,0

Área:	2.7000 ha
Número de curva:	88.0

% Impermeable: 0.00
% DCIA: 0
% Directo: 0
Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN02	100 años-12 hr-10 %	0,862	0,7667	27,7	23,9	2,7000	88,0	0	0
EC-BN02	100 años-12 hr-90 %	0,661	12,0000	27,7	23,9	2,7000	88,0	0	0
EC-BN02	100 años-24 hr-10 %	0,824	0,5167	36,7	32,9	2,7000	88,0	0	0
EC-BN02	100 años-24 hr-90 %	0,724	24,0000	36,7	32,9	2,7000	88,0	0	0
EC-BN02	100 años-6 horas-10	0,895	0,6833	19,7	16,1	2,7000	88,0	0	0
EC-BN02	100 años-6 horas-90	0,589	5,8500	19,7	16,1	2,7000	88,0	0	0
EC-BN02	10 años-12 horas-10	0,434	0,7667	15,7	12,2	2,7000	88,0	0	0
EC-BN02	10 años-12 horas-90	0,366	12,0000	15,7	12,2	2,7000	88,0	0.00	0,00
EC-BN02	10 años-24 horas-10	0,383	1,0000	19,5	15,9	2,7000	88,0	0	0
EC-BN02	10 años-24 horas-90	0,378	24,0000	19,5	15,9	2,7000	88,0	0	0
EC-BN02	10 años-6 horas-10	0,534	0,6833	12,9	9,5	2,7000	88,0	0	0
EC-BN02	10 años-6 horas-90	0,375	6,0000	12,9	9,5	2,7000	88,0	0	0
EC-BN02	25 años-12 horas-10	0,592	0,7667	20,1	16,5	2,7000	88,0	0	0
EC-BN02	25 años-12 horas-90	0,474	12,0000	20,1	16,5	2,7000	88	0	0
EC-BN02	25 años-24 horas-10	0,535	1,0000	25,7	22,0	2,7000	88,0	0	0
EC-BN02	25 años-24 horas-90	0,503	24,0000	25,7	22	2,7000	88	0	0

EC-BN02	25 años-6 horas-1 0	0,672	0,6833	15,5	12	2,7000	88,0	0.00	0.00
EC-BN02	25 años-6 horas-9 0	0,457	5,8667	15,5	12	2,7000	88,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN02 [cm]	100 años-12 horas-10	27,7	0,0	23,9	0	0	0	3,8
EC-BN02 [m3]	100 años-12 horas-10	7479	0	6464	0	0	0	1015
EC-BN02 [ha-m]	100 años-12 horas-10	0,75	0	0,65	0	0	0	0,10
EC-BN02 [cm]	100 años-12 horas-90	27,7	0,0	23,9	0	0	0	3,8
EC-BN02 [m3]	100 años-12 horas-90	7479	0	6464	0	0	0	1015
EC-BN02 [ha-m]	100 años-12 horas-90 %	0,75	0,00	0,65	0	0	0	0,10
EC-BN02 [cm]	100 años-24 horas-10	36,7	0	32,9	0	0	0	3,8
EC-BN02 [m3]	100 años-24 horas-10	9909	0	8870	0	0	0	1039
EC-BN02 [ha-m]	100 años-24 horas-10	0,99	0	0,89	0	0	0	0,10
EC-BN02 [cm]	100 años-24 horas-90	36,7	0	32,9	0	0	0	3,8
EC-BN02 [m3]	100 años-24 horas-90	9909	0	8870	0	0	0	1039
EC-BN02 [ha-m]	100 años-24 horas-90	0,99	0,00	0,89	0	0	0	0,10
EC-BN02 [cm]	100 años-6 horas-10	19,7	0	16,1	0	0	0	3,6
EC-BN02 [m3]	100 años-6 horas-10	5319	0	4341	0	0	0	978
EC-BN02 [ha-m]	100 años-6 horas-10	0,53	0	0,43	0	0	0	0,10
EC-BN02 [cm]	100 años-6 horas-90	19,7	0	16,1	0	0	0	3,6
EC-BN02 [m3]	100 años-6 horas-90	5319	0	4341	0	0	0	978
EC-BN02 [ha-m]	100 años-6 horas-90	0,53	0	0,43	0	0	0	0,10
EC-BN02 [cm]	10 años-12 horas-10	15,7	0	12,2	0	0	0	3,5
EC-BN02 [m3]	10 años-12 horas-10	4239	0	3292	0	0	0	947
EC-BN02 [ha-m]	10 años-12 horas-10	0,42	0	0,33	0	0	0	0,09

EC-BN02 [cm]	10 años-12 horas-9 0	15,7	0	12,2	0	0	0	3,5
EC-BN02 [m3]	10 años-12 horas-9 0	4239	0	3292	0	0	0	947
EC-BN02	10 años-12 horas-9	0,42	0,00	0,33	0	0	0	0,09

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN02 [cm]	10 años-24 horas-1 0	19,5	0	15,9	0	0	0	3,6
EC-BN02 [m3]	10 años-24 horas-1 0	5265	0	4289	0	0	0	976
EC-BN02 [ha-m]	10 años-24 horas-1 0	0,53	0	0,43	0	0	0	0,10
EC-BN02 [cm]	10 años-24 horas-9 0	19,5	0	15,9	0	0	0	3,6
EC-BN02 [m3]	10 años-24 horas-9 0	5265	0	4289	0	0	0	976
EC-BN02 [ha-m]	10 años-24 horas-9 0	0,53	0	0,43	0	0.00	0,00	0,10
EC-BN02 [cm]	10 años-6 horas-10 %	12,9	0	9,5	0	0	0	3,4
EC-BN02 [m3]	10 años-6 horas-10 %	3483	0	2568	0	0	0	915
EC-BN02 [ha-m]	10 años-6 horas-10 %	0,35	0	0,26	0,00	0	0	0,09
EC-BN02 [cm]	10 años-6 horas-90 %	12,9	0	9,5	0	0	0	3,4
EC-BN02 [m3]	10 años-6 horas-90 %	3483	0	2568	0	0	0	915
EC-BN02 [ha-m]	10 años-6 horas-90 %	0,35	0	0,26	0,00	0	0	0,09
EC-BN02 [cm]	25 años-12 horas-1 0	20,1	0	16,5	0	0	0	3,6
EC-BN02 [m3]	25 años-12 horas-1 0	5427	0	4447	0	0	0	980
EC-BN02 [ha-m]	25 años-12 horas-1 0	0,54	0	0,44	0,00	0	0	0,10
EC-BN02 [cm]	25 años-12 horas-9 0	20,1	0	16,5	0	0	0	3,6
EC-BN02 [m3]	25 años-12 horas-9 0	5427	0	4447	0	0	0	980
EC-BN02 [ha-m]	25 años-12 horas-9 0	0,54	0	0,44	0	0	0	0,10
EC-BN02 [cm]	25 años-24 horas-1 0	25,7	0	22,0	0	0	0	3,7
EC-BN02 [m3]	25 años-24 horas-1 0	6939	0	5931	0	0	0	1008
EC-BN02 [ha-m]	25 años-24 horas-1 0	0,69	0	0,59	0	0	0	0,10

EC-BN02 [cm]	25 años-24 horas-9 0	25,7	0	22,0	0	0	0	3,7
EC-BN02 [m3]	25 años-24 horas-9 0	6939	0	5931	0	0	0	1008
EC-BN02	25 años-24 horas-9	0,69	0	0,59	0.00	0,00	0	0,10

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN02 [cm]	25 años-6 horas-10 %	15,5	0	12	0	0	0	3,5
EC-BN02 [m3]	25 años-6 horas-10 %	4185	0	3240	0	0	0	945
EC-BN02 [ha-m]	25 años-6 horas-10 %	0,42	0	0,32	0	0	0	0,09
EC-BN02 [cm]	25 años-6 horas-90 %	15,5	0	12	0	0	0	3,5
EC-BN02 [m3]	25 años-6 horas-90 %	4185	0	3240	0	0	0	945
EC-BN02 [ha-m]	25 años-6 horas-90 %	0,42	0	0,32	0	0	0	0,09

Lavabo simple: EC-BN03

Escenario: 38701-EC
Nodo: EC-N03
Método hidrográfico: Método de infiltración hidrográfico unitario
NRCS: Número de curva
Tiempo de concentración: 6,0000 min Q
máximo permitido: 0,000 cms
Desplazamiento temporal:
0,0000 h Hidrograma unitario: UH484
Factor de pico: 484,0
Área: 5.6000 ha
Número de curva: 88.0
% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0,00 Nombre de
la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN03	100 años-12 hr-10 %	1,788	0,7667	27,7	23,9	5,6000	88,0	0.00	0.00
EC-BN03	100 años-12 hr-90 %	1,370	12,0000	27,7	23,9	5,600	88,0	0	0
EC-BN03	100 años-24 hr-10 %	1,710	0,5167	36,7	32,9	5,6000	88,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN03	100 años-24 hr-90 %	1,502	24,000	36,7	32,9	5,600	88,0	0	0
EC-BN03	100 años-6 horas-10	1,856	0,6833	19,7	16,1	5,6000	88,0	0	0
EC-BN03	100 años-6 horas-90	1,222	5,8500	19,7	16,1	5,6000	88,0	0	0
EC-BN03	10 años-12 horas-10	0,900	0,7667	15,7	12,2	5,600	88,0	0	0
EC-BN03	10 años-12 horas-90 %	0,758	12,0000	15,7	12,2	5,6000	88	0	0
EC-BN03	10 años-24 horas-10	0,794	1,0000	19,5	15,9	5,6000	88,0	0	0
EC-BN03	10 años-24 horas-90	0,784	24,00	19,5	15,9	5,6000	88,0	0	0
EC-BN03	10 años-6 horas-10	1,108	0,6833	12,9	9,5	5,6000	88,0	0	0
EC-BN03	10 años-6 horas-90	0,777	6,0000	12,9	9,5	5,600	88	0	0
EC-BN03	25 años-12 horas-10	1,227	0,7667	20,1	16,5	5,6000	88,0	0	0
EC-BN03	25 años-12 horas-90	0,984	12,0000	20,1	16,5	5,6000	88	0	0
EC-BN03	25 años-24 horas-10	1,109	1,0000	25,7	22,0	5,6000	88,0	0	0
EC-BN03	25 años-24 horas-90	1,044	24,0000	25,7	22	5,6000	88,0	0	0
EC-BN03	25 años-6 horas-10	1,395	0,6833	15,5	12,0	5,6000	88,0	0	0
EC-BN03	25 años-6 horas-90	0,947	5,8667	15,5	12	5,6000	88,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN03 [cm]	100 años-12 horas-10	27,7	0,0	23,9	0	0	0	3,8
EC-BN03 [m3]	100 años-12 horas-10	15512	0	13406	0	0	0	2106
EC-BN03 [ha-m]	100 años-12 horas-10	1,55	0,00	1,34	0	0	0	0,21

EC-BN03 [cm]	100 años-12 horas-90	27,7	0,0	23,9	0	0	0	3,8
EC-BN03 [m3]	100 años-12 horas-90 %	15512	0	13406	0	0	0	2106

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN03 [ha-m]	100 años-12 horas-90	1,55	0,00	1,34	0,00	0	0	0,21
EC-BN03 [cm]	100 años-24 horas-10	36,7	0	32,9	0	0	0	3,8
EC-BN03 [m3]	100 años-24 horas-10	20552	0	18396	0	0	0	2156
EC-BN03 [ha-m]	100 años-24 horas-10	2,06	0,00	1,84	0,00	0	0	0,22
EC-BN03 [cm]	100 años-24 horas-90	36,7	0	32,9	0	0	0	3,8
EC-BN03 [m3]	100 años-24 horas-90	20552	0	18396	0	0	0	2156
EC-BN03 [ha-m]	100 años-24 horas-90 %	2,06	0,00	1,84	0,00	0	0	0,22
EC-BN03 [cm]	100 años-6 horas-10	19,7	0	16,1	0	0	0	3,6
EC-BN03 [m3]	100 años-6 horas-10	11032	0	9004	0	0	0	2028
EC-BN03 [ha-m]	100 años-6 horas-10	1,10	0	0,90	0	0	0	0,20
EC-BN03 [cm]	100 años-6 horas-90	19,7	0	16,1	0	0	0	3,6
EC-BN03 [m3]	100 años-6 horas-90	11032	0	9004	0	0	0	2028
EC-BN03 [ha-m]	100 años-6 horas-90	1,10	0	0,90	0	0	0	0,20
EC-BN03 [cm]	10 años-12 horas-10	15,7	0	12,2	0	0	0	3,5
EC-BN03 [m3]	10 años-12 horas-10	8792	0	6829	0	0	0	1963
EC-BN03 [ha-m]	10 años-12 horas-10	0,88	0	0,68	0	0	0	0,20
EC-BN03 [cm]	10 años-12 horas-90	15,7	0	12,2	0	0	0	3,5
EC-BN03 [m3]	10 años-12 horas-90	8792	0	6829	0	0	0	1963
EC-BN03 [ha-m]	10 años-12 horas-90	0,88	0	0,68	0	0	0	0,20
EC-BN03 [cm]	10 años-24 horas-10	19,5	0	15,9	0	0	0	3,6
EC-BN03 [m3]	10 años-24 horas-10	10920	0	8895	0	0	0	2025

EC-BN03 [ha-m]	10 años-24 horas-1 0	1,09	0	0,89	0	0	0	0,20
EC-BN03 [cm]	10 años-24 horas-9 0	19,5	0	15,9	0	0	0	3,6
EC-BN03 [m3]	10 años-24 horas-9 0	10920	0	8895	0	0	0	2025

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN03 [ha-m]	10 años-24 horas-9 0	1,09	0	0,89	0	0	0	0,20
EC-BN03 [cm]	10 años-6 horas-10 %	12,9	0	9,5	0	0	0	3,4
EC-BN03 [m3]	10 años-6 horas-10 %	7224	0	5326	0	0	0	1898
EC-BN03 [ha-m]	10 años-6 horas-10 %	0,72	0	0,53	0,00	0	0	0,19
EC-BN03 [cm]	10 años-6 horas-90 %	12,9	0	9,5	0	0	0	3,4
EC-BN03 [m3]	10 años-6 horas-90 %	7224	0	5326	0	0	0	1898
EC-BN03 [ha-m]	10 años-6 horas-90 %	0,72	0	0,53	0,00	0.00	0,00	0,19
EC-BN03 [cm]	25 años-12 horas-1 0	20,1	0	16,5	0	0	0	3,6
EC-BN03 [m3]	25 años-12 horas-1 0	11256	0	9223	0	0	0	2033
EC-BN03 [ha-m]	25 años-12 horas-1 0	1,13	0	0,92	0	0	0	0,20
EC-BN03 [cm]	25 años-12 horas-9 0	20,1	0	16,5	0	0	0	3,6
EC-BN03 [m3]	25 años-12 horas-9 0	11256	0	9223	0	0	0	2033
EC-BN03 [ha-m]	25 años-12 horas-9 0	1,13	0	0,92	0	0	0	0,20
EC-BN03 [cm]	25 años-24 horas-1 0	25,7	0	22,0	0	0	0	3,7
EC-BN03 [m3]	25 años-24 horas-1 0	14392	0	12301	0	0	0	2091
EC-BN03 [ha-m]	25 años-24 horas-1 0	1,44	0,00	1,23	0.00	0.00	0	0,21
EC-BN03 [cm]	25 años-24 horas-9 0	25,7	0	22,0	0	0	0	3,7
EC-BN03 [m3]	25 años-24 horas-9 0	14392	0	12301	0	0	0	2091
EC-BN03 [ha-m]	25 años-24 horas-9 0	1,44	0,00	1,23	0	0	0	0,21
EC-BN03 [cm]	25 años-6 horas-10 %	15,5	0	12	0	0	0	3,5
EC-BN03 [m3]	25 años-6 horas-10 %	8680	0	6721	0	0	0	1959

EC-BN03 [ha-m]	25 años, 6 horas y 10 minutos %	0,87	0	0,67	0	0	0	0,20
EC-BN03 [cm]	25 años-6 horas-90 %	15,5	0	12	0	0	0	3,5
EC-BN03 [m3]	25 años-6 horas-90 %	8680	0	6721	0	0	0	1959

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN03 [ha-m]	25 años-6 horas-90 %	0,87	0	0,67	0	0	0	0,20

Lavabo simple: EC-BN04

Escenario: 38701-EC
Nodo: EC-N04
Método hidrográfico: Método de infiltración hidrográfico unitario
NRCS: Número de curva
Tiempo de concentración: 8,0000 min Q máximo permitido: 0,000 cms
Desplazamiento temporal: 0,0000 h Hidrograma unitario: UH484
Factor de pico: 484,0
Área: 5.7000 ha
Número de curva: 87.0
% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BN04	100 años-12 hr-10 %	1,790	0,7667	27,7	23,7	5,7000	87,0	0	0
EC-BN04	100 años-12 hr-90 %	1,391	12,0000	27,7	23,7	5,7000	87,0	0	0
EC-BN04	100 años-24 hr-10 %	1,671	0,5333	36,7	32,6	5,7000	87,0	0	0
EC-BN04	100 años-24 hr-90 %	1,529	24,0000	36,7	32,6	5,7000	87,0	0	0
EC-BN04	100 años-6 horas-10	1,854	0,7000	19,7	15,8	5,700	87,0	0	0
EC-BN04	100 años-6 horas-90	1,238	5,8833	19,7	15,8	5,7000	87,0	0	0
EC-BN04	10 años-12 horas-10	0,884	0,7833	15,7	11,9	5,7000	87,0	0	0
EC-BN04	10 años-12 horas-90 %	0,766	12,0000	15,7	11,9	5,7000	87	0	0
EC-BN04	10 años-24 horas-	0,785	1,0167	19,5	15,6	5,7000	87,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BN04	10 años-24 horas-90	0,796	24,0000	19,5	15,6	5,7000	87	0	0
EC-BN04	10 años-6 horas-10	1,091	0,7167	12,9	9,3	5,7000	87,0	0	0
EC-BN04	10 años-6 horas-90	0,784	6,0000	12,9	9,3	5,7000	87,0	0	0
EC-BN04	25 años-12 horas-10	1,217	0,7833	20,1	16,2	5,7000	87,0	0	0
EC-BN04	25 años-12 horas-90	0,997	12,0000	20,1	16,2	5,7000	87,0	0	0
EC-BN04	25 años-24 horas-10	1,106	1,0167	25,7	21,7	5,7000	87,0	0	0
EC-BN04	25 años-24 horas-90	1,061	24,0000	25,7	21,7	5,7000	87,0	0	0
EC-BN04	25 años-6 horas-10	1,382	0,7000	15,5	11,7	5,700	87,0	0	0
EC-BN04	25 años-6 horas-90	0,958	6,0000	15,5	11,7	5,7000	87,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN04 [cm]	100 años-12 horas-10	27,7	0,0	23,7	0	0	0	4
EC-BN04 [m3]	100 años-12 horas-10	15789	0	13482	0	0	0	2307
EC-BN04 [ha-m]	100 años-12 horas-10	1,58	0,00	1,35	0	0	0	0,23
EC-BN04 [cm]	100 años-12 horas-90	27,7	0,0	23,7	0	0	0	4
EC-BN04 [m3]	100 años-12 horas-90	15789	0	13482	0	0	0	2307
EC-BN04 [ha-m]	100 años-12 horas-90	1,58	0,00	1,35	0	0	0	0,23
EC-BN04 [cm]	100 años-24 horas-10	36,7	0	32,6	0	0	0	4,1
EC-BN04 [m3]	100 años-24 horas-10	20919	0	18559	0	0	0	2360

EC-BN04 [ha-m]	100 años-24 horas-10	2,09	0,00	1,86	0,00	0	0	0,24
EC-BN04 [cm]	100 años-24 horas-90	36,7	0	32,6	0	0	0	4,1
EC-BN04	100 años-24 horas-	20919	0	18559	0	0	0	2360

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	90							
EC-BN04 [ha-m]	100 años-24 horas-90	2,09	0,00	1,86	0,00	0	0	0,24
EC-BN04 [cm]	100 años-6 horas-10	19,7	0	15,8	0	0	0	3,9
EC-BN04 [m3]	100 años-6 horas-10	11229	0	9008	0	0	0	2221
EC-BN04 [ha-m]	100 años-6 horas-10	1,12	0	0,90	0	0	0	0,22
EC-BN04 [cm]	100 años-6 horas-9 0	19,7	0	15,8	0	0	0	3,9
EC-BN04 [m3]	100 años-6 horas-9 0	11229	0	9008	0	0	0	2221
EC-BN04 [ha-m]	100 años-6 horas-9 0	1,12	0	0,90	0,00	0	0	0,22
EC-BN04 [cm]	10 años-12 horas-1 0	15,7	0	11,9	0	0	0	3,8
EC-BN04 [m3]	10 años-12 horas-1 0	8949	0	6802	0	0	0	2147
EC-BN04 [ha-m]	10 años-12 horas-1 0	0,89	0	0,68	0	0	0	0,21
EC-BN04 [cm]	10 años-12 horas-9 0	15,7	0	11,9	0	0	0	3,8
EC-BN04 [m3]	10 años-12 horas-9 0	8949	0	6802	0	0	0	2147
EC-BN04 [ha-m]	10 años-12 horas-9 0	0,89	0	0,68	0	0	0	0,21
EC-BN04 [cm]	10 años-24 horas-1 0	19,5	0	15,6	0	0	0	3,9
EC-BN04 [m3]	10 años-24 horas-1 0	11115	0	8898	0	0	0	2217
EC-BN04 [ha-m]	10 años-24 horas-1 0	1.11	0.00	0,89	0	0	0	0,22
EC-BN04 [cm]	10 años-24 horas-9 0	19,5	0	15,6	0	0	0	3,9
EC-BN04 [m3]	10 años-24 horas-9 0	11115	0	8898	0	0	0	2217
EC-BN04 [ha-m]	10 años-24 horas-9 0	1,11	0	0,89	0	0	0	0,22
EC-BN04 [cm]	10 años-6 horas-10 %	12,9	0	9,3	0	0	0	3,6
EC-BN04 [m3]	10 años-6 horas-10 %	7353	0	5281	0	0	0	2072

EC-BN04 [ha-m]	10 años-6 horas-10 %	0,74	0	0,53	0	0	0	0,21
EC-BN04 [cm]	10 años-6 horas-90 %	12,9	0	9,3	0	0	0	3,6
EC-BN04	10 años-6 horas-90	7353	0	5281	0	0	0	2072

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BN04 [ha-m]	10 años-6 horas-90 %	0,74	0	0,53	0	0	0	0,21
EC-BN04 [cm]	25 años-12 horas-1 0	20,1	0	16,2	0	0	0.0	3,9
EC-BN04 [m3]	25 años-12 horas-1 0	11457	0	9231	0	0	0	2226
EC-BN04 [ha-m]	25 años-12 horas-1 0	1,15	0	0,92	0	0	0	0,22
EC-BN04 [cm]	25 años-12 horas-9 0	20,1	0	16,2	0	0	0	3,9
EC-BN04 [m3]	25 años-12 horas-9 0	11457	0	9231	0	0	0	2226
EC-BN04 [ha-m]	25 años-12 horas-9 0	1,15	0	0,92	0	0	0	0,22
EC-BN04 [cm]	25 años-24 horas-1 0 %	25,7	0,0	21,7	0	0	0	4
EC-BN04 [m3]	25 años-24 horas-1 0	14649	0	12358	0	0	0	2291
EC-BN04 [ha-m]	25 años-24 horas-1 0	1,46	0	1,24	0	0	0	0,23
EC-BN04 [cm]	25 años-24 horas-9 0	25,7	0	21,7	0	0	0	4
EC-BN04 [m3]	25 años-24 horas-9 0	14649	0	12358	0	0	0	2291
EC-BN04 [ha-m]	25 años-24 horas-9 0	1,46	0	1,24	0	0	0	0,23
EC-BN04 [cm]	25 años-6 horas-10 %	15,5	0	11,7	0	0	0	3,8
EC-BN04 [m3]	25 años-6 horas-10 %	8835	0	6693	0	0	0	2142
EC-BN04 [ha-m]	25 años-6 horas-10 %	0,88	0	0,67	0	0	0	0,21
EC-BN04 [cm]	25 años-6 horas-90 %	15,5	0	11,7	0	0	0	3,8
EC-BN04 [m3]	25 años-6 horas-90 %	8835	0	6693	0	0	0	2142
EC-BN04 [ha-m]	25 años-6 horas-90 %	0,88	0	0,67	0	0	0	0,21

Escenario: 38701-EC

Nodo: EC-N05

Método hidrográfico: Método de infiltración hidrográfico unitario

NRCS: Número de curva

Tiempo de concentración:	17,0000 min
Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Área:	20,0000 ha
Número de curva:	85,0
% Impermeable:	0
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN05	100 años-12 h r-10 %	5,947	0,8833	27,7	23,0	20,000	85,0	0	0
EC-BN05	100 años-12 h r-90 %	4,739	12,0167	27,7	23,0	20,000	85,0	0	0.00
EC-BN05	100 años-24 h r-10 %	5,630	1,0667	36,7	31,9	20,000	85,0	0	0
EC-BN05	100 años-24 h r-90 %	5,313	24,00	36,7	31,9	20,000	85	0	0
EC-BN05	100 años-6 horas-10	6,090	0,8500	19,7	15,2	20,000	85,0	0	0
EC-BN05	100 años-6 horas-90	4,281	6,000	19,7	15,2	20,000	85,0	0	0
EC-BN05	10 años-12 horas-10	2,896	1,1000	15,7	11,4	20,000	85,0	0	0
EC-BN05	10 años-12 horas-90	2,583	12,0167	15,7	11,4	20,000	85	0	0
EC-BN05	10 años-24 horas-10	2,526	1,1000	19,5	15	20,000	85,0	0	0
EC-BN05	10 años-24 horas-90	2,743	24,00	19,5	15	20,000	85	0	0
EC-BN05	10 años-6 horas-10	3,529	0,9333	12,9	8,8	20,000	85,0	0	0.00
EC-BN05	10 años-6 horas-90	2,678	6,000	12,9	8,8	20,000	85,0	0	0
EC-BN05	25 años-12 horas-10	3,981	1,0667	20,1	15,6	20,000	85,0	0	0
EC-BN05	25 años-12 horas-90	3,379	12,0167	20,1	15,6	20,000	85,0	0	0
EC-BN05	25 años-24 horas-	3,641	1,0833	25,7	21,1	20,000	85,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BN05	25 años-24 horas-90	3,674	24,0000	25,7	21,1	20,000	85	0	0
EC-BN05	25 años-6 horas-10	4,498	0,9000	15,5	11,2	20,000	85,0	0	0
EC-BN05	25 años-6 horas-90	3,294	6,000	15.5	11,2	20,000	85,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN05 [cm]	100 años-12 horas-10	27,7	0,0	23,0	0	0	0	4,7
EC-BN05 [m3]	100 años-12 horas-10	55400	0	46032	0	0	0	9368
EC-BN05 [ha-m]	100 años-12 horas-10	5,54	0,00	4,60	0	0	0	0,94
EC-BN05 [cm]	100 años-12 horas-90	27,7	0,0	23,0	0	0	0	4,7
EC-BN05 [m3]	100 años-12 horas-90	55400	0	46032	0	0	0	9368
EC-BN05 [ha-m]	100 años-12 horas-90	5,54	0,00	4,60	0,00	0	0,00	0,94
EC-BN05 [cm]	100 años-24 horas-10	36,7	0	31,9	0	0	0	4,8
EC-BN05 [m3]	100 años-24 horas-10	73400	0	63786	0	0	0	9614
EC-BN05 [ha-m]	100 años-24 horas-10	7,34	0,00	6,38	0	0	0	0,96
EC-BN05 [cm]	100 años-24 horas-90	36,7	0	31,9	0	0	0	4,8
EC-BN05 [m3]	100 años-24 horas-90	73400	0	63 786	0	0	0	9614
EC-BN05 [ha-m]	100 años-24 horas-90	7,34	0,00	6,38	0	0	0	0,96
EC-BN05 [cm]	100 años-6 horas-10	19,7	0	15,2	0	0	0	4,5
EC-BN05 [m3]	100 años-6 horas-10	39400	0	30438	0	0	0	8962
EC-BN05 [ha-m]	100 años-6 horas-10	3,94	0	3,04	0	0.00	0,00	0,90
EC-BN05 [cm]	100 años-6 horas-90	19,7	0	15,2	0	0	0	4,5
EC-BN05	100 años-6 horas-9	39400	0	30438	0	0	0	8962

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN05 [ha-m]	100 años-6 horas-90	3,94	0	3,04	0	0	0	0,90
EC-BN05 [cm]	10 años-12 horas-10	15,7	0	11,4	0	0	0,0	4,3
EC-BN05 [m3]	10 años-12 horas-10	31400	0	22778	0	0	0	8622
EC-BN05 [ha-m]	10 años-12 horas-10	3,14	0	2,28	0	0	0	0,86
EC-BN05 [cm]	10 años-12 horas-90	15,7	0	11,4	0	0	0	4.3
EC-BN05 [m3]	10 años-12 horas-90	31400	0	22778	0	0	0	8622
EC-BN05 [ha-m]	10 años-12 horas-90	3,14	0	2,28	0	0	0	0,86
EC-BN05 [cm]	10 años-24 horas-10	19,5	0	15	0	0	0	4,5
EC-BN05 [m3]	10 años-24 horas-10	39000	0	30052	0	0	0	8948
EC-BN05 [ha-m]	10 años-24 horas-10	3,90	0	3,01	0	0	0	0,89
EC-BN05 [cm]	10 años-24 horas-90	19,5	0	15	0	0	0	4,5
EC-BN05 [m3]	10 años-24 horas-90	39000	0	30052	0	0	0	8948
EC-BN05 [ha-m]	10 años-24 horas-90	3,90	0	3,01	0	0	0	0,89
EC-BN05 [cm]	10 años-6 horas-10 %	12,9	0	8,8	0	0	0.0	4.1
EC-BN05 [m3]	10 años-6 horas-10 %	25800	0	17520	0	0	0	8280
EC-BN05 [ha-m]	10 años-6 horas-10 %	2,58	0	1,75	0,00	0	0	0,83
EC-BN05 [cm]	10 años-6 horas-90	12,9	0	8,8	0	0	0.0	4.1
EC-BN05 [m3]	10 años-6 horas-90 %	25800	0	17520	0	0	0	8280
EC-BN05 [ha-m]	10 años-6 horas-90 %	2,58	0	1,75	0,00	0	0	0,83
EC-BN05 [cm]	25 años-12 horas-10	20,1	0	15,6	0	0	0	4,5
EC-BN05 [m3]	25 años-12 horas-10	40200	0	31210	0	0	0	8990
EC-BN05 [ha-m]	25 años-12 horas-10	4,02	0	3,12	0	0	0	0,90
EC-BN05 [cm]	25 años-12 horas-90	20,1	0	15,6	0	0.0	0.0	4.5
EC-BN05	25 años-12 horas-90	40200	0	31210	0	0	0	8990

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN05	25 años-12 horas-9	4,02	0	3,12	0	0	0	0,90
[ha-m]	0							
EC-BN05	25 años-24 horas-1	25,7	0	21,1	0	0	0	4,6
[cm]	0							
EC-BN05	25 años-24 horas-1	51400	0	42111	0	0	0	9289
[m3]	0							
EC-BN05	25 años-24 horas-1	5,14	0,00	4,21	0	0	0	0,93
[ha-m]	0							
EC-BN05	25 años-24 horas-9	25,7	0	21,1	0	0	0	4,6
[cm]	0							
EC-BN05	25 años-24 horas-9	51400	0	42111	0	0	0	9289
[m3]	0							
EC-BN05	25 años-24 horas-9	5,14	0,00	4,21	0	0	0	0,93
[ha-m]	0							
EC-BN05	25 años-6 horas-10	15,5	0	11,2	0	0	0.0	4,3
[cm]	%							
EC-BN05	25 años-6 horas-10	31000	0	22399	0	0	0	8601
[m3]	%							
EC-BN05	25 años-6 horas-10	3,10	0	2,24	0	0	0	0,86
[ha-m]	%							
EC-BN05	25 años-6 horas-90	15,5	0	11,2	0	0	0	4,3
[cm]	%							
EC-BN05	25 años-6 horas-90	31000	0	22399	0	0	0	8601
[m3]	%							
EC-BN05	25 años-6 horas-90	3,10	0	2,24	0	0	0	0,86
[ha-m]	%							

Lavabo simple: EC-BN06

Escenario: 38701-EC

Nodo: EC-N06

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 16,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 23.3000 ha

Número de curva: 87.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN06	100 años-12 hr-10 %	7,188	0,8500	27,7	23,6	23,3000	87,0	0	0
EC-BN06	100 años-12 hr-90 %	5,569	12,0167	27,7	23,6	23,3000	87,0	0	0
EC-BN06	100 años-24 hr-10 %	6,741	1,0500	36,7	32,6	23,3000	87,0	0	0
EC-BN06	100 años-24 hr-90 %	6,216	24,0000	36,7	32,6	23,3000	87	0	0
EC-BN06	100 años-6 horas-10	7,383	0,8000	19,7	15,8	23,3000	87,0	0	0
EC-BN06	100 años-6 horas-90	5,043	6,0000	19,7	15,8	23,3000	87	0	0
EC-BN06	10 años-12 horas-10	3,548	1,0667	15,7	11,9	23,3000	87,0	0	0
EC-BN06	10 años-12 horas-90	3,064	12,0167	15,7	11,9	23,3000	87,0	0	0
EC-BN06	10 años-24 horas-10	3,125	1,0833	19,5	15,6	23,3000	87,0	0	0
EC-BN06	10 años-24 horas-90	3,232	24,00	19,5	15,6	23,3000	87,0	0	0
EC-BN06	10 años-6 horas-10	4,349	0,8833	12,9	9,3	23,3000	87,0	0	0
EC-BN06	10 años-6 horas-90	3,188	6,0000	12,9	9,3	23,3000	87,0	0	0
EC-BN06	25 años-12 horas-10	4,852	0,8833	20,1	16,2	23,3000	87,0	0	0
EC-BN06	25 años-12 horas-90	3,988	12,0167	20,1	16,2	23,3000	87,0	0	0
EC-BN06	25 años-24 horas-10	4,429	1,0667	25,7	21,7	23,3000	87,0	0	0
EC-BN06	25 años-24 horas-90	4,312	24,00	25,7	21,7	23,3000	87	0	0
EC-BN06	25 años-6 horas-10	5,496	0,8500	15,5	11,7	23,3000	87,0	0	0
EC-BN06	25 años-6 horas-90	3,901	6,0000	15,5	11,7	23,3000	87,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total	Total	Escorrentía total	ET total	Total inicial	Total	Cambio en el suelo

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN06 [cm]	100 años-12 horas-10	27,7	0,0	23,6	0	0	0	4,1
EC-BN06 [m3]	100 años-12 horas-10	64541	0	55093	0	0	0	9448
EC-BN06 [ha-m]	100 años-12 horas-10	6,45	0,00	5,51	0	0	0	0,94
EC-BN06 [cm]	100 años-12 horas-90	27,7	0,0	23,6	0	0	0	4,1
EC-BN06 [m3]	100 años-12 horas-90	64541	0	55093	0	0	0	9448
EC-BN06 [ha-m]	100 años-12 horas-90	6,45	0,00	5,51	0,00	0	0	0,94
EC-BN06 [cm]	100 años-24 horas-10	36,7	0	32,6	0	0	0	4,1
EC-BN06 [m3]	100 años-24 horas-10	85511	0	75842	0	0	0	9669
EC-BN06 [ha-m]	100 años-24 horas-10	8,55	0,00	7,58	0,00	0	0	0,97
EC-BN06 [cm]	100 años-24 horas-90	36,7	0	32,6	0	0	0	4,1
EC-BN06 [m3]	100 años-24 horas-90	85511	0	75842	0	0	0	9669
EC-BN06 [ha-m]	100 años-24 horas-90	8,55	0,00	7,58	0,00	0	0	0,97
EC-BN06 [cm]	100 años-6 horas-10	19,7	0	15,8	0	0	0	3,9
EC-BN06 [m3]	100 años-6 horas-10	45901	0	36813	0	0	0	9088
EC-BN06 [ha-m]	100 años-6 horas-10	4,59	0	3,68	0	0	0	0,91
EC-BN06 [cm]	100 años-6 horas-90	19,7	0	15,8	0	0	0.0	3.9
EC-BN06 [m3]	100 años-6 horas-90	45901	0	36813	0	0	0	9088
EC-BN06 [ha-m]	100 años-6 horas-90	4,59	0	3,68	0	0	0	0,91
EC-BN06 [cm]	10 años-12 horas-10	15,7	0	11,9	0	0	0	3,8
EC-BN06 [m3]	10 años-12 horas-10	36581	0	27797	0	0	0	8784
EC-BN06 [ha-m]	10 años-12 horas-10	3,66	0	2,78	0	0	0	0,88
EC-BN06 [cm]	10 años-12 horas-90	15,7	0	11,9	0	0	0	3,8
EC-BN06 [m3]	10 años-12 horas-90	36581	0	27797	0	0	0	8784
EC-BN06 [ha-m]	10 años-12 horas-90	3,66	0	2,78	0	0	0	0,88

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN06 [cm]	10 años-24 horas-10	19,5	0	15,6	0	0	0	3,9
EC-BN06 [m3]	10 años-24 horas-10	45435	0	36360	0	0	0	9075
EC-BN06 [ha-m]	10 años-24 horas-10	4,54	0	3,64	0	0	0	0,91
EC-BN06 [cm]	10 años-24 horas-90	19,5	0	15,6	0	0	0	3,9
EC-BN06 [m3]	10 años-24 horas-90	45435	0	36360	0	0	0	9075
EC-BN06 [ha-m]	10 años-24 horas-90	4,54	0	3,64	0	0	0	0,91
EC-BN06 [cm]	10 años-6 horas-10 %	12,9	0	9,3	0	0	0	3,6
EC-BN06 [m3]	10 años-6 horas-10 %	30057	0	21579	0	0	0	8478
EC-BN06 [ha-m]	10 años-6 horas-10 %	3,01	0	2,16	0,00	0	0	0,85
EC-BN06 [cm]	10 años-6 horas-90 %	12,9	0	9,3	0	0	0	3,6
EC-BN06 [m3]	10 años-6 horas-90 %	30057	0	21579	0	0	0	8478
EC-BN06 [ha-m]	10 años-6 horas-90 %	3,01	0	2,16	0,00	0	0	0,85
EC-BN06 [cm]	25 años-12 horas-10	20,1	0	16,2	0	0	0	3,9
EC-BN06 [m3]	25 años-12 horas-10	46833	0	37721	0	0	0	9112
EC-BN06 [ha-m]	25 años-12 horas-10	4,68	0	3,77	0	0	0	0,91
EC-BN06 [cm]	25 años-12 horas-90	20,1	0	16,2	0	0	0	3,9
EC-BN06 [m3]	25 años-12 horas-90	46833	0	37721	0	0	0	9112
EC-BN06 [ha-m]	25 años-12 horas-90	4,68	0	3,77	0	0	0	0,91
EC-BN06 [cm]	25 años-24 horas-10	25,7	0	21,7	0	0	0	4
EC-BN06 [m3]	25 años-24 horas-10	59881	0	50503	0	0	0	9378
EC-BN06 [ha-m]	25 años-24 horas-10	5,99	0	5,05	0	0	0	0,94
EC-BN06 [cm]	25 años-24 horas-90	25,7	0	21,7	0	0	0	4
EC-BN06 [m3]	25 años-24 horas-90	59881	0	50503	0	0	0	9378
EC-BN06 [ha-m]	25 años-24 horas-90	5,99	0	5,05	0	0	0	0,94

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Resumen	Total Recarga	Cambiar tierra Almacenamiento
EC-BN06 [cm]	25 años-6 horas-10 %	15,5	0	11,7	0	0	0	3,8
EC-BN06 [m3]	25 años-6 horas-10 %	36115	0	27349	0	0	0	8766
EC-BN06 [ha-m]	25 años-6 horas-10 %	3,61	0.00	2,73	0	0	0	0,88
EC-BN06 [cm]	25 años-6 horas-90 %	15,5	0	11,7	0	0	0	3,8
EC-BN06 [m3]	25 años-6 horas-90 %	36115	0	27349	0	0	0	8766
EC-BN06 [ha-m]	25 años-6 horas-90 %	3,61	0,00	2,73	0	0	0	0,88

Lavabo simple: EC-BN07

Escenario: 38701-EC

Nodo: EC-N07

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 16,0000 min Q máximo permitido: 0,000 cms

Desfase temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 17.0000 ha

Número de curva: 86.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Equivalente Número de curva	% Impermeable	% DCIA
EC-BN07	100 años-12 h r-10 %	5,157	0,8500	27,7	23,3	17,0000	86,0	0	0
EC-BN07	100 años-12 h r-90 %	4,052	12,0167	27,7	23,3	17,000	86,0	0	0
EC-BN07	100 años-24 h r-10 %	4,856	1,0500	36,7	32,2	17,0000	86,0	0	0
EC-BN07	100 años-24 horas	4,527	24,0000	36,7	32,2	17,000	86,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	r-90 %								
EC-BN07	100 años-6 horas-10	5,287	0,8167	19,7	15,5	17,0000	86,0	0	0
EC-BN07	100 años-6 horas-90	3,660	6,000	19,7	15,5	17,000	86,0	0	0
EC-BN07	10 años-12 horas-10	2,526	1,0833	15,7	11,7	17,000	86,0	0	0
EC-BN07	10 años-12 horas-90	2,219	12,0167	15,7	11,7	17,000	86,0	0	0
EC-BN07	10 años-24 horas-10	2,217	1,0833	19,5	15,3	17,000	86,0	0	0
EC-BN07	10 años-24 horas-90	2,346	24,0000	19,5	15,3	17,000	86,0	0	0
EC-BN07	10 años-6 horas-10	3,090	0,9000	12,9	9,0	17,000	86,0	0	0
EC-BN07	10 años-6 horas-90	2,302	6,000	12,9	9	17,000	86,0	0	0
EC-BN07	25 años-12 horas-10	3,457	0,9000	20,1	15,9	17,0000	86,0	0	0
EC-BN07	25 años-12 horas-90	2,895	12,0167	20,1	15,9	17,0000	86,0	0	0
EC-BN07	25 años-24 horas-10	3,167	1,0667	25,7	21,4	17,0000	86,0	0	0
EC-BN07	25 años-24 horas-90	3,136	24,0000	25,7	21,4	17,000	86,0	0	0
EC-BN07	25 años-6 horas-10	3,920	0,8667	15,5	11,5	17,000	86,0	0	0
EC-BN07	25 años-6 horas-90	2,824	6,0000	15,5	11,5	17,000	86,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN07 [cm]	100 años-12 horas-10	27,7	0,0	23,3	0	0	0	4,4
EC-BN07 [m3]	100 años-12 horas-10	47090	0	39644	0	0	0	7446
EC-BN07 [ha-m]	100 años-12 horas-10	4,71	0,00	3,96	0	0	0	0,74
EC-BN07 [cm]	100 años-12 horas-90	27,7	0,0	23,3	0	0	0	4,4
EC-BN07 [m3]	100 años-12 horas-90	47090	0	39644	0	0	0	7446
EC-BN07	100 años-12 horas-	4,71	0,00	3,96	0	0,00	0	0,74

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	90							
EC-BN07 [cm]	100 años-24 horas-10	36,7	0	32,2	0	0	0	4,5
EC-BN07 [m3]	100 años-24 horas-10	62390	0	54752	0	0	0	7638
EC-BN07 [ha-m]	100 años-24 horas-10	6,24	0,00	5,48	0	0	0	0,76
EC-BN07 [cm]	100 años-24 horas-90	36,7	0	32,2	0	0	0	4,5
EC-BN07 [m3]	100 años-24 horas-90	62390	0	54752	0	0	0	7638
EC-BN07 [ha-m]	100 años-24 horas-90	6,24	0,00	5,48	0	0	0	0,76
EC-BN07 [cm]	100 años-6 horas-10	19,7	0	15,5	0	0	0	4,2
EC-BN07 [m3]	100 años-6 horas-10 %	33490	0	26352	0	0	0	7138
EC-BN07 [ha-m]	100 años-6 horas-10	3,35	0	2,64	0	0	0	0,71
EC-BN07 [cm]	100 años-6 horas-90	19,7	0	15,5	0	0	0	4,2
EC-BN07 [m3]	100 años-6 horas-90	33490	0	26352	0	0	0	7138
EC-BN07 [ha-m]	100 años-6 horas-90	3,35	0	2,64	0	0	0	0,71
EC-BN07 [cm]	10 años-12 horas-10	15,7	0	11,7	0	0	0	4
EC-BN07 [m3]	10 años-12 horas-10	26690	0	19810	0	0	0	6880
EC-BN07 [ha-m]	10 años-12 horas-10	2,67	0	1,98	0	0	0	0,69
EC-BN07 [cm]	10 años-12 horas-90	15,7	0	11,7	0	0	0	4
EC-BN07 [m3]	10 años-12 horas-90	26690	0	19810	0	0	0	6880
EC-BN07 [ha-m]	10 años-12 horas-90	2,67	0	1,98	0	0	0	0,69
EC-BN07 [cm]	10 años-24 horas-10	19,5	0	15,3	0	0	0	4,2
EC-BN07 [m3]	10 años-24 horas-10	33150	0	26023	0	0	0	7127
EC-BN07 [ha-m]	10 años-24 horas-10	3,32	0	2,60	0	0	0	0,71
EC-BN07 [cm]	10 años-24 horas-90	19,5	0	15,3	0	0	0	4,2
EC-BN07 [m3]	10 años-24 horas-90	33150	0	26023	0	0	0	7127
EC-BN07	10 años-24 horas-9	3,32	0,00	2,60	0	0	0	0,71

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Total de escorrentía	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN07 [cm]	10 años-6 horas-10 %	12,9	0	9,0	0	0	0.0	3.9
EC-BN07 [m3]	10 años-6 horas-10 %	21930	0	15308	0	0	0	6622
EC-BN07 [ha-m]	10 años-6 horas-10 %	2,19	0	1,53	0,00	0	0	0,66
EC-BN07 [cm]	10 años-6 horas-90	12,9	0	9,0	0	0	0.0	3.9
EC-BN07 [m3]	10 años-6 horas-90 %	21930	0	15308	0	0	0	6622
EC-BN07 [ha-m]	10 años-6 horas-90 %	2,19	0	1,53	0	0	0	0,66
EC-BN07 [cm]	25 años-12 horas-10	20,1	0	15,9	0	0	0	4,2
EC-BN07 [m3]	25 años-12 horas-10	34170	0	27012	0	0	0	7158
EC-BN07 [ha-m]	25 años-12 horas-10	3,42	0	2,70	0	0	0	0,72
EC-BN07 [cm]	25 años-12 horas-90	20,1	0	15,9	0	0	0	4,2
EC-BN07 [m3]	25 años-12 horas-90	34170	0	27012	0	0	0	7158
EC-BN07 [ha-m]	25 años-12 horas-90	3,42	0	2,70	0	0	0	0,72
EC-BN07 [cm]	25 años-24 horas-10	25,7	0	21,4	0	0	0	4,3
EC-BN07 [m3]	25 años-24 horas-10	43690	0	36304	0	0	0	7386
EC-BN07 [ha-m]	25 años-24 horas-10	4,37	0	3,63	0	0	0	0,74
EC-BN07 [cm]	25 años-24 horas-90	25,7	0	21,4	0	0	0	4,3
EC-BN07 [m3]	25 años-24 horas-90	43690	0	36304	0	0	0	7386
EC-BN07 [ha-m]	25 años-24 horas-90	4,37	0	3,63	0	0	0	0,74
EC-BN07 [cm]	25 años-6 horas-10 %	15,5	0	11,5	0	0	0	4
EC-BN07 [m3]	25 años-6 horas-10 %	26350	0	19486	0	0	0	6864
EC-BN07 [ha-m]	25 años-6 horas-10 %	2,64	0.00	1,95	0	0	0	0,69
EC-BN07 [cm]	25 años-6 horas-90 %	15,5	0	11,5	0	0	0	4
EC-BN07 [m3]	25 años-6 horas-90 %	26350	0	19486	0	0	0	6864
EC-BN07	25 años-6 horas-90	2,64	0,00	1,95	0	0	0	0,69

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambiar la tierra Almacenamiento
[ha-m]	%							

Cuenca simple: EC-BN08

Escenario: 38701-EC

Nodo: EC-N08

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 14,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 16.5000 ha

Número de curva: 84.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN08	100 años-12 h r-10 %	4,861	0,8333	27,7	22,7	16,5000	84,0	0.00	0
EC-BN08	100 años-12 h r-90 %	3,930	12,0000	27,7	22,7	16,5000	84,0	0	0
EC-BN08	100 años-24 h r-10 %	4,605	1,0500	36,7	31,5	16,5000	84,0	0	0
EC-BN08	100 años-24 h r-90 %	4,386	24,00	36,7	31,5	16,5000	84,0	0	0
EC-BN08	100 años-6 horas-10	4,973	0,8000	19,7	14,9	16,5000	84,0	0	0
EC-BN08	100 años-6 horas-90	3,515	6,0000	19,7	14,9	16,5000	84,0	0	0
EC-BN08	10 años-12 horas-10	2,339	1,0667	15,7	11,1	16,5000	84,0	0	0
EC-BN08	10 años-12 horas-90	2,133	12,0167	15,7	11,1	16,5000	84	0	0
EC-BN08	10 años-24 horas-10	2,045	1,0833	19,5	14,7	16,5000	84,0	0	0

Nombre de la cuenca	Nombre de la simulación	Caudal máximo [cms]	Tiempo hasta alcanzar el flujo máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN08	10 años-24 horas-90	2,257	24,0000	19,5	14,7	16,5000	84,0	0	0
EC-BN08	10 años-6 horas-10	2,857	0,9000	12,9	8,5	16,5000	84,0	0	0
EC-BN08	10 años-6 horas-90	2,190	6,000	12,9	8,5	16,5000	84,0	0	0
EC-BN08	25 años-12 horas-10	3,228	1,0500	20,1	15,3	16,5000	84,0	0	0
EC-BN08	25 años-12 horas-90	2,796	12,0167	20,1	15,3	16,5000	84,0	0	0
EC-BN08	25 años-24 horas-10	2,965	1,0667	25,7	20,7	16,5000	84,0	0	0
EC-BN08	25 años-24 horas-90	3,029	24,0000	25,7	20,7	16,5000	84,0	0.00	0,00
EC-BN08	25 años-6 horas-10	3,653	0,8667	15,5	10,9	16,5000	84,0	0	0
EC-BN08	25 años-6 horas-90	2,699	6,000	15,5	10,9	16,5000	84,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN08 [cm]	100 años-12 horas-10	27,7	0,0	22,7	0	0	0	5
EC-BN08 [m3]	100 años-12 horas-10	45705	0	37390	0	0	0	8315
EC-BN08 [ha-m]	100 años-12 horas-10	4,57	0,00	3,74	0	0	0	0,83
EC-BN08 [cm]	100 años-12 horas-90	27,7	0,0	22,7	0	0	0	5
EC-BN08 [m3]	100 años-12 horas-90	45705	0	37390	0	0	0	8315
EC-BN08 [ha-m]	100 años-12 horas-90	4,57	0,00	3,74	0,00	0	0	0,83
EC-BN08 [cm]	100 años-24 horas-10	36,7	0	31,5	0	0	0	5,2
EC-BN08 [m3]	100 años-24 horas-10	60555	0	51985	0	0	0	8570
EC-BN08 [ha-m]	100 años-24 horas-10	6,06	0,00	5,20	0	0	0	0,86
EC-BN08 [cm]	100 años-24 horas-90	36,7	0	31,5	0	0	0	5,2
EC-BN08 [m3]	100 años-24 horas-90	60555	0	51985	0	0	0	8570

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN08 [ha-m]	100 años-24 horas-90 %	6,06	0,00	5,20	0,00	0	0	0,86
EC-BN08 [cm]	100 años-6 horas-10	19,7	0	14,9	0	0	0	4,8
EC-BN08 [m3]	100 años-6 horas-10	32505	0	24591	0	0	0	7914
EC-BN08 [ha-m]	100 años-6 horas-10	3,25	0	2,46	0	0	0	0,79
EC-BN08 [cm]	100 años-6 horas-90	19,7	0	14,9	0	0	0	4,8
EC-BN08 [m3]	100 años-6 horas-90	32505	0	24591	0	0	0	7914
EC-BN08 [ha-m]	100 años-6 horas-90	3,25	0	2,46	0	0	0	0,79
EC-BN08 [cm]	10 años-12 horas-10	15,7	0	11,1	0	0	0	4,6
EC-BN08 [m3]	10 años-12 horas-10	25905	0	18319	0	0	0	7586
EC-BN08 [ha-m]	10 años-12 horas-10	2,59	0	1,83	0	0	0	0,76
EC-BN08 [cm]	10 años-12 horas-90	15,7	0	11,1	0	0	0.0	4,6
EC-BN08 [m3]	10 años-12 horas-90	25905	0	18319	0	0	0	7586
EC-BN08 [ha-m]	10 años-12 horas-90	2,59	0	1,83	0	0	0	0,76
EC-BN08 [cm]	10 años-24 horas-10	19,5	0	14,7	0	0	0	4,8
EC-BN08 [m3]	10 años-24 horas-10	32175	0	24275	0	0	0	7900
EC-BN08 [ha-m]	10 años-24 horas-10	3,22	0	2,43	0	0	0	0,79
EC-BN08 [cm]	10 años-24 horas-90	19,5	0	14,7	0	0	0	4,8
EC-BN08 [m3]	10 años-24 horas-90	32175	0	24275	0	0	0	7900
EC-BN08 [ha-m]	10 años-24 horas-90	3,22	0	2,43	0	0	0	0,79
EC-BN08 [cm]	10 años-6 horas-10 %	12,9	0	8,5	0	0	0.0	4.4
EC-BN08 [m3]	10 años-6 horas-10 %	21285	0	14024	0	0	0	7261
EC-BN08 [ha-m]	10 años-6 horas-10 %	2,13	0	1,40	0,00	0	0	0,73
EC-BN08 [cm]	10 años-6 horas-90	12,9	0	8,5	0	0	0.0	4.4
EC-BN08 [m3]	10 años-6 horas-90 %	21285	0	14024	0	0	0	7261

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN08 [ha-m]	10 años-6 horas-90 %	2,13	0	1,40	0.00	0	0	0,73
EC-BN08 [cm]	25 años-12 horas-10	20,1	0	15,3	0	0	0	4,8
EC-BN08 [m3]	25 años-12 horas-10	33165	0	25224	0	0	0	7941
EC-BN08 [ha-m]	25 años-12 horas-10	3,32	0	2,52	0	0	0	0,79
EC-BN08 [cm]	25 años-12 horas-90	20,1	0	15,3	0	0	0	4,8
EC-BN08 [m3]	25 años-12 horas-90	33165	0	25224	0	0	0	7941
EC-BN08 [ha-m]	25 años-12 horas-90	3,32	0	2,52	0	0	0	0,79
EC-BN08 [cm]	25 años-24 horas-10	25,7	0	20,7	0	0	0	5
EC-BN08 [m3]	25 años-24 horas-10	42405	0	34169	0	0	0	8236
EC-BN08 [ha-m]	25 años-24 horas-10	4.24	0.00	3,42	0	0	0	0,82
EC-BN08 [cm]	25 años-24 horas-90	25,7	0	20,7	0	0	0	5
EC-BN08 [m3]	25 años-24 horas-90	42405	0	34169	0	0	0	8236
EC-BN08 [ha-m]	25 años-24 horas-90	4,24	0	3,42	0	0	0	0,82
EC-BN08 [cm]	25 años-6 horas-10 %	15,5	0	10,9	0	0	0,0	4,6
EC-BN08 [m3]	25 años-6 horas-10 %	25575	0	18009	0	0	0	7566
EC-BN08 [ha-m]	25 años-6 horas-10 %	2,56	0,00	1,80	0,00	0	0	0,76
EC-BN08 [cm]	25 años-6 horas-90 %	15,5	0	10,9	0	0	0	4,6
EC-BN08 [m3]	25 años-6 horas-90 %	25575	0	18009	0	0	0	7566
EC-BN08 [ha-m]	25 años-6 horas-90 %	2,56	0,00	1,80	0	0	0	0,76

Lavabo simple: EC-BN09

Escenario: 38701-EC

Nodo: EC-N09

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min

Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Área:	5,5000 ha
Número de curva:	89,0
% Impermeable:	0
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BN09	100 años-12 hr-10 %	1,793	0,5333	27,7	24,3	5,5000	89,0	0	0
EC-BN09	100 años-12 hr-90 %	1,349	12,0000	27,7	24,3	5,5000	89,0	0	0
EC-BN09	100 años-24 hr-10 %	1,721	0,5167	36,7	33,2	5,5000	89,0	0	0
EC-BN09	100 años-24 hr-90 %	1,477	24,0000	36,7	33,2	5,500	89,0	0	0
EC-BN09	100 años-6 horas-10	1,850	0,6833	19,7	16,4	5,5000	89,0	0	0
EC-BN09	100 años-6 horas-90	1,205	5,8500	19,7	16,4	5,5000	89,0	0	0
EC-BN09	10 años-12 horas-10	0,909	0,7667	15,7	12,5	5,5000	89,0	0	0
EC-BN09	10 años-12 horas-90	0,749	12,0000	15,7	12,5	5,5000	89	0	0
EC-BN09	10 años-24 horas-10	0,798	1,000	19.5	16,2	5,5000	89,0	0	0
EC-BN09	10 años-24 horas-90	0,773	24,00	19,5	16,2	5,5000	89	0	0
EC-BN09	10 años-6 horas-10	1,117	0,6833	12,9	9,8	5,5000	89,0	0	0
EC-BN09	10 años-6 horas-90	0,769	6,0000	12,9	9,8	5,5000	89,0	0	0
EC-BN09	25 años-12 horas-10	1,229	0,7667	20,1	16,8	5,5000	89,0	0	0
EC-BN09	25 años-12 horas-90	0,970	12,0000	20,1	16,8	5,5000	89	0	0
EC-BN09	25 años-24 horas-10	1,106	1,0000	25,7	22,3	5,5000	89,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN09	25 años-24 horas-90 %	1,028	24,0000	25,7	22,3	5,5000	89,0	0	0
EC-BN09	25 años-6 horas-10	1,398	0,6833	15,5	12,3	5,5000	89,0	0	0
EC-BN09	25 años-6 horas-90	0,937	5,8667	15,5	12,3	5,5000	89,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN09 [cm]	100 años-12 horas-10	27,7	0,0	24,3	0	0	0	3,4
EC-BN09 [m3]	100 años-12 horas-10	15235	0	13344	0	0	0	1891
EC-BN09 [ha-m]	100 años-12 horas-10	1,52	0,00	1,33	0	0	0	0,19
EC-BN09 [cm]	100 años-12 horas-90 %	27,7	0,0	24,3	0	0	0	3,4
EC-BN09 [m3]	100 años-12 horas-90	15235	0	13344	0	0	0	1891
EC-BN09 [ha-m]	100 años-12 horas-90	1,52	0,00	1,33	0,00	0	0	0,19
EC-BN09 [cm]	100 años-24 horas-10	36,7	0	33,2	0	0	0	3,5
EC-BN09 [m3]	100 años-24 horas-10	20185	0	18253	0	0	0	1932
EC-BN09 [ha-m]	100 años-24 horas-10	2,02	0,00	1,83	0	0	0	0,19
EC-BN09 [cm]	100 años-24 horas-90	36,7	0	33,2	0	0	0	3,5
EC-BN09 [m3]	100 años-24 horas-90	20185	0	18253	0	0	0	1932
EC-BN09 [ha-m]	100 años-24 horas-90	2,02	0,00	1,83	0,00	0	0	0,19
EC-BN09 [cm]	100 años-6 horas-10	19,7	0	16,4	0	0	0	3,3
EC-BN09 [m3]	100 años-6 horas-10	10835	0	9008	0	0	0	1827
EC-BN09 [ha-m]	100 años-6 horas-10	1,08	0	0,90	0	0	0	0,18
EC-BN09 [cm]	100 años-6 horas-90	19,7	0	16,4	0	0	0	3,3
EC-BN09 [m3]	100 años-6 horas-90	10835	0	9008	0	0	0	1827

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN09 [ha-m]	100 años-6 horas-90	1,08	0	0,90	0	0	0	0,18
EC-BN09 [cm]	10 años-12 horas-10	15,7	0	12,5	0	0	0	3,2
EC-BN09 [m3]	10 años-12 horas-10	8635	0	6861	0	0	0	1774
EC-BN09 [ha-m]	10 años-12 horas-10	0,86	0	0,69	0	0	0	0,18
EC-BN09 [cm]	10 años-12 horas-90	15,7	0	12,5	0	0	0	3,2
EC-BN09 [m3]	10 años-12 horas-90	8635	0	6861	0	0	0	1774
EC-BN09 [ha-m]	10 años-12 horas-90	0,86	0	0,69	0	0	0	0,18
EC-BN09 [cm]	10 años-24 horas-10	19,5	0	16,2	0	0	0	3,3
EC-BN09 [m3]	10 años-24 horas-10	10725	0	8900	0	0	0	1825
EC-BN09 [ha-m]	10 años-24 horas-10	1,07	0	0,89	0	0	0	0,18
EC-BN09 [cm]	10 años-24 horas-90	19,5	0	16,2	0	0	0.0	3.3
EC-BN09 [m3]	10 años-24 horas-90	10725	0	8900	0	0	0	1825
EC-BN09 [ha-m]	10 años-24 horas-90	1,07	0	0,89	0	0	0	0,18
EC-BN09 [cm]	10 años-6 horas-10 %	12,9	0	9,8	0	0	0.0	3,1
EC-BN09 [m3]	10 años-6 horas-10 %	7095	0	5375	0	0	0	1720
EC-BN09 [ha-m]	10 años-6 horas-10 %	0,71	0	0,54	0,00	0	0	0,17
EC-BN09 [cm]	10 años-6 horas-90 %	12,9	0	9,8	0	0	0	3,1
EC-BN09 [m3]	10 años-6 horas-90 %	7095	0	5375	0	0	0	1720
EC-BN09 [ha-m]	10 años-6 horas-90 %	0,71	0	0,54	0	0	0	0,17
EC-BN09 [cm]	25 años-12 horas-10	20,1	0	16,8	0.0	0.0	0.0	3.3
EC-BN09 [m3]	25 años-12 horas-10	11055	0	9223	0	0	0	1832
EC-BN09 [ha-m]	25 años-12 horas-10	1,11	0	0,92	0	0	0	0,18
EC-BN09 [cm]	25 años-12 horas-90	20,1	0	16,8	0	0	0	3,3
EC-BN09 [m3]	25 años-12 horas-90	11055	0	9223	0	0	0	1832

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN09 [ha-m]	25 años-12 horas-9 0	1,11	0	0,92	0	0	0.00	0,18
EC-BN09 [cm]	25 años-24 horas-1 0	25,7	0	22,3	0	0	0	3,4
EC-BN09 [m3]	25 años-24 horas-1 0	14135	0	12256	0	0	0	1879
EC-BN09 [ha-m]	25 años-24 horas-1 0	1,41	0	1,23	0	0	0	0,19
EC-BN09 [cm]	25 años-24 horas-9 0	25,7	0	22,3	0	0	0	3,4
EC-BN09 [m3]	25 años-24 horas-9 0	14135	0	12256	0	0	0	1879
EC-BN09 [ha-m]	25 años-24 horas-9 0	1,41	0	1,23	0	0	0	0,19
EC-BN09 [cm]	25 años-6 horas-10 %	15,5	0	12,3	0	0	0	3,2
EC-BN09 [m3]	25 años-6 horas-10 %	8525	0	6755	0	0	0	1770
EC-BN09 [ha-m]	25 años-6 horas-10 %	0,85	0	0,68	0	0	0	0,18
EC-BN09 [cm]	25 años-6 horas-90 %	15,5	0	12,3	0	0	0	3,2
EC-BN09 [m3]	25 años-6 horas-90 %	8525	0	6755	0	0	0	1770
EC-BN09 [ha-m]	25 años-6 horas-90 %	0,85	0	0,68	0	0	0	0,18

Lavabo simple: EC-BN10

Escenario: 38701-EC

Nodo: EC-N10

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 9,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 5.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN10	100 años-12 h r-10 %	1,673	0,8000	27,7	22,3	5,7000	83,0	0	0
EC-BN10	100 años-12 h r-90 %	1,371	12,0000	27,7	22,3	5,7000	83,0	0	0
EC-BN10	100 años-24 h r-10 %	1,587	1,0167	36,7	31,2	5,7000	83,0	0	0
EC-BN10	100 años-24 h r-90 %	1,516	24,00	36,7	31,2	5,7000	83,0	0	0
EC-BN10	100 años-6 horas-10	1,715	0,7167	19,7	14,6	5,7000	83,0	0	0
EC-BN10	100 años-6 horas-90	1,209	6,0000	19,7	14,6	5,7000	83,0	0	0
EC-BN10	10 años-12 horas-10	0,796	1,0333	15,7	10,8	5,7000	83,0	0	0
EC-BN10	10 años-12 horas-90	0,741	12,0000	15,7	10,8	5,7000	83	0	0
EC-BN10	10 años-24 horas-10	0,701	1,0333	19,5	14,4	5,7000	83,0	0	0
EC-BN10	10 años-24 horas-90	0,778	24,0000	19,5	14,4	5,7000	83	0	0
EC-BN10	10 años-6 horas-10	0,973	0,8667	12,9	8,3	5,7000	83,0	0	0
EC-BN10	10 años-6 horas-90	0,751	6,0000	12,9	8,3	5,7000	83,0	0	0
EC-BN10	25 años-12 horas-10	1,101	1,0333	20,1	15	5,7000	83,0	0	0
EC-BN10	25 años-12 horas-90	0,974	12,0000	20,1	15	5,7000	83	0	0
EC-BN10	25 años-24 horas-10	1,019	1,0333	25,7	20,4	5,7000	83,0	0	0
EC-BN10	25 años-24 horas-90	1,046	24,00	25,7	20,4	5,7000	83,0	0	0
EC-BN10	25 años-6 horas-10	1,246	0,7333	15,5	10,6	5,7000	83,0	0	0
EC-BN10	25 años-6 horas-90	0,927	6,0000	15,5	10,6	5,7000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN10 [cm]	100 años-12 horas-10	27,7	0	22,3	0	0	0	5,4
EC-BN10	100 años-12 horas-	15789	0	12729	0	0	0	3060

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	10							
EC-BN10 [ha-m]	100 años-12 horas-10	1,58	0,00	1,27	0	0	0	0,31
EC-BN10 [cm]	100 años-12 horas-90 %	27,7	0	22,3	0	0	0	5,4
EC-BN10 [m3]	100 años-12 horas-90	15789	0	12729	0	0	0	3060
EC-BN10 [ha-m]	100 años-12 horas-90	1,58	0,00	1,27	0,00	0	0	0,31
EC-BN10 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN10 [m3]	100 años-24 horas-10	20919	0	17758	0	0	0	3161
EC-BN10 [ha-m]	100 años-24 horas-10	2,09	0,00	1,78	0,00	0	0	0,32
EC-BN10 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN10 [m3]	100 años-24 horas-90	20919	0	17758	0	0	0	3161
EC-BN10 [ha-m]	100 años-24 horas-90	2,09	0,00	1,78	0,00	0	0	0,32
EC-BN10 [cm]	100 años-6 horas-10 %	19,7	0	14,6	0	0	0	5,1
EC-BN10 [m3]	100 años-6 horas-10	11229	0	8326	0	0	0	2903
EC-BN10 [ha-m]	100 años-6 horas-10	1,12	0	0,83	0	0	0	0,29
EC-BN10 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN10 [m3]	100 años-6 horas-90	11229	0	8326	0	0	0	2903
EC-BN10 [ha-m]	100 años-6 horas-90	1,12	0	0,83	0	0	0	0,29
EC-BN10 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN10 [m3]	10 años-12 horas-10	8949	0	6174	0	0	0	2775
EC-BN10 [ha-m]	10 años-12 horas-10	0,89	0	0,62	0	0	0	0,28
EC-BN10 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BN10 [m3]	10 años-12 horas-90	8949	0	6174	0	0	0	2775
EC-BN10 [ha-m]	10 años-12 horas-90	0,89	0	0,62	0	0	0	0,28
EC-BN10 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN10	10 años-24 horas-1	11115	0	8218	0	0	0	2897

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN10 [ha-m]	10 años-24 horas-10	1,11	0	0,82	0	0	0	0,29
EC-BN10 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN10 [m3]	10 años-24 horas-90	11115	0	8218	0	0	0	2897
EC-BN10 [ha-m]	10 años-24 horas-90	1,11	0	0,82	0	0	0	0,29
EC-BN10 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BN10 [m3]	10 años-6 horas-10 %	7353	0	4704	0	0	0	2649
EC-BN10 [ha-m]	10 años-6 horas-10 %	0,74	0	0,47	0,00	0	0	0,26
EC-BN10 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0	4,6
EC-BN10 [m3]	10 años-6 horas-90 %	7353	0	4704	0	0	0	2649
EC-BN10 [ha-m]	10 años-6 horas-90 %	0,74	0	0,47	0	0	0	0,26
EC-BN10 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5.1
EC-BN10 [m3]	25 años-12 horas-10	11457	0	8544	0	0	0	2913
EC-BN10 [ha-m]	25 años-12 horas-10	1,15	0	0,85	0	0	0	0,29
EC-BN10 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0.0	5,1
EC-BN10 [m3]	25 años-12 horas-90	11457	0	8544	0	0	0	2913
EC-BN10 [ha-m]	25 años-12 horas-90	1,15	0	0,85	0	0	0	0,29
EC-BN10 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN10 [m3]	25 años-24 horas-10	14649	0	11620	0	0	0	3029
EC-BN10 [ha-m]	25 años-24 horas-10	1,46	0	1,16	0	0	0	0,30
EC-BN10 [cm]	25 años-24 horas-90	25,7	0	20,4	0.0	0.0	0.0	5,3
EC-BN10 [m3]	25 años-24 horas-90	14649	0	11620	0	0	0	3029
EC-BN10 [ha-m]	25 años-24 horas-90	1,46	0	1,16	0	0	0	0,30
EC-BN10 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BN10	25 años-6 horas-10	8835	0	6068	0	0	0	2767

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BN10 [ha-m]	25 años-6 horas-10 %	0,88	0	0,61	0	0	0	0,28
EC-BN10 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BN10 [m3]	25 años-6 horas-90 %	8835	0	6068	0	0	0	2767
EC-BN10 [ha-m]	25 años-6 horas-90 %	0,88	0	0,61	0	0	0	0,28

Lavabo simple: EC-BN11

Escenario: 38701-EC

Nodo: EC-N11

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Superficie: 3,5000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN11	100 años-12 h r-10 %	1,036	0,7667	27,7	22,3	3,5000	83,0	0	0
EC-BN11	100 años-12 h r-90 %	0,844	12,0000	27,7	22,3	3,5000	83	0	0
EC-BN11	100 años-24 h r-10 %	0,981	1,0000	36,7	31,1	3,5000	83,0	0	0
EC-BN11	100 años-24 h r-90 %	0,930	24,0000	36,7	31,1	3,500	83,0	0,00	0
EC-BN11	100 años-6 horas-10	1,062	0,6833	19,7	14,6	3,5000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN11	100 años-6 horas-90	0,743	6,0000	19,7	14,6	3,5000	83,0	0	0
EC-BN11	10 años-12 horas-10	0,493	1,0167	15,7	10,8	3,5000	83,0	0	0
EC-BN11	10 años-12 horas-90	0,457	12,0000	15,7	10,8	3,5000	83	0	0
EC-BN11	10 años-24 horas-10	0,436	1,0167	19,5	14,4	3,5000	83,0	0	0
EC-BN11	10 años-24 horas-90	0,478	24,00	19,5	14,4	3,5000	83,0	0	0
EC-BN11	10 años-6 horas-10	0,601	0,8500	12,9	8,2	3,5000	83,0	0	0
EC-BN11	10 años-6 horas-90	0,462	6,0000	12,9	8,2	3,5000	83,0	0	0
EC-BN11	25 años-12 horas-10	0,683	0,7833	20,1	15	3,5000	83	0	0
EC-BN11	25 años-12 horas-90	0,600	12,0000	20,1	15	3,5000	83	0	0
EC-BN11	25 años-24 horas-10	0,632	1,0167	25,7	20,4	3,5000	83,0	0	0
EC-BN11	25 años-24 horas-90	0,642	24,0000	25,7	20,4	3,5000	83	0	0
EC-BN11	25 años-6 horas-10	0,774	0,7000	15,5	10,6	3,5000	83,0	0	0
EC-BN11	25 años-6 horas-90	0,570	6,0000	15,5	10,6	3,5000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN11 [cm]	100 años-12 horas-10	27,7	0	22,3	0	0	0	5,4
EC-BN11 [m3]	100 años-12 horas-10	9695	0	7808	0	0	0	1887
EC-BN11 [ha-m]	100 años-12 horas-10	0,97	0	0,78	0	0	0	0,19
EC-BN11 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BN11 [m3]	100 años-12 horas-90	9695	0	7808	0	0	0	1887
EC-BN11 [ha-m]	100 años-12 horas-90	0,97	0	0,78	0,00	0	0	0,19
EC-BN11 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BN11 [m3]	100 años-24 horas-10	12845	0	10893	0	0	0	1952
EC-BN11 [ha-m]	100 años-24 horas-10	1,28	0,00	1,09	0,00	0	0	0,20
EC-BN11 [cm]	100 años-24 horas-90	36,7	0	31,1	0	0	0	5,6
EC-BN11 [m3]	100 años-24 horas-90	12845	0	10893	0	0	0	1952
EC-BN11 [ha-m]	100 años-24 horas-90	1,28	0,00	1,09	0,00	0	0	0,20
EC-BN11 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN11 [m3]	100 años-6 horas-10	6895	0	5107	0	0	0	1788
EC-BN11 [ha-m]	100 años-6 horas-10	0,69	0	0,51	0	0	0,00	0,18
EC-BN11 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN11 [m3]	100 años-6 horas-90	6895	0	5107	0	0	0	1788
EC-BN11 [ha-m]	100 años-6 horas-90	0,69	0	0,51	0	0	0	0,18
EC-BN11 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN11 [m3]	10 años-12 horas-10	5495	0	3787	0	0	0	1708
EC-BN11 [ha-m]	10 años-12 horas-10	0,55	0	0,38	0	0	0	0,17
EC-BN11 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BN11 [m3]	10 años-12 horas-90	5495	0	3787	0	0	0	1708
EC-BN11 [ha-m]	10 años-12 horas-90	0,55	0	0,38	0	0.00	0,00	0,17
EC-BN11 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN11 [m3]	10 años-24 horas-10	6825	0	5041	0	0	0	1784
EC-BN11 [ha-m]	10 años-24 horas-10	0,68	0	0,50	0	0	0	0,18
EC-BN11 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN11 [m3]	10 años-24 horas-90	6825	0	5041	0	0	0	1784
EC-BN11 [ha-m]	10 años-24 horas-90	0,68	0	0,50	0	0	0	0,18
EC-BN11 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN11 [m3]	10 años-6 horas-10 %	4515	0	2885	0	0	0	1630
EC-BN11 [ha-m]	10 años-6 horas-10 %	0,45	0	0,29	0,00	0	0	0,16
EC-BN11 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BN11 [m3]	10 años-6 horas-90 %	4515	0	2885	0	0	0	1630
EC-BN11 [ha-m]	10 años-6 horas-90 %	0,45	0	0,29	0	0	0	0,16
EC-BN11 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BN11 [m3]	25 años-12 horas-10	7035	0	5241	0	0	0	1794
EC-BN11 [ha-m]	25 años-12 horas-10	0,70	0	0,52	0	0	0	0,18
EC-BN11 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0	5.1
EC-BN11 [m3]	25 años-12 horas-90	7035	0	5241	0	0	0	1794
EC-BN11 [ha-m]	25 años-12 horas-90	0,70	0	0,52	0	0	0	0,18
EC-BN11 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN11 [m3]	25 años-24 horas-10	8995	0	7128	0	0	0	1867
EC-BN11 [ha-m]	25 años-24 horas-10	0,90	0	0,71	0	0	0	0,19
EC-BN11 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BN11 [m3]	25 años-24 horas-90	8995	0	7128	0	0	0	1867
EC-BN11 [ha-m]	25 años-24 horas-90	0,90	0	0,71	0	0	0	0,19
EC-BN11 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4.9
EC-BN11 [m3]	25 años-6 horas-10 %	5425	0	3722	0	0	0	1703
EC-BN11 [ha-m]	25 años-6 horas-10 %	0,54	0	0,37	0	0	0	0,17
EC-BN11 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0,0	4,9
EC-BN11 [m3]	25 años-6 horas-90 %	5425	0	3722	0	0	0	1703
EC-BN11 [ha-m]	25 años-6 horas-90 %	0,54	0	0,37	0	0	0	0,17

Lavabo simple: EC-BN12

Escenario: 38701-EC

Nodo: EC-N12

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 12,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 15.0000 ha

Número de curva: 85.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN12	100 años-12 h r-10 %	4,526	0,8167	27,7	23,0	15,000	85	0	0
EC-BN12	100 años-12 h r-90 %	3,609	12,0000	27,7	23	15,000	85	0	0
EC-BN12	100 años-24 h r-10 %	4,263	1,0333	36,7	31,9	15,000	85,0	0	0
EC-BN12	100 años-24 h r-90 %	4,004	24,00	36,7	31,9	15,000	85	0	0
EC-BN12	100 años-6 horas-10	4,648	0,7500	19,7	15,2	15,0000	85,0	0	0.00
EC-BN12	100 años-6 horas-90	3,220	6,000	19,7	15,2	15,000	85,0	0	0
EC-BN12	10 años-12 horas-10	2,190	1,0500	15,7	11,4	15,000	85,0	0	0
EC-BN12	10 años-12 horas-90	1,969	12,0000	15,7	11,4	15,000	85	0	0
EC-BN12	10 años-24 horas-10	1,930	1,0500	19,5	15	15,000	85,0	0	0
EC-BN12	10 años-24 horas-90	2,069	24,00	19,5	15	15,000	85	0	0
EC-BN12	10 años-6 horas-10	2,681	0,8833	12,9	8,8	15,000	85,0	0	0
EC-BN12	10 años-6 horas-90	2,018	6,000	12,9	8,8	15,000	85	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Equivalente Número de curva	% Imperv	% DCIA
EC-BN12	25 años-12 horas-10	3,017	0,8333	20,1	15,6	15,000	85	0	0
EC-BN12	25 años-12 horas-90	2,574	12,0000	20,1	15,6	15,000	85,0	0	0
EC-BN12	25 años-24 horas-10	2,771	1,0500	25,7	21,0	15,000	85,0	0	0
EC-BN12	25 años-24 horas-90	2,770	24,00	25,7	21	15,000	85	0	0
EC-BN12	25 años-6 horas-10	3,417	0,7667	15,5	11,2	15,000	85,0	0	0
EC-BN12	25 años-6 horas-90	2,480	6,000	15,5	11,2	15,000	85,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recargar	Cambiar la tierra Almacenamiento
EC-BN12 [cm]	100 años-12 horas-10	27,7	0,0	23,0	0	0	0	4,7
EC-BN12 [m3]	100 años-12 horas-10	41550	0	34497	0	0	0	7053
EC-BN12 [ha-m]	100 años-12 horas-10	4,16	0,00	3,45	0	0	0	0,71
EC-BN12 [cm]	100 años-12 horas-90	27,7	0,0	23,0	0	0	0	4,7
EC-BN12 [m3]	100 años-12 horas-90	41550	0	34497	0	0	0	7053
EC-BN12 [ha-m]	100 años-12 horas-90	4,16	0,00	3,45	0,00	0	0	0,71
EC-BN12 [cm]	100 años-24 horas-10	36,7	0	31,9	0	0	0	4,8
EC-BN12 [m3]	100 años-24 horas-10	55050	0	47802	0	0	0	7248
EC-BN12 [ha-m]	100 años-24 horas-10	5,51	0,00	4,78	0	0	0	0,72
EC-BN12 [cm]	100 años-24 horas-90	36,7	0	31,9	0	0	0	4,8
EC-BN12 [m3]	100 años-24 horas-90	55050	0	47802	0	0	0	7248
EC-BN12 [ha-m]	100 años-24 horas-90	5,51	0,00	4,78	0,00	0	0	0,72
EC-BN12 [cm]	100 años-6 horas-10	19,7	0	15,2	0	0	0	4,5
EC-BN12 [m3]	100 años-6 horas-10	29550	0	22811	0	0	0	6739

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN12 [ha-m]	100 años-6 horas-10	2,96	0	2,28	0	0	0	0,67
EC-BN12 [cm]	100 años-6 horas-90	19,7	0,0	15,2	0	0	0	4,5
EC-BN12 [m3]	100 años-6 horas-90	29550	0	22811	0	0	0	6739
EC-BN12 [ha-m]	100 años-6 horas-90	2,96	0	2,28	0	0	0	0,67
EC-BN12 [cm]	10 años-12 horas-10	15,7	0	11,4	0	0	0	4,3
EC-BN12 [m3]	10 años-12 horas-10	23550	0	17070	0	0	0	6480
EC-BN12 [ha-m]	10 años-12 horas-10	2,35	0	1,71	0	0	0	0,65
EC-BN12 [cm]	10 años-12 horas-90	15,7	0	11,4	0	0	0,0	4,3
EC-BN12 [m3]	10 años-12 horas-90	23550	0	17070	0	0	0	6480
EC-BN12 [ha-m]	10 años-12 horas-90	2,35	0	1,71	0	0	0	0,65
EC-BN12 [cm]	10 años-24 horas-10 %	19,5	0,0	15	0	0	0	4,5
EC-BN12 [m3]	10 años-24 horas-10	29250	0	22521	0	0	0	6729
EC-BN12 [ha-m]	10 años-24 horas-10	2,93	0	2,25	0	0	0	0,67
EC-BN12 [cm]	10 años-24 horas-90	19,5	0	15	0	0	0	4,5
EC-BN12 [m3]	10 años-24 horas-90	29250	0	22521	0	0	0	6729
EC-BN12 [ha-m]	10 años-24 horas-90	2,93	0	2,25	0	0	0	0,67
EC-BN12 [cm]	10 años-6 horas-10 %	12,9	0	8,8	0	0	0.0	4.1
EC-BN12 [m3]	10 años-6 horas-10 %	19350	0	13130	0	0	0	6220
EC-BN12 [ha-m]	10 años-6 horas-10 %	1,93	0	1,31	0	0	0	0,62
EC-BN12 [cm]	10 años-6 horas-90 %	12,9	0	8,8	0	0	0.0	4.1
EC-BN12 [m3]	10 años-6 horas-90 %	19350	0	13130	0	0	0	6220
EC-BN12 [ha-m]	10 años-6 horas-90 %	1,93	0	1,31	0	0	0	0,62
EC-BN12 [cm]	25 años-12 horas-10	20,1	0	15,6	0	0	0	4,5
EC-BN12 [m3]	25 años-12 horas-10	30150	0	23390	0	0	0	6760

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN12 [ha-m]	25 años-12 horas-10	3,02	0	2,34	0	0	0	0,68
EC-BN12 [cm]	25 años-12 horas-90	20,1	0	15,6	0	0	0	4,5
EC-BN12 [m3]	25 años-12 horas-90	30150	0	23390	0	0	0	6760
EC-BN12 [ha-m]	25 años-12 horas-90	3,02	0	2,34	0	0	0	0,68
EC-BN12 [cm]	25 años-24 horas-10	25,7	0	21,0	0	0	0	4,7
EC-BN12 [m3]	25 años-24 horas-10	38550	0	31559	0	0	0	6991
EC-BN12 [ha-m]	25 años-24 horas-10	3,86	0	3,16	0	0	0	0,70
EC-BN12 [cm]	25 años-24 horas-90	25,7	0	21,0	0	0	0	4,7
EC-BN12 [m3]	25 años-24 horas-90	38550	0	31559	0	0	0	6991
EC-BN12 [ha-m]	25 años-24 horas-90	3,86	0	3,16	0	0	0	0,70
EC-BN12 [cm]	25 años-6 horas-10 %	15,5	0	11,2	0	0	0.0	4.3
EC-BN12 [m3]	25 años-6 horas-10 %	23250	0	16786	0	0	0	6464
EC-BN12 [ha-m]	25 años-6 horas-10 %	2,33	0	1,68	0	0	0	0,65
EC-BN12 [cm]	25 años-6 horas-90 %	15,5	0	11,2	0	0	0.0	4,3
EC-BN12 [m3]	25 años-6 horas-90 %	23250	0	16786	0	0	0	6464
EC-BN12 [ha-m]	25 años-6 horas-90 %	2,33	0	1,68	0	0	0	0,65

Lavabo simple: EC-BN13

Escenario: 38701-EC

Nodo: EC-N13

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 13,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 14.8000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0,00

% Directo: 0,00

Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN13	100 años-12 h r-10 %	4,301	0,8333	27,7	22,4	14,8000	83,0	0	0
EC-BN13	100 años-12 h r-90 %	3,529	12,0000	27,7	22,4	14,8000	83,0	0	0
EC-BN13	100 años-24 h r-10 %	4,088	1,0500	36,7	31,2	14,8000	83,0	0	0
EC-BN13	100 años-24 h r-90 %	3,935	24,00	36,7	31,2	14,8000	83,0	0	0
EC-BN13	100 años-6 horas-10	4,394	0,7833	19,7	14,6	14,8000	83,0	0	0
EC-BN13	100 años-6 horas-90	3,139	6,0000	19,7	14,6	14,8000	83,0	0	0
EC-BN13	10 años-12 horas-10	2,052	1,0667	15,7	10,8	14,8000	83,0	0	0
EC-BN13	10 años-12 horas-90	1,906	12,0000	15,7	10,8	14,8000	83	0	0
EC-BN13	10 años-24 horas-10	1,790	1,0667	19,5	14,4	14,8000	83,0	0	0
EC-BN13	10 años-24 horas-90	2,017	24,00	19,5	14,4	14,8000	83	0	0
EC-BN13	10 años-6 horas-10	2,504	0,9000	12,9	8,3	14,8000	83,0	0	0
EC-BN13	10 años-6 horas-90	1,946	6,000	12,9	8,3	14,8000	83,0	0	0
EC-BN13	25 años-12 horas-10	2,847	1,0500	20,1	15	14,8000	83,0	0	0
EC-BN13	25 años-12 horas-90	2,505	12,0000	20,1	15	14,8000	83	0	0
EC-BN13	25 años-24 horas-10	2,613	1,0500	25,7	20,4	14,8000	83,0	0	0
EC-BN13	25 años-24 horas-90	2,713	24,00	25,7	20,4	14,8000	83	0	0
EC-BN13	25 años-6 horas-10	3,213	0,8667	15,5	10,7	14,8000	83,0	0	0
EC-BN13	25 años-6 horas-90	2,405	6,0000	15,5	10,7	14,8000	83	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN13 [cm]	100 años-12 horas-10	27,7	0,0	22,4	0	0	0	5,3
EC-BN13 [m3]	100 años-12 horas-10	40996	0	33097	0	0	0	7899
EC-BN13 [ha-m]	100 años-12 horas-10	4,10	0,00	3,31	0	0	0	0,79
EC-BN13 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0	0	0	5,3
EC-BN13 [m3]	100 años-12 horas-90	40996	0	33097	0	0	0	7899
EC-BN13 [ha-m]	100 años-12 horas-90	4,10	0,00	3,31	0,00	0	0	0,79
EC-BN13 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN13 [m3]	100 años-24 horas-10	54316	0	46173	0	0	0	8143
EC-BN13 [ha-m]	100 años-24 horas-10	5,43	0,00	4,62	0	0	0	0,81
EC-BN13 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN13 [m3]	100 años-24 horas-90	54316	0	46173	0	0	0	8143
EC-BN13 [ha-m]	100 años-24 horas-90	5,43	0,00	4,62	0,00	0	0	0,81
EC-BN13 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN13 [m3]	100 años-6 horas-10	29156	0	21650	0	0	0	7506
EC-BN13 [ha-m]	100 años-6 horas-10	2,92	0	2,16	0	0	0	0,75
EC-BN13 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN13 [m3]	100 años-6 horas-90	29156	0	21650	0	0	0	7506
EC-BN13 [ha-m]	100 años-6 horas-90	2,92	0	2,16	0	0	0	0,75
EC-BN13 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN13 [m3]	10 años-12 horas-10	23236	0	16054	0	0	0	7182
EC-BN13 [ha-m]	10 años-12 horas-10	2,32	0	1,61	0	0	0	0,72
EC-BN13 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BN13 [m3]	10 años-12 horas-90	23236	0	16054	0	0	0	7182
EC-BN13	10 años-12 horas-9	2,32	0,00	1,61	0	0	0	0,72

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN13 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN13 [m3]	10 años-24 horas-10	28860	0	21367	0	0	0	7493
EC-BN13 [ha-m]	10 años-24 horas-10 %	2,89	0,00	2,14	0	0	0	0,75
EC-BN13 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN13 [m3]	10 años-24 horas-90	28860	0	21367	0	0	0	7493
EC-BN13 [ha-m]	10 años-24 horas-90	2,89	0	2,14	0	0	0	0,75
EC-BN13 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0	4,6
EC-BN13 [m3]	10 años-6 horas-10 %	19092	0	12231	0	0	0	6861
EC-BN13 [ha-m]	10 años-6 horas-10 %	1,91	0	1,22	0,00	0	0	0,69
EC-BN13 [cm]	10 años-6 horas-90	12,9	0	8,3	0	0	0.0	4,6
EC-BN13 [m3]	10 años-6 horas-90 %	19092	0	12231	0	0	0	6861
EC-BN13 [ha-m]	10 años-6 horas-90 %	1,91	0,00	1,22	0,00	0	0	0,69
EC-BN13 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BN13 [m3]	25 años-12 horas-10	29748	0	22215	0	0	0	7533
EC-BN13 [ha-m]	25 años-12 horas-10	2,97	0	2,22	0	0	0	0,75
EC-BN13 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0	5,1
EC-BN13 [m3]	25 años-12 horas-90	29748	0	22215	0	0	0	7533
EC-BN13 [ha-m]	25 años-12 horas-90	2,97	0	2,22	0	0	0	0,75
EC-BN13 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN13 [m3]	25 años-24 horas-10	38036	0	30214	0	0	0	7822
EC-BN13 [ha-m]	25 años-24 horas-10 %	3,80	0	3,02	0	0	0	0,78
EC-BN13 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BN13 [m3]	25 años-24 horas-90	38036	0	30214	0	0	0	7822
EC-BN13	25 años-24 horas-90	3,80	0,00	3,02	0	0	0	0,78

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
[ha-m]	0							
EC-BN13 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0.0	4,8
EC-BN13 [m3]	25 años-6 horas-10 %	22940	0	15778	0	0	0	7162
EC-BN13 [ha-m]	25 años-6 horas-10 %	2,29	0	1,58	0,00	0	0	0,72
EC-BN13 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0.0	4,8
EC-BN13 [m3]	25 años-6 horas-90 %	22940	0	15778	0	0	0	7162
EC-BN13 [ha-m]	25 años-6 horas-90 %	2,29	0	1,58	0	0	0	0,72

Lavabo simple: EC-BN14

Escenario: 38701-EC

Nodo: EC-N14

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 13,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 15.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta Caudal máximo [horas]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN14	100 años-12 h r-10 %	4,563	0,8333	27,7	22,4	15,7000	83,0	0	0
EC-BN14	100 años-12 h r-90 %	3,744	12,0000	27,7	22,4	15,7000	83,0	0	0
EC-BN14	100 años-24 h r-10 %	4,336	1,0500	36,7	31,2	15,7000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN14	100 años-24 hr-90 %	4,174	24,000	36,7	31,2	15,7000	83,0	0	0
EC-BN14	100 años-6 horas-10	4,661	0,7833	19,7	14,6	15,7000	83,0	0	0
EC-BN14	100 años-6 horas-90	3,330	6,000	19,7	14,6	15,7000	83,0	0	0
EC-BN14	10 años-12 horas-10	2,176	1,0667	15,7	10,8	15,7000	83,0	0	0
EC-BN14	10 años-12 horas-90	2,022	12,0000	15,7	10,8	15,7000	83	0	0
EC-BN14	10 años-24 horas-10	1,899	1,0667	19,5	14,4	15,7000	83,0	0	0
EC-BN14	10 años-24 horas-90	2,140	24,00	19,5	14,4	15,7000	83,0	0	0
EC-BN14	10 años-6 horas-10	2,656	0,9000	12,9	8,3	15,7000	83,0	0	0
EC-BN14	10 años-6 horas-90	2,064	6,000	12,9	8,3	15,7000	83,0	0	0
EC-BN14	25 años-12 horas-10	3,020	1,0500	20,1	15,0	15,7000	83,0	0	0
EC-BN14	25 años-12 horas-90 %	2,657	12,0000	20,1	15	15,7000	83	0	0
EC-BN14	25 años-24 horas-10	2,772	1,0500	25,7	20,4	15,7000	83,0	0	0
EC-BN14	25 años-24 horas-90	2,878	24,0000	25,7	20,4	15,7000	83	0	0
EC-BN14	25 años-6 horas-10	3,408	0,8667	15,5	10,7	15,7000	83,0	0	0
EC-BN14	25 años-6 horas-90	2,551	6,0000	15,5	10,7	15,7000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN14 [cm]	100 años-12 horas-10	27,7	0	22,4	0	0	0	5,3
EC-BN14 [m3]	100 años-12 horas-10	43489	0	35110	0	0	0	8379
EC-BN14 [ha-m]	100 años-12 horas-10	4,35	0,00	3,51	0	0	0	0,84
EC-BN14 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0	0	0	5,3
EC-BN14 [m3]	100 años-12 horas-90	43489	0	35110	0	0	0	8379

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN14 [ha-m]	100 años-12 horas-90	4,35	0,00	3,51	0,00	0	0	0,84
EC-BN14 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN14 [m3]	100 años-24 horas-10	57619	0	48981	0	0	0	8638
EC-BN14 [ha-m]	100 años-24 horas-10	5,76	0,00	4,90	0	0	0	0,86
EC-BN14 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN14 [m3]	100 años-24 horas-90	57619	0	48981	0	0	0	8638
EC-BN14 [ha-m]	100 años-24 horas-90	5,76	0,00	4,90	0,00	0	0	0,86
EC-BN14 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN14 [m3]	100 años-6 horas-10	30929	0	22966	0	0	0	7963
EC-BN14 [ha-m]	100 años-6 horas-10	3,09	0	2,30	0	0	0	0,80
EC-BN14 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN14 [m3]	100 años-6 horas-90	30929	0	22966	0	0	0	7963
EC-BN14 [ha-m]	100 años-6 horas-90	3,09	0	2,30	0	0	0	0,80
EC-BN14 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0,0	4,9
EC-BN14 [m3]	10 años-12 horas-10	24649	0	17030	0	0	0	7619
EC-BN14 [ha-m]	10 años-12 horas-10	2,46	0	1,70	0	0	0	0,76
EC-BN14 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BN14 [m3]	10 años-12 horas-90	24649	0	17030	0	0	0	7619
EC-BN14 [ha-m]	10 años-12 horas-90	2,46	0	1,70	0	0	0	0,76
EC-BN14 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN14 [m3]	10 años-24 horas-10	30615	0	22667	0	0	0	7948
EC-BN14 [ha-m]	10 años-24 horas-10 %	3,06	0	2,27	0	0	0	0,79
EC-BN14 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN14 [m3]	10 años-24 horas-90	30615	0	22667	0	0	0	7948

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN14 [ha-m]	10 años-24 horas-90	3,06	0	2,27	0	0	0	0,79
EC-BN14 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BN14 [m3]	10 años-6 horas-10 %	20253	0	12975	0	0	0	7278
EC-BN14 [ha-m]	10 años-6 horas-10 %	2,03	0	1,30	0,00	0	0	0,73
EC-BN14 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0	4,6
EC-BN14 [m3]	10 años-6 horas-90 %	20253	0	12975	0	0	0	7278
EC-BN14 [ha-m]	10 años-6 horas-90 %	2,03	0	1,30	0,00	0	0	0,73
EC-BN14 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BN14 [m3]	25 años-12 horas-10	31557	0	23566	0	0	0	7991
EC-BN14 [ha-m]	25 años-12 horas-10	3,16	0	2,36	0	0	0	0,80
EC-BN14 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0	5,1
EC-BN14 [m3]	25 años-12 horas-90	31557	0	23566	0	0	0	7991
EC-BN14 [ha-m]	25 años-12 horas-90	3,16	0	2,36	0	0	0,00	0,80
EC-BN14 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN14 [m3]	25 años-24 horas-10	40349	0	32051	0	0	0	8298
EC-BN14 [ha-m]	25 años-24 horas-10	4,03	0,00	3,21	0	0	0	0,83
EC-BN14 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BN14 [m3]	25 años-24 horas-90	40349	0	32051	0	0	0	8298
EC-BN14 [ha-m]	25 años-24 horas-90	4,03	0,00	3,21	0	0	0	0,83
EC-BN14 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0.0	4,8
EC-BN14 [m3]	25 años-6 horas-10 %	24335	0	16737	0	0	0	7598
EC-BN14 [ha-m]	25 años-6 horas-10 %	2,43	0	1,67	0.00	0,00	0	0,76
EC-BN14 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0.0	4,8
EC-BN14 [m3]	25 años-6 horas-90 %	24335	0	16737	0	0	0	7598

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN14 [ha-m]	25 años-6 horas-90 %	2,43	0	1,67	0	0	0	0,76

Lavabo simple: EC-BN15

Escenario: 38701-EC

Nodo: EC-N15

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 19,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 45.6000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BN15	100 años-12 h r-10 %	12,998	1,000	27,7	22,4	45,6000	83,0	0	0
EC-BN15	100 años-12 h r-90 %	10,643	12,0167	27,7	22,4	45,6000	83,0	0	0
EC-BN15	100 años-24 h r-10 %	12,395	1,1000	36,7	31,2	45,6000	83,0	0	0
EC-BN15	100 años-24 h r-90 %	12,012	24,00	36,7	31,2	45,6000	83	0	0
EC-BN15	100 años-6 horas-10	13,272	0,9167	19,7	14,6	45,6000	83,0	0.00	0,00
EC-BN15	100 años-6 horas-90	9,606	6,000	19,7	14,6	45,6000	83	0	0
EC-BN15	10 años-12 horas-10	6,226	1,1500	15,7	10,8	45,6000	83,0	0	0
EC-BN15	10 años-12 horas-90	5,738	12,0333	15,7	10,8	45,6000	83,0	0	0
EC-BN15	10 años-24 horas-	5,368	1,1500	19,5	14,4	45,6000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BN15	10 años-24 horas-90	6,149	24,0167	19,5	14,4	45,6000	83	0	0
EC-BN15	10 años-6 horas-10	7,545	0,9833	12,9	8,3	45,6000	83,0	0	0
EC-BN15	10 años-6 horas-90 %	5,937	6,0167	12,9	8,3	45,6000	83,0	0	0
EC-BN15	25 años-12 horas-10	8,676	1,1000	20,1	15	45,6000	83,0	0	0
EC-BN15	25 años-12 horas-90	7,548	12,0167	20,1	15	45,6000	83,0	0	0
EC-BN15	25 años-24 horas-10	7,876	1,1167	25,7	20,4	45,6000	83,0	0	0
EC-BN15	25 años-24 horas-90	8,276	24,0167	25,7	20,4	45,6000	83	0	0
EC-BN15	25 años-6 horas-10	9,706	0,9500	15,5	10,7	45,6000	83,0	0	0
EC-BN15	25 años-6 horas-90	7,345	6,0000	15,5	10,7	45,6000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambiar el suelo Almacenamiento
EC-BN15 [cm]	100 años-12 horas-10	27,7	0,0	22,4	0	0	0	5,3
EC-BN15 [m3]	100 años-12 horas-10	126312	0	101924	0	0	0	24388
EC-BN15 [ha-m]	100 años-12 horas-10	12,63	0,00	10,19	0	0	0	2,44
EC-BN15 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0	0	0	5,3
EC-BN15 [m3]	100 años-12 horas-90	126312	0	101924	0	0	0	24388
EC-BN15 [ha-m]	100 años-12 horas-90	12,63	0,00	10,19	0	0	0	2,44
EC-BN15 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN15 [m3]	100 años-24 horas-10	167352	0	142193	0	0	0	25159
EC-BN15 [ha-m]	100 años-24 horas-10 %	16,74	0,00	14,22	0	0	0	2,52
EC-BN15 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN15	100 años-24 horas-	167352	0	142193	0	0	0	25159

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	90							
EC-BN15 [ha-m]	100 años-24 horas-90	16,74	0,00	14,22	0	0	0	2,52
EC-BN15 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN15 [m3]	100 años-6 horas-10	89832	0	66672	0	0	0	23160
EC-BN15 [ha-m]	100 años-6 horas-10	8,98	0	6,67	0	0	0	2,32
EC-BN15 [cm]	100 años-6 horas-90 %	19,7	0,0	14,6	0	0	0	5,1
EC-BN15 [m3]	100 años-6 horas-90	89832	0	66672	0	0	0	23160
EC-BN15 [ha-m]	100 años-6 horas-90	8,98	0	6,67	0	0	0	2,32
EC-BN15 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN15 [m3]	10 años-12 horas-10	71592	0	49438	0	0	0	22154
EC-BN15 [ha-m]	10 años-12 horas-10	7,16	0	4,94	0	0	0	2,22
EC-BN15 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BN15 [m3]	10 años-12 horas-90	71592	0	49438	0	0	0	22154
EC-BN15 [ha-m]	10 años-12 horas-90	7,16	0	4,94	0	0	0	2,22
EC-BN15 [cm]	10 años-24 horas-10 %	19,5	0,0	14,4	0	0	0	5,1
EC-BN15 [m3]	10 años-24 horas-10	88920	0	65801	0	0	0	23119
EC-BN15 [ha-m]	10 años-24 horas-10	8,89	0	6,58	0	0	0	2,31
EC-BN15 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN15 [m3]	10 años-24 horas-90	88920	0	65801	0	0	0	23119
EC-BN15 [ha-m]	10 años-24 horas-90	8,89	0	6,58	0	0	0	2,31
EC-BN15 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BN15 [m3]	10 años-6 horas-10 %	58824	0	37666	0	0	0	21158
EC-BN15 [ha-m]	10 años-6 horas-10 %	5,88	0,00	3,77	0,00	0	0	2,12
EC-BN15 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0	4,6
EC-BN15	10 años-6 horas-90	58824	0	37666	0	0	0	21158

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BN15 [ha-m]	10 años-6 horas-90 %	5,88	0,00	3,77	0,00	0	0	2,12
EC-BN15 [cm]	25 años-12 horas-1 0	20,1	0	15,0	0	0	0.0	5,1
EC-BN15 [m3]	25 años-12 horas-1 0	91656	0	68414	0	0	0	23242
EC-BN15 [ha-m]	25 años-12 horas-1 0	9,17	0	6,84	0	0	0	2,32
EC-BN15 [cm]	25 años-12 horas-9 0	20,1	0	15	0	0	0.0	5,1
EC-BN15 [m3]	25 años-12 horas-9 0	91656	0	68414	0	0	0	23242
EC-BN15 [ha-m]	25 años-12 horas-9 0	9,17	0	6,84	0	0	0	2,32
EC-BN15 [cm]	25 años-24 horas-1 0	25,7	0	20,4	0	0	0	5,3
EC-BN15 [m3]	25 años-24 horas-1 0	117192	0	93046	0	0	0	24146
EC-BN15 [ha-m]	25 años-24 horas-1 0	11,72	0	9,30	0	0	0	2,41
EC-BN15 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0	0	0	5,3
EC-BN15 [m3]	25 años-24 horas-9 0	117192	0	93046	0	0	0	24146
EC-BN15 [ha-m]	25 años-24 horas-9 0	11,72	0,00	9,30	0	0	0	2,41
EC-BN15 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0.0	4.8
EC-BN15 [m3]	25 años-6 horas-10 %	70680	0	48588	0	0	0	22092
EC-BN15 [ha-m]	25 años-6 horas-10 %	7,07	0,00	4,86	0,00	0	0	2,21
EC-BN15 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0	4,8
EC-BN15 [m3]	25 años-6 horas-90 %	70680	0	48588	0	0	0	22092
EC-BN15 [ha-m]	25 años-6 horas-90 %	7,07	0,00	4,86	0	0	0	2,21

Lavabo simple: EC-BN16

Escenario: 38701-EC

Nodo: EC-N16

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración:	15,0000 min
Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Superficie:	8,6000 ha
Número de curva:	83,0
% Impermeable:	0.00
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN16	100 años-12 h r-10 %	2,482	0,8667	27,7	22,4	8,6000	83,0	0	0
EC-BN16	100 años-12 h r-90 %	2,037	12,0167	27,7	22,4	8,6000	83	0	0
EC-BN16	100 años-24 h r-10 %	2,363	1,0667	36,7	31,2	8,6000	83,0	0	0
EC-BN16	100 años-24 h r-90 %	2,281	24,00	36,7	31,2	8,6000	83,0	0	0
EC-BN16	100 años-6 horas-10 %	2,536	0,8500	19,7	14,6	8,6000	83,0	0	0
EC-BN16	100 años-6 horas-90	1,820	6,000	19,7	14,6	8,6000	83,0	0	0
EC-BN16	10 años-12 horas-10	1,186	1,0833	15,7	10,8	8,6000	83,0	0	0
EC-BN16	10 años-12 horas-90	1,100	12,0167	15,7	10,8	8,6000	83	0	0
EC-BN16	10 años-24 horas-10	1,030	1,0833	19,5	14,4	8,6000	83,0	0	0
EC-BN16	10 años-24 horas-90	1,168	24,0000	19,5	14,4	8,6000	83,0	0	0
EC-BN16	10 años-6 horas-10	1,445	0,9167	12,9	8,3	8,6000	83,0	0	0
EC-BN16	10 años-6 horas-90	1,127	6,0000	12,9	8,3	8,6000	83,0	0	0
EC-BN16	25 años-12 horas-10	1,649	1,0667	20,1	15,0	8,6000	83,0	0	0
EC-BN16	25 años-12 horas-90 %	1,446	12,0167	20,1	15,0	8,6000	83,0	0	0
EC-BN16	25 años-24 horas-	1,507	1,0833	25,7	20,4	8,6000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BN16	25 años-24 horas-90	1,572	24,0000	25,7	20,4	8,6000	83,0	0	0
EC-BN16	25 años-6 horas-10	1,857	0,9000	15,5	10,7	8,6000	83,0	0	0
EC-BN16	25 años-6 horas-90	1,394	6,0000	15,5	10,7	8,6000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN16 [cm]	100 años-12 horas-10	27,7	0	22,4	0	0	0	5,3
EC-BN16 [m3]	100 años-12 horas-10	23822	0	19221	0	0	0	4601
EC-BN16 [ha-m]	100 años-12 horas-10	2,38	0,00	1,92	0	0	0	0,46
EC-BN16 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0	0	0	5,3
EC-BN16 [m3]	100 años-12 horas-90	23822	0	19221	0	0	0	4601
EC-BN16 [ha-m]	100 años-12 horas-90	2,38	0,00	1,92	0,00	0	0	0,46
EC-BN16 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN16 [m3]	100 años-24 horas-10	31562	0	26815	0	0	0	4747
EC-BN16 [ha-m]	100 años-24 horas-10	3,16	0,00	2,68	0	0	0	0,47
EC-BN16 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN16 [m3]	100 años-24 horas-90	31562	0	26815	0	0	0	4747
EC-BN16 [ha-m]	100 años-24 horas-90	3,16	0,00	2,68	0	0	0	0,47
EC-BN16 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN16 [m3]	100 años-6 horas-10	16942	0	12573	0	0	0	4369
EC-BN16 [ha-m]	100 años-6 horas-10	1,69	0	1,26	0	0	0	0,44
EC-BN16 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN16	100 años-6 horas-9	16942	0	12573	0	0	0	4369

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN16	100 años-6 horas-9	1,69	0	1,26	0	0	0	0,44
[ha-m]	0							
EC-BN16	10 años-12 horas-1	15,7	0	10,8	0	0	0,0	4,9
[cm]	0							
EC-BN16	10 años-12 horas-1	13502	0	9323	0	0	0	4179
[m3]	0							
EC-BN16	10 años-12 horas-1	1,35	0	0,93	0	0	0	0,42
[ha-m]	0							
EC-BN16	10 años-12 horas-9	15,7	0	10,8	0	0	0,0	4,9
[cm]	0							
EC-BN16	10 años-12 horas-9	13502	0	9323	0	0	0	4179
[m3]	0							
EC-BN16	10 años-12 horas-9	1,35	0,00	0,93	0,00	0	0,00	0,42
[ha-m]	0							
EC-BN16	10 años-24 horas-1	19,5	0	14,4	0	0	0	5,1
[cm]	0							
EC-BN16	10 años-24 horas-1	16770	0	12409	0	0	0	4361
[m3]	0							
EC-BN16	10 años-24 horas-1	1,68	0	1,24	0	0	0	0,44
[ha-m]	0							
EC-BN16	10 años-24 horas-9	19,5	0	14,4	0	0	0	5,1
[cm]	0							
EC-BN16	10 años-24 horas-9	16770	0	12409	0	0	0	4361
[m3]	0							
EC-BN16	10 años-24 horas-9	1,68	0	1,24	0	0	0	0,44
[ha-m]	0							
EC-BN16	10 años-6 horas-10	12,9	0	8,3	0	0	0.0	4,6
[cm]	%							
EC-BN16	10 años-6 horas-10	11094	0	7103	0	0	0	3991
[m3]	%							
EC-BN16	10 años-6 horas-10	1,11	0,00	0,71	0	0	0	0,40
[ha-m]	%							
EC-BN16	10 años-6 horas-90	12,9	0	8,3	0	0	0.0	4,6
[cm]	%							
EC-BN16	10 años-6 horas-90	11094	0	7103	0	0	0	3991
[m3]	%							
EC-BN16	10 años-6 horas-90	1,11	0	0,71	0,00	0	0	0,40
[ha-m]	%							
EC-BN16	25 años-12 horas-1	20,1	0	15,0	0	0	0	5,1
[cm]	0							
EC-BN16	25 años-12 horas-1	17286	0	12902	0	0	0	4384
[m3]	0							
EC-BN16	25 años-12 horas-1	1,73	0	1,29	0	0	0	0,44
[ha-m]	0							
EC-BN16	25 años-12 horas-9	20,1	0	15	0	0	0.0	5,1
[cm]	0							
EC-BN16	25 años-12 horas-9	17286	0	12902	0	0	0	4384

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN16	25 años-12 horas-9	1,73	0	1,29	0	0	0	0,44
[ha-m]	0							
EC-BN16	25 años-24 horas-1	25,7	0	20,4	0	0	0	5,3
[cm]	0							
EC-BN16	25 años-24 horas-1	22102	0	17547	0	0	0	4555
[m3]	0							
EC-BN16	25 años-24 horas-1	2,21	0	1,75	0	0	0	0,46
[ha-m]	0							
EC-BN16	25 años-24 horas-9	25,7	0	20,4	0	0	0	5,3
[cm]	0							
EC-BN16	25 años-24 horas-9	22102	0	17547	0	0	0	4555
[m3]	0							
EC-BN16	25 años-24 horas-9	2,21	0	1,75	0	0	0	0,46
[ha-m]	0							
EC-BN16	25 años-6 horas-10	15,5	0	10,7	0	0	0.0	4,8
[cm]	%							
EC-BN16	25 años-6 horas-10	13330	0	9163	0	0	0	4167
[m3]	%							
EC-BN16	25 años-6 horas-10	1,33	0	0,92	0	0	0	0,42
[ha-m]	%							
EC-BN16	25 años-6 horas-90	15,5	0	10,7	0	0	0.0	4,8
[cm]	%							
EC-BN16	25 años-6 horas-90	13330	0	9163	0	0	0	4167
[m3]	%							
EC-BN16	25 años-6 horas-90	1,33	0	0,92	0	0	0	0,42
[ha-m]	%							

Lavabo simple: EC-BN17

Escenario: 38701-EC

Nodo: EC-N17

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 11,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484.0

Área: 5.8000 ha

Número de curva: 81,0

% Impermeable: 0,00

% DCIA: 0,00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN17	100 años-12 hr-10 %	1,632	0,8167	27,7	21,7	5,8000	81,0	0	0
EC-BN17	100 años-12 hr-90 %	1,380	12,0000	27,7	21,7	5,800	81,0	0	0
EC-BN17	100 años-24 hr-10 %	1,563	1,0333	36,7	30,5	5,8000	81,0	0	0
EC-BN17	100 años-24 hr-90 %	1,536	24,0000	36,7	30,5	5,800	81,0	0	0.00
EC-BN17	100 años-6 horas-10	1,662	0,7500	19,7	14,0	5,8000	81,0	0	0
EC-BN17	100 años-6 horas-90	1,214	6,0000	19,7	14,0	5,8000	81,0	0	0
EC-BN17	10 años-12 horas-10	0,765	1,0667	15,7	10,3	5,8000	81,0	0	0
EC-BN17	10 años-12 horas-90	0,737	12,0000	15,7	10,3	5,8000	81	0	0
EC-BN17	10 años-24 horas-10	0,664	1,0500	19,5	13,8	5,8000	81,0	0	0
EC-BN17	10 años-24 horas-90	0,781	24,00	19,5	13,8	5,8000	81	0	0
EC-BN17	10 años-6 horas-10	0,932	0,9000	12,9	7,8	5,800	81,0	0	0
EC-BN17	10 años-6 horas-90	0,745	6,0000	12,9	7,8	5,8000	81	0	0
EC-BN17	25 años-12 horas-10	1,074	1,0500	20,1	14,4	5,8000	81,0	0	0
EC-BN17	25 años-12 horas-90 %	0,974	12,0000	20,1	14,4	5,8000	81	0	0
EC-BN17	25 años-24 horas-10	0,985	1,0500	25,7	19,8	5,8000	81,0	0	0
EC-BN17	25 años-24 horas-90	1,055	24,0000	25,7	19,8	5,8000	81,0	0	0
EC-BN17	25 años-6 horas-10	1,206	0,8833	15,5	10,1	5,8000	81,0	0	0
EC-BN17	25 años-6 horas-90	0,925	6,0000	15,5	10,1	5,8000	81,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total	Total	Escorrentía total	ET total	Total inicial	Total	Cambio en el suelo

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN17 [cm]	100 años-12 horas-10	27,7	0	21,7	0	0	0	6
EC-BN17 [m3]	100 años-12 horas-10	16066	0	12581	0	0	0	3485
EC-BN17 [ha-m]	100 años-12 horas-10	1,61	0,00	1,26	0	0	0	0,35
EC-BN17 [cm]	100 años-12 horas-90	27,7	0,0	21,7	0	0	0	6
EC-BN17 [m3]	100 años-12 horas-90	16066	0	12581	0	0	0	3485
EC-BN17 [ha-m]	100 años-12 horas-90	1,61	0,00	1,26	0	0	0	0,35
EC-BN17 [cm]	100 años-24 horas-10	36,7	0	30,5	0	0	0	6,2
EC-BN17 [m3]	100 años-24 horas-10	21286	0	17674	0	0	0	3612
EC-BN17 [ha-m]	100 años-24 horas-10	2,13	0,00	1,77	0	0	0,00	0,36
EC-BN17 [cm]	100 años-24 horas-90	36,7	0	30,5	0	0	0	6,2
EC-BN17 [m3]	100 años-24 horas-90	21286	0	17674	0	0	0	3612
EC-BN17 [ha-m]	100 años-24 horas-90	2,13	0,00	1,77	0,00	0	0	0,36
EC-BN17 [cm]	100 años-6 horas-10	19,7	0	14,0	0	0	0	5,7
EC-BN17 [m3]	100 años-6 horas-10	11426	0	8138	0	0	0	3288
EC-BN17 [ha-m]	100 años-6 horas-10	1,14	0	0,81	0	0	0	0,33
EC-BN17 [cm]	100 años-6 horas-90	19,7	0	14,0	0	0	0	5,7
EC-BN17 [m3]	100 años-6 horas-90	11426	0	8138	0	0	0	3288
EC-BN17 [ha-m]	100 años-6 horas-90	1,14	0	0,81	0	0.00	0,00	0,33
EC-BN17 [cm]	10 años-12 horas-10	15,7	0	10,3	0	0	0	5,4
EC-BN17 [m3]	10 años-12 horas-10	9106	0	5978	0	0	0	3128
EC-BN17 [ha-m]	10 años-12 horas-10	0,91	0	0,60	0	0	0	0,31
EC-BN17 [cm]	10 años-12 horas-90	15,7	0	10,3	0	0	0.0	5,4
EC-BN17 [m3]	10 años-12 horas-90	9106	0	5978	0	0	0	3128
EC-BN17 [ha-m]	10 años-12 horas-90	0,91	0	0,60	0	0	0	0,31

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN17 [cm]	10 años-24 horas-10	19,5	0	13,8	0	0	0	5.7
EC-BN17 [m3]	10 años-24 horas-10	11310	0	8029	0	0	0	3281
EC-BN17 [ha-m]	10 años-24 horas-10	1,13	0	0,80	0	0	0	0,33
EC-BN17 [cm]	10 años-24 horas-90	19,5	0	13,8	0	0	0	5,7
EC-BN17 [m3]	10 años-24 horas-90	11310	0	8029	0	0	0	3281
EC-BN17 [ha-m]	10 años-24 horas-90	1,13	0	0,80	0	0	0	0,33
EC-BN17 [cm]	10 años-6 horas-10 %	12,9	0	7,8	0	0	0	5,1
EC-BN17 [m3]	10 años-6 horas-10 %	7482	0	4510	0	0	0	2972
EC-BN17 [ha-m]	10 años-6 horas-10 %	0,75	0	0,45	0,00	0	0	0,30
EC-BN17 [cm]	10 años-6 horas-90 %	12,9	0	7,8	0	0	0	5.1
EC-BN17 [m3]	10 años-6 horas-90 %	7482	0	4510	0	0	0	2972
EC-BN17 [ha-m]	10 años-6 horas-90 %	0,75	0	0,45	0,00	0	0	0,30
EC-BN17 [cm]	25 años-12 horas-10	20,1	0	14,4	0	0	0	5,7
EC-BN17 [m3]	25 años-12 horas-10	11658	0	8357	0	0	0	3301
EC-BN17 [ha-m]	25 años-12 horas-10	1,17	0	0,84	0	0	0	0,33
EC-BN17 [cm]	25 años-12 horas-90	20,1	0	14,4	0	0	0	5,7
EC-BN17 [m3]	25 años-12 horas-90	11658	0	8357	0	0	0	3301
EC-BN17 [ha-m]	25 años-12 horas-90	1,17	0	0,84	0	0	0	0,33
EC-BN17 [cm]	25 años-24 horas-10	25,7	0	19,8	0	0	0.0	5,9
EC-BN17 [m3]	25 años-24 horas-10	14906	0	11460	0	0	0	3446
EC-BN17 [ha-m]	25 años-24 horas-10	1,49	0	1,15	0	0	0	0,34
EC-BN17 [cm]	25 años-24 horas-90	25,7	0	19,8	0	0	0	5,9
EC-BN17 [m3]	25 años-24 horas-90	14906	0	11460	0	0	0	3446
EC-BN17 [ha-m]	25 años-24 horas-90	1,49	0	1,15	0	0	0	0,34

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN17 [cm]	25 años-6 horas-10 %	15,5	0	10,1	0	0	0	5,4
EC-BN17 [m3]	25 años-6 horas-10 %	8990	0	5872	0	0	0	3118
EC-BN17 [ha-m]	25 años-6 horas-10 %	0.90	0	0,59	0	0	0	0,31
EC-BN17 [cm]	25 años-6 horas-90 %	15,5	0	10,1	0	0	0	5,4
EC-BN17 [m3]	25 años-6 horas-90 %	8990	0	5872	0	0	0	3118
EC-BN17 [ha-m]	25 años-6 horas-90 %	0,90	0	0,59	0	0	0	0,31

Lavabo simple: EC-BN18

Escenario: 38701-EC

Nodo: EC-N18

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 10,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 19,6000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen sencillo de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Equivalente Número de curva	% Impermeable	% DCIA
EC-BN18	100 años-12 h r-10 %	5,747	0,8000	27,7	22,4	19,6000	83,0	0	0
EC-BN18	100 años-12 h r-90 %	4,711	12,0000	27,7	22,4	19,6000	83	0	0
EC-BN18	100 años-24 h r-10 %	5,451	1,0333	36,7	31,2	19,6000	83,0	0	0
EC-BN18	100 años-24 h	5,220	24,00	36,7	31,2	19,600	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Equivalente Número de curva	% Impermeable	% DCIA
	r-90 %								
EC-BN18	100 años-6 horas-10	5,882	0,7333	19,7	14,6	19,6000	83,0	0	0
EC-BN18	100 años-6 horas-90	4,163	6,0000	19,7	14,6	19,6000	83,0	0	0
EC-BN18	10 años-12 horas-10	2,735	1,0500	15,7	10,8	19,6000	83,0	0	0
EC-BN18	10 años-12 horas-90	2,547	12,0000	15,7	10,8	19,6000	83,0	0	0
EC-BN18	10 años-24 horas-10	2,401	1,0500	19,5	14,4	19,6000	83,0	0	0
EC-BN18	10 años-24 horas-90	2,677	24,00	19,5	14,4	19,6000	83,0	0	0
EC-BN18	10 años-6 horas-10	3,340	0,8833	12,9	8,3	19,6000	83,0	0	0
EC-BN18	10 años-6 horas-90	2,585	6,000	12,9	8,3	19,6000	83,0	0	0
EC-BN18	25 años-12 horas-10 %	3,786	1,0333	20,1	15,0	19,6000	83,0	0	0
EC-BN18	25 años-12 horas-90	3,346	12,0000	20,1	15	19,6000	83,0	0	0
EC-BN18	25 años-24 horas-10	3,498	1,0333	25,7	20,4	19,6000	83,0	0	0
EC-BN18	25 años-24 horas-90	3,599	24,00	25,7	20,4	19,6000	83,0	0	0
EC-BN18	25 años-6 horas-10	4,275	0,7500	15,5	10,7	19,6000	83,0	0	0
EC-BN18	25 años-6 horas-90	3,191	6,0000	15,5	10,7	19,6000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN18 [cm]	100 años-12 horas-10 %	27,7	0	22,4	0	0	0	5,3
EC-BN18 [m3]	100 años-12 horas-10	54292	0	43827	0	0	0	10465
EC-BN18 [ha-m]	100 años-12 horas-10	5,43	0,00	4,38	0	0	0	1,05
EC-BN18 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0	0	0	5,3
EC-BN18 [m3]	100 años-12 horas-90	54292	0	43827	0	0	0	10465
EC-BN18	100 años-12 horas-	5,43	0,00	4,38	0	0,00	0	1,05

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	90							
EC-BN18 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN18 [m3]	100 años-24 horas-10 %	71932	0	61143	0	0	0	10789
EC-BN18 [ha-m]	100 años-24 horas-10	7,19	0,00	6,11	0	0	0	1,08
EC-BN18 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN18 [m3]	100 años-24 horas-90	71932	0	61143	0	0	0	10789
EC-BN18 [ha-m]	100 años-24 horas-90	7,19	0,00	6,11	0	0	0	1,08
EC-BN18 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN18 [m3]	100 años-6 horas-10	38612	0	28669	0	0	0	9943
EC-BN18 [ha-m]	100 años-6 horas-10	3,86	0	2,87	0	0	0	0,99
EC-BN18 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN18 [m3]	100 años-6 horas-90	38612	0	28669	0	0	0	9943
EC-BN18 [ha-m]	100 años-6 horas-90	3,86	0	2,87	0	0	0	0,99
EC-BN18 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0,0	4,9
EC-BN18 [m3]	10 años-12 horas-10	30772	0	21258	0	0	0	9514
EC-BN18 [ha-m]	10 años-12 horas-10	3,08	0	2,13	0	0	0	0,95
EC-BN18 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BN18 [m3]	10 años-12 horas-90	30772	0	21258	0	0	0	9514
EC-BN18 [ha-m]	10 años-12 horas-90	3,08	0	2,13	0	0	0	0,95
EC-BN18 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN18 [m3]	10 años-24 horas-10	38220	0	28295	0	0	0	9925
EC-BN18 [ha-m]	10 años-24 horas-10	3,82	0	2,83	0	0	0	0,99
EC-BN18 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN18 [m3]	10 años-24 horas-90	38220	0	28295	0	0	0	9925
EC-BN18	10 años-24 horas-9	3,82	0,00	2,83	0	0	0	0,99

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN18 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0	4,6
EC-BN18 [m3]	10 años-6 horas-10 %	25284	0	16196	0	0	0	9088
EC-BN18 [ha-m]	10 años-6 horas-10 %	2,53	0	1,62	0,00	0	0	0,91
EC-BN18 [cm]	10 años-6 horas-90	12,9	0	8,3	0	0	0.0	4,6
EC-BN18 [m3]	10 años-6 horas-90 %	25284	0	16196	0	0	0	9088
EC-BN18 [ha-m]	10 años-6 horas-90 %	2,53	0	1,62	0,00	0	0	0,91
EC-BN18 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BN18 [m3]	25 años-12 horas-10	39396	0	29418	0	0	0	9978
EC-BN18 [ha-m]	25 años-12 horas-10	3,94	0	2,94	0	0	0	1,00
EC-BN18 [cm]	25 años-12 horas-9 0	20,1	0	15	0	0	0	5,1
EC-BN18 [m3]	25 años-12 horas-9 0	39396	0	29418	0	0	0	9978
EC-BN18 [ha-m]	25 años-12 horas-9 0	3,94	0	2,94	0	0	0	1,00
EC-BN18 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN18 [m3]	25 años-24 horas-10	50372	0	40010	0	0	0	10362
EC-BN18 [ha-m]	25 años-24 horas-10	5,04	0,00	4,00	0	0	0	1,04
EC-BN18 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0	0	0	5,3
EC-BN18 [m3]	25 años-24 horas-9 0	50372	0	40010	0	0	0	10362
EC-BN18 [ha-m]	25 años-24 horas-9 0	5,04	0,00	4,00	0	0	0	1,04
EC-BN18 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0.0	4,8
EC-BN18 [m3]	25 años-6 horas-10 %	30380	0	20893	0	0	0	9487
EC-BN18 [ha-m]	25 años-6 horas-10 %	3,04	0,00	2,09	0,00	0	0	0,95
EC-BN18 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0	4,8
EC-BN18 [m3]	25 años-6 horas-90 %	30380	0	20893	0	0	0	9487
EC-BN18	25 años-6 horas-90	3,04	0,00	2,09	0	0	0	0,95

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	%							

Cuenca simple: EC-BN19

Escenario: 38701-EC

Nodo: EC-N19

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 8,0000 min Q máximo admisible: 0,000 cms

Desfase temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484.0

Área: 16.9000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN19	100 años-12 h r-10 %	4,981	0,7833	27,7	22,3	16,9000	83,0	0	0
EC-BN19	100 años-12 h r-90 %	4,073	12,0000	27,7	22,3	16,9000	83,0	0	0
EC-BN19	100 años-24 h r-10 %	4,721	1,0167	36,7	31,2	16,9000	83,0	0	0
EC-BN19	100 años-24 h r-90 %	4,498	24,000	36,7	31,2	16,9000	83,0	0	0
EC-BN19	100 años-6 horas-10	5,102	0,7000	19,7	14,6	16,9000	83,0	0	0
EC-BN19	100 años-6 horas-90	3,589	6,000	19,7	14,6	16,9000	83,0	0	0
EC-BN19	10 años-12 horas-10	2,369	1,0333	15,7	10,8	16,9000	83,0	0	0
EC-BN19	10 años-12 horas-90	2,204	12,00	15,7	10,8	16,9000	83	0	0
EC-BN19	10 años-24 horas-10	2,087	1,0333	19,5	14,4	16,9000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN19	10 años-24 horas-90	2,308	24,0000	19,5	14,4	16,9000	83,0	0	0
EC-BN19	10 años-6 horas-10	2,891	0,8667	12,9	8,3	16,9000	83,0	0	0
EC-BN19	10 años-6 horas-90	2,230	6,000	12,9	8,3	16,9000	83,0	0	0
EC-BN19	25 años-12 horas-10	3,279	0,8000	20,1	15,0	16,9000	83,0	0	0
EC-BN19	25 años-12 horas-90	2,893	12,0000	20,1	15	16,9000	83,0	0	0
EC-BN19	25 años-24 horas-10	3,034	1,0167	25,7	20,4	16,9000	83,0	0	0
EC-BN19	25 años-24 horas-90	3,103	24,00	25,7	20,4	16,9000	83	0	0
EC-BN19	25 años-6 horas-10	3,713	0,7167	15,5	10,7	16,9000	83,0	0	0
EC-BN19	25 años-6 horas-90	2,752	6,0000	15,5	10,7	16,9000	83,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN19 [cm]	100 años-12 horas-10	27,7	0	22,3	0	0	0	5,4
EC-BN19 [m3]	100 años-12 horas-10	46813	0	37758	0	0	0	9055
EC-BN19 [ha-m]	100 años-12 horas-10	4,68	0,00	3,78	0	0	0	0,91
EC-BN19 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BN19 [m3]	100 años-12 horas-90	46813	0	37758	0	0	0	9055
EC-BN19 [ha-m]	100 años-12 horas-90	4,68	0,00	3,78	0	0	0	0,91
EC-BN19 [cm]	100 años-24 horas-10 %	36,7	0	31,2	0	0	0	5,5
EC-BN19 [m3]	100 años-24 horas-10	62023	0	52676	0	0	0	9347
EC-BN19 [ha-m]	100 años-24 horas-10	6,20	0,00	5,27	0,00	0	0	0,93
EC-BN19 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN19 [m3]	100 años-24 horas-90	62023	0	52676	0	0	0	9347

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN19 [ha-m]	100 años-24 horas-90	6,20	0,00	5,27	0,00	0	0	0,93
EC-BN19 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN19 [m3]	100 años-6 horas-10 %	33293	0	24699	0	0	0	8594
EC-BN19 [ha-m]	100 años-6 horas-10	3,33	0	2,47	0	0	0	0,86
EC-BN19 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN19 [m3]	100 años-6 horas-90	33293	0	24699	0	0	0	8594
EC-BN19 [ha-m]	100 años-6 horas-90	3,33	0	2,47	0	0	0	0,86
EC-BN19 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN19 [m3]	10 años-12 horas-10	26533	0	18315	0	0	0	8218
EC-BN19 [ha-m]	10 años-12 horas-10	2,65	0	1,83	0	0	0	0,82
EC-BN19 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BN19 [m3]	10 años-12 horas-90	26533	0	18315	0	0	0	8218
EC-BN19 [ha-m]	10 años-12 horas-90	2,65	0	1,83	0	0	0	0,82
EC-BN19 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN19 [m3]	10 años-24 horas-10	32955	0	24377	0	0	0	8578
EC-BN19 [ha-m]	10 años-24 horas-10	3,30	0	2,44	0	0	0	0,86
EC-BN19 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN19 [m3]	10 años-24 horas-90	32955	0	24377	0	0	0	8578
EC-BN19 [ha-m]	10 años-24 horas-90	3,30	0	2,44	0	0	0	0,86
EC-BN19 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4.6
EC-BN19 [m3]	10 años-6 horas-10 %	21801	0	13954	0	0	0	7847
EC-BN19 [ha-m]	10 años-6 horas-10 %	2,18	0	1,40	0,00	0	0	0,78
EC-BN19 [cm]	10 años-6 horas-90	12,9	0	8,3	0	0	0.0	4,6
EC-BN19 [m3]	10 años-6 horas-90 %	21801	0	13954	0	0	0	7847

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN19 [ha-m]	10 años-6 horas-90 %	2,18	0	1,40	0,00	0	0	0,78
EC-BN19 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BN19 [m3]	25 años-12 horas-10	33969	0	25344	0	0	0	8625
EC-BN19 [ha-m]	25 años-12 horas-10	3,40	0	2,53	0	0	0	0,86
EC-BN19 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0	5,1
EC-BN19 [m3]	25 años-12 horas-90	33969	0	25344	0	0	0	8625
EC-BN19 [ha-m]	25 años-12 horas-90	3,40	0	2,53	0	0	0	0,86
EC-BN19 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN19 [m3]	25 años-24 horas-10	43433	0	34469	0	0	0	8964
EC-BN19 [ha-m]	25 años-24 horas-10	4,34	0,00	3,45	0	0	0	0,90
EC-BN19 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BN19 [m3]	25 años-24 horas-90	43433	0	34469	0	0	0	8964
EC-BN19 [ha-m]	25 años-24 horas-90	4,34	0	3,45	0	0	0	0,90
EC-BN19 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0	4,8
EC-BN19 [m3]	25 años-6 horas-10 %	26195	0	18000	0	0	0	8195
EC-BN19 [ha-m]	25 años-6 horas-10 %	2,62	0	1,80	0	0	0	0,82
EC-BN19 [cm]	25 años-6 horas-90	15,5	0	10,7	0	0	0	4,8
EC-BN19 [m3]	25 años-6 horas-90 %	26195	0	18000	0	0	0	8195
EC-BN19 [ha-m]	25 años-6 horas-90 %	2,62	0	1,80	0	0	0	0,82

Lavabo simple: EC-BN20

Escenario: 38701-EC

Nodo: EC-N20

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 7,0000 min

Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Superficie:	8,5000 ha
Número de curva:	83,0
% Impermeable:	0
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BN20	100 años-12 hr-10 %	2,511	0,7833	27,7	22,3	8,5000	83,0	0	0
EC-BN20	100 años-12 hr-90 %	2,051	12,0000	27,7	22,3	8,500	83,0	0.00	0
EC-BN20	100 años-24 hr-10 %	2,379	1,0167	36,7	31,2	8,5000	83,0	0	0
EC-BN20	100 años-24 hr-90 %	2,263	24,00	36,7	31,2	8,5000	83,0	0	0
EC-BN20	100 años-6 horas-10	2,576	0,7000	19,7	14,6	8,5000	83,0	0	0
EC-BN20	100 años-6 horas-90	1,805	6,0000	19,7	14,6	8,5000	83,0	0	0
EC-BN20	10 años-12 horas-10	1,194	1,0167	15,7	10,8	8,5000	83,0	0	0
EC-BN20	10 años-12 horas-90	1,110	12,0000	15,7	10,8	8,5000	83	0	0
EC-BN20	10 años-24 horas-10	1,055	1,0167	19,5	14,4	8,5000	83,0	0	0
EC-BN20	10 años-24 horas-90	1,161	24,00	19,5	14,4	8,5000	83,0	0	0
EC-BN20	10 años-6 horas-10	1,457	0,8500	12,9	8.3	8,5000	83,0	0	0
EC-BN20	10 años-6 horas-90	1,122	6,0000	12,9	8,3	8,5000	83,0	0	0
EC-BN20	25 años-12 horas-10	1,656	0,7833	20,1	15,0	8,5000	83,0	0	0
EC-BN20	25 años-12 horas-90	1,457	12,0000	20,1	15	8,5000	83,0	0	0
EC-BN20	25 años-24 horas-10	1,532	1,0167	25,7	20,4	8,5000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN20	25 años-24 horas-90	1,561	24,0000	25,7	20,4	8,5000	83,0	0	0
EC-BN20	25 años-6 horas-10	1,875	0,7000	15,5	10,6	8,5000	83,0	0	0
EC-BN20	25 años-6 horas-90	1,385	6,0000	15,5	10,6	8,5000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN20 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BN20 [m3]	100 años-12 horas-10	23545	0	18989	0	0	0	4556
EC-BN20 [ha-m]	100 años-12 horas-10	2,35	0,00	1,90	0	0	0	0,46
EC-BN20 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BN20 [m3]	100 años-12 horas-90	23545	0	18989	0	0	0	4556
EC-BN20 [ha-m]	100 años-12 horas-90 %	2,35	0,00	1,90	0,00	0	0	0,46
EC-BN20 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BN20 [m3]	100 años-24 horas-10	31195	0	26491	0	0	0	4704
EC-BN20 [ha-m]	100 años-24 horas-10	3,12	0,00	2,65	0	0	0	0,47
EC-BN20 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN20 [m3]	100 años-24 horas-90	31195	0	26491	0	0	0	4704
EC-BN20 [ha-m]	100 años-24 horas-90	3,12	0,00	2,65	0	0	0	0,47
EC-BN20 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN20 [m3]	100 años-6 horas-10	16745	0	12421	0	0	0	4324
EC-BN20 [ha-m]	100 años-6 horas-10	1,67	0	1,24	0	0	0	0,43
EC-BN20 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN20 [m3]	100 años-6 horas-90	16745	0	12421	0	0	0	4324

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN20 [ha-m]	100 años-6 horas-90	1,67	0	1,24	0	0	0	0,43
EC-BN20 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0,0	4,9
EC-BN20 [m3]	10 años-12 horas-10	13345	0	9211	0	0	0	4134
EC-BN20 [ha-m]	10 años-12 horas-10	1,33	0	0,92	0	0	0	0,41
EC-BN20 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BN20 [m3]	10 años-12 horas-90	13345	0	9211	0	0	0	4134
EC-BN20 [ha-m]	10 años-12 horas-90	1,33	0	0,92	0	0	0	0,41
EC-BN20 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN20 [m3]	10 años-24 horas-10	16575	0	12259	0	0	0	4316
EC-BN20 [ha-m]	10 años-24 horas-10	1,66	0	1,23	0	0	0	0,43
EC-BN20 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN20 [m3]	10 años-24 horas-90	16575	0	12259	0	0	0	4316
EC-BN20 [ha-m]	10 años-24 horas-90	1,66	0	1,23	0	0.00	0,00	0,43
EC-BN20 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BN20 [m3]	10 años-6 horas-10 %	10965	0	7017	0	0	0	3948
EC-BN20 [ha-m]	10 años-6 horas-10 %	1,10	0	0,70	0,00	0	0	0,39
EC-BN20 [cm]	10 años-6 horas-90	12,9	0	8,3	0	0	0.0	4,6
EC-BN20 [m3]	10 años-6 horas-90 %	10965	0	7017	0	0	0	3948
EC-BN20 [ha-m]	10 años-6 horas-90 %	1,10	0	0,70	0	0	0	0,39
EC-BN20 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BN20 [m3]	25 años-12 horas-10	17085	0	12746	0	0	0	4339
EC-BN20 [ha-m]	25 años-12 horas-10	1,71	0	1,27	0.00	0.00	0	0,43
EC-BN20 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BN20 [m3]	25 años-12 horas-90	17085	0	12746	0	0	0	4339

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN20 [ha-m]	25 años-12 horas-9 0	1,71	0	1,27	0	0	0	0,43
EC-BN20 [cm]	25 años-24 horas-1 0	25,7	0	20,4	0	0	0	5,3
EC-BN20 [m3]	25 años-24 horas-1 0	21845	0	17335	0	0	0	4510
EC-BN20 [ha-m]	25 años-24 horas-1 0	2,18	0	1,73	0	0	0	0,45
EC-BN20 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0.0	0	0.0	5,3
EC-BN20 [m3]	25 años-24 horas-9 0	21845	0	17335	0	0	0	4510
EC-BN20 [ha-m]	25 años-24 horas-9 0	2,18	0	1,73	0	0	0	0,45
EC-BN20 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0	4,9
EC-BN20 [m3]	25 años-6 horas-10 %	13175	0	9052	0	0	0	4123
EC-BN20 [ha-m]	25 años-6 horas-10 %	1,32	0	0,91	0	0	0	0,41
EC-BN20 [cm]	25 años-6 horas-90	15,5	0	10,6	0	0	0,0	4,9
EC-BN20 [m3]	25 años-6 horas-90 %	13175	0	9052	0	0	0	4123
EC-BN20 [ha-m]	25 años-6 horas-90 %	1,32	0	0,91	0	0	0	0,41

Lavabo simple: EC-BN21

Escenario: 38701-EC

Nodo: EC-N21

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 16,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 26.4000 ha

Número de curva: 82.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN21	100 años-12 hr-10 %	7,445	0,9000	27,7	22,0	26,4000	82,0	0	0
EC-BN21	100 años-12 hr-90 %	6,204	12,0167	27,7	22	26,4000	82	0	0
EC-BN21	100 años-24 hr-10 %	7,121	1,0667	36,7	30,8	26,4000	82,0	0	0
EC-BN21	100 años-24 hr-90 %	6,970	24,00	36,7	30,8	26,4000	82	0	0
EC-BN21	100 años-6 horas-10	7,610	0,8833	19,7	14,3	26,4000	82,0	0	0
EC-BN21	100 años-6 horas-90	5,540	6,000	19,7	14,3	26,4000	82	0	0
EC-BN21	10 años-12 horas-10	3,531	1,1167	15,7	10,6	26,4000	82,0	0	0
EC-BN21	10 años-12 horas-90	3,330	12,0167	15,7	10,6	26,4000	82	0	0
EC-BN21	10 años-24 horas-10	3,048	1,1000	19,5	14,1	26,4000	82,0	0	0
EC-BN21	10 años-24 horas-90	3,555	24,00	19,5	14,1	26,4000	82,0	0	0
EC-BN21	10 años-6 horas-10	4,290	0,9500	12,9	8,0	26,4000	82,0	0	0
EC-BN21	10 años-6 horas-90	3,409	6,000	12,9	8	26,4000	82	0	0
EC-BN21	25 años-12 horas-10	4,944	1,0833	20,1	14,7	26,4000	82,0	0	0
EC-BN21	25 años-12 horas-90	4,391	12,0167	20,1	14,7	26,4000	82,0	0	0
EC-BN21	25 años-24 horas-10	4,501	1,0833	25,7	20,1	26,4000	82,0	0	0
EC-BN21	25 años-24 horas-90	4,794	24,00	25,7	20,1	26,4000	82,0	0	0
EC-BN21	25 años-6 horas-10	5,543	0,9167	15,5	10,4	26,4000	82,0	0	0
EC-BN21	25 años-6 horas-90	4,227	6,0000	15,5	10,4	26,4000	82,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN21 [cm]	100 años-12 horas-10	27,7	0	22,0	0	0	0	5,7
EC-BN21	100 años-12 horas-	73128	0	58092	0	0	0	15036

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	10							
EC-BN21 [ha-m]	100 años-12 horas-10	7,31	0,00	5,81	0	0	0	1,50
EC-BN21 [cm]	100 años-12 horas-90	27,7	0,0	22,0	0	0	0	5,7
EC-BN21 [m3]	100 años-12 horas-90	73128	0	58092	0	0	0	15036
EC-BN21 [ha-m]	100 años-12 horas-90 %	7,31	0,00	5,81	0	0	0	1,50
EC-BN21 [cm]	100 años-24 horas-10	36,7	0	30,8	0	0	0	5,9
EC-BN21 [m3]	100 años-24 horas-10	96888	0	81324	0	0	0	15564
EC-BN21 [ha-m]	100 años-24 horas-10	9,69	0,00	8,13	0	0	0	1,56
EC-BN21 [cm]	100 años-24 horas-90	36,7	0	30,8	0	0	0	5,9
EC-BN21 [m3]	100 años-24 horas-90	96888	0	81324	0	0	0	15564
EC-BN21 [ha-m]	100 años-24 horas-90	9,69	0,00	8,13	0	0	0	1,56
EC-BN21 [cm]	100 años-6 horas-10	19,7	0	14,3	0	0	0	5,4
EC-BN21 [m3]	100 años-6 horas-10	52008	0	37790	0	0	0	14218
EC-BN21 [ha-m]	100 años-6 horas-10	5,20	0	3,78	0	0	0	1,42
EC-BN21 [cm]	100 años-6 horas-90	19,7	0	14,3	0	0	0	5,4
EC-BN21 [m3]	100 años-6 horas-90	52008	0	37790	0	0	0	14218
EC-BN21 [ha-m]	100 años-6 horas-90	5,20	0	3,78	0	0	0	1,42
EC-BN21 [cm]	10 años-12 horas-10	15,7	0	10,6	0	0	0.0	5,1
EC-BN21 [m3]	10 años-12 horas-10	41448	0	27892	0	0	0	13556
EC-BN21 [ha-m]	10 años-12 horas-10	4,14	0	2,79	0	0	0	1,36
EC-BN21 [cm]	10 años-12 horas-90	15,7	0	10,6	0	0	0.0	5,1
EC-BN21 [m3]	10 años-12 horas-90	41448	0	27892	0	0	0	13556
EC-BN21 [ha-m]	10 años-12 horas-90	4,14	0	2,79	0	0	0	1,36
EC-BN21 [cm]	10 años-24 horas-10	19,5	0	14,1	0	0	0	5,4
EC-BN21	10 años-24 horas-1	51480	0	37290	0	0	0	14190

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BN21 [ha-m]	10 años-24 horas-10	5,15	0	3,73	0	0	0	1,42
EC-BN21 [cm]	10 años-24 horas-90	19,5	0	14,1	0	0	0	5,4
EC-BN21 [m3]	10 años-24 horas-90	51480	0	37290	0	0	0	14190
EC-BN21 [ha-m]	10 años-24 horas-90	5,15	0	3,73	0	0.00	0,00	1,42
EC-BN21 [cm]	10 años-6 horas-10 %	12,9	0	8	0	0	0.0	4.9
EC-BN21 [m3]	10 años-6 horas-10 %	34056	0	21147	0	0	0	12909
EC-BN21 [ha-m]	10 años-6 horas-10 %	3,41	0	2,11	0	0	0	1,29
EC-BN21 [cm]	10 años-6 horas-90	12,9	0	8	0	0	0.0	4.9
EC-BN21 [m3]	10 años-6 horas-90 %	34056	0	21147	0	0	0	12909
EC-BN21 [ha-m]	10 años-6 horas-90 %	3,41	0	2,11	0	0	0	1,29
EC-BN21 [cm]	25 años-12 horas-10	20,1	0	14,7	0	0	0	5,4
EC-BN21 [m3]	25 años-12 horas-10	53064	0	38792	0	0	0	14272
EC-BN21 [ha-m]	25 años-12 horas-10	5,31	0	3,88	0,00	0	0	1,43
EC-BN21 [cm]	25 años-12 horas-90	20,1	0	14,7	0	0	0	5,4
EC-BN21 [m3]	25 años-12 horas-90	53064	0	38792	0	0	0	14272
EC-BN21 [ha-m]	25 años-12 horas-90	5,31	0	3,88	0	0	0	1,43
EC-BN21 [cm]	25 años-24 horas-10	25,7	0	20,1	0	0	0	5,6
EC-BN21 [m3]	25 años-24 horas-10	67848	0	52974	0	0	0	14874
EC-BN21 [ha-m]	25 años-24 horas-10	6,78	0	5,30	0	0	0	1,49
EC-BN21 [cm]	25 años-24 horas-90	25,7	0	20,1	0	0	0	5,6
EC-BN21 [m3]	25 años-24 horas-90	67848	0	52974	0	0	0	14874
EC-BN21 [ha-m]	25 años-24 horas-90	6,78	0,00	5,30	0	0	0	1,49
EC-BN21 [cm]	25 años-6 horas-10 %	15,5	0	10,4	0	0	0.0	5,1
EC-BN21	25 años-6 horas-10	40920	0	27404	0	0	0	13516

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BN21 [ha-m]	25 años-6 horas-10 %	4,09	0	2,74	0,00	0	0	1,35
EC-BN21 [cm]	25 años-6 horas-90 %	15,5	0	10,4	0	0	0.0	5,1
EC-BN21 [m3]	25 años-6 horas-90 %	40920	0	27404	0	0	0	13516
EC-BN21 [ha-m]	25 años-6 horas-90 %	4,09	0	2,74	0,00	0	0	1,35

Lavabo simple: EC-BN22

Escenario: 38701-EC

Nodo: EC-N22

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 23,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 58.4000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN22	100 años-12 h r-10 %	16,506	1,0833	27,7	22,3	58,4000	83,0	0	0
EC-BN22	100 años-12 h r-90 %	13,432	12,0333	27,7	22,3	58,4000	83,0	0	0
EC-BN22	100 años-24 h r-10 %	15,671	1,1333	36,7	31,2	58,4000	83,0	0	0
EC-BN22	100 años-24 h r-90 %	15,240	24,0167	36,7	31,2	58,4000	83,0	0	0
EC-BN22	100 años-6 horas-10	16,708	0,9833	19,7	14,6	58,4000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN22	100 años-6 horas-90	12,217	6,0167	19,7	14,6	58,4000	83,0	0	0
EC-BN22	10 años-12 horas-10	7,892	1,2500	15,7	10,8	58,4000	83,0	0	0
EC-BN22	10 años-12 horas-90	7,233	12,0333	15,7	10,8	58,4000	83,0	0	0
EC-BN22	10 años-24 horas-10	6,815	1,5833	19,5	14,4	58,4000	83,0	0	0
EC-BN22	10 años-24 horas-90	7,795	24,0167	19,5	14,4	58,4000	83,0	0	0
EC-BN22	10 años-6 horas-10	9,507	1,0667	12,9	8,3	58,4000	83,0	0	0
EC-BN22	10 años-6 horas-90	7,535	6,0167	12,9	8,3	58,4000	83,0	0	0
EC-BN22	25 años-12 horas-10	10,995	1,1500	20,1	15,0	58,4000	83,0	0	0
EC-BN22	25 años-12 horas-90	9,521	12,0333	20,1	15	58,4000	83	0	0
EC-BN22	25 años-24 horas-10	9,926	1,1667	25,7	20,4	58,4000	83,0	0	0
EC-BN22	25 años-24 horas-90	10,496	24,0167	25,7	20,4	58,4000	83	0	0
EC-BN22	25 años-6 horas-10	12,221	1,0167	15,5	10,7	58,4000	83,0	0	0
EC-BN22	25 años-6 horas-90	9,334	6,0167	15,5	10,7	58,4000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN22 [cm]	100 años-12 horas-10	27,7	0	22,3	0	0	0	5,4
EC-BN22 [m3]	100 años-12 horas-10	161768	0	130520	0	0	0	31248
EC-BN22 [ha-m]	100 años-12 horas-10	16,18	0,00	13,05	0	0	0	3,12
EC-BN22 [cm]	100 años-12 horas-90	27,7	0	22,3	0	0	0	5,4
EC-BN22 [m3]	100 años-12 horas-90	161768	0	130520	0	0	0	31248
EC-BN22 [ha-m]	100 años-12 horas-90	16,18	0,00	13,05	0	0	0	3,12
EC-BN22 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN22 [m3]	100 años-24 horas-10	214 328	0	182086	0	0	0	32242
EC-BN22 [ha-m]	100 años-24 horas-10	21,43	0,00	18,21	0	0	0	3,22
EC-BN22 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BN22 [m3]	100 años-24 horas-90	214328	0	182086	0	0	0	32242
EC-BN22 [ha-m]	100 años-24 horas-90	21,43	0,00	18,21	0.00	0,00	0	3,22
EC-BN22 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BN22 [m3]	100 años-6 horas-10	115048	0	85377	0	0	0	29671
EC-BN22 [ha-m]	100 años-6 horas-10	11,50	0	8,54	0	0	0	2,97
EC-BN22 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BN22 [m3]	100 años-6 horas-90	115048	0	85377	0	0	0	29671
EC-BN22 [ha-m]	100 años-6 horas-90	11,50	0	8,54	0	0	0	2,97
EC-BN22 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BN22 [m3]	10 años-12 horas-10	91688	0	63309	0	0	0	28379
EC-BN22 [ha-m]	10 años-12 horas-10	9,17	0.00	6,33	0,00	0	0,00	2,84
EC-BN22 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BN22 [m3]	10 años-12 horas-90	91688	0	63309	0	0	0	28379
EC-BN22 [ha-m]	10 años-12 horas-90	9,17	0	6,33	0	0	0	2,84
EC-BN22 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BN22 [m3]	10 años-24 horas-10	113880	0	84263	0	0	0	29617
EC-BN22 [ha-m]	10 años-24 horas-10	11,39	0	8,43	0	0	0	2,96
EC-BN22 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BN22 [m3]	10 años-24 horas-90	113880	0	84263	0	0	0	29617
EC-BN22 [ha-m]	10 años-24 horas-90 %	11,39	0,00	8,43	0	0	0	2,96
EC-BN22 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0	4,6

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN22 [m3]	10 años-6 horas-10 %	75336	0	48234	0	0	0	27102
EC-BN22 [ha-m]	10 años-6 horas-10 %	7,53	0	4,82	0,00	0	0	2,71
EC-BN22 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0	4,6
EC-BN22 [m3]	10 años-6 horas-90 %	75336	0	48234	0	0	0	27102
EC-BN22 [ha-m]	10 años-6 horas-90 %	7,53	0	4,82	0,00	0	0	2,71
EC-BN22 [cm]	25 años-12 horas-10	20,1	0	15	0	0	0	5,1
EC-BN22 [m3]	25 años-12 horas-10	117384	0	87608	0	0	0	29776
EC-BN22 [ha-m]	25 años-12 horas-10 %	11,74	0,00	8,76	0	0	0	2,98
EC-BN22 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0	5,1
EC-BN22 [m3]	25 años-12 horas-90	117384	0	87608	0	0	0	29776
EC-BN22 [ha-m]	25 años-12 horas-90	11,74	0	8,76	0	0	0	2,98
EC-BN22 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BN22 [m3]	25 años-24 horas-10	150088	0	119151	0	0	0	30937
EC-BN22 [ha-m]	25 años-24 horas-10	15,01	0,00	11,92	0	0	0	3,09
EC-BN22 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BN22 [m3]	25 años-24 horas-90	150088	0	119151	0	0	0	30937
EC-BN22 [ha-m]	25 años-24 horas-90	15,01	0,00	11,92	0	0	0	3,09
EC-BN22 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0	4,8
EC-BN22 [m3]	25 años-6 horas-10 %	90520	0	62220	0	0	0	28300
EC-BN22 [ha-m]	25 años-6 horas-10 %	9,05	0,00	6,22	0,00	0	0	2,83
EC-BN22 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0,0	4,8
EC-BN22 [m3]	25 años-6 horas-90 %	90520	0	62220	0	0	0	28300
EC-BN22 [ha-m]	25 años-6 horas-90 %	9,05	0,00	6,22	0	0	0	2,83

Lavabo simple: EC-BN23

Escenario: 38701-EC
Nodo: EC-N23
Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva
Tiempo de concentración: 11,0000 min Q máximo permitido: 0,000 cms
Desfase temporal: 0,0000 h
Hidrograma unitario: UH484
Factor de pico: 484,0
Área: 8.1000 ha
Número de curva: 84.0
% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN23	100 años-12 h r-10 %	2,410	0,8000	27,7	22,7	8,1000	84,0	0	0
EC-BN23	100 años-12 h r-90 %	1,949	12,0000	27,7	22,7	8,1000	84,0	0	0
EC-BN23	100 años-24 h r-10 %	2,278	1,0333	36,7	31,5	8,1000	84,0	0	0
EC-BN23	100 años-24 h r-90 %	2,160	24,000	36,7	31,5	8,1000	84	0	0
EC-BN23	100 años-6 horas-10	2,471	0,7333	19,7	14,9	8,1000	84,0	0	0
EC-BN23	100 años-6 horas-90	1,730	6,000	19,7	14,9	8,1000	84,0	0	0
EC-BN23	10 años-12 horas-10	1,157	1,0500	15,7	11,1	8,1000	84,0	0	0
EC-BN23	10 años-12 horas-90	1,059	12,0000	15,7	11,1	8,1000	84	0	0
EC-BN23	10 años-24 horas-10	1,018	1,0500	19,5	14,7	8,1000	84,0	0	0
EC-BN23	10 años-24 horas-90	1,112	24,00	19,5	14,7	8,1000	84	0	0
EC-BN23	10 años-6 horas-10	1,414	0,8833	12,9	8,5	8,1000	84,0	0	0
EC-BN23	10 años-6 horas-90	1,079	6,000	12,9	8,5	8,1000	84,0	0	0

Nombre de la cuenca	Nombre de la sim	Caudal máximo [cms]	Tiempo hasta alcanzar el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN23	25 años-12 horas-10	1,595	0,8333	20,1	15,3	8,1000	84,0	0	0
EC-BN23	25 años-12 horas-90	1,387	12,0000	20,1	15,3	8,1000	84,0	0	0
EC-BN23	25 años-24 horas-10	1,471	1,0333	25,7	20,7	8,1000	84,0	0	0
EC-BN23	25 años-24 horas-90	1,492	24,00	25,7	20,7	8,1000	84,0	0	0
EC-BN23	25 años-6 horas-10	1,806	0,7667	15,5	10,9	8,1000	84,0	0	0
EC-BN23	25 años-6 horas-90	1,329	6,0000	15,5	10,9	8,1000	84,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN23 [cm]	100 años-12 horas-10	27,7	0,0	22,7	0	0	0	5
EC-BN23 [m3]	100 años-12 horas-10	22437	0	18375	0	0	0	4062
EC-BN23 [ha-m]	100 años-12 horas-10	2,24	0,00	1,84	0	0	0	0,41
EC-BN23 [cm]	100 años-12 horas-90	27,7	0,0	22,7	0	0	0	5
EC-BN23 [m3]	100 años-12 horas-90	22437	0	18375	0	0	0	4062
EC-BN23 [ha-m]	100 años-12 horas-90	2,24	0,00	1,84	0,00	0	0	0,41
EC-BN23 [cm]	100 años-24 horas-10 %	36,7	0	31,5	0	0	0	5,2
EC-BN23 [m3]	100 años-24 horas-10	29727	0	25547	0	0	0	4180
EC-BN23 [ha-m]	100 años-24 horas-10	2,97	0,00	2,55	0	0	0	0,42
EC-BN23 [cm]	100 años-24 horas-90	36,7	0	31,5	0	0	0	5,2
EC-BN23 [m3]	100 años-24 horas-90	29727	0	25547	0	0	0	4180
EC-BN23 [ha-m]	100 años-24 horas-90	2,97	0,00	2,55	0	0	0	0,42
EC-BN23 [cm]	100 años-6 horas-10	19,7	0	14,9	0	0	0	4,8
EC-BN23 [m3]	100 años-6 horas-10	15957	0	12085	0	0	0	3872

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Resumen	Total Recarga	Cambiar tierra Almacenamiento
EC-BN23 [ha-m]	100 años-6 horas-10	1,60	0	1,21	0	0	0	0,39
EC-BN23 [cm]	100 años-6 horas-90	19,7	0	14,9	0	0	0	4,8
EC-BN23 [m3]	100 años-6 horas-90	15957	0	12085	0	0	0	3872
EC-BN23 [ha-m]	100 años-6 horas-90	1,60	0	1,21	0	0	0	0,39
EC-BN23 [cm]	10 años-12 horas-10	15,7	0	11,1	0	0	0.0	4,6
EC-BN23 [m3]	10 años-12 horas-10	12717	0	9003	0	0	0	3714
EC-BN23 [ha-m]	10 años-12 horas-10	1,27	0	0,90	0	0	0	0,37
EC-BN23 [cm]	10 años-12 horas-90	15,7	0	11,1	0	0	0	4,6
EC-BN23 [m3]	10 años-12 horas-90	12717	0	9003	0	0	0	3714
EC-BN23 [ha-m]	10 años-12 horas-90	1,27	0	0,90	0	0	0	0,37
EC-BN23 [cm]	10 años-24 horas-10	19,5	0	14,7	0	0	0	4,8
EC-BN23 [m3]	10 años-24 horas-10	15795	0	11929	0	0	0	3866
EC-BN23 [ha-m]	10 años-24 horas-10	1,58	0	1,19	0	0	0	0,39
EC-BN23 [cm]	10 años-24 horas-90	19,5	0	14,7	0	0	0	4,8
EC-BN23 [m3]	10 años-24 horas-90	15795	0	11929	0	0	0	3866
EC-BN23 [ha-m]	10 años-24 horas-90	1,58	0	1,19	0	0	0	0,39
EC-BN23 [cm]	10 años-6 horas-10 %	12,9	0	8,5	0	0	0.0	4,4
EC-BN23 [m3]	10 años-6 horas-10 %	10449	0	6892	0	0	0	3557
EC-BN23 [ha-m]	10 años-6 horas-10 %	1,04	0	0,69	0,00	0	0	0,36
EC-BN23 [cm]	10 años-6 horas-90	12,9	0	8,5	0	0	0.0	4.4
EC-BN23 [m3]	10 años-6 horas-90 %	10449	0	6892	0	0	0	3557
EC-BN23 [ha-m]	10 años-6 horas-90 %	1,04	0	0,69	0	0	0	0,36
EC-BN23 [cm]	25 años-12 horas-10	20,1	0	15,3	0	0	0	4,8
EC-BN23 [m3]	25 años-12 horas-10	16281	0	12396	0	0	0	3885

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN23 [ha-m]	25 años-12 horas-10	1,63	0,00	1,24	0	0	0	0,39
EC-BN23 [cm]	25 años-12 horas-9 0	20,1	0	15,3	0	0	0	4,8
EC-BN23 [m3]	25 años-12 horas-9 0	16281	0	12396	0	0	0	3885
EC-BN23 [ha-m]	25 años-12 horas-9 0	1,63	0	1,24	0	0	0	0,39
EC-BN23 [cm]	25 años-24 horas-10	25,7	0	20,7	0	0	0	5
EC-BN23 [m3]	25 años-24 horas-10	20817	0	16792	0	0	0	4025
EC-BN23 [ha-m]	25 años-24 horas-10	2,08	0	1,68	0	0	0	0,40
EC-BN23 [cm]	25 años-24 horas-9 0	25,7	0	20,7	0	0	0	5
EC-BN23 [m3]	25 años-24 horas-9 0	20817	0	16792	0	0	0	4025
EC-BN23 [ha-m]	25 años-24 horas-9 0	2,08	0,00	1,68	0	0	0	0,40
EC-BN23 [cm]	25 años-6 horas-10 %	15,5	0	10,9	0	0	0	4,6
EC-BN23 [m3]	25 años-6 horas-10 %	12555	0	8850	0	0	0	3705
EC-BN23 [ha-m]	25 años-6 horas-10 %	1,26	0	0,89	0	0	0	0,37
EC-BN23 [cm]	25 años-6 horas-90 %	15,5	0	10,9	0	0	0	4,6
EC-BN23 [m3]	25 años-6 horas-90 %	12555	0	8850	0	0	0	3705
EC-BN23 [ha-m]	25 años-6 horas-90 %	1,26	0	0,89	0	0	0	0,37

Lavabo simple: EC-BN24

Escenario: 38701-EC

Nodo: EC-N24

Método hidrográfico: Hidrograma unitario NRCS Método de infiltración: Número de curva

Tiempo de concentración: 21,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 27.7000 ha

Número de curva: 84.0

% Impermeable: 0.00

% DCIA: 0

% Directo: 0

Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN24	100 años-12 h r-10 %	7,993	1,0167	27,7	22,7	27,7000	84,0	0	0
EC-BN24	100 años-12 h r-90 %	6,441	12,0333	27,7	22,7	27,7000	84,0	0	0
EC-BN24	100 años-24 h r-10 %	7,599	1,1000	36,7	31,5	27,700	84,0	0.00	0
EC-BN24	100 años-24 h r-90 %	7,281	24,0167	36,7	31,5	27,7000	84,0	0	0
EC-BN24	100 años-6 horas-10	8,148	0,9333	19,7	14,9	27,7000	84,0	0	0
EC-BN24	100 años-6 horas-90	5,855	6,0167	19,7	14,9	27,7000	84,0	0	0
EC-BN24	10 años-12 horas-10	3,864	1,1667	15,7	11,1	27,7000	84,0	0	0
EC-BN24	10 años-12 horas-90	3,490	12,0333	15,7	11,1	27,7000	84,0	0	0
EC-BN24	10 años-24 horas-10	3,336	1,1667	19,5	14,7	27,7000	84,0	0	0
EC-BN24	10 años-24 horas-90	3,742	24,0167	19,5	14,7	27,7000	84,0	0	0
EC-BN24	10 años-6 horas-10	4,676	1,0000	12,9	8,5	27,7000	84,0	0	0
EC-BN24	10 años-6 horas-90	3,637	6,0167	12,9	8,5	27,7000	84,0	0	0
EC-BN24	25 años-12 horas-10	5,357	1,1167	20,1	15,3	27,7000	84,0	0	0
EC-BN24	25 años-12 horas-90	4,579	12,0333	20,1	15,3	27,7000	84,0	0	0
EC-BN24	25 años-24 horas-10	4,858	1,1333	25,7	20,7	27,7000	84,0	0	0
EC-BN24	25 años-24 horas-90	5,025	24,0167	25,7	20,7	27,7000	84	0	0
EC-BN24	25 años-6 horas-10	5,987	0,9667	15,5	10,9	27,7000	84,0	0	0
EC-BN24	25 años-6 horas-90	4,489	6,0167	15,5	10,9	27,7000	84,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN24 [cm]	100 años-12 horas-10	27,7	0,0	22,7	0	0	0	5
EC-BN24 [m3]	100 años-12 horas-10	76729	0	62814	0	0	0	13915
EC-BN24 [ha-m]	100 años-12 horas-10	7,67	0,00	6,28	0	0	0	1,39
EC-BN24 [cm]	100 años-12 horas-90	27,7	0,0	22,7	0	0	0	5
EC-BN24 [m3]	100 años-12 horas-90	76729	0	62814	0	0	0	13915
EC-BN24 [ha-m]	100 años-12 horas-90	7,67	0,00	6,28	0	0	0	1,39
EC-BN24 [cm]	100 años-24 horas-10	36,7	0	31,5	0	0	0	5,2
EC-BN24 [m3]	100 años-24 horas-10	101659	0	87333	0	0	0	14326
EC-BN24 [ha-m]	100 años-24 horas-10	10,17	0,00	8,73	0	0	0,00	1,43
EC-BN24 [cm]	100 años-24 horas-90	36,7	0	31,5	0	0	0	5,2
EC-BN24 [m3]	100 años-24 horas-90	101659	0	87333	0	0	0	14326
EC-BN24 [ha-m]	100 años-24 horas-90	10,17	0,00	8,73	0	0	0	1,43
EC-BN24 [cm]	100 años-6 horas-10	19,7	0	14,9	0	0	0	4,8
EC-BN24 [m3]	100 años-6 horas-10	54569	0	41313	0	0	0	13256
EC-BN24 [ha-m]	100 años-6 horas-10	5,46	0	4,13	0	0	0	1,33
EC-BN24 [cm]	100 años-6 horas-90	19,7	0	14,9	0	0	0	4,8
EC-BN24 [m3]	100 años-6 horas-90	54569	0	41313	0	0	0	13256
EC-BN24 [ha-m]	100 años-6 horas-90	5,46	0	4,13	0.00	0,00	0	1,33
EC-BN24 [cm]	10 años-12 horas-10	15,7	0	11,1	0	0	0.0	4,6
EC-BN24 [m3]	10 años-12 horas-10	43489	0	30776	0	0	0	12713
EC-BN24 [ha-m]	10 años-12 horas-10	4,35	0	3,08	0	0	0	1,27
EC-BN24 [cm]	10 años-12 horas-90	15,7	0	11,1	0	0	0	4,6
EC-BN24 [m3]	10 años-12 horas-90	43489	0	30776	0	0	0	12713
EC-BN24	10 años-12 horas-9	4,35	0,00	3,08	0	0	0	1,27

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN24 [cm]	10 años-24 horas-10	19,5	0	14,7	0.0	0.0	0.0	4,8
EC-BN24 [m3]	10 años-24 horas-10	54015	0	40781	0	0	0	13234
EC-BN24 [ha-m]	10 años-24 horas-10	5,40	0	4,08	0	0	0	1,32
EC-BN24 [cm]	10 años-24 horas-90	19,5	0	14,7	0	0	0	4,8
EC-BN24 [m3]	10 años-24 horas-90	54015	0	40781	0	0	0	13234
EC-BN24 [ha-m]	10 años-24 horas-90	5,40	0	4,08	0	0	0	1,32
EC-BN24 [cm]	10 años-6 horas-10 %	12,9	0	8,5	0	0	0.0	4.4
EC-BN24 [m3]	10 años-6 horas-10 %	35733	0	23560	0	0	0	12173
EC-BN24 [ha-m]	10 años-6 horas-10 %	3,57	0	2,36	0,00	0	0	1,22
EC-BN24 [cm]	10 años-6 horas-90 %	12,9	0.0	8,5	0.0	0	0.0	4,4
EC-BN24 [m3]	10 años-6 horas-90 %	35733	0	23560	0	0	0	12173
EC-BN24 [ha-m]	10 años-6 horas-90 %	3,57	0	2,36	0,00	0	0	1,22
EC-BN24 [cm]	25 años-12 horas-10	20,1	0	15,3	0	0	0	4,8
EC-BN24 [m3]	25 años-12 horas-10	55677	0	42377	0	0	0	13300
EC-BN24 [ha-m]	25 años-12 horas-10	5,57	0	4,24	0	0	0	1,33
EC-BN24 [cm]	25 años-12 horas-90	20,1	0	15,3	0	0	0	4,8
EC-BN24 [m3]	25 años-12 horas-90	55677	0	42377	0	0	0	13300
EC-BN24 [ha-m]	25 años-12 horas-90	5,57	0	4,24	0	0	0	1,33
EC-BN24 [cm]	25 años-24 horas-10 %	25,7	0	20,7	0	0	0	5
EC-BN24 [m3]	25 años-24 horas-10	71189	0	57403	0	0	0	13786
EC-BN24 [ha-m]	25 años-24 horas-10	7,12	0,00	5,74	0	0	0	1,38
EC-BN24 [cm]	25 años-24 horas-90	25,7	0	20,7	0	0	0	5
EC-BN24 [m3]	25 años-24 horas-90	71189	0	57403	0	0	0	13786
EC-BN24	25 años-24 horas-90	7,12	0,00	5,74	0	0	0	1,38

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BN24 [cm]	25 años-6 horas-10 %	15,5	0	10,9	0	0	0.0	4,6
EC-BN24 [m3]	25 años-6 horas-10 %	42935	0	30255	0	0	0	12680
EC-BN24 [ha-m]	25 años-6 horas-10 %	4,29	0	3,03	0,00	0	0	1,27
EC-BN24 [cm]	25 años-6 horas-90 %	15,5	0	10,9	0	0	0	4,6
EC-BN24 [m3]	25 años-6 horas-90 %	42935	0	30255	0	0	0	12680
EC-BN24 [ha-m]	25 años-6 horas-90 %	4,29	0.00	3,03	0	0	0	1,27

Lavabo simple: EC-BN25

Escenario: 38701-EC

Nodo: EC-N25

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 27,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 66.8000 ha

Número de curva: 85.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen sencillo de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BN25	100 años-12 h r-10 %	19,276	1,1167	27,7	23,0	66,8000	85,0	0	0
EC-BN25	100 años-12 h r-90 %	15,260	12,0500	27,7	23	66,8000	85	0	0
EC-BN25	100 años-24 h r-10 %	18,249	1,1667	36,7	31,9	66,8000	85,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BN25	100 años-24 hr-90 %	17,319	24,0333	36,7	31,9	66,8000	85	0	0
EC-BN25	100 años-6 horas-10	19,478	1,0167	19,7	15,2	66,8000	85,0	0	0
EC-BN25	100 años-6 horas-90	14,050	6,0333	19,7	15,2	66,8000	85	0	0
EC-BN25	10 años-12 horas-10	9,416	1,2833	15,7	11,4	66,8000	85,0	0	0
EC-BN25	10 años-12 horas-90	8,297	12,0500	15,7	11,4	66,8000	85	0	0
EC-BN25	10 años-24 horas-10	8,104	1,5833	19,5	15,0	66,8000	85	0	0
EC-BN25	10 años-24 horas-90	8,926	24,0333	19,5	15,0	66,8000	85	0	0
EC-BN25	10 años-6 horas-10	11,289	1,1000	12,9	8,8	66,8000	85,0	0	0
EC-BN25	10 años-6 horas-90	8,755	6,0333	12,9	8,8	66,8000	85,0	0	0
EC-BN25	25 años-12 horas-10	12,976	1,1833	20,1	15,6	66,8000	85,0	0	0
EC-BN25	25 años-12 horas-90	10,866	12,0500	20,1	15,6	66,8000	85	0	0
EC-BN25	25 años-24 horas-10	11,713	1,2167	25,7	21,0	66,8000	85,0	0	0
EC-BN25	25 años-24 horas-90	11,968	24,0333	25,7	21,0	66,8000	85	0	0
EC-BN25	25 años-6 horas-10	14,385	1,0667	15,5	11,2	66,8000	85,0	0	0
EC-BN25	25 años-6 horas-90	10,790	6,0333	15,5	11,2	66,8000	85,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BN25 [cm]	100 años-12 horas-10	27,7	0,0	23,0	0	0	0	4,7
EC-BN25 [m3]	100 años-12 horas-10	185036	0	153683	0	0	0	31353
EC-BN25 [ha-m]	100 años-12 horas-10	18,50	0,00	15,37	0	0	0	3,14
EC-BN25 [cm]	100 años-12 horas-90	27,7	0,0	23,0	0	0	0	4,7
EC-BN25 [m3]	100 años-12 horas-90	185036	0	153683	0	0	0	31353

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN25 [ha-m]	100 años-12 horas-90	18,50	0,00	15,37	0	0	0	3,14
EC-BN25 [cm]	100 años-24 horas-10	36,7	0	31,9	0	0	0	4.8
EC-BN25 [m3]	100 años-24 horas-10	245156	0	212955	0	0	0	32201
EC-BN25 [ha-m]	100 años-24 horas-10	24,52	0,00	21,30	0	0	0	3,22
EC-BN25 [cm]	100 años-24 horas-90	36,7	0	31,9	0	0	0	4,8
EC-BN25 [m3]	100 años-24 horas-90	245156	0	212955	0	0	0	32201
EC-BN25 [ha-m]	100 años-24 horas-90	24,52	0,00	21,30	0	0	0	3,22
EC-BN25 [cm]	100 años-6 horas-10	19,7	0	15,2	0	0	0	4,5
EC-BN25 [m3]	100 años-6 horas-10	131596	0	101619	0	0	0	29977
EC-BN25 [ha-m]	100 años-6 horas-10	13,16	0	10,16	0	0	0	3,00
EC-BN25 [cm]	100 años-6 horas-90	19,7	0	15,2	0	0.0	0.0	4.5
EC-BN25 [m3]	100 años-6 horas-90	131596	0	101619	0	0	0	29977
EC-BN25 [ha-m]	100 años-6 horas-90	13,16	0	10,16	0	0	0	3,00
EC-BN25 [cm]	10 años-12 horas-10	15,7	0	11,4	0	0	0.0	4,3
EC-BN25 [m3]	10 años-12 horas-10	104876	0	76047	0	0	0	28829
EC-BN25 [ha-m]	10 años-12 horas-10	10,49	0	7,60	0	0	0	2,88
EC-BN25 [cm]	10 años-12 horas-90	15,7	0	11,4	0	0	0	4,3
EC-BN25 [m3]	10 años-12 horas-90	104876	0	76047	0	0	0	28829
EC-BN25 [ha-m]	10 años-12 horas-90	10,49	0	7,60	0	0	0	2,88
EC-BN25 [cm]	10 años-24 horas-10	19,5	0	15,0	0.0	0	0.0	4,5
EC-BN25 [m3]	10 años-24 horas-10	130260	0	100331	0	0	0	29929
EC-BN25 [ha-m]	10 años-24 horas-10	13,03	0,00	10,03	0	0	0	2,99
EC-BN25 [cm]	10 años-24 horas-90	19,5	0	15	0	0	0	4,5
EC-BN25 [m3]	10 años-24 horas-90	130260	0	100331	0	0	0	29929

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN25 [ha-m]	10 años-24 horas-90	13,03	0,00	10,03	0	0	0	2,99
EC-BN25 [cm]	10 años-6 horas-10 %	12,9	0	8,8	0	0	0	4.1
EC-BN25 [m3]	10 años-6 horas-10 %	86172	0	58492	0	0	0	27680
EC-BN25 [ha-m]	10 años-6 horas-10 %	8,62	0.00	5,85	0,00	0	0	2,77
EC-BN25 [cm]	10 años-6 horas-90 %	12,9	0	8,8	0	0	0.0	4.1
EC-BN25 [m3]	10 años-6 horas-90 %	86172	0	58492	0	0	0	27680
EC-BN25 [ha-m]	10 años-6 horas-90 %	8,62	0.00	5,85	0	0	0	2,77
EC-BN25 [cm]	25 años-12 horas-10	20,1	0	15,6	0	0	0	4,5
EC-BN25 [m3]	25 años-12 horas-10	134268	0	104199	0	0	0	30069
EC-BN25 [ha-m]	25 años-12 horas-10	13,43	0	10,42	0	0	0	3,01
EC-BN25 [cm]	25 años-12 horas-90	20,1	0	15,6	0	0	0	4,5
EC-BN25 [m3]	25 años-12 horas-90	134268	0	104199	0	0	0	30069
EC-BN25 [ha-m]	25 años-12 horas-90	13,43	0	10,42	0	0	0	3,01
EC-BN25 [cm]	25 años-24 horas-10	25,7	0	21,0	0	0	0	4,7
EC-BN25 [m3]	25 años-24 horas-10	171676	0	140591	0	0	0	31085
EC-BN25 [ha-m]	25 años-24 horas-10	17,17	0	14,06	0	0	0	3,11
EC-BN25 [cm]	25 años-24 horas-90	25,7	0	21,0	0	0	0	4,7
EC-BN25 [m3]	25 años-24 horas-90	171676	0	140591	0	0	0	31085
EC-BN25 [ha-m]	25 años-24 horas-90	17,17	0	14,06	0	0	0	3,11
EC-BN25 [cm]	25 años-6 horas-10 %	15,5	0	11,2	0	0	0.0	4,3
EC-BN25 [m3]	25 años-6 horas-10 %	103540	0	74781	0	0	0	28759
EC-BN25 [ha-m]	25 años-6 horas-10 %	10,35	0	7,48	0	0	0	2,88
EC-BN25 [cm]	25 años-6 horas-90 %	15,5	0	11,2	0	0	0	4,3
EC-BN25 [m3]	25 años-6 horas-90 %	103540	0	74781	0	0	0	28759

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BN25 [ha-m]	25 años-6 horas-90 %	10,35	0	7,48	0	0	0	2,88

Lavabo simple: EC-BS26

Escenario: 38701-EC

Nodo: EC-N26

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 4.8000 ha

Número de curva: 88.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BS26	100 años-12 h r-10 %	1,533	0,7667	27,7	23,9	4,8000	88,0	0	0
EC-BS26	100 años-12 h r-90 %	1,174	12,0000	27,7	23,9	4,8000	88,0	0	0
EC-BS26	100 años-24 h r-10 %	1,465	0,5167	36,7	32,9	4,8000	88,0	0	0
EC-BS26	100 años-24 h r-90 %	1,287	24,0000	36,7	32,9	4,8000	88,0	0	0
EC-BS26	100 años-6 horas-10	1,591	0,6833	19,7	16,1	4,8000	88,0	0	0
EC-BS26	100 años-6 horas-90	1,047	5,8500	19,7	16,1	4,8000	88,0	0	0
EC-BS26	10 años-12 horas-10	0,772	0,7667	15,7	12,2	4,8000	88	0	0
EC-BS26	10 años-12 horas-90	0,650	12,0000	15,7	12,2	4,8000	88	0	0
EC-BS26	10 años-24 horas-	0,681	1,0000	19,5	15,9	4,8000	88,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Equivalente Número de curva	% Imperv	% DCIA
	10								
EC-BS26	10 años-24 horas-90	0,672	24,0000	19,5	15,9	4,8000	88	0	0
EC-BS26	10 años-6 horas-10	0,949	0,6833	12,9	9,5	4,8000	88,0	0	0
EC-BS26	10 años-6 horas-90	0,666	6,0000	12,9	9,5	4,8000	88	0	0
EC-BS26	25 años-12 horas-10	1,052	0,7667	20,1	16,5	4,8000	88,0	0	0
EC-BS26	25 años-12 horas-90	0,843	12,0000	20,1	16,5	4,8000	88	0	0
EC-BS26	25 años-24 horas-10	0,950	1,0000	25,7	22,0	4,8000	88,0	0	0
EC-BS26	25 años-24 horas-90	0,895	24,0000	25,7	22	4,8000	88	0	0
EC-BS26	25 años-6 horas-10	1,195	0,6833	15,5	12,0	4,8000	88,0	0	0
EC-BS26	25 años-6 horas-90 %	0,812	5,8667	15,5	12	4,8000	88	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS26 [cm]	100 años-12 horas-10	27,7	0,0	23,9	0	0	0	3,8
EC-BS26 [m3]	100 años-12 horas-10	13296	0	11491	0	0	0	1805
EC-BS26 [ha-m]	100 años-12 horas-10	1,33	0,00	1,15	0	0	0	0,18
EC-BS26 [cm]	100 años-12 horas-90	27,7	0,0	23,9	0	0	0	3,8
EC-BS26 [m3]	100 años-12 horas-90	13296	0	11491	0	0	0	1805
EC-BS26 [ha-m]	100 años-12 horas-90	1,33	0.00	1,15	0	0	0	0,18
EC-BS26 [cm]	100 años-24 horas-10	36,7	0	32,9	0	0	0	3,8
EC-BS26 [m3]	100 años-24 horas-10	17616	0	15768	0	0	0	1848
EC-BS26 [ha-m]	100 años-24 horas-10	1,76	0,00	1,58	0	0	0	0,18
EC-BS26 [cm]	100 años-24 horas-90	36,7	0	32,9	0	0	0	3,8
EC-BS26	100 años-24 horas-	17616	0	15768	0	0	0	1848

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	90							
EC-BS26 [ha-m]	100 años-24 horas-90	1,76	0,00	1,58	0,00	0	0	0,18
EC-BS26 [cm]	100 años-6 horas-10	19,7	0,0	16,1	0	0	0	3,6
EC-BS26 [m3]	100 años-6 horas-10	9456	0	7718	0	0	0	1738
EC-BS26 [ha-m]	100 años-6 horas-10	0,95	0	0,77	0	0	0	0,17
EC-BS26 [cm]	100 años-6 horas-90	19,7	0	16,1	0	0	0	3,6
EC-BS26 [m3]	100 años-6 horas-90	9456	0	7718	0	0	0	1738
EC-BS26 [ha-m]	100 años-6 horas-90	0,95	0	0,77	0	0	0	0,17
EC-BS26 [cm]	10 años-12 horas-10	15,7	0	12,2	0	0	0	3,5
EC-BS26 [m3]	10 años-12 horas-10	7536	0	5853	0	0	0	1683
EC-BS26 [ha-m]	10 años-12 horas-10	0,75	0	0,59	0	0	0	0,17
EC-BS26 [cm]	10 años-12 horas-90	15,7	0	12,2	0	0	0	3,5
EC-BS26 [m3]	10 años-12 horas-90	7536	0	5853	0	0	0	1683
EC-BS26 [ha-m]	10 años-12 horas-90	0,75	0	0,59	0	0	0	0,17
EC-BS26 [cm]	10 años-24 horas-10	19,5	0	15,9	0	0	0	3,6
EC-BS26 [m3]	10 años-24 horas-10	9360	0	7624	0	0	0	1736
EC-BS26 [ha-m]	10 años-24 horas-10	0,94	0	0,76	0	0	0	0,17
EC-BS26 [cm]	10 años-24 horas-90	19,5	0	15,9	0	0	0	3,6
EC-BS26 [m3]	10 años-24 horas-90	9360	0	7624	0	0	0	1736
EC-BS26 [ha-m]	10 años-24 horas-90	0,94	0	0,76	0	0	0	0,17
EC-BS26 [cm]	10 años-6 horas-10 %	12,9	0	9,5	0	0	0	3,4
EC-BS26 [m3]	10 años-6 horas-10 %	6192	0	4565	0	0	0	1627
EC-BS26 [ha-m]	10 años-6 horas-10 %	0,62	0	0,46	0,00	0	0	0,16
EC-BS26 [cm]	10 años-6 horas-90 %	12,9	0	9,5	0	0	0	3,4
EC-BS26	10 años-6 horas-90	6192	0	4565	0	0	0	1627

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BS26 [ha-m]	10 años-6 horas-90 %	0,62	0	0,46	0	0	0	0,16
EC-BS26 [cm]	25 años-12 horas-1 0	20,1	0	16,5	0	0	0	3,6
EC-BS26 [m3]	25 años-12 horas-1 0	9648	0	7905	0	0	0	1743
EC-BS26 [ha-m]	25 años-12 horas-1 0	0,96	0	0,79	0	0	0	0,17
EC-BS26 [cm]	25 años-12 horas-9 0	20,1	0	16,5	0	0	0	3,6
EC-BS26 [m3]	25 años-12 horas-9 0	9648	0	7905	0	0	0	1743
EC-BS26 [ha-m]	25 años-12 horas-9 0	0,96	0	0,79	0	0	0	0,17
EC-BS26 [cm]	25 años-24 horas-1 0	25,7	0	22,0	0	0	0	3,7
EC-BS26 [m3]	25 años-24 horas-1 0	12336	0	10544	0	0	0	1792
EC-BS26 [ha-m]	25 años-24 horas-1 0	1,23	0	1,05	0	0	0	0,18
EC-BS26 [cm]	25 años-24 horas-9 0	25,7	0	22,0	0	0	0.0	3.7
EC-BS26 [m3]	25 años-24 horas-9 0	12336	0	10544	0	0	0	1792
EC-BS26 [ha-m]	25 años-24 horas-9 0	1,23	0	1,05	0	0	0	0,18
EC-BS26 [cm]	25 años-6 horas-10 %	15,5	0	12	0	0	0	3,5
EC-BS26 [m3]	25 años-6 horas-10 %	7440	0	5761	0	0	0	1679
EC-BS26 [ha-m]	25 años-6 horas-10 %	0,74	0	0,58	0	0	0	0,17
EC-BS26 [cm]	25 años-6 horas-90 %	15,5	0	12	0	0	0	3,5
EC-BS26 [m3]	25 años-6 horas-90 %	7440	0	5761	0	0	0	1679
EC-BS26 [ha-m]	25 años-6 horas-90 %	0,74	0	0,58	0	0	0	0,17

Lavabo simple: EC-BS27

Escenario: 38701-EC

Nodo: EC-N27

Método hidrográfico: Método de infiltración con hidrograma unitario del NRCS:

Número de curva

Tiempo de concentración:	6,0000 min
Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Área:	1,6000 ha
Número de curva:	88,0
% Impermeable:	0,00
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS27	100 años-12 h r-10 %	0,511	0,7667	27,7	23,9	1,6000	88,0	0	0
EC-BS27	100 años-12 horas r-90 %	0,391	12,0000	27,7	23,9	1,6000	88,0	0	0
EC-BS27	100 años-24 h r-10 %	0,488	0,5167	36,7	32,9	1,6000	88,0	0,00	0
EC-BS27	100 años-24 h r-90 %	0,429	24,0000	36,7	32,9	1,6000	88,0	0	0
EC-BS27	100 años-6 horas-10	0,530	0,6833	19,7	16,1	1,6000	88,0	0	0
EC-BS27	100 años-6 horas-90	0,349	5,8500	19,7	16,1	1,6000	88,0	0	0
EC-BS27	10 años-12 horas-10	0,257	0,7667	15,7	12,2	1,6000	88,0	0	0
EC-BS27	10 años-12 horas-90	0,217	12,0000	15,7	12,2	1,6000	88	0	0
EC-BS27	10 años-24 horas-10	0,227	1,0000	19,5	15,9	1,6000	88,0	0	0
EC-BS27	10 años-24 horas-90	0,224	24,00	19,5	15,9	1,6000	88,0	0	0.00
EC-BS27	10 años-6 horas-10	0,316	0,6833	12,9	9,5	1,6000	88,0	0	0,00
EC-BS27	10 años-6 horas-90	0,222	6,0000	12,9	9,5	1,6000	88,0	0	0,00
EC-BS27	25 años-12 horas-10	0,351	0,7667	20,1	16,5	1,6000	88,0	0	0
EC-BS27	25 años-12 horas-90	0,281	12,0000	20,1	16,5	1,6000	88,0	0	0
EC-BS27	25 años-24 horas-	0,317	1,0000	25,7	22,0	1,6000	88,0	0.00	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BS27	25 años-24 horas-90	0,298	24,0000	25,7	22	1,6000	88	0	0
EC-BS27	25 años-6 horas-10	0,398	0,6833	15,5	12,0	1,6000	88,0	0,00	0
EC-BS27	25 años-6 horas-90	0,271	5,8667	15,5	12	1,6000	88,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS27 [cm]	100 años-12 horas-10	27,7	0,0	23,9	0	0	0	3,8
EC-BS27 [m3]	100 años-12 horas-10	4432	0	3830	0	0	0	602
EC-BS27 [ha-m]	100 años-12 horas-10	0,44	0,00	0,38	0	0	0	0,06
EC-BS27 [cm]	100 años-12 horas-90	27,7	0,0	23,9	0	0	0	3,8
EC-BS27 [m3]	100 años-12 horas-90	4432	0	3830	0	0	0	602
EC-BS27 [ha-m]	100 años-12 horas-90	0,44	0,00	0,38	0,00	0	0	0,06
EC-BS27 [cm]	100 años-24 horas-10	36,7	0	32,9	0	0	0	3,8
EC-BS27 [m3]	100 años-24 horas-10	5872	0	5256	0	0	0	616
EC-BS27 [ha-m]	100 años-24 horas-10	0,59	0,00	0,53	0,00	0	0	0,06
EC-BS27 [cm]	100 años-24 horas-90	36,7	0	32,9	0	0	0	3,8
EC-BS27 [m3]	100 años-24 horas-90	5872	0	5256	0	0	0	616
EC-BS27 [ha-m]	100 años-24 horas-90	0,59	0,00	0,53	0	0	0	0,06
EC-BS27 [cm]	100 años-6 horas-10	19,7	0	16,1	0	0	0	3,6
EC-BS27 [m3]	100 años-6 horas-10	3152	0	2573	0	0	0	579
EC-BS27 [ha-m]	100 años-6 horas-10	0,32	0	0,26	0	0	0	0,06
EC-BS27 [cm]	100 años-6 horas-90	19,7	0	16,1	0	0	0	3,6
EC-BS27	100 años-6 horas-9	3152	0	2573	0	0	0	579

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS27 [ha-m]	100 años-6 horas-90	0,32	0	0,26	0	0	0	0,06
EC-BS27 [cm]	10 años-12 horas-10	15,7	0	12,2	0	0	0	3,5
EC-BS27 [m3]	10 años-12 horas-10	2512	0	1951	0	0	0	561
EC-BS27 [ha-m]	10 años-12 horas-10 %	0,25	0	0	0	0	0	0,06
EC-BS27 [cm]	10 años-12 horas-90	15,7	0	12,2	0	0	0	3,5
EC-BS27 [m3]	10 años-12 horas-90	2512	0	1951	0	0	0	561
EC-BS27 [ha-m]	10 años-12 horas-90	0,25	0	0,20	0	0	0	0,06
EC-BS27 [cm]	10 años-24 horas-10	19,5	0	15,9	0	0	0	3,6
EC-BS27 [m3]	10 años-24 horas-10	3120	0	2541	0	0	0	579
EC-BS27 [ha-m]	10 años-24 horas-10	0,31	0	0,25	0	0	0	0,06
EC-BS27 [cm]	10 años-24 horas-90	19,5	0	15,9	0	0	0	3,6
EC-BS27 [m3]	10 años-24 horas-90	3120	0	2541	0	0	0	579
EC-BS27 [ha-m]	10 años-24 horas-90	0,31	0	0,25	0	0	0	0,06
EC-BS27 [cm]	10 años-6 horas-10 %	12,9	0	9,5	0	0	0	3,4
EC-BS27 [m3]	10 años-6 horas-10 %	2064	0	1522	0	0	0	542
EC-BS27 [ha-m]	10 años-6 horas-10 %	0,21	0	0,15	0,00	0	0	0,05
EC-BS27 [cm]	10 años-6 horas-90 %	12,9	0	9,5	0	0	0	3,4
EC-BS27 [m3]	10 años-6 horas-90 %	2064	0	1522	0	0	0	542
EC-BS27 [ha-m]	10 años-6 horas-90 %	0,21	0	0,15	0	0	0	0,05
EC-BS27 [cm]	25 años-12 horas-10	20,1	0	16,5	0	0	0	3,6
EC-BS27 [m3]	25 años-12 horas-10	3216	0	2635	0	0	0	581
EC-BS27 [ha-m]	25 años-12 horas-10	0,32	0	0,26	0	0	0	0,06
EC-BS27 [cm]	25 años-12 horas-90	20,1	0	16,5	0	0	0	3,6
EC-BS27	25 años-12 horas-90	3216	0	2635	0	0	0	581

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS27	25 años-12 horas-9	0,32	0	0,26	0	0	0	0,06
[ha-m]	0							
EC-BS27	25 años-24 horas-1	25,7	0	22,0	0	0	0	3,7
[cm]	0							
EC-BS27	25 años-24 horas-1	4112	0	3515	0	0	0	597
[m3]	0							
EC-BS27	25 años-24 horas-1	0,41	0	0,35	0	0	0	0,06
[ha-m]	0							
EC-BS27	25 años-24 horas-9	25,7	0	22,0	0	0	0	3,7
[cm]	0							
EC-BS27	25 años-24 horas-9	4112	0	3515	0	0	0	597
[m3]	0							
EC-BS27	25 años-24 horas-9	0,41	0	0,35	0	0	0	0,06
[ha-m]	0							
EC-BS27	25 años-6 horas-10	15,5	0	12	0	0	0	3,5
[cm]	%							
EC-BS27	25 años-6 horas-10	2480	0	1920	0	0	0	560
[m3]	%							
EC-BS27	25 años-6 horas-10	0,25	0	0,19	0	0	0	0,06
[ha-m]	%							
EC-BS27	25 años-6 horas-90	15,5	0	12	0	0	0	3,5
[cm]	%							
EC-BS27	25 años-6 horas-90	2480	0	1920	0	0	0	560
[m3]	%							
EC-BS27	25 años-6 horas-90	0,25	0	0,19	0	0	0,00	0,06
[ha-m]	%							

Lavabo simple: EC-BS28

Escenario: 38701-EC

Nodo: EC-N28

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 3.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS28	100 años-12 hr-10 %	1,096	0,7667	27,7	22,3	3,7000	83,0	0	0
EC-BS28	100 años-12 hr-90 %	0,892	12,0000	27,7	22,3	3,7000	83	0	0
EC-BS28	100 años-24 hr-10 %	1,037	1,0000	36,7	31,1	3,7000	83,0	0	0
EC-BS28	100 años-24 hr-90 %	0,984	24,0000	36,7	31,1	3,7000	83,0	0	0
EC-BS28	100 años-6 horas-10	1,123	0,6833	19,7	14,6	3,7000	83,0	0	0
EC-BS28	100 años-6 horas-90	0,785	6,0000	19,7	14,6	3,7000	83,0	0	0
EC-BS28	10 años-12 horas-10	0,521	1,0167	15,7	10,8	3,7000	83,0	0	0
EC-BS28	10 años-12 horas-90	0,483	12,0000	15,7	10,8	3,7000	83	0	0
EC-BS28	10 años-24 horas-10	0,461	1,0167	19,5	14,4	3,7000	83,0	0	0
EC-BS28	10 años-24 horas-90	0,505	24,0000	19,5	14,4	3,7000	83	0	0
EC-BS28	10 años-6 horas-10	0,635	0,8500	12,9	8,2	3,7000	83,0	0	0
EC-BS28	10 años-6 horas-90	0,488	6,0000	12,9	8,2	3,7000	83,0	0	0
EC-BS28	25 años-12 horas-10	0,722	0,7833	20,1	15	3,7000	83	0	0
EC-BS28	25 años-12 horas-90	0,634	12,0000	20,1	15	3,7000	83	0	0
EC-BS28	25 años-24 horas-10	0,668	1,0167	25,7	20,4	3,7000	83,0	0	0
EC-BS28	25 años-24 horas-90	0,679	24,0000	25,7	20,4	3,7000	83	0	0
EC-BS28	25 años-6 horas-10	0,819	0,7000	15,5	10,6	3,7000	83,0	0	0
EC-BS28	25 años-6 horas-90	0,602	6,0000	15,5	10,6	3,7000	83,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total	Total	Escorrentía total	ET total	Total inicial	Total	Cambio en el suelo

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS28 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS28 [m3]	100 años-12 horas-10	10249	0	8254	0	0	0	1995
EC-BS28 [ha-m]	100 años-12 horas-10	1,02	0,00	0,83	0	0	0	0,20
EC-BS28 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS28 [m3]	100 años-12 horas-90	10249	0	8254	0	0	0	1995
EC-BS28 [ha-m]	100 años-12 horas-90	1,02	0,00	0,83	0,00	0	0	0,20
EC-BS28 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS28 [m3]	100 años-24 horas-10	13579	0	11515	0	0	0	2064
EC-BS28 [ha-m]	100 años-24 horas-10	1,36	0,00	1,15	0	0	0	0,21
EC-BS28 [cm]	100 años-24 horas-90	36,7	0	31,1	0	0	0	5,6
EC-BS28 [m3]	100 años-24 horas-90	13579	0	11515	0	0	0	2064
EC-BS28 [ha-m]	100 años-24 horas-90	1,36	0,00	1,15	0,00	0	0	0,21
EC-BS28 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS28 [m3]	100 años-6 horas-10	7289	0	5399	0	0	0	1890
EC-BS28 [ha-m]	100 años-6 horas-10	0,73	0	0,54	0	0	0	0,19
EC-BS28 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS28 [m3]	100 años-6 horas-90	7289	0	5399	0	0	0	1890
EC-BS28 [ha-m]	100 años-6 horas-90	0,73	0	0,54	0	0	0	0,19
EC-BS28 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS28 [m3]	10 años-12 horas-10	5809	0	4004	0	0	0	1805
EC-BS28 [ha-m]	10 años-12 horas-10	0,58	0	0,40	0	0	0	0,18
EC-BS28 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS28 [m3]	10 años-12 horas-90	5809	0	4004	0	0	0	1805
EC-BS28 [ha-m]	10 años-12 horas-90	0,58	0	0,40	0	0	0	0,18

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS28 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS28 [m3]	10 años-24 horas-10	7215	0	5329	0	0	0	1886
EC-BS28 [ha-m]	10 años-24 horas-10	0,72	0	0,53	0	0	0	0,19
EC-BS28 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS28 [m3]	10 años-24 horas-90	7215	0	5329	0	0	0	1886
EC-BS28 [ha-m]	10 años-24 horas-90	0,72	0	0,53	0	0	0	0,19
EC-BS28 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS28 [m3]	10 años-6 horas-10 %	4773	0	3050	0	0	0	1723
EC-BS28 [ha-m]	10 años-6 horas-10 %	0,48	0	0,31	0	0	0	0,17
EC-BS28 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS28 [m3]	10 años-6 horas-90 %	4773	0	3050	0	0	0	1723
EC-BS28 [ha-m]	10 años-6 horas-90 %	0,48	0	0,31	0	0	0	0,17
EC-BS28 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BS28 [m3]	25 años-12 horas-10	7437	0	5540	0	0	0	1897
EC-BS28 [ha-m]	25 años-12 horas-10	0,74	0	0,55	0	0	0	0,19
EC-BS28 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0.0	5,1
EC-BS28 [m3]	25 años-12 horas-90	7437	0	5540	0	0	0	1897
EC-BS28 [ha-m]	25 años-12 horas-90	0,74	0	0,55	0	0	0	0,19
EC-BS28 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS28 [m3]	25 años-24 horas-10	9509	0	7535	0	0	0	1974
EC-BS28 [ha-m]	25 años-24 horas-10	0,95	0	0,75	0	0	0	0,20
EC-BS28 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS28 [m3]	25 años-24 horas-90	9509	0	7535	0	0	0	1974
EC-BS28 [ha-m]	25 años-24 horas-90	0,95	0	0,75	0	0	0	0,20

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BS28 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS28 [m3]	25 años-6 horas-10 %	5735	0	3935	0	0	0	1800
EC-BS28 [ha-m]	25 años-6 horas-10 %	0,57	0	0,39	0	0	0	0,18
EC-BS28 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS28 [m3]	25 años-6 horas-90 %	5735	0	3935	0	0	0	1800
EC-BS28 [ha-m]	25 años-6 horas-90 %	0,57	0	0,39	0	0	0	0,18

Lavabo simple: EC-BS29

Escenario: 38701-EC

Nodo: EC-N29

Método hidrográfico: Hidrograma unitario NRCS Método de infiltración: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desfase temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 3.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Equivalente Número de curva	% Impermeable	% DCIA
EC-BS29	100 años-12 h r-10 %	1,096	0,7667	27,7	22,3	3,7000	83,0	0	0
EC-BS29	100 años-12 h r-90 %	0,892	12,0000	27,7	22,3	3,7000	83	0	0
EC-BS29	100 años-24 h r-10 %	1,037	1,0000	36,7	31,1	3,7000	83,0	0.00	0
EC-BS29	100 años-24 horas	0,984	24,0000	36,7	31,1	3,7000	83	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta alcanzar el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	r-90 %								
EC-BS29	100 años-6 horas-10	1,123	0,6833	19,7	14,6	3,7000	83,0	0	0
EC-BS29	100 años-6 horas-90	0,785	6,0000	19,7	14,6	3,7000	83,0	0	0
EC-BS29	10 años-12 horas-10	0,521	1,0167	15,7	10,8	3,7000	83,0	0	0
EC-BS29	10 años-12 horas-90	0,483	12,0000	15,7	10,8	3,7000	83	0	0
EC-BS29	10 años-24 horas-10	0,461	1,0167	19,5	14,4	3,7000	83,0	0	0
EC-BS29	10 años-24 horas-90	0,505	24,00	19,5	14,4	3,7000	83,0	0	0
EC-BS29	10 años-6 horas-10	0,635	0,8500	12,9	8,2	3,7000	83,0	0	0
EC-BS29	10 años-6 horas-90	0,488	6,0000	12,9	8,2	3,7000	83,0	0	0
EC-BS29	25 años-12 horas-10	0,722	0,7833	20,1	15	3,7000	83	0	0
EC-BS29	25 años-12 horas-90	0,634	12,0000	20,1	15	3,7000	83	0	0
EC-BS29	25 años-24 horas-10	0,668	1,0167	25,7	20,4	3,7000	83,0	0	0
EC-BS29	25 años-24 horas-90	0,679	24,0000	25,7	20,4	3,7000	83	0	0
EC-BS29	25 años-6 horas-10	0,819	0,7000	15,5	10,6	3,7000	83,0	0	0
EC-BS29	25 años-6 horas-90	0,602	6,0000	15,5	10,6	3,7000	83,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS29 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS29 [m3]	100 años-12 horas-10	10249	0	8254	0	0	0	1995
EC-BS29 [ha-m]	100 años-12 horas-10	1,02	0,00	0,83	0	0	0	0,20
EC-BS29 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS29 [m3]	100 años-12 horas-90	10249	0	8254	0	0	0	1995
EC-BS29	100 años-12 horas-	1,02	0,00	0,83	0	0,00	0	0,20

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	90							
EC-BS29 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS29 [m3]	100 años-24 horas-10	13579	0	11515	0	0	0	2064
EC-BS29 [ha-m]	100 años-24 horas-10	1,36	0,00	1,15	0	0	0	0,21
EC-BS29 [cm]	100 años-24 horas-90	36,7	0	31,1	0	0	0	5,6
EC-BS29 [m3]	100 años-24 horas-90	13579	0	11515	0	0	0	2064
EC-BS29 [ha-m]	100 años-24 horas-90	1,36	0,00	1,15	0,00	0	0	0,21
EC-BS29 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS29 [m3]	100 años-6 horas-10	7289	0	5399	0	0	0	1890
EC-BS29 [ha-m]	100 años-6 horas-10	0,73	0	0,54	0	0	0	0,19
EC-BS29 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS29 [m3]	100 años-6 horas-90	7289	0	5399	0	0	0	1890
EC-BS29 [ha-m]	100 años-6 horas-90	0,73	0	0,54	0	0	0	0,19
EC-BS29 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS29 [m3]	10 años-12 horas-10	5809	0	4004	0	0	0	1805
EC-BS29 [ha-m]	10 años-12 horas-10	0,58	0	0,40	0	0	0	0,18
EC-BS29 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS29 [m3]	10 años-12 horas-90 %	5809	0	4004	0	0	0	1805
EC-BS29 [ha-m]	10 años-12 horas-90	0,58	0	0,40	0	0	0	0,18
EC-BS29 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS29 [m3]	10 años-24 horas-10	7215	0	5329	0	0	0	1886
EC-BS29 [ha-m]	10 años-24 horas-10	0,72	0	0,53	0	0	0	0,19
EC-BS29 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS29 [m3]	10 años-24 horas-90	7215	0	5329	0	0	0	1886
EC-BS29	10 años-24 horas-9	0,72	0	0,53	0	0	0	0,19

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recargar	Cambiar la tierra Almacenamiento
[ha-m]	0							
EC-BS29 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS29 [m3]	10 años-6 horas-10 %	4773	0	3050	0	0	0	1723
EC-BS29 [ha-m]	10 años-6 horas-10 %	0,48	0	0,31	0,00	0	0	0,17
EC-BS29 [cm]	10 años-6 horas-90	12,9	0	8,2	0	0	0.0	4,7
EC-BS29 [m3]	10 años-6 horas-90 %	4773	0	3050	0	0	0	1723
EC-BS29 [ha-m]	10 años-6 horas-90 %	0,48	0	0,31	0	0	0	0,17
EC-BS29 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BS29 [m3]	25 años-12 horas-10	7437	0	5540	0	0	0	1897
EC-BS29 [ha-m]	25 años-12 horas-10 %	0,74	0	0,55	0	0	0	0,19
EC-BS29 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0	5,1
EC-BS29 [m3]	25 años-12 horas-90	7437	0	5540	0	0	0	1897
EC-BS29 [ha-m]	25 años-12 horas-90	0,74	0	0,55	0	0	0	0,19
EC-BS29 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS29 [m3]	25 años-24 horas-10	9509	0	7535	0	0	0	1974
EC-BS29 [ha-m]	25 años-24 horas-10	0,95	0	0,75	0	0	0	0,20
EC-BS29 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS29 [m3]	25 años-24 horas-90	9509	0	7535	0	0	0	1974
EC-BS29 [ha-m]	25 años-24 horas-90	0,95	0	0,75	0	0	0	0,20
EC-BS29 [cm]	25 años-6 horas-10 %	15,5	0,0	10,6	0	0	0.0	4,9
EC-BS29 [m3]	25 años-6 horas-10 %	5735	0	3935	0	0	0	1800
EC-BS29 [ha-m]	25 años-6 horas-10 %	0,57	0	0,39	0	0	0	0,18
EC-BS29 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS29 [m3]	25 años-6 horas-90 %	5735	0	3935	0	0	0	1800
EC-BS29	25 años-6 horas-90	0,57	0	0,39	0	0	0	0,18

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	%							

Lavabo simple: EC-BS30

Escenario: 38701-EC

Nodo: EC-N30

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 7,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 5.4000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS30	100 años-12 h r-10 %	1,595	0,7833	27,7	22,3	5,4000	83,0	0	0
EC-BS30	100 años-12 h r-90 %	1,303	12,000	27,7	22,3	5,4000	83	0	0
EC-BS30	100 años-24 h r-10 %	1,511	1,0167	36,7	31,2	5,4000	83,0	0	0
EC-BS30	100 años-24 h r-90 %	1,437	24,00	36,7	31,2	5,4000	83,0	0	0
EC-BS30	100 años-6 horas-10	1,636	0,7000	19,7	14,6	5,4000	83,0	0	0
EC-BS30	100 años-6 horas-90	1,147	6,0000	19,7	14,6	5,4000	83,0	0	0
EC-BS30	10 años-12 horas-10	0,759	1,0167	15,7	10,8	5,4000	83,0	0	0
EC-BS30	10 años-12 horas-90	0,705	12,0000	15,7	10,8	5,4000	83	0	0
EC-BS30	10 años-24 horas-10	0,670	1,0167	19,5	14,4	5,4000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el flujo máximo [horas]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS30	10 años-24 horas-90	0,738	24,0000	19,5	14,4	5,4000	83	0	0
EC-BS30	10 años-6 horas-10	0,926	0,8500	12,9	8,3	5,4000	83,0	0	0
EC-BS30	10 años-6 horas-90	0,713	6,0000	12,9	8,3	5,4000	83	0	0
EC-BS30	25 años-12 horas-10	1,052	0,7833	20,1	15,0	5,4000	83,0	0	0
EC-BS30	25 años-12 horas-90	0,926	12,0000	20,1	15	5,4000	83	0	0
EC-BS30	25 años-24 horas-10	0,973	1,0167	25,7	20,4	5,4000	83,0	0	0
EC-BS30	25 años-24 horas-90	0,991	24,00	25,7	20,4	5,4000	83	0	0
EC-BS30	25 años-6 horas-10 %	1,191	0,7000	15,5	10,6	5,4000	83,0	0	0
EC-BS30	25 años-6 horas-90	0,880	6,0000	15,5	10,6	5,4000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS30 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS30 [m3]	100 años-12 horas-10	14958	0	12064	0	0	0	2894
EC-BS30 [ha-m]	100 años-12 horas-10	1,50	0,00	1,21	0	0	0	0,29
EC-BS30 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS30 [m3]	100 años-12 horas-90 %	14958	0	12064	0	0	0	2894
EC-BS30 [ha-m]	100 años-12 horas-90	1,50	0,00	1,21	0,00	0	0	0,29
EC-BS30 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BS30 [m3]	100 años-24 horas-10	19818	0	16830	0	0	0	2988
EC-BS30 [ha-m]	100 años-24 horas-10	1,98	0,00	1,68	0	0	0	0,30
EC-BS30 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BS30 [m3]	100 años-24 horas-90	19818	0	16830	0	0	0	2988

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS30 [ha-m]	100 años-24 horas-90 %	1,98	0,00	1,68	0,00	0	0	0,30
EC-BS30 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS30 [m3]	100 años-6 horas-10	10638	0	7891	0	0	0	2747
EC-BS30 [ha-m]	100 años-6 horas-10	1,06	0	0,79	0	0	0	0,27
EC-BS30 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS30 [m3]	100 años-6 horas-90	10638	0	7891	0	0	0	2747
EC-BS30 [ha-m]	100 años-6 horas-90	1,06	0	0,79	0	0	0	0,27
EC-BS30 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0,0	4,9
EC-BS30 [m3]	10 años-12 horas-10	8478	0	5851	0	0	0	2627
EC-BS30 [ha-m]	10 años-12 horas-10	0,85	0	0,59	0	0	0	0,26
EC-BS30 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BS30 [m3]	10 años-12 horas-90	8478	0	5851	0	0	0	2627
EC-BS30 [ha-m]	10 años-12 horas-90	0,85	0	0,59	0	0	0	0,26
EC-BS30 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS30 [m3]	10 años-24 horas-10	10530	0	7788	0	0	0	2742
EC-BS30 [ha-m]	10 años-24 horas-10	1,05	0	0,78	0	0	0	0,27
EC-BS30 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS30 [m3]	10 años-24 horas-90	10530	0	7788	0	0	0	2742
EC-BS30 [ha-m]	10 años-24 horas-90	1,05	0	0,78	0	0	0	0,27
EC-BS30 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0	4,6
EC-BS30 [m3]	10 años-6 horas-10 %	6966	0	4458	0	0	0	2508
EC-BS30 [ha-m]	10 años-6 horas-10 %	0,70	0	0,45	0,00	0	0	0,25
EC-BS30 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS30 [m3]	10 años-6 horas-90 %	6966	0	4458	0	0	0	2508

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS30 [ha-m]	10 años-6 horas-90 %	0,70	0	0,45	0,00	0	0	0,25
EC-BS30 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BS30 [m3]	25 años-12 horas-10	10854	0	8097	0	0	0	2757
EC-BS30 [ha-m]	25 años-12 horas-10	1,09	0	0,81	0	0	0	0,28
EC-BS30 [cm]	25 años-12 horas-9 0	20,1	0	15	0	0	0.0	5,1
EC-BS30 [m3]	25 años-12 horas-9 0	10854	0	8097	0	0	0	2757
EC-BS30 [ha-m]	25 años-12 horas-9 0	1,09	0	0,81	0	0	0	0,28
EC-BS30 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS30 [m3]	25 años-24 horas-10	13878	0	11013	0	0	0	2865
EC-BS30 [ha-m]	25 años-24 horas-10	1,39	0	1,10	0	0.00	0,00	0,29
EC-BS30 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0	0	0	5,3
EC-BS30 [m3]	25 años-24 horas-9 0	13878	0	11013	0	0	0	2865
EC-BS30 [ha-m]	25 años-24 horas-9 0	1,39	0	1,10	0	0	0	0,29
EC-BS30 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS30 [m3]	25 años-6 horas-10 %	8370	0	5751	0	0	0	2619
EC-BS30 [ha-m]	25 años-6 horas-10 %	0,84	0	0,58	0	0	0	0,26
EC-BS30 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0	4,9
EC-BS30 [m3]	25 años-6 horas-90 %	8370	0	5751	0	0	0	2619
EC-BS30 [ha-m]	25 años-6 horas-90 %	0,84	0	0,58	0,00	0	0	0,26

Lavabo simple: EC-BS31

Escenario: 38701-EC

Nodo: EC-N31

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 13,0000 min

Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Superficie:	16,8000 ha
Número de curva:	83,0
% Impermeable:	0
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BS31	100 años-12 hr-10 %	4,882	0,8333	27,7	22,4	16,8000	83,0	0	0
EC-BS31	100 años-12 hr-90 %	4,006	12,0000	27,7	22,4	16,8000	83	0	0
EC-BS31	100 años-24 hr-10 %	4,640	1,0500	36,7	31,2	16,8000	83,0	0	0
EC-BS31	100 años-24 hr-90 %	4,467	24,00	36,7	31,2	16,8000	83,0	0	0
EC-BS31	100 años-6 horas-10	4,987	0,7833	19,7	14,6	16,8000	83,0	0	0
EC-BS31	100 años-6 horas-90	3,564	6,0000	19,7	14,6	16,8000	83,0	0	0
EC-BS31	10 años-12 horas-10	2,329	1,0667	15,7	10,8	16,8000	83,0	0	0
EC-BS31	10 años-12 horas-90	2,163	12,0000	15,7	10,8	16,8000	83	0	0
EC-BS31	10 años-24 horas-10	2,032	1,0667	19,5	14,4	16,8000	83,0	0	0
EC-BS31	10 años-24 horas-90 %	2,290	24,0000	19,5	14,4	16,8000	83	0	0
EC-BS31	10 años-6 horas-10	2,842	0,9000	12,9	8,3	16,8000	83,0	0	0
EC-BS31	10 años-6 horas-90	2,209	6,0000	12,9	8,3	16,8000	83,0	0	0
EC-BS31	25 años-12 horas-10	3,231	1,0500	20,1	15,0	16,8000	83,0	0	0
EC-BS31	25 años-12 horas-90	2,843	12,0000	20,1	15	16,8000	83,0	0	0
EC-BS31	25 años-24 horas-10	2,966	1,0500	25,7	20,4	16,8000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS31	25 años-24 horas-90	3,079	24,0000	25,7	20,4	16,8000	83	0	0
EC-BS31	25 años-6 horas-10	3,647	0,8667	15,5	10,7	16,8000	83,0	0	0
EC-BS31	25 años-6 horas-90	2,730	6,0000	15,5	10,7	16,8000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS31 [cm]	100 años-12 horas-10	27,7	0,0	22,4	0	0	0	5,3
EC-BS31 [m3]	100 años-12 horas-10	46536	0	37570	0	0	0	8966
EC-BS31 [ha-m]	100 años-12 horas-10	4,65	0,00	3,76	0	0	0	0,90
EC-BS31 [cm]	100 años-12 horas-90	27,7	0,0	22,4	0.0	0.0	0.0	5,3
EC-BS31 [m3]	100 años-12 horas-90	46536	0	37570	0	0	0	8966
EC-BS31 [ha-m]	100 años-12 horas-90	4,65	0,00	3,76	0	0	0	0,90
EC-BS31 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BS31 [m3]	100 años-24 horas-10	61656	0	52413	0	0	0	9243
EC-BS31 [ha-m]	100 años-24 horas-10	6,17	0,00	5,24	0	0	0	0,92
EC-BS31 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BS31 [m3]	100 años-24 horas-90	61656	0	52413	0	0	0	9243
EC-BS31 [ha-m]	100 años-24 horas-90	6,17	0,00	5,24	0,00	0	0	0,92
EC-BS31 [cm]	100 años-6 horas-10	19,7	0.0	14,6	0	0	0	5,1
EC-BS31 [m3]	100 años-6 horas-10	33096	0	24575	0	0	0	8521
EC-BS31 [ha-m]	100 años-6 horas-10	3,31	0	2,46	0	0	0	0,85
EC-BS31 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS31 [m3]	100 años-6 horas-90	33096	0	24575	0	0	0	8521

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS31 [ha-m]	100 años-6 horas-90	3,31	0	2,46	0	0	0	0,85
EC-BS31 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS31 [m3]	10 años-12 horas-10	26376	0	18223	0	0	0	8153
EC-BS31 [ha-m]	10 años-12 horas-10	2,64	0	1,82	0	0	0	0,82
EC-BS31 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS31 [m3]	10 años-12 horas-90	26376	0	18223	0	0	0	8153
EC-BS31 [ha-m]	10 años-12 horas-90	2,64	0	1,82	0	0	0	0,82
EC-BS31 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS31 [m3]	10 años-24 horas-10	32760	0	24255	0	0	0	8505
EC-BS31 [ha-m]	10 años-24 horas-10	3,28	0	2,43	0	0	0	0,85
EC-BS31 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS31 [m3]	10 años-24 horas-90 %	32760	0	24255	0	0	0	8505
EC-BS31 [ha-m]	10 años-24 horas-90	3,28	0	2,43	0	0	0	0,85
EC-BS31 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS31 [m3]	10 años-6 horas-10 %	21672	0	13884	0	0	0	7788
EC-BS31 [ha-m]	10 años-6 horas-10 %	2,17	0	1,39	0,00	0	0	0,78
EC-BS31 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS31 [m3]	10 años-6 horas-90 %	21672	0	13884	0	0	0	7788
EC-BS31 [ha-m]	10 años-6 horas-90 %	2,17	0	1,39	0	0	0	0,78
EC-BS31 [cm]	25 años-12 horas-10	20,1	0	15	0	0	0.0	5,1
EC-BS31 [m3]	25 años-12 horas-10 %	33768	0	25218	0	0	0	8550
EC-BS31 [ha-m]	25 años-12 horas-10	3,38	0	2,52	0	0	0	0,86
EC-BS31 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0	5,1
EC-BS31 [m3]	25 años-12 horas-90	33768	0	25218	0	0	0	8550

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS31 [ha-m]	25 años-12 horas-9 0	3,38	0	2,52	0	0	0	0,86
EC-BS31 [cm]	25 años-24 horas-1 0	25,7	0	20,4	0	0	0	5,3
EC-BS31 [m3]	25 años-24 horas-1 0	43176	0	34297	0	0	0	8879
EC-BS31 [ha-m]	25 años-24 horas-1 0	4,32	0,00	3,43	0	0	0	0,89
EC-BS31 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0	0	0	5,3
EC-BS31 [m3]	25 años-24 horas-9 0	43176	0	34297	0	0	0	8879
EC-BS31 [ha-m]	25 años-24 horas-9 0	4,32	0	3,43	0	0	0	0,89
EC-BS31 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0	4,8
EC-BS31 [m3]	25 años-6 horas-10 %	26040	0	17910	0	0	0	8130
EC-BS31 [ha-m]	25 años-6 horas-10 %	2,60	0	1,79	0	0	0	0,81
EC-BS31 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0.0	4,8
EC-BS31 [m3]	25 años-6 horas-90 %	26040	0	17910	0	0	0	8130
EC-BS31 [ha-m]	25 años-6 horas-90 %	2,60	0	1,79	0	0	0	0,81

Lavabo simple: EC-BS32

Escenario: 38701-EC

Nodo: EC-N32

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 4.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS32	100 años-12 hr-10 %	1,392	0,7667	27,7	22,3	4,7000	83,0	0	0
EC-BS32	100 años-12 hr-90 %	1,133	12,0000	27,7	22,3	4,7000	83,0	0	0
EC-BS32	100 años-24 hr-10 %	1,317	1,0000	36,7	31,1	4,7000	83,0	0	0
EC-BS32	100 años-24 hr-90 %	1,249	24,0000	36,7	31,1	4,7000	83,0	0	0
EC-BS32	100 años-6 horas-10	1,426	0,6833	19,7	14,6	4,7000	83,0	0	0
EC-BS32	100 años-6 horas-90	0,997	6,0000	19,7	14,6	4,7000	83,0	0	0
EC-BS32	10 años-12 horas-10	0,662	1,0167	15,7	10,8	4,7000	83,0	0	0
EC-BS32	10 años-12 horas-90	0,613	12,0000	15,7	10,8	4,7000	83	0	0
EC-BS32	10 años-24 horas-10	0,585	1,0167	19,5	14,4	4,7000	83,0	0	0
EC-BS32	10 años-24 horas-90	0,641	24,00	19,5	14,4	4,7000	83	0	0
EC-BS32	10 años-6 horas-10	0,807	0,8500	12,9	8,2	4,7000	83,0	0	0
EC-BS32	10 años-6 horas-90	0,620	6,0000	12,9	8,2	4,7000	83,0	0	0
EC-BS32	25 años-12 horas-10	0,918	0,7833	20,1	15,0	4,7000	83,0	0	0
EC-BS32	25 años-12 horas-90	0,805	12,0000	20,1	15	4,7000	83	0	0
EC-BS32	25 años-24 horas-10	0,848	1,0167	25,7	20,4	4,7000	83,0	0	0
EC-BS32	25 años-24 horas-90	0,862	24,0000	25,7	20,4	4,7000	83	0	0
EC-BS32	25 años-6 horas-10	1,040	0,7000	15,5	10,6	4,700	83,0	0	0
EC-BS32	25 años-6 horas-90	0,765	6,0000	15.5	10,6	4,7000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS32 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS32	100 años-12 horas-	13019	0	10485	0	0	0	2534

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	10							
EC-BS32 [ha-m]	100 años-12 horas-10	1,30	0,00	1,05	0	0	0	0,25
EC-BS32 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0.0	5,4
EC-BS32 [m3]	100 años-12 horas-90	13019	0	10485	0	0	0	2534
EC-BS32 [ha-m]	100 años-12 horas-90	1,30	0,00	1,05	0,00	0	0	0,25
EC-BS32 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS32 [m3]	100 años-24 horas-10	17249	0	14627	0	0	0	2622
EC-BS32 [ha-m]	100 años-24 horas-10	1,72	0,00	1,46	0,00	0	0	0,26
EC-BS32 [cm]	100 años-24 horas-90	36,7	0,0	31,1	0	0	0	5,6
EC-BS32 [m3]	100 años-24 horas-90	17249	0	14627	0	0	0	2622
EC-BS32 [ha-m]	100 años-24 horas-90	1,72	0,00	1,46	0,00	0	0	0,26
EC-BS32 [cm]	100 años-6 horas-10	19,7	0	14,6	0.0	0.0	0.0	5.1
EC-BS32 [m3]	100 años-6 horas-10	9259	0	6858	0	0	0	2401
EC-BS32 [ha-m]	100 años-6 horas-10	0,93	0	0,69	0	0	0	0,24
EC-BS32 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS32 [m3]	100 años-6 horas-90	9259	0	6858	0	0	0	2401
EC-BS32 [ha-m]	100 años-6 horas-90	0,93	0	0,69	0	0	0	0,24
EC-BS32 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS32 [m3]	10 años-12 horas-10	7379	0	5086	0	0	0	2293
EC-BS32 [ha-m]	10 años-12 horas-10	0,74	0	0,51	0	0	0	0,23
EC-BS32 [cm]	10 años-12 horas-90	15,7	0.0	10,8	0	0	0	4,9
EC-BS32 [m3]	10 años-12 horas-90	7379	0	5086	0	0	0	2293
EC-BS32 [ha-m]	10 años-12 horas-90	0,74	0	0,51	0	0	0	0,23
EC-BS32 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS32	10 años-24 horas-1	9165	0	6769	0	0	0	2396

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS32 [ha-m]	10 años-24 horas-10	0,92	0	0,68	0	0	0	0,24
EC-BS32 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS32 [m3]	10 años-24 horas-90	9165	0	6769	0	0	0	2396
EC-BS32 [ha-m]	10 años-24 horas-90	0,92	0	0,68	0	0	0	0,24
EC-BS32 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS32 [m3]	10 años-6 horas-10 %	6063	0	3875	0	0	0	2188
EC-BS32 [ha-m]	10 años-6 horas-10 %	0,61	0	0,39	0	0	0	0,22
EC-BS32 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS32 [m3]	10 años-6 horas-90 %	6063	0	3875	0	0	0	2188
EC-BS32 [ha-m]	10 años-6 horas-90 %	0,61	0	0,39	0	0	0	0,22
EC-BS32 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BS32 [m3]	25 años-12 horas-10 %	9447	0	7038	0	0	0	2409
EC-BS32 [ha-m]	25 años-12 horas-10	0,94	0	0,70	0	0	0	0,24
EC-BS32 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BS32 [m3]	25 años-12 horas-90	9447	0	7038	0	0	0	2409
EC-BS32 [ha-m]	25 años-12 horas-90	0,94	0	0,70	0	0	0	0,24
EC-BS32 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS32 [m3]	25 años-24 horas-10	12079	0	9572	0	0	0	2507
EC-BS32 [ha-m]	25 años-24 horas-10	1,21	0	0,96	0	0	0	0,25
EC-BS32 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS32 [m3]	25 años-24 horas-90 %	12079	0	9572	0	0	0	2507
EC-BS32 [ha-m]	25 años-24 horas-90	1,21	0	0,96	0	0	0	0,25
EC-BS32 [cm]	25 años-6 horas-10 %	15,5	0,0	10,6	0	0	0.0	4,9
EC-BS32	25 años-6 horas-10	7285	0	4998	0	0	0	2287

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BS32 [ha-m]	25 años-6 horas-10 %	0,73	0	0,50	0	0	0	0,23
EC-BS32 [cm]	25 años-6 horas-90 %	15,5	0,0	10,6	0	0	0,0	4,9
EC-BS32 [m3]	25 años-6 horas-90 %	7285	0	4998	0	0	0	2287
EC-BS32 [ha-m]	25 años-6 horas-90 %	0,73	0	0,50	0	0	0	0,23

Lavabo simple: EC-BS33

Escenario: 38701-EC

Nodo: EC-N33

Método hidrográfico: Método de infiltración con hidrograma unitario del NRCS:

Número de curva

Tiempo de concentración: 7,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 4.3000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS33	100 años-12 h r-10 %	1,270	0,7833	27,7	22,3	4,3000	83,0	0	0
EC-BS33	100 años-12 h r-90 %	1,037	12,0000	27,7	22,3	4,3000	83,0	0	0
EC-BS33	100 años-24 h r-10 %	1,204	1,0167	36,7	31,2	4,3000	83,0	0	0
EC-BS33	100 años-24 h r-90 %	1,145	24,00	36,7	31,2	4,3000	83,0	0	0
EC-BS33	100 años-6 horas-10	1,303	0,7000	19,7	14,6	4,3000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS33	100 años-6 horas-90	0,913	6,0000	19,7	14,6	4,3000	83,0	0	0
EC-BS33	10 años-12 horas-10 %	0,604	1,0167	15,7	10,8	4,3000	83,0	0	0
EC-BS33	10 años-12 horas-90	0,561	12,0000	15,7	10,8	4,3000	83	0	0
EC-BS33	10 años-24 horas-10	0,533	1,0167	19,5	14,4	4,3000	83,0	0	0
EC-BS33	10 años-24 horas-90	0,587	24,00	19,5	14,4	4,3000	83	0	0
EC-BS33	10 años-6 horas-10	0,737	0,8500	12,9	8,3	4,3000	83,0	0	0
EC-BS33	10 años-6 horas-90	0,568	6,0000	12,9	8,3	4,3000	83,0	0	0
EC-BS33	25 años-12 horas-10	0,838	0,7833	20,1	15,0	4,3000	83	0	0
EC-BS33	25 años-12 horas-90	0,737	12,0000	20,1	15	4,3000	83	0	0
EC-BS33	25 años-24 horas-10	0,775	1,0167	25,7	20,4	4,3000	83,0	0	0
EC-BS33	25 años-24 horas-90 %	0,790	24,0000	25,7	20,4	4,3000	83	0	0
EC-BS33	25 años-6 horas-10	0,948	0,7000	15,5	10,6	4,3000	83,0	0	0
EC-BS33	25 años-6 horas-90	0,701	6,0000	15,5	10,6	4,3000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS33 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS33 [m3]	100 años-12 horas-10	11911	0	9606	0	0	0	2305
EC-BS33 [ha-m]	100 años-12 horas-10	1,19	0	0,96	0	0	0	0,23
EC-BS33 [cm]	100 años-12 horas-90 %	27,7	0,0	22,3	0	0	0	5,4
EC-BS33 [m3]	100 años-12 horas-90	11911	0	9606	0	0	0	2305
EC-BS33 [ha-m]	100 años-12 horas-90	1,19	0,00	0,96	0,00	0	0	0,23
EC-BS33 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS33 [m3]	100 años-24 horas-10	15781	0	13401	0	0	0	2380
EC-BS33 [ha-m]	100 años-24 horas-10	1,58	0,00	1,34	0,00	0	0	0,24
EC-BS33 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BS33 [m3]	100 años-24 horas-90 %	15781	0	13401	0	0	0	2380
EC-BS33 [ha-m]	100 años-24 horas-90	1,58	0,00	1,34	0,00	0	0	0,24
EC-BS33 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS33 [m3]	100 años-6 horas-10	8471	0	6284	0	0	0	2187
EC-BS33 [ha-m]	100 años-6 horas-10	0,85	0	0,63	0	0	0	0,22
EC-BS33 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS33 [m3]	100 años-6 horas-90	8471	0	6284	0	0	0	2187
EC-BS33 [ha-m]	100 años-6 horas-90	0,85	0	0,63	0	0	0	0,22
EC-BS33 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS33 [m3]	10 años-12 horas-10	6751	0	4659	0	0	0	2092
EC-BS33 [ha-m]	10 años-12 horas-10	0,68	0	0,47	0	0	0	0,21
EC-BS33 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BS33 [m3]	10 años-12 horas-90	6751	0	4659	0	0	0	2092
EC-BS33 [ha-m]	10 años-12 horas-90	0,68	0	0,47	0	0	0	0,21
EC-BS33 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS33 [m3]	10 años-24 horas-10	8385	0	6202	0	0	0	2183
EC-BS33 [ha-m]	10 años-24 horas-10	0,84	0	0,62	0	0	0	0,22
EC-BS33 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0.0	5.1
EC-BS33 [m3]	10 años-24 horas-90	8385	0	6202	0	0	0	2183
EC-BS33 [ha-m]	10 años-24 horas-90	0,84	0	0,62	0	0	0	0,22
EC-BS33 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS33 [m3]	10 años-6 horas-10 %	5547	0	3550	0	0	0	1997
EC-BS33 [ha-m]	10 años-6 horas-10 %	0,55	0	0,35	0,00	0	0	0,20
EC-BS33 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0	4,6
EC-BS33 [m3]	10 años-6 horas-90 %	5547	0	3550	0	0	0	1997
EC-BS33 [ha-m]	10 años-6 horas-90 %	0.55	0	0,35	0,00	0	0	0,20
EC-BS33 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BS33 [m3]	25 años-12 horas-10	8643	0	6448	0	0	0	2195
EC-BS33 [ha-m]	25 años-12 horas-10	0,86	0	0,64	0	0	0	0,22
EC-BS33 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BS33 [m3]	25 años-12 horas-90	8643	0	6448	0	0	0	2195
EC-BS33 [ha-m]	25 años-12 horas-90	0,86	0	0,64	0	0	0	0,22
EC-BS33 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS33 [m3]	25 años-24 horas-10	11051	0	8769	0	0	0	2282
EC-BS33 [ha-m]	25 años-24 horas-10	1,11	0	0,88	0	0	0	0,23
EC-BS33 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS33 [m3]	25 años-24 horas-90	11051	0	8769	0	0	0	2282
EC-BS33 [ha-m]	25 años-24 horas-90	1,11	0	0,88	0	0	0	0,23
EC-BS33 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS33 [m3]	25 años-6 horas-10 %	6665	0	4579	0	0	0	2086
EC-BS33 [ha-m]	25 años-6 horas-10 %	0,67	0	0,46	0	0	0	0,21
EC-BS33 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0	4,9
EC-BS33 [m3]	25 años-6 horas-90 %	6665	0	4579	0	0	0	2086
EC-BS33 [ha-m]	25 años-6 horas-90 %	0,67	0	0,46	0	0	0	0,21

Lavabo simple: EC-BS34

Escenario: 38701-EC

Nodo: EC-N34

Método hidrográfico: Método de infiltración con hidrograma unitario del NRCS:

Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 1.8000 ha

Número de curva: 86.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS34	100 años-12 h r-10 %	0,559	0,7667	27,7	23,3	1,8000	86,0	0	0
EC-BS34	100 años-12 h r-90 %	0,438	12,0000	27,7	23,3	1,8000	86,0	0	0
EC-BS34	100 años-24 h r-10 %	0,523	1,0000	36,7	32,2	1,8000	86,0	0,00	0
EC-BS34	100 años-24 h r-90 %	0,481	24,0000	36,7	32,2	1,8000	86	0	0
EC-BS34	100 años-6 horas-10	0,577	0,6833	19,7	15,5	1,8000	86,0	0	0
EC-BS34	100 años-6 horas-90	0,389	5,8667	19,7	15,5	1,8000	86,0	0	0
EC-BS34	10 años-12 horas-10	0,273	0,7833	15,7	11,6	1,8000	86,0	0	0
EC-BS34	10 años-12 horas-90	0,241	12,0000	15,7	11,6	1,8000	86	0	0,00
EC-BS34	10 años-24 horas-10	0,243	1,0167	19,5	15,3	1,8000	86,0	0	0
EC-BS34	10 años-24 horas-90	0,250	24,00	19,5	15,3	1,8000	86	0	0
EC-BS34	10 años-6 horas-10	0,337	0,7000	12,9	9,0	1,8000	86,0	0,00	0,00
EC-BS34	10 años-6 horas-90	0,245	6,0000	12,9	9,0	1,8000	86,0	0	0,00

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS34	25 años-12 horas-10	0,378	0,7667	20,1	15,9	1,8000	86,0	0	0
EC-BS34	25 años-12 horas-90	0,313	12,0000	20,1	15,9	1,8000	86	0	0
EC-BS34	25 años-24 horas-10	0,344	1,0000	25,7	21,3	1,8000	86,0	0	0
EC-BS34	25 años-24 horas-90	0,334	24,0000	25,7	21,3	1,8000	86,0	0	0
EC-BS34	25 años-6 horas-10	0,429	0,6833	15,5	11,4	1,8000	86,0	0	0
EC-BS34	25 años-6 horas-90	0,300	6,0000	15,5	11,4	1,800	86	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS34 [cm]	100 años-12 horas-10	27,7	0,0	23,3	0	0	0	4,4
EC-BS34 [m3]	100 años-12 horas-10	4986	0	4192	0	0	0	794
EC-BS34 [ha-m]	100 años-12 horas-10	0,50	0	0,42	0.00	0,00	0	0,08
EC-BS34 [cm]	100 años-12 horas-90	27,7	0,0	23,3	0	0	0	4,4
EC-BS34 [m3]	100 años-12 horas-90	4986	0	4192	0	0	0	794
EC-BS34 [ha-m]	100 años-12 horas-90	0,50	0,00	0,42	0,00	0	0	0,08
EC-BS34 [cm]	100 años-24 horas-10	36,7	0	32,2	0	0	0	4,5
EC-BS34 [m3]	100 años-24 horas-10	6606	0	5790	0	0	0	816
EC-BS34 [ha-m]	100 años-24 horas-10	0,66	0,00	0,58	0	0	0	0,08
EC-BS34 [cm]	100 años-24 horas-90	36,7	0	32,2	0	0	0	4,5
EC-BS34 [m3]	100 años-24 horas-90	6606	0	5790	0	0	0	816
EC-BS34 [ha-m]	100 años-24 horas-90	0,66	0,00	0,58	0,00	0	0	0,08
EC-BS34 [cm]	100 años-6 horas-10	19,7	0	15,5	0	0	0	4,2
EC-BS34 [m3]	100 años-6 horas-10	3546	0	2787	0	0	0	759

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS34 [ha-m]	100 años-6 horas-10	0,35	0	0,28	0	0	0	0,08
EC-BS34 [cm]	100 años-6 horas-90	19,7	0	15,5	0	0	0	4,2
EC-BS34 [m3]	100 años-6 horas-90	3546	0	2787	0	0	0	759
EC-BS34 [ha-m]	100 años-6 horas-90	0,35	0	0,28	0	0	0	0,08
EC-BS34 [cm]	10 años-12 horas-10	15,7	0	11,6	0	0	0.0	4,1
EC-BS34 [m3]	10 años-12 horas-10	2826	0	2095	0	0	0	731
EC-BS34 [ha-m]	10 años-12 horas-10	0,28	0	0,21	0	0	0	0,07
EC-BS34 [cm]	10 años-12 horas-90	15,7	0	11,6	0	0	0.0	4,1
EC-BS34 [m3]	10 años-12 horas-90	2826	0	2095	0	0	0	731
EC-BS34 [ha-m]	10 años-12 horas-90	0,28	0	0,21	0	0	0	0,07
EC-BS34 [cm]	10 años-24 horas-10	19,5	0	15,3	0	0	0	4,2
EC-BS34 [m3]	10 años-24 horas-10	3510	0	2752	0	0	0	758
EC-BS34 [ha-m]	10 años-24 horas-10	0,35	0	0,28	0	0	0	0,08
EC-BS34 [cm]	10 años-24 horas-90	19,5	0	15,3	0	0	0	4,2
EC-BS34 [m3]	10 años-24 horas-90	3510	0	2752	0	0	0	758
EC-BS34 [ha-m]	10 años-24 horas-90	0,35	0	0,28	0	0	0	0,08
EC-BS34 [cm]	10 años-6 horas-10 %	12,9	0,0	9,0	0	0	0.0	3.9
EC-BS34 [m3]	10 años-6 horas-10 %	2322	0	1619	0	0	0	703
EC-BS34 [ha-m]	10 años-6 horas-10 %	0,23	0	0,16	0,00	0	0	0,07
EC-BS34 [cm]	10 años-6 horas-90 %	12,9	0	9,0	0	0	0.0	3.9
EC-BS34 [m3]	10 años-6 horas-90 %	2322	0	1619	0	0	0	703
EC-BS34 [ha-m]	10 años-6 horas-90 %	0,23	0	0,16	0	0	0	0,07
EC-BS34 [cm]	25 años-12 horas-10	20,1	0	15,9	0	0	0	4,2
EC-BS34 [m3]	25 años-12 horas-10	3618	0	2857	0	0	0	761

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BS34 [ha-m]	25 años-12 horas-10	0,36	0	0,29	0	0	0	0,08
EC-BS34 [cm]	25 años-12 horas-90	20,1	0,0	15,9	0	0	0	4,2
EC-BS34 [m3]	25 años-12 horas-90	3618	0	2857	0	0	0	761
EC-BS34 [ha-m]	25 años-12 horas-90	0,36	0	0,29	0	0	0	0,08
EC-BS34 [cm]	25 años-24 horas-10	25,7	0	21,3	0	0	0	4,4
EC-BS34 [m3]	25 años-24 horas-10	4626	0	3839	0	0	0	787
EC-BS34 [ha-m]	25 años-24 horas-10	0,46	0	0,38	0	0	0	0,08
EC-BS34 [cm]	25 años-24 horas-90	25,7	0	21,3	0	0	0	4,4
EC-BS34 [m3]	25 años-24 horas-90 %	4626	0	3839	0	0	0	787
EC-BS34 [ha-m]	25 años-24 horas-90	0,46	0	0,38	0	0	0	0,08
EC-BS34 [cm]	25 años-6 horas-10 %	15,5	0,0	11,4	0	0	0.0	4,1
EC-BS34 [m3]	25 años-6 horas-10 %	2790	0	2061	0	0	0	729
EC-BS34 [ha-m]	25 años-6 horas-10 %	0,28	0	0,21	0	0	0	0,07
EC-BS34 [cm]	25 años-6 horas-90 %	15,5	0,0	11,4	0	0	0.0	4,1
EC-BS34 [m3]	25 años-6 horas-90 %	2790	0	2061	0	0	0	729
EC-BS34 [ha-m]	25 años-6 horas-90 %	0,28	0	0,21	0	0	0	0,07

Lavabo simple: EC-BS35

Escenario: 38701-EC

Nodo: EC-N35

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 1.7000 ha

Número de curva: 85.0

% Impermeable: 0.00

% DCIA: 0

% Directo: 0

Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS35	100 años-12 h r-10 %	0,520	0,7667	27,7	23	1,7000	85,0	0	0
EC-BS35	100 años-12 h r-90 %	0,413	12,0000	27,7	23	1,7000	85,0	0.00	0,00
EC-BS35	100 años-24 h r-10 %	0,488	1,0000	36,7	31,8	1,7000	85,0	0.00	0
EC-BS35	100 años-24 h r-90 %	0,454	24,0000	36,7	31,8	1,7000	85,0	0	0
EC-BS35	100 años-6 horas-10	0,536	0,6833	19,7	15,2	1,7000	85,0	0	0
EC-BS35	100 años-6 horas-90	0,365	5,8667	19,7	15,2	1,7000	85,0	0	0
EC-BS35	10 años-12 horas-10	0,251	1,0167	15,7	11,4	1,7000	85,0	0	0
EC-BS35	10 años-12 horas-90	0,226	12,0000	15,7	11,4	1,7000	85	0	0
EC-BS35	10 años-24 horas-10	0,224	1,0167	19,5	15,0	1,7000	85,0	0,00	0
EC-BS35	10 años-24 horas-90	0,235	24,0000	19,5	15	1,7000	85,0	0	0
EC-BS35	10 años-6 horas-10	0,309	0,7000	12,9	8,7	1,7000	85,0	0.00	0,00
EC-BS35	10 años-6 horas-90	0,229	6,0000	12,9	8,7	1,7000	85,0	0	0
EC-BS35	25 años-12 horas-10	0,349	0,7667	20,1	15,6	1,7000	85,0	0	0
EC-BS35	25 años-12 horas-90	0,295	12,0000	20,1	15,6	1,7000	85	0	0
EC-BS35	25 años-24 horas-10	0,319	1,0000	25,7	21,0	1,7000	85,0	0.00	0
EC-BS35	25 años-24 horas-90	0,314	24,0000	25,7	21	1,7000	85	0	0
EC-BS35	25 años-6 horas-10	0,395	0,7000	15,5	11,2	1,7000	85,0	0,00	0
EC-BS35	25 años-6 horas-90	0,281	6,0000	15,5	11,2	1,7000	85,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BS35 [cm]	100 años-12 horas-10	27,7	0,0	23,0	0	0	0	4,7
EC-BS35 [m3]	100 años-12 horas-10	4709	0	3904	0	0	0	805
EC-BS35 [ha-m]	100 años-12 horas-10	0,47	0	0,39	0	0	0	0,08
EC-BS35 [cm]	100 años-12 horas-90	27,7	0,0	23,0	0	0	0	4,7
EC-BS35 [m3]	100 años-12 horas-90	4709	0	3904	0	0	0	805
EC-BS35 [ha-m]	100 años-12 horas-90	0,47	0,00	0,39	0	0	0	0,08
EC-BS35 [cm]	100 años-24 horas-10	36,7	0	31,8	0	0	0	4,9
EC-BS35 [m3]	100 años-24 horas-10	6239	0	5410	0	0	0	829
EC-BS35 [ha-m]	100 años-24 horas-10 %	0,62	0,00	0,54	0,00	0	0	0,08
EC-BS35 [cm]	100 años-24 horas-90	36,7	0	31,8	0	0	0	4,9
EC-BS35 [m3]	100 años-24 horas-90	6239	0	5410	0	0	0	829
EC-BS35 [ha-m]	100 años-24 horas-90	0,62	0,00	0,54	0,00	0	0	0,08
EC-BS35 [cm]	100 años-6 horas-10	19,7	0	15,2	0	0	0	4,5
EC-BS35 [m3]	100 años-6 horas-10	3349	0	2581	0	0	0	768
EC-BS35 [ha-m]	100 años-6 horas-10	0,33	0	0,26	0	0	0	0,08
EC-BS35 [cm]	100 años-6 horas-90	19,7	0	15,2	0	0	0	4,5
EC-BS35 [m3]	100 años-6 horas-90	3349	0	2581	0	0	0	768
EC-BS35 [ha-m]	100 años-6 horas-90	0,33	0	0,26	0	0	0	0,08
EC-BS35 [cm]	10 años-12 horas-10	15,7	0	11,4	0	0	0	4,3
EC-BS35 [m3]	10 años-12 horas-10	2669	0	1932	0	0	0	737
EC-BS35 [ha-m]	10 años-12 horas-10	0,27	0	0,19	0	0	0	0,07
EC-BS35 [cm]	10 años-12 horas-90	15,7	0	11,4	0	0	0	4,3
EC-BS35 [m3]	10 años-12 horas-90	2669	0	1932	0	0	0	737
EC-BS35	10 años-12 horas-9	0,27	0	0,19	0	0	0	0,07

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BS35 [cm]	10 años-24 horas-10 %	19,5	0,0	15	0	0	0	4,5
EC-BS35 [m3]	10 años-24 horas-10	3315	0	2549	0	0	0	766
EC-BS35 [ha-m]	10 años-24 horas-10	0,33	0	0,25	0	0	0	0,08
EC-BS35 [cm]	10 años-24 horas-90	19,5	0	15	0	0	0	4,5
EC-BS35 [m3]	10 años-24 horas-90	3315	0	2549	0	0	0	766
EC-BS35 [ha-m]	10 años-24 horas-90	0,33	0	0,25	0	0	0	0,08
EC-BS35 [cm]	10 años-6 horas-10 %	12,9	0	8,7	0	0	0	4.2
EC-BS35 [m3]	10 años-6 horas-10 %	2193	0	1486	0	0	0	707
EC-BS35 [ha-m]	10 años-6 horas-10 %	0,22	0	0,15	0,00	0	0	0,07
EC-BS35 [cm]	10 años-6 horas-90 %	12,9	0	8,7	0	0	0.0	4.2
EC-BS35 [m3]	10 años-6 horas-90 %	2193	0	1486	0	0	0	707
EC-BS35 [ha-m]	10 años-6 horas-90 %	0,22	0	0,15	0	0	0	0,07
EC-BS35 [cm]	25 años-12 horas-10	20,1	0	15,6	0	0	0	4,5
EC-BS35 [m3]	25 años-12 horas-10	3417	0	2647	0	0	0	770
EC-BS35 [ha-m]	25 años-12 horas-10	0,34	0	0,26	0	0	0	0,08
EC-BS35 [cm]	25 años-12 horas-90	20,1	0	15,6	0	0	0	4,5
EC-BS35 [m3]	25 años-12 horas-90	3417	0	2647	0	0	0	770
EC-BS35 [ha-m]	25 años-12 horas-90	0,34	0	0,26	0	0	0,00	0,08
EC-BS35 [cm]	25 años-24 horas-10	25,7	0	21,0	0	0	0,0	4,7
EC-BS35 [m3]	25 años-24 horas-10	4369	0	3572	0	0	0	797
EC-BS35 [ha-m]	25 años-24 horas-10	0,44	0	0,36	0	0	0	0,08
EC-BS35 [cm]	25 años-24 horas-90	25,7	0	21,0	0	0	0	4,7
EC-BS35 [m3]	25 años-24 horas-90	4369	0	3572	0	0	0	797
EC-BS35	25 años-24 horas-9	0,44	0,00	0,36	0	0	0	0,08

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	0							
EC-BS35 [cm]	25 años-6 horas-10 %	15,5	0	11,2	0	0	0.0	4.3
EC-BS35 [m3]	25 años-6 horas-10 %	2635	0	1900	0	0	0	735
EC-BS35 [ha-m]	25 años-6 horas-10 %	0,26	0	0,19	0	0	0	0,07
EC-BS35 [cm]	25 años-6 horas-90 %	15,5	0	11,2	0	0	0	4,3
EC-BS35 [m3]	25 años-6 horas-90 %	2635	0	1900	0	0	0	735
EC-BS35 [ha-m]	25 años-6 horas-90 %	0,26	0	0,19	0	0	0	0,07

Lavabo simple: EC-BS36

Escenario: 38701-EC

Nodo: EC-N36

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 11,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 2.9000 ha

Número de curva: 85.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS36	100 años-12 h r-10 %	0,878	0,8000	27,7	23	2,900	85,0	0,00	0
EC-BS36	100 años-12 h r-90 %	0,700	12,0000	27,7	23	2,900	85	0	0
EC-BS36	100 años-24 h r-10 %	0,826	1,0333	36,7	31,9	2,9000	85,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Equivalente Número de curva	% Impermeabilidad	% DCIA
EC-BS36	100 años-24 hr-90 %	0,775	24,000	36,7	31,9	2,900	85	0	0
EC-BS36	100 años-6 horas-10	0,902	0,7333	19,7	15,2	2,9000	85,0	0	0
EC-BS36	100 años-6 horas-90	0,623	6,0000	19,7	15,2	2,9000	85,0	0	0
EC-BS36	10 años-12 horas-10	0,424	1,0500	15,7	11,4	2,9000	85,0	0	0
EC-BS36	10 años-12 horas-90	0,382	12,0000	15,7	11,4	2,9000	85	0	0
EC-BS36	10 años-24 horas-10	0,375	1,0500	19,5	15	2,9000	85,0	0	0
EC-BS36	10 años-24 horas-90	0,400	24,00	19,5	15	2,900	85	0	0
EC-BS36	10 años-6 horas-10	0,520	0,8667	12,9	8,8	2,9000	85,0	0	0
EC-BS36	10 años-6 horas-90	0,391	6,0000	12,9	8,8	2,9000	85,0	0	0
EC-BS36	25 años-12 horas-10	0,586	0,8167	20,1	15,6	2,9000	85	0	0
EC-BS36	25 años-12 horas-90	0,499	12,0000	20,1	15,6	2,9000	85	0	0
EC-BS36	25 años-24 horas-10	0,538	1,0333	25,7	21,1	2,9000	85,0	0	0
EC-BS36	25 años-24 horas-90	0,536	24,0000	25,7	21,1	2,9000	85	0	0
EC-BS36	25 años-6 horas-10	0,663	0,7500	15,5	11,2	2,9000	85,0	0,00	0
EC-BS36	25 años-6 horas-90	0,480	6,0000	15,5	11,2	2,9000	85,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
EC-BS36 [cm]	100 años-12 horas-10	27,7	0	23,0	0	0	0	4,7
EC-BS36 [m3]	100 años-12 horas-10	8033	0	6674	0	0	0	1359
EC-BS36 [ha-m]	100 años-12 horas-10	0,80	0	0,67	0	0	0	0,14
EC-BS36 [cm]	100 años-12 horas-90	27,7	0,0	23,0	0	0	0	4,7
EC-BS36 [m3]	100 años-12 horas-90	8033	0	6674	0	0	0	1359

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS36 [ha-m]	100 años-12 horas-90	0,80	0	0,67	0	0	0	0,14
EC-BS36 [cm]	100 años-24 horas-10 %	36,7	0,0	31,9	0	0	0	4,8
EC-BS36 [m3]	100 años-24 horas-10	10643	0	9248	0	0	0	1395
EC-BS36 [ha-m]	100 años-24 horas-10	1,06	0,00	0,92	0,00	0	0	0,14
EC-BS36 [cm]	100 años-24 horas-90	36,7	0	31,9	0	0	0	4,8
EC-BS36 [m3]	100 años-24 horas-90	10643	0	9248	0	0	0	1395
EC-BS36 [ha-m]	100 años-24 horas-90	1,06	0,00	0,92	0,00	0	0	0,14
EC-BS36 [cm]	100 años-6 horas-10	19,7	0	15,2	0	0	0	4,5
EC-BS36 [m3]	100 años-6 horas-10	5713	0	4413	0	0	0	1300
EC-BS36 [ha-m]	100 años-6 horas-10	0,57	0	0,44	0	0	0	0,13
EC-BS36 [cm]	100 años-6 horas-90	19,7	0	15,2	0	0	0	4,5
EC-BS36 [m3]	100 años-6 horas-90	5713	0	4413	0	0	0	1300
EC-BS36 [ha-m]	100 años-6 horas-90	0,57	0	0,44	0	0	0	0,13
EC-BS36 [cm]	10 años-12 horas-10	15,7	0	11,4	0	0	0	4,3
EC-BS36 [m3]	10 años-12 horas-10	4553	0	3302	0	0	0	1251
EC-BS36 [ha-m]	10 años-12 horas-10	0,46	0	0,33	0	0	0	0,13
EC-BS36 [cm]	10 años-12 horas-90	15,7	0	11,4	0	0	0	4,3
EC-BS36 [m3]	10 años-12 horas-90	4553	0	3302	0	0	0	1251
EC-BS36 [ha-m]	10 años-12 horas-90	0,46	0	0,33	0	0	0,00	0,13
EC-BS36 [cm]	10 años-24 horas-10	19,5	0	15	0	0	0	4,5
EC-BS36 [m3]	10 años-24 horas-10	5655	0	4357	0	0	0	1298
EC-BS36 [ha-m]	10 años-24 horas-10	0,57	0	0,44	0	0	0	0,13
EC-BS36 [cm]	10 años-24 horas-90	19,5	0	15	0	0	0	4,5
EC-BS36 [m3]	10 años-24 horas-90	5655	0	4357	0	0	0	1298

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS36 [ha-m]	10 años-24 horas-90	0,57	0	0,44	0	0	0	0,13
EC-BS36 [cm]	10 años-6 horas-10 %	12,9	0	8,8	0	0	0.0	4.1
EC-BS36 [m3]	10 años-6 horas-10 %	3741	0	2540	0	0	0	1201
EC-BS36 [ha-m]	10 años-6 horas-10 %	0,37	0	0,25	0,00	0	0	0,12
EC-BS36 [cm]	10 años-6 horas-90 %	12,9	0	8,8	0	0	0.0	4.1
EC-BS36 [m3]	10 años-6 horas-90 %	3741	0	2540	0	0	0	1201
EC-BS36 [ha-m]	10 años-6 horas-90 %	0,37	0	0,25	0,00	0	0	0,12
EC-BS36 [cm]	25 años-12 horas-10	20,1	0	15,6	0	0	0	4,5
EC-BS36 [m3]	25 años-12 horas-10	5829	0	4525	0	0	0	1304
EC-BS36 [ha-m]	25 años-12 horas-10	0,58	0	0,45	0	0	0	0,13
EC-BS36 [cm]	25 años-12 horas-90	20,1	0	15,6	0.0	0.0	0.0	4.5
EC-BS36 [m3]	25 años-12 horas-90	5829	0	4525	0	0	0	1304
EC-BS36 [ha-m]	25 años-12 horas-90	0,58	0	0,45	0	0	0	0,13
EC-BS36 [cm]	25 años-24 horas-10	25,7	0	21,1	0	0	0	4,6
EC-BS36 [m3]	25 años-24 horas-10	7453	0	6105	0	0	0	1348
EC-BS36 [ha-m]	25 años-24 horas-10	0,75	0	0,61	0	0	0	0,13
EC-BS36 [cm]	25 años-24 horas-90	25,7	0	21,1	0	0	0	4,6
EC-BS36 [m3]	25 años-24 horas-90	7453	0	6105	0	0	0	1348
EC-BS36 [ha-m]	25 años-24 horas-90	0,75	0	0,61	0	0	0	0,13
EC-BS36 [cm]	25 años-6 horas-10 %	15,5	0.0	11,2	0	0	0	4,3
EC-BS36 [m3]	25 años-6 horas-10 %	4495	0	3247	0	0	0	1248
EC-BS36 [ha-m]	25 años-6 horas-10 %	0,45	0	0,32	0	0	0	0,12
EC-BS36 [cm]	25 años-6 horas-90 %	15,5	0	11,2	0	0	0.0	4,3
EC-BS36 [m3]	25 años-6 horas-90 %	4495	0	3247	0	0	0	1248

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS36 [ha-m]	25 años-6 horas-90 %	0,45	0	0,32	0	0	0	0,12

Lavabo simple: EC-BS37

Escenario: 38701-EC

Nodo: EC-N37

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 29,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 51.1000 ha

Número de curva: 82.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Superficie [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BS37	100 años-12 h r-10 %	13,955	1,2000	27,7	22	51,1000	82,0	0	0
EC-BS37	100 años-12 h r-90 %	11,452	12,0667	27,7	22	51,1000	82,0	0	0
EC-BS37	100 años-24 h r-10 %	13,183	1,2167	36,7	30,8	51,1000	82,0	0	0
EC-BS37	100 años-24 h r-90 %	13,070	24,0500	36,7	30,8	51,1000	82,0	0	0
EC-BS37	100 años-6 horas-10	13,936	1,0833	19,7	14,3	51,1000	82,0	0	0
EC-BS37	100 años-6 horas-90	10,464	6,0333	19,7	14,3	51,1000	82,0	0	0
EC-BS37	10 años-12 horas-10	6,636	1,3833	15,7	10,6	51,1000	82,0	0	0
EC-BS37	10 años-12 horas-90	6,122	12,0667	15,7	10,6	51,1000	82	0	0
EC-BS37	10 años-24 horas-	5,780	1,6500	19,5	14,1	51,1000	82,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BS37	10 años-24 horas-90	6,649	24,0500	19,5	14,1	51,1000	82,0	0	0
EC-BS37	10 años-6 horas-10	7,872	1,1667	12,9	8,0	51,1000	82,0	0	0
EC-BS37	10 años-6 horas-90	6,395	6,0500	12,9	8,0	51,1000	82,0	0	0
EC-BS37	25 años-12 horas-10	9,257	1,3000	20,1	14,7	51,1000	82,0	0	0
EC-BS37	25 años-12 horas-90	8,090	12,0667	20,1	14,7	51,1000	82	0	0
EC-BS37	25 años-24 horas-10	8,287	1,3167	25,7	20,1	51,1000	82,0	0	0
EC-BS37	25 años-24 horas-90	8,979	24,0500	25,7	20,1	51,1000	82,0	0	0
EC-BS37	25 años-6 horas-10	10,153	1,1333	15,5	10,4	51,1000	82	0	0
EC-BS37	25 años-6 horas-90	7,957	6,0333	15,5	10,4	51,1000	82,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS37 [cm]	100 años-12 horas-10	27,7	0,0	22,0	0	0	0	5,7
EC-BS37 [m3]	100 años-12 horas-10	141547	0	112495	0	0	0	29052
EC-BS37 [ha-m]	100 años-12 horas-10	14,15	0,00	11,25	0	0	0	2,91
EC-BS37 [cm]	100 años-12 horas-90	27,7	0,0	22,0	0	0	0	5,7
EC-BS37 [m3]	100 años-12 horas-90	141547	0	112495	0	0	0	29052
EC-BS37 [ha-m]	100 años-12 horas-90	14,15	0,00	11,25	0	0	0,00	2,91
EC-BS37 [cm]	100 años-24 horas-10	36,7	0	30,8	0	0	0	5,9
EC-BS37 [m3]	100 años-24 horas-10	187537	0	157484	0	0	0	30053
EC-BS37 [ha-m]	100 años-24 horas-10	18,75	0,00	15,75	0	0	0	3,01
EC-BS37 [cm]	100 años-24 horas-90	36,7	0	30,8	0	0	0	5,9
EC-BS37	100 años-24 horas-	187537	0	157484	0	0	0	30053

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	90							
EC-BS37 [ha-m]	100 años-24 horas-90	18,75	0,00	15,75	0	0	0	3,01
EC-BS37 [cm]	100 años-6 horas-10	19,7	0	14,3	0	0	0.0	5,4
EC-BS37 [m3]	100 años-6 horas-10	100667	0	73181	0	0	0	27486
EC-BS37 [ha-m]	100 años-6 horas-10	10,07	0	7,32	0	0	0	2,75
EC-BS37 [cm]	100 años-6 horas-90	19,7	0	14,3	0	0	0	5,4
EC-BS37 [m3]	100 años-6 horas-90	100667	0	73181	0	0	0	27486
EC-BS37 [ha-m]	100 años-6 horas-90	10,07	0	7,32	0	0	0	2,75
EC-BS37 [cm]	10 años-12 horas-10	15,7	0	10,6	0	0	0.0	5,1
EC-BS37 [m3]	10 años-12 horas-10	80227	0	54012	0	0	0	26215
EC-BS37 [ha-m]	10 años-12 horas-10	8,02	0	5,40	0	0	0	2,62
EC-BS37 [cm]	10 años-12 horas-90	15,7	0	10,6	0.0	0.0	0.0	5.1
EC-BS37 [m3]	10 años-12 horas-90	80227	0	54012	0	0	0	26215
EC-BS37 [ha-m]	10 años-12 horas-90	8,02	0	5,40	0	0	0	2,62
EC-BS37 [cm]	10 años-24 horas-10	19,5	0	14,1	0	0	0	5,4
EC-BS37 [m3]	10 años-24 horas-10	99645	0	72212	0	0	0	27433
EC-BS37 [ha-m]	10 años-24 horas-10	9,96	0	7,22	0	0	0	2,74
EC-BS37 [cm]	10 años-24 horas-90	19,5	0	14,1	0	0	0	5,4
EC-BS37 [m3]	10 años-24 horas-90	99645	0	72212	0	0	0	27433
EC-BS37 [ha-m]	10 años-24 horas-90	9,96	0	7,22	0	0	0	2,74
EC-BS37 [cm]	10 años-6 horas-10 %	12,9	0.0	8.0	0.0	0	0.0	4.9
EC-BS37 [m3]	10 años-6 horas-10 %	65919	0	40952	0	0	0	24967
EC-BS37 [ha-m]	10 años-6 horas-10 %	6,59	0	4,10	0,00	0	0	2,50
EC-BS37 [cm]	10 años-6 horas-90 %	12,9	0	8	0	0	0.0	4.9
EC-BS37	10 años-6 horas-90	65919	0	40952	0	0	0	24967

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BS37	10 años-6 horas-90	6,59	0	4,10	0,00	0	0	2,50
[ha-m]	%							
EC-BS37	25 años-12 horas-1	20,1	0	14,7	0	0	0	5,4
[cm]	0							
EC-BS37	25 años-12 horas-1	102711	0	75121	0	0	0	27590
[m3]	0							
EC-BS37	25 años-12 horas-1	10,27	0,00	7,51	0	0	0	2,76
[ha-m]	0							
EC-BS37	25 años-12 horas-9	20,1	0	14,7	0	0	0	5,4
[cm]	0							
EC-BS37	25 años-12 horas-9	102711	0	75121	0	0	0	27590
[m3]	0							
EC-BS37	25 años-12 horas-9	10,27	0,00	7,51	0	0	0	2,76
[ha-m]	0							
EC-BS37	25 años-24 horas-1	25,7	0	20,1	0	0	0	5,6
[cm]	0							
EC-BS37	25 años-24 horas-1	131327	0	102585	0	0	0	28742
[m3]	0							
EC-BS37	25 años-24 horas-1	13,13	0,00	10,26	0	0	0	2,87
[ha-m]	0							
EC-BS37	25 años-24 horas-9	25,7	0	20,1	0	0	0	5,6
[cm]	0							
EC-BS37	25 años-24 horas-9	131327	0	102585	0	0	0	28742
[m3]	0 %							
EC-BS37	25 años-24 horas-9	13,13	0	10,26	0	0	0	2,87
[ha-m]	0							
EC-BS37	25 años-6 horas-10	15,5	0,0	10,4	0	0	0.0	5,1
[cm]	%							
EC-BS37	25 años-6 horas-10	79205	0	53067	0	0	0	26138
[m3]	%							
EC-BS37	25 años-6 horas-10	7,92	0.00	5,31	0	0	0	2,61
[ha-m]	%							
EC-BS37	25 años-6 horas-90	15,5	0	10,4	0	0	0.0	5,1
[cm]	%							
EC-BS37	25 años-6 horas-90	79205	0	53067	0	0	0	26138
[m3]	%							
EC-BS37	25 años-6 horas-90	7,92	0.00	5,31	0	0	0	2,61
[ha-m]	%							

Lavabo simple: EC-BS38

Escenario: 38701-EC

Nodo: EC-N38

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración:	6,0000 min
Q máximo permitido:	0,000 cms
Desplazamiento temporal:	0,0000 h
Hidrógrafo unitario:	UH484
Factor de pico:	484,0
Área:	1,6000 ha
Número de curva:	83,0
% Impermeable:	0,00
% DCIA:	0
% Directo:	0
Nombre de la precipitación:	

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS38	100 años-12 h r-10 %	0,474	0,7667	27,7	22,3	1,6000	83,0	0	0
EC-BS38	100 años-12 h r-90 %	0,386	12,0000	27,7	22,3	1,6000	83,0	0	0
EC-BS38	100 años-24 h r-10 %	0,448	1,0000	36,7	31,1	1,6000	83,0	0.00	0
EC-BS38	100 años-24 h r-90 %	0,425	24,0000	36,7	31,1	1,600	83	0	0
EC-BS38	100 años-6 horas-10	0,486	0,6833	19,7	14,6	1,6000	83,0	0	0
EC-BS38	100 años-6 horas-90	0,339	6,0000	19,7	14,6	1,6000	83,0	0	0
EC-BS38	10 años-12 horas-10	0,225	1,0167	15,7	10,8	1,6000	83,0	0,00	0
EC-BS38	10 años-12 horas-90	0,209	12,0000	15,7	10,8	1,6000	83	0	0
EC-BS38	10 años-24 horas-10	0,199	1,0167	19,5	14,4	1,6000	83,0	0,00	0
EC-BS38	10 años-24 horas-90	0,218	24,0000	19,5	14,4	1,6000	83,0	0	0
EC-BS38	10 años-6 horas-10	0,275	0,8500	12.9	8,2	1,6000	83,0	0,00	0
EC-BS38	10 años-6 horas-90	0,211	6,0000	12,9	8,2	1,6000	83,0	0	0
EC-BS38	25 años-12 horas-10	0,312	0,7833	20,1	15	1,6000	83,0	0	0
EC-BS38	25 años-12 horas-90	0,274	12,0000	20,1	15	1,6000	83	0	0
EC-BS38	25 años-24 horas-	0,289	1,0167	25,7	20,4	1,6000	83,0	0,00	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	10								
EC-BS38	25 años-24 horas-90	0,293	24,0000	25,7	20,4	1,6000	83,0	0	0
EC-BS38	25 años-6 horas-10	0,354	0,7000	15,5	10,6	1,600	83,0	0,00	0,00
EC-BS38	25 años-6 horas-90	0,260	6,0000	15,5	10,6	1,6000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS38 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS38 [m3]	100 años-12 horas-10	4432	0	3569	0	0	0	863
EC-BS38 [ha-m]	100 años-12 horas-10	0,44	0,00	0,36	0	0	0	0,09
EC-BS38 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS38 [m3]	100 años-12 horas-90	4432	0	3569	0	0	0	863
EC-BS38 [ha-m]	100 años-12 horas-90 %	0,44	0,00	0,36	0,00	0	0	0,09
EC-BS38 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS38 [m3]	100 años-24 horas-10	5872	0	4980	0	0	0	892
EC-BS38 [ha-m]	100 años-24 horas-10	0,59	0,00	0,50	0,00	0	0	0,09
EC-BS38 [cm]	100 años-24 horas-90	36,7	0	31,1	0	0	0	5,6
EC-BS38 [m3]	100 años-24 horas-90	5872	0	4980	0	0	0	892
EC-BS38 [ha-m]	100 años-24 horas-90	0,59	0,00	0,50	0,00	0	0	0,09
EC-BS38 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS38 [m3]	100 años-6 horas-10	3152	0	2335	0	0	0	817
EC-BS38 [ha-m]	100 años-6 horas-10	0,32	0	0,23	0	0	0	0,08
EC-BS38 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS38	100 años-6 horas-9	3152	0	2335	0	0	0	817

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS38	100 años-6 horas-9	0,32	0	0,23	0	0	0	0,08
[ha-m]	0							
EC-BS38	10 años-12 horas-1	15,7	0	10,8	0	0	0.0	4,9
[cm]	0							
EC-BS38	10 años-12 horas-1	2512	0	1731	0	0	0	781
[m3]	0							
EC-BS38	10 años-12 horas-1	0,25	0	0,17	0	0	0	0,08
[ha-m]	0							
EC-BS38	10 años-12 horas-9	15,7	0	10,8	0	0	0.0	4,9
[cm]	0							
EC-BS38	10 años-12 horas-9	2512	0	1731	0	0	0	781
[m3]	0							
EC-BS38	10 años-12 horas-9	0,25	0	0,17	0	0	0	0,08
[ha-m]	0							
EC-BS38	10 años-24 horas-1	19,5	0	14,4	0	0	0	5,1
[cm]	0							
EC-BS38	10 años-24 horas-1	3120	0	2304	0	0	0	816
[m3]	0							
EC-BS38	10 años-24 horas-1	0,31	0	0,23	0	0	0	0,08
[ha-m]	0							
EC-BS38	10 años-24 horas-9	19,5	0	14,4	0	0	0	5,1
[cm]	0							
EC-BS38	10 años-24 horas-9	3120	0	2304	0	0	0	816
[m3]	0							
EC-BS38	10 años-24 horas-9	0,31	0	0,23	0	0.00	0,00	0,08
[ha-m]	0							
EC-BS38	10 años-6 horas-10	12,9	0	8,2	0	0	0.0	4,7
[cm]	%							
EC-BS38	10 años-6 horas-10	2064	0	1319	0	0	0	745
[m3]	%							
EC-BS38	10 años-6 horas-10	0,21	0	0,13	0,00	0	0	0,07
[ha-m]	%							
EC-BS38	10 años-6 horas-90	12,9	0	8,2	0	0	0.0	4,7
[cm]	%							
EC-BS38	10 años-6 horas-90	2064	0	1319	0	0	0	745
[m3]	%							
EC-BS38	10 años-6 horas-90	0,21	0	0,13	0	0	0	0,07
[ha-m]	%							
EC-BS38	25 años-12 horas-1	20,1	0	15,0	0	0	0	5,1
[cm]	0							
EC-BS38	25 años-12 horas-1	3216	0	2396	0	0	0	820
[m3]	0							
EC-BS38	25 años-12 horas-1	0,32	0	0,24	0,00	0	0	0,08
[ha-m]	0							
EC-BS38	25 años-12 horas-9	20,1	0	15	0	0	0.0	5,1
[cm]	0							
EC-BS38	25 años-12 horas-9	3216	0	2396	0	0	0	820

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS38	25 años-12 horas-9	0,32	0	0,24	0	0	0	0,08
[ha-m]	0							
EC-BS38	25 años-24 horas-1	25,7	0	20,4	0	0	0	5,3
[cm]	0							
EC-BS38	25 años-24 horas-1	4112	0	3258	0	0	0	854
[m3]	0							
EC-BS38	25 años-24 horas-1	0,41	0	0,33	0	0	0	0,09
[ha-m]	0							
EC-BS38	25 años-24 horas-9	25,7	0	20,4	0.0	0	0	5,3
[cm]	0							
EC-BS38	25 años-24 horas-9	4112	0	3258	0	0	0	854
[m3]	0							
EC-BS38	25 años-24 horas-9	0,41	0	0,33	0	0	0	0,09
[ha-m]	0							
EC-BS38	25 años-6 horas-10	15,5	0,0	10,6	0	0	0.0	4,9
[cm]	%							
EC-BS38	25 años-6 horas-10	2480	0	1702	0	0	0	778
[m3]	%							
EC-BS38	25 años-6 horas-10	0,25	0	0,17	0	0	0	0,08
[ha-m]	%							
EC-BS38	25 años-6 horas-90	15,5	0	10,6	0	0	0.0	4,9
[cm]	%							
EC-BS38	25 años-6 horas-90	2480	0	1702	0	0	0	778
[m3]	%							
EC-BS38	25 años-6 horas-90	0,25	0	0,17	0	0	0	0,08
[ha-m]	%							

Lavabo simple: EC-BS39

Escenario: 38701-EC

Nodo: EC-N39

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 9,0000 min Caudal máximo admisible: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 10.8000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS39	100 años-12 hr-10 %	3,171	0,8000	27,7	22,3	10,8000	83,0	0.00	0,00
EC-BS39	100 años-12 hr-90 %	2,598	12,0000	27,7	22,3	10,8000	83,0	0	0
EC-BS39	100 años-24 hr-10 %	3,008	1,0167	36,7	31,2	10,8000	83,0	0	0
EC-BS39	100 años-24 hr-90 %	2,873	24,00	36,7	31,2	10,8000	83	0	0
EC-BS39	100 años-6 horas-10	3,249	0,7167	19,7	14,6	10,8000	83,0	0	0
EC-BS39	100 años-6 horas-90	2,292	6,0000	19,7	14,6	10,8000	83,0	0	0
EC-BS39	10 años-12 horas-10	1,509	1,0333	15,7	10,8	10,8000	83,0	0	0
EC-BS39	10 años-12 horas-90	1,405	12,0000	15,7	10,8	10,8000	83	0	0
EC-BS39	10 años-24 horas-10	1,327	1,0333	19,5	14,4	10,8000	83,0	0	0
EC-BS39	10 años-24 horas-90	1,474	24,00	19,5	14,4	10,8000	83,0	0	0
EC-BS39	10 años-6 horas-10	1,843	0,8667	12,9	8,3	10,8000	83,0	0	0
EC-BS39	10 años-6 horas-90	1,423	6,000	12,9	8,3	10,8000	83,0	0	0
EC-BS39	25 años-12 horas-10	2,087	1,0333	20,1	15,0	10,8000	83,0	0	0
EC-BS39	25 años-12 horas-90	1,845	12,0000	20,1	15	10,8000	83	0	0
EC-BS39	25 años-24 horas-10	1,931	1,0333	25,7	20,4	10,8000	83,0	0	0
EC-BS39	25 años-24 horas-90	1,981	24,00	25,7	20,4	10,8000	83	0	0
EC-BS39	25 años-6 horas-10	2,362	0,7333	15,5	10,6	10,8000	83,0	0	0
EC-BS39	25 años-6 horas-90	1,757	6,0000	15,5	10,6	10,8000	83,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total	Total	Escorrentía total	ET total	Total inicial	Total	Cambio en el suelo

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS39 [cm]	100 años-12 horas-10	27,7	0	22,3	0	0	0	5,4
EC-BS39 [m3]	100 años-12 horas-10	29916	0	24118	0	0	0	5798
EC-BS39 [ha-m]	100 años-12 horas-10	2,99	0	2,41	0	0	0	0,58
EC-BS39 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS39 [m3]	100 años-12 horas-90	29916	0	24118	0	0	0	5798
EC-BS39 [ha-m]	100 años-12 horas-90	2,99	0,00	2,41	0	0	0	0,58
EC-BS39 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BS39 [m3]	100 años-24 horas-10	39636	0	33647	0	0	0	5989
EC-BS39 [ha-m]	100 años-24 horas-10	3,96	0,00	3,36	0	0	0	0,60
EC-BS39 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BS39 [m3]	100 años-24 horas-90	39636	0	33647	0	0	0	5989
EC-BS39 [ha-m]	100 años-24 horas-90	3,96	0,00	3,36	0	0	0	0,60
EC-BS39 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS39 [m3]	100 años-6 horas-10	21276	0	15776	0	0	0	5500
EC-BS39 [ha-m]	100 años-6 horas-10	2,13	0	1,58	0	0	0	0,55
EC-BS39 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS39 [m3]	100 años-6 horas-90	21276	0	15776	0	0	0	5500
EC-BS39 [ha-m]	100 años-6 horas-90	2,13	0	1,58	0	0	0	0,55
EC-BS39 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS39 [m3]	10 años-12 horas-10	16956	0	11698	0	0	0	5258
EC-BS39 [ha-m]	10 años-12 horas-10	1,70	0	1,17	0	0	0	0,53
EC-BS39 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS39 [m3]	10 años-12 horas-90	16956	0	11698	0	0	0	5258
EC-BS39 [ha-m]	10 años-12 horas-90	1,70	0	1,17	0	0	0	0,53

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS39 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS39 [m3]	10 años-24 horas-10	21060	0	15571	0	0	0	5489
EC-BS39 [ha-m]	10 años-24 horas-10	2,11	0	1,56	0	0	0	0,55
EC-BS39 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS39 [m3]	10 años-24 horas-90	21060	0	15571	0	0	0	5489
EC-BS39 [ha-m]	10 años-24 horas-90	2.11	0,00	1,56	0	0	0	0,55
EC-BS39 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS39 [m3]	10 años-6 horas-10 %	13932	0	8913	0	0	0	5019
EC-BS39 [ha-m]	10 años-6 horas-10 %	1,39	0	0,89	0,00	0	0	0,50
EC-BS39 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS39 [m3]	10 años-6 horas-90 %	13932	0	8913	0	0	0	5019
EC-BS39 [ha-m]	10 años-6 horas-90 %	1,39	0	0,89	0	0	0	0,50
EC-BS39 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BS39 [m3]	25 años-12 horas-10	21708	0	16189	0	0	0	5519
EC-BS39 [ha-m]	25 años-12 horas-10 %	2,17	0,00	1,62	0	0	0	0,55
EC-BS39 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BS39 [m3]	25 años-12 horas-90	21708	0	16189	0	0	0	5519
EC-BS39 [ha-m]	25 años-12 horas-90	2,17	0	1,62	0	0	0	0,55
EC-BS39 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS39 [m3]	25 años-24 horas-10	27756	0	22017	0	0	0	5739
EC-BS39 [ha-m]	25 años-24 horas-10	2,78	0	2,20	0	0	0	0,57
EC-BS39 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS39 [m3]	25 años-24 horas-90	27756	0	22017	0	0	0	5739
EC-BS39 [ha-m]	25 años-24 horas-90	2,78	0	2,20	0	0	0	0,57

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS39 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS39 [m3]	25 años-6 horas-10 %	16740	0	11497	0	0	0	5243
EC-BS39 [ha-m]	25 años-6 horas-10 %	1,67	0	1,15	0	0	0	0,52
EC-BS39 [cm]	25 años-6 horas-90	15,5	0	10,6	0	0	0.0	4,9
EC-BS39 [m3]	25 años-6 horas-90 %	16740	0	11497	0	0	0	5243
EC-BS39 [ha-m]	25 años-6 horas-90 %	1,67	0	1,15	0	0	0	0,52

Lavabo simple: EC-BS40

Escenario: 38701-EC

Nodo: EC-N40

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 0.7000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0.00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Equivalente Número de curva	% Impermeable	% DCIA
EC-BS40	100 años-12 h r-10 %	0,207	0,7667	27,7	22,3	0,7000	83,0	0	0
EC-BS40	100 años-12 h r-90 %	0,169	12,0000	27,7	22,3	0,7000	83,0	0	0
EC-BS40	100 años-24 h r-10 %	0,196	1,0000	36,7	31,1	0,7000	83,0	0.00	0
EC-BS40	100 años-24 h	0,186	24,00	36,7	31,1	0,7000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
	r-90 %								
EC-BS40	100 años-6 horas-10	0,212	0,6833	19,7	14,6	0,7000	83,0	0	0
EC-BS40	100 años-6 horas-90	0,149	6,0000	19,7	14,6	0,7000	83,0	0	0
EC-BS40	10 años-12 horas-10	0,099	1,0167	15,7	10,8	0,7000	83,0	0	0
EC-BS40	10 años-12 horas-90 %	0,091	12,0000	15,7	10,8	0,7000	83	0	0
EC-BS40	10 años-24 horas-10	0,087	1,0167	19,5	14,4	0,7000	83,0	0	0
EC-BS40	10 años-24 horas-90	0,096	24,00	19,5	14,4	0,7000	83	0	0
EC-BS40	10 años-6 horas-10	0,120	0,8500	12,9	8,2	0,7000	83,0	0	0
EC-BS40	10 años-6 horas-90	0,092	6,0000	12,9	8,2	0,7000	83,0	0	0
EC-BS40	25 años-12 horas-10	0,137	0,7833	20,1	15,0	0,7000	83	0	0
EC-BS40	25 años-12 horas-90	0,120	12,0000	20,1	15	0,7000	83	0	0
EC-BS40	25 años-24 horas-10	0,126	1,0167	25,7	20,4	0,7000	83,0	0	0
EC-BS40	25 años-24 horas-90	0,128	24,0000	25,7	20,4	0,7000	83	0	0
EC-BS40	25 años-6 horas-10 %	0,155	0,7000	15,5	10,6	0,7000	83,0	0	0
EC-BS40	25 años-6 horas-90	0,114	6,0000	15,5	10,6	0,7000	83,0	0	0

Resumen del balance de masa simple de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS40 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS40 [m3]	100 años-12 horas-10	1939	0	1562	0	0	0	377
EC-BS40 [ha-m]	100 años-12 horas-10	0,19	0,00	0,16	0	0	0	0,04
EC-BS40 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS40 [m3]	100 años-12 horas-90 %	1939	0	1562	0	0	0	377
EC-BS40	100 años-12 horas-	0,19	0,00	0,16	0	0	0	0,04

Nombre de la cuenca	Nombre de la sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	90							
EC-BS40 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS40 [m3]	100 años-24 horas-10	2569	0	2179	0	0	0	390
EC-BS40 [ha-m]	100 años-24 horas-10	0,26	0,00	0,22	0	0	0	0,04
EC-BS40 [cm]	100 años-24 horas-90	36,7	0,0	31,1	0	0	0	5,6
EC-BS40 [m3]	100 años-24 horas-90	2569	0	2179	0	0	0	390
EC-BS40 [ha-m]	100 años-24 horas-90	0,26	0,00	0,22	0	0	0	0,04
EC-BS40 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS40 [m3]	100 años-6 horas-10	1379	0	1021	0	0	0	358
EC-BS40 [ha-m]	100 años-6 horas-10	0,14	0	0,10	0	0	0	0,04
EC-BS40 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS40 [m3]	100 años-6 horas-90	1379	0	1021	0	0	0	358
EC-BS40 [ha-m]	100 años-6 horas-90	0,14	0	0,10	0	0	0	0,04
EC-BS40 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS40 [m3]	10 años-12 horas-10	1099	0	757	0	0	0	342
EC-BS40 [ha-m]	10 años-12 horas-10	0,11	0	0,08	0	0	0	0,03
EC-BS40 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS40 [m3]	10 años-12 horas-90	1099	0	757	0	0	0	342
EC-BS40 [ha-m]	10 años-12 horas-90	0,11	0	0,08	0	0	0	0,03
EC-BS40 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS40 [m3]	10 años-24 horas-10	1365	0	1008	0	0	0	357
EC-BS40 [ha-m]	10 años-24 horas-10	0,14	0	0,10	0	0	0	0,04
EC-BS40 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS40 [m3]	10 años-24 horas-90	1365	0	1008	0	0	0	357
EC-BS40	10 años-24 horas-9	0,14	0	0,10	0	0	0	0,04

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de tierra Almacenamiento
[ha-m]	0							
EC-BS40 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS40 [m3]	10 años-6 horas-10 %	903	0	577	0	0	0	326
EC-BS40 [ha-m]	10 años-6 horas-10 %	0,09	0	0,06	0,00	0	0	0,03
EC-BS40 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS40 [m3]	10 años-6 horas-90 %	903	0	577	0	0	0	326
EC-BS40 [ha-m]	10 años-6 horas-90 %	0,09	0	0,06	0,00	0	0	0,03
EC-BS40 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BS40 [m3]	25 años-12 horas-10	1407	0	1048	0	0	0	359
EC-BS40 [ha-m]	25 años-12 horas-10	0,14	0	0,10	0	0	0	0,04
EC-BS40 [cm]	25 años-12 horas-9 0	20,1	0	15	0	0	0	5,1
EC-BS40 [m3]	25 años-12 horas-9 0	1407	0	1048	0	0	0	359
EC-BS40 [ha-m]	25 años-12 horas-9 0	0,14	0	0,10	0	0	0	0,04
EC-BS40 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS40 [m3]	25 años-24 horas-10	1799	0	1426	0	0	0	373
EC-BS40 [ha-m]	25 años-24 horas-10	0,18	0	0,14	0	0	0	0,04
EC-BS40 [cm]	25 años-24 horas-9 0	25,7	0	20,4	0	0	0	5,3
EC-BS40 [m3]	25 años-24 horas-9 0	1799	0	1426	0	0	0	373
EC-BS40 [ha-m]	25 años-24 horas-9 0	0,18	0	0,14	0	0	0	0,04
EC-BS40 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0,0	4,9
EC-BS40 [m3]	25 años-6 horas-10 %	1085	0	744	0	0	0	341
EC-BS40 [ha-m]	25 años-6 horas-10 %	0,11	0	0,07	0,00	0	0	0,03
EC-BS40 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS40 [m3]	25 años-6 horas-90 %	1085	0	744	0	0	0	341
EC-BS40	25 años-6 horas-90	0,11	0	0,07	0	0	0	0,03

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[ha-m]	%							

Lavabo simple: EC-BS41

Escenario: 38701-EC

Nodo: EC-N41

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 8,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 10.4000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS41	100 años-12 h r-10 %	3,065	0,7833	27,7	22,3	10,4000	83,0	0	0
EC-BS41	100 años-12 h r-90 %	2,506	12,0000	27,7	22,3	10,4000	83	0	0
EC-BS41	100 años-24 h r-10 %	2,905	1,0167	36,7	31,2	10,4000	83,0	0	0
EC-BS41	100 años-24 h r-90 %	2,768	24,00	36,7	31,2	10,4000	83,0	0	0
EC-BS41	100 años-6 horas-10	3,139	0,7000	19,7	14,6	10,4000	83,0	0	0
EC-BS41	100 años-6 horas-90	2,208	6,0000	19,7	14,6	10,4000	83,0	0	0
EC-BS41	10 años-12 horas-10	1,458	1,0333	15,7	10,8	10,4000	83,0	0	0
EC-BS41	10 años-12 horas-90	1,356	12,0000	15,7	10,8	10,4000	83,0	0	0
EC-BS41	10 años-24 horas-10	1,284	1,0333	19,5	14,4	10,4000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el flujo máximo [horas]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS41	10 años-24 horas-90	1,421	24,0000	19,5	14,4	10,4000	83,0	0	0
EC-BS41	10 años-6 horas-10	1,779	0,8667	12,9	8,3	10,4000	83,0	0	0
EC-BS41	10 años-6 horas-90	1,372	6,0000	12,9	8,3	10,4000	83,0	0	0
EC-BS41	25 años-12 horas-10	2,018	0,8000	20,1	15,0	10,4000	83,0	0	0
EC-BS41	25 años-12 horas-90	1,781	12,0000	20,1	15,0	10,4000	83,0	0	0
EC-BS41	25 años-24 horas-10	1,867	1,0167	25,7	20,4	10,4000	83,0	0	0
EC-BS41	25 años-24 horas-90	1,909	24,0000	25,7	20,4	10,4000	83,0	0	0
EC-BS41	25 años-6 horas-10 %	2,285	0,7167	15,5	10,7	10,4000	83,0	0	0
EC-BS41	25 años-6 horas-90	1,694	6,0000	15,5	10,7	10,4000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS41 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS41 [m3]	100 años-12 horas-10	28808	0	23236	0	0	0	5572
EC-BS41 [ha-m]	100 años-12 horas-10	2,88	0,00	2,32	0	0	0	0,56
EC-BS41 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS41 [m3]	100 años-12 horas-90	28808	0	23236	0	0	0	5572
EC-BS41 [ha-m]	100 años-12 horas-90	2,88	0,00	2,32	0,00	0	0	0,56
EC-BS41 [cm]	100 años-24 horas-10	36,7	0	31,2	0	0	0	5,5
EC-BS41 [m3]	100 años-24 horas-10	38168	0	32416	0	0	0	5752
EC-BS41 [ha-m]	100 años-24 horas-10	3,82	0,00	3,24	0	0	0	0,58
EC-BS41 [cm]	100 años-24 horas-90	36,7	0	31,2	0	0	0	5,5
EC-BS41 [m3]	100 años-24 horas-90	38168	0	32416	0	0	0	5752

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS41 [ha-m]	100 años-24 horas-90	3,82	0,00	3,24	0.00	0,00	0	0,58
EC-BS41 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS41 [m3]	100 años-6 horas-10	20488	0	15199	0	0	0	5289
EC-BS41 [ha-m]	100 años-6 horas-10	2,05	0	1,52	0	0	0	0,53
EC-BS41 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS41 [m3]	100 años-6 horas-90	20488	0	15199	0	0	0	5289
EC-BS41 [ha-m]	100 años-6 horas-90	2,05	0	1,52	0	0	0	0,53
EC-BS41 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0,0	4,9
EC-BS41 [m3]	10 años-12 horas-10	16328	0	11271	0	0	0	5057
EC-BS41 [ha-m]	10 años-12 horas-10	1,63	0.00	1,13	0,00	0	0	0,51
EC-BS41 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS41 [m3]	10 años-12 horas-90	16328	0	11271	0	0	0	5057
EC-BS41 [ha-m]	10 años-12 horas-90	1,63	0	1,13	0	0	0	0,51
EC-BS41 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS41 [m3]	10 años-24 horas-10	20280	0	15001	0	0	0	5279
EC-BS41 [ha-m]	10 años-24 horas-10	2,03	0	1,50	0	0	0	0,53
EC-BS41 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS41 [m3]	10 años-24 horas-90	20280	0	15001	0	0	0	5279
EC-BS41 [ha-m]	10 años-24 horas-90 %	2,03	0,00	1,50	0	0	0	0,53
EC-BS41 [cm]	10 años-6 horas-10 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS41 [m3]	10 años-6 horas-10 %	13416	0	8587	0	0	0	4829
EC-BS41 [ha-m]	10 años-6 horas-10 %	1,34	0	0,86	0,00	0	0	0,48
EC-BS41 [cm]	10 años-6 horas-90 %	12,9	0	8,3	0	0	0.0	4,6
EC-BS41 [m3]	10 años-6 horas-90 %	13416	0	8587	0	0	0	4829

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS41 [ha-m]	10 años-6 horas-90 %	1,34	0	0,86	0,00	0	0	0,48
EC-BS41 [cm]	25 años-12 horas-10 %	20,1	0	15	0	0	0	5,1
EC-BS41 [m3]	25 años-12 horas-10	20904	0	15596	0	0	0	5308
EC-BS41 [ha-m]	25 años-12 horas-10	2,09	0	1,56	0	0	0	0,53
EC-BS41 [cm]	25 años-12 horas-90	20,1	0	15,0	0	0	0	5,1
EC-BS41 [m3]	25 años-12 horas-90	20904	0	15596	0	0	0	5308
EC-BS41 [ha-m]	25 años-12 horas-90	2,09	0	1,56	0	0	0	0,53
EC-BS41 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS41 [m3]	25 años-24 horas-10	26728	0	21212	0	0	0	5516
EC-BS41 [ha-m]	25 años-24 horas-10	2,67	0	2,12	0	0	0	0,55
EC-BS41 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS41 [m3]	25 años-24 horas-90	26728	0	21212	0	0	0	5516
EC-BS41 [ha-m]	25 años-24 horas-90	2,67	0	2,12	0	0	0	0,55
EC-BS41 [cm]	25 años-6 horas-10 %	15,5	0	10,7	0	0	0	4,8
EC-BS41 [m3]	25 años-6 horas-10 %	16120	0	11077	0	0	0	5043
EC-BS41 [ha-m]	25 años-6 horas-10 %	1,61	0,00	1,11	0	0	0	0,50
EC-BS41 [cm]	25 años-6 horas-90 %	15,5	0	10,7	0	0	0	4,8
EC-BS41 [m3]	25 años-6 horas-90 %	16120	0	11077	0	0	0	5043
EC-BS41 [ha-m]	25 años-6 horas-90 %	1,61	0,00	1,11	0	0	0	0,50

Lavabo simple: EC-BS42

Escenario: 38701-EC

Nodo: EC-N42

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 9,0000 min

Q máximo permitido: 0,000 cms
Desplazamiento temporal: 0,0000 h
Hidrógrafo unitario: UH484
Factor de pico: 484,0
Superficie: 20,5000 ha
Número de curva: 84,0
% Impermeable: 0
% DCIA: 0
% Directo: 0
Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del modelo	Caudal máximo [cms]	Tiempo hasta el caudal máximo [h] [hrs]	Total Precipitaciones [cm]	Escorrentía total [cm]	Área [ha]	Número de curva equivalente Número de curva	% Impermeable	% DCIA
EC-BS42	100 años-12 h r-10 %	6,124	0,7833	27,7	22,7	20,5000	84,0	0.00	0
EC-BS42	100 años-12 h r-90 %	4,948	12,0000	27,7	22,7	20,5000	84,0	0	0
EC-BS42	100 años-24 h r-10 %	5,785	1,0167	36,7	31,5	20,5000	84,0	0	0
EC-BS42	100 años-24 h r-90 %	5,465	24,00	36,7	31,5	20,5000	84,0	0	0
EC-BS42	100 años-6 horas-10	6,291	0,7167	19,7	14,9	20,5000	84,0	0	0
EC-BS42	100 años-6 horas-90	4,376	6,000	19,7	14,9	20,5000	84,0	0	0
EC-BS42	10 años-12 horas-10	2,937	1,0333	15,7	11,1	20,5000	84,0	0	0
EC-BS42	10 años-12 horas-90	2,689	12,0000	15,7	11,1	20,5000	84	0	0
EC-BS42	10 años-24 horas-10	2,595	1,0333	19,5	14,7	20,5000	84,0	0	0
EC-BS42	10 años-24 horas-90	2,815	24,00	19,5	14,7	20,5000	84,0	0	0
EC-BS42	10 años-6 horas-10	3,590	0,8667	12,9	8,5	20,5000	84,0	0	0
EC-BS42	10 años-6 horas-90	2,733	6,0000	12,9	8,5	20,5000	84,0	0	0
EC-BS42	25 años-12 horas-10	4,063	0,8000	20,1	15,3	20,5000	84,0	0	0
EC-BS42	25 años-12 horas-90	3,523	12,0000	20,1	15,3	20,5000	84,0	0	0
EC-BS42	25 años-24 horas-10	3,743	1,0333	25,7	20,7	20,5000	84,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS42	25 años-24 horas-90	3,776	24,0000	25,7	20,7	20,5000	84,0	0	0
EC-BS42	25 años-6 horas-10	4,601	0,7333	15,5	10,9	20,5000	84,0	0	0
EC-BS42	25 años-6 horas-90	3,365	6,0000	15,5	10,9	20,5000	84,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS42 [cm]	100 años-12 horas-10	27,7	0,0	22,7	0	0	0	5
EC-BS42 [m3]	100 años-12 horas-10	56785	0	46455	0	0	0	10330
EC-BS42 [ha-m]	100 años-12 horas-10	5,68	0,00	4,65	0	0	0	1,03
EC-BS42 [cm]	100 años-12 horas-90	27,7	0,0	22,7	0	0	0	5
EC-BS42 [m3]	100 años-12 horas-90 %	56785	0	46455	0	0	0	10330
EC-BS42 [ha-m]	100 años-12 horas-90	5,68	0,00	4,65	0,00	0	0	1,03
EC-BS42 [cm]	100 años-24 horas-10	36,7	0	31,5	0	0	0	5,2
EC-BS42 [m3]	100 años-24 horas-10	75235	0	64589	0	0	0	10646
EC-BS42 [ha-m]	100 años-24 horas-10	7,52	0,00	6,46	0	0	0	1,06
EC-BS42 [cm]	100 años-24 horas-90	36,7	0	31,5	0	0	0	5,2
EC-BS42 [m3]	100 años-24 horas-90	75235	0	64589	0	0	0	10646
EC-BS42 [ha-m]	100 años-24 horas-90	7,52	0,00	6,46	0,00	0	0	1,06
EC-BS42 [cm]	100 años-6 horas-10	19,7	0	14,9	0	0	0	4,8
EC-BS42 [m3]	100 años-6 horas-10	40385	0	30553	0	0	0	9832
EC-BS42 [ha-m]	100 años-6 horas-10	4,04	0	3,06	0	0	0	0,98
EC-BS42 [cm]	100 años-6 horas-90	19,7	0	14,9	0	0	0	4,8
EC-BS42 [m3]	100 años-6 horas-90	40385	0	30553	0	0	0	9832

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS42 [ha-m]	100 años-6 horas-90	4,04	0	3,06	0	0	0	0,98
EC-BS42 [cm]	10 años-12 horas-10	15,7	0	11,1	0	0	0	4,6
EC-BS42 [m3]	10 años-12 horas-10	32185	0	22761	0	0	0	9424
EC-BS42 [ha-m]	10 años-12 horas-10	3,22	0	2,28	0	0	0	0,94
EC-BS42 [cm]	10 años-12 horas-90	15,7	0	11,1	0	0	0	4,6
EC-BS42 [m3]	10 años-12 horas-90	32185	0	22761	0	0	0	9424
EC-BS42 [ha-m]	10 años-12 horas-90	3,22	0	2,28	0	0	0	0,94
EC-BS42 [cm]	10 años-24 horas-10	19,5	0	14,7	0	0	0	4,8
EC-BS42 [m3]	10 años-24 horas-10	39975	0	30160	0	0	0	9815
EC-BS42 [ha-m]	10 años-24 horas-10	4,00	0	3,02	0	0	0,00	0,98
EC-BS42 [cm]	10 años-24 horas-90	19,5	0	14,7	0	0	0	4,8
EC-BS42 [m3]	10 años-24 horas-90	39975	0	30160	0	0	0	9815
EC-BS42 [ha-m]	10 años-24 horas-90	4,00	0	3,02	0	0	0,00	0,98
EC-BS42 [cm]	10 años-6 horas-10 %	12,9	0	8,5	0	0	0.0	4,4
EC-BS42 [m3]	10 años-6 horas-10 %	26445	0	17424	0	0	0	9021
EC-BS42 [ha-m]	10 años-6 horas-10 %	2,64	0	1,74	0,00	0	0	0,90
EC-BS42 [cm]	10 años-6 horas-90 %	12,9	0	8,5	0	0	0.0	4.4
EC-BS42 [m3]	10 años-6 horas-90 %	26445	0	17424	0	0	0	9021
EC-BS42 [ha-m]	10 años-6 horas-90 %	2,64	0	1,74	0,00	0	0	0,90
EC-BS42 [cm]	25 años-12 horas-10	20,1	0,0	15,3	0	0	0	4,8
EC-BS42 [m3]	25 años-12 horas-10	41205	0	31340	0	0	0	9865
EC-BS42 [ha-m]	25 años-12 horas-10	4,12	0	3,13	0	0	0	0,99
EC-BS42 [cm]	25 años-12 horas-90	20,1	0	15,3	0	0	0	4,8
EC-BS42 [m3]	25 años-12 horas-90	41205	0	31340	0	0	0	9865

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS42 [ha-m]	25 años-12 horas-9 0	4,12	0	3,13	0	0	0	0,99
EC-BS42 [cm]	25 años-24 horas-1 0	25,7	0	20,7	0	0	0	5
EC-BS42 [m3]	25 años-24 horas-1 0	52685	0	42454	0	0	0	10231
EC-BS42 [ha-m]	25 años-24 horas-1 0	5,27	0,00	4,25	0.00	0	0	1,02
EC-BS42 [cm]	25 años-24 horas-9 0	25,7	0	20,7	0	0	0	5
EC-BS42 [m3]	25 años-24 horas-9 0	52685	0	42454	0	0	0	10231
EC-BS42 [ha-m]	25 años-24 horas-9 0	5,27	0	4,25	0	0	0	1,02
EC-BS42 [cm]	25 años-6 horas-10 %	15,5	0,0	10,9	0	0	0	4,6
EC-BS42 [m3]	25 años-6 horas-10 %	31775	0	22376	0	0	0	9399
EC-BS42 [ha-m]	25 años-6 horas-10 %	3,18	0	2,24	0	0	0	0,94
EC-BS42 [cm]	25 años-6 horas-90 %	15,5	0	10,9	0	0	0	4,6
EC-BS42 [m3]	25 años-6 horas-90 %	31775	0	22376	0	0	0	9399
EC-BS42 [ha-m]	25 años-6 horas-90 %	3,18	0.00	2,24	0	0	0	0,94

Lavabo simple: EC-BS43

Escenario: 38701-EC

Nodo: EC-N43

Método hidrográfico: Hidrograma unitario NRCS Método de infiltración: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 3.6000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Escorrentía total [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS43	100 años-12 h r-10 %	1,066	0,7667	27,7	22,3	3,6000	83,0	0	0
EC-BS43	100 años-12 h r-90 %	0,868	12,0000	27,7	22,3	3,6000	83	0	0
EC-BS43	100 años-24 h r-10 %	1,009	1,0000	36,7	31,1	3,6000	83,0	0	0
EC-BS43	100 años-24 h r-90 %	0,957	24,0000	36,7	31,1	3,6000	83,0	0	0
EC-BS43	100 años-6 horas-10	1,093	0,6833	19,7	14,6	3,6000	83,0	0	0
EC-BS43	100 años-6 horas-90	0,764	6,0000	19,7	14,6	3,6000	83,0	0	0
EC-BS43	10 años-12 horas-10	0,507	1,0167	15,7	10,8	3,6000	83,0	0	0
EC-BS43	10 años-12 horas-90	0,470	12,0000	15,7	10,8	3,6000	83	0	0
EC-BS43	10 años-24 horas-10	0,448	1,0167	19,5	14,4	3,6000	83,0	0	0
EC-BS43	10 años-24 horas-90 %	0,491	24,0000	19,5	14,4	3,6000	83,0	0	0
EC-BS43	10 años-6 horas-10	0,618	0,8500	12,9	8,2	3,6000	83,0	0	0
EC-BS43	10 años-6 horas-90	0,475	6,0000	12,9	8,2	3,6000	83	0	0
EC-BS43	25 años-12 horas-10	0,703	0,7833	20,1	15	3,6000	83	0	0
EC-BS43	25 años-12 horas-90	0,617	12,0000	20,1	15	3,6000	83	0	0
EC-BS43	25 años-24 horas-10	0,650	1,0167	25,7	20,4	3,6000	83,0	0	0
EC-BS43	25 años-24 horas-90	0,660	24,0000	25,7	20,4	3,6000	83	0	0
EC-BS43	25 años-6 horas-10	0,797	0,7000	15,5	10,6	3,6000	83,0	0	0
EC-BS43	25 años-6 horas-90	0,586	6,0000	15,5	10,6	3,6000	83,0	0	0

Resumen del balance de masa de cuencas simples [38701-EC]

Nombre de la cuenca	Nombre del Sim	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS43 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS43	100 años-12 horas-	9972	0	8031	0	0	0	1941

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	10							
EC-BS43 [ha-m]	100 años-12 horas-10	1,00	0,00	0,80	0	0	0,00	0,19
EC-BS43 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5,4
EC-BS43 [m3]	100 años-12 horas-90 %	9972	0	8031	0	0	0	1941
EC-BS43 [ha-m]	100 años-12 horas-90	1,00	0,00	0,80	0,00	0	0	0,19
EC-BS43 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS43 [m3]	100 años-24 horas-10	13212	0	11204	0	0	0	2008
EC-BS43 [ha-m]	100 años-24 horas-10	1,32	0,00	1,12	0,00	0	0	0,20
EC-BS43 [cm]	100 años-24 horas-90	36,7	0,0	31,1	0	0	0	5,6
EC-BS43 [m3]	100 años-24 horas-90	13212	0	11204	0	0	0	2008
EC-BS43 [ha-m]	100 años-24 horas-90	1,32	0,00	1,12	0,00	0	0	0,20
EC-BS43 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS43 [m3]	100 años-6 horas-10 %	7092	0	5253	0	0	0	1839
EC-BS43 [ha-m]	100 años-6 horas-10	0,71	0	0,53	0	0	0	0,18
EC-BS43 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS43 [m3]	100 años-6 horas-90	7092	0	5253	0	0	0	1839
EC-BS43 [ha-m]	100 años-6 horas-90	0,71	0	0,53	0	0	0	0,18
EC-BS43 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS43 [m3]	10 años-12 horas-10	5652	0	3895	0	0	0	1757
EC-BS43 [ha-m]	10 años-12 horas-10	0,57	0	0,39	0	0	0	0,18
EC-BS43 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0,0	4,9
EC-BS43 [m3]	10 años-12 horas-90	5652	0	3895	0	0	0	1757
EC-BS43 [ha-m]	10 años-12 horas-90	0,57	0	0,39	0	0	0	0,18
EC-BS43 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS43	10 años-24 horas-1	7020	0	5185	0	0	0	1835

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	0							
EC-BS43 [ha-m]	10 años-24 horas-10	0,70	0	0,52	0	0	0	0,18
EC-BS43 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS43 [m3]	10 años-24 horas-90	7020	0	5185	0	0	0	1835
EC-BS43 [ha-m]	10 años-24 horas-90	0,70	0	0,52	0	0	0	0,18
EC-BS43 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS43 [m3]	10 años-6 horas-10 %	4644	0	2968	0	0	0	1676
EC-BS43 [ha-m]	10 años-6 horas-10 %	0,46	0	0,30	0,00	0	0	0,17
EC-BS43 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS43 [m3]	10 años-6 horas-90 %	4644	0	2968	0	0	0	1676
EC-BS43 [ha-m]	10 años-6 horas-90 %	0,46	0	0,30	0	0	0	0,17
EC-BS43 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0	5,1
EC-BS43 [m3]	25 años-12 horas-10	7236	0	5391	0	0	0	1845
EC-BS43 [ha-m]	25 años-12 horas-10	0,72	0	0,54	0	0	0	0,18
EC-BS43 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BS43 [m3]	25 años-12 horas-90	7236	0	5391	0	0	0	1845
EC-BS43 [ha-m]	25 años-12 horas-90	0,72	0	0,54	0	0	0	0,18
EC-BS43 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS43 [m3]	25 años-24 horas-10	9252	0	7331	0	0	0	1921
EC-BS43 [ha-m]	25 años-24 horas-10	0,93	0	0,73	0	0	0	0,19
EC-BS43 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS43 [m3]	25 años-24 horas-90	9252	0	7331	0	0	0	1921
EC-BS43 [ha-m]	25 años-24 horas-90	0,93	0	0,73	0	0	0	0,19
EC-BS43 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS43	25 años-6 horas-10	5580	0	3828	0	0	0	1752

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
[m3]	%							
EC-BS43 [ha-m]	25 años-6 horas-10 %	0,56	0	0,38	0	0	0	0,18
EC-BS43 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS43 [m3]	25 años-6 horas-90 %	5580	0	3828	0	0	0	1752
EC-BS43 [ha-m]	25 años-6 horas-90 %	0,56	0,00	0,38	0,00	0	0	0,18

Lavabo simple: EC-BS44

Escenario: 38701-EC

Nodo: EC-N44

Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva

Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms

Desplazamiento temporal: 0,0000 h

Hidrograma unitario: UH484

Factor de pico: 484,0

Área: 3.0000 ha

Número de curva: 83.0

% Impermeable: 0.00

% DCIA: 0.00

% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulacro	Caudal máximo [cms]	Tiempo hasta el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS44	100 años-12 h r-10 %	0,888	0,7667	27,7	22,3	3,0000	83,0	0	0
EC-BS44	100 años-12 h r-90 %	0,723	12,0000	27,7	22,3	3,000	83	0	0
EC-BS44	100 años-24 h r-10 %	0,841	1,0000	36,7	31,1	3,000	83,0	0	0
EC-BS44	100 años-24 h r-90 %	0,798	24,0000	36,7	31,1	3,000	83	0	0
EC-BS44	100 años-6 horas-10	0,911	0,6833	19,7	14,6	3,000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta alcanzar el caudal máximo [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS44	100 años-6 horas-90	0,636	6,0000	19,7	14,6	3,000	83,0	0	0
EC-BS44	10 años-12 horas-10	0,422	1,0167	15,7	10,8	3,000	83,0	0,00	0
EC-BS44	10 años-12 horas-90	0,392	12,0000	15,7	10,8	3,000	83	0	0
EC-BS44	10 años-24 horas-10	0,373	1,0167	19,5	14,4	3,000	83,0	0	0
EC-BS44	10 años-24 horas-90	0,409	24,0000	19,5	14,4	3,000	83,0	0	0
EC-BS44	10 años-6 horas-10	0,515	0,8500	12,9	8,2	3,000	83,0	0	0
EC-BS44	10 años-6 horas-90	0,396	6,0000	12,9	8,2	3,000	83,0	0	0
EC-BS44	25 años-12 horas-10	0,586	0,7833	20,1	15	3,000	83,0	0	0
EC-BS44	25 años-12 horas-90	0,514	12,0000	20,1	15	3,000	83	0	0
EC-BS44	25 años-24 horas-10	0,541	1,0167	25,7	20,4	3,000	83,0	0	0
EC-BS44	25 años-24 horas-90	0,550	24,0000	25,7	20,4	3,0000	83,0	0	0
EC-BS44	25 años-6 horas-10	0,664	0,7000	15,5	10,6	3,000	83,0	0	0
EC-BS44	25 años-6 horas-90	0,488	6,0000	15,5	10,6	3,000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS44 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS44 [m3]	100 años-12 horas-10	8310	0	6692	0	0	0	1618
EC-BS44 [ha-m]	100 años-12 horas-10	0,83	0	0,67	0	0	0	0,16
EC-BS44 [cm]	100 años-12 horas-90	27,7	0,0	22,3	0	0	0	5.4
EC-BS44 [m3]	100 años-12 horas-90	8310	0	6692	0	0	0	1618
EC-BS44 [ha-m]	100 años-12 horas-90	0,83	0,00	0,67	0	0	0	0,16
EC-BS44 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS44 [m3]	100 años-24 horas-10	11010	0	9337	0	0	0	1673
EC-BS44 [ha-m]	100 años-24 horas-10	1,10	0,00	0,93	0,00	0	0	0,17
EC-BS44 [cm]	100 años-24 horas-90	36,7	0,0	31,1	0	0	0	5,6
EC-BS44 [m3]	100 años-24 horas-90	11010	0	9337	0	0	0	1673
EC-BS44 [ha-m]	100 años-24 horas-90	1,10	0,00	0,93	0,00	0	0	0,17
EC-BS44 [cm]	100 años-6 horas-10	19,7	0	14,6	0	0	0	5,1
EC-BS44 [m3]	100 años-6 horas-10	5910	0	4378	0	0	0	1532
EC-BS44 [ha-m]	100 años-6 horas-10	0,59	0	0,44	0	0	0	0,15
EC-BS44 [cm]	100 años-6 horas-90	19,7	0	14,6	0	0	0	5,1
EC-BS44 [m3]	100 años-6 horas-90	5910	0	4378	0	0	0	1532
EC-BS44 [ha-m]	100 años-6 horas-90	0,59	0	0,44	0	0	0	0,15
EC-BS44 [cm]	10 años-12 horas-10	15,7	0	10,8	0	0	0.0	4,9
EC-BS44 [m3]	10 años-12 horas-10	4710	0	3246	0	0	0	1464
EC-BS44 [ha-m]	10 años-12 horas-10	0,47	0	0,32	0	0	0	0,15
EC-BS44 [cm]	10 años-12 horas-90	15,7	0	10,8	0	0	0.0	4,9
EC-BS44 [m3]	10 años-12 horas-90	4710	0	3246	0	0	0	1464
EC-BS44 [ha-m]	10 años-12 horas-90	0,47	0	0,32	0	0	0	0,15
EC-BS44 [cm]	10 años-24 horas-10	19,5	0	14,4	0	0	0	5,1
EC-BS44 [m3]	10 años-24 horas-10	5850	0	4321	0	0	0	1529
EC-BS44 [ha-m]	10 años-24 horas-10	0,59	0	0,43	0	0	0	0,15
EC-BS44 [cm]	10 años-24 horas-90	19,5	0	14,4	0	0	0	5,1
EC-BS44 [m3]	10 años-24 horas-90	5850	0	4321	0	0	0	1529
EC-BS44 [ha-m]	10 años-24 horas-90	0,59	0	0,43	0	0	0	0,15
EC-BS44 [cm]	10 años-6 horas-10 %	12,9	0	8,2	0	0	0.0	4,7

Nombre de la cuenca	Nombre de la simulación	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS44 [m3]	10 años-6 horas-10 %	3870	0	2473	0	0	0	1397
EC-BS44 [ha-m]	10 años-6 horas-10 %	0,39	0	0,25	0,00	0	0	0,14
EC-BS44 [cm]	10 años-6 horas-90 %	12,9	0	8,2	0	0	0.0	4,7
EC-BS44 [m3]	10 años-6 horas-90 %	3870	0	2473	0	0	0	1397
EC-BS44 [ha-m]	10 años-6 horas-90 %	0,39	0.00	0,25	0,00	0	0	0,14
EC-BS44 [cm]	25 años-12 horas-10	20,1	0	15,0	0	0	0.0	5,1
EC-BS44 [m3]	25 años-12 horas-10	6030	0	4492	0	0	0	1538
EC-BS44 [ha-m]	25 años-12 horas-10	0,60	0	0,45	0	0	0	0,15
EC-BS44 [cm]	25 años-12 horas-90	20,1	0	15	0	0	0.0	5,1
EC-BS44 [m3]	25 años-12 horas-90	6030	0	4492	0	0	0	1538
EC-BS44 [ha-m]	25 años-12 horas-90	0,60	0	0,45	0	0	0	0,15
EC-BS44 [cm]	25 años-24 horas-10	25,7	0	20,4	0	0	0	5,3
EC-BS44 [m3]	25 años-24 horas-10	7710	0	6110	0	0	0	1600
EC-BS44 [ha-m]	25 años-24 horas-10 %	0,77	0	0,61	0	0	0	0,16
EC-BS44 [cm]	25 años-24 horas-90	25,7	0	20,4	0	0	0	5,3
EC-BS44 [m3]	25 años-24 horas-90	7710	0	6110	0	0	0	1600
EC-BS44 [ha-m]	25 años-24 horas-90	0,77	0	0,61	0	0	0	0,16
EC-BS44 [cm]	25 años-6 horas-10 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS44 [m3]	25 años-6 horas-10 %	4650	0	3190	0	0	0	1460
EC-BS44 [ha-m]	25 años-6 horas-10 %	0,47	0	0,32	0	0	0	0,15
EC-BS44 [cm]	25 años-6 horas-90 %	15,5	0	10,6	0	0	0.0	4,9
EC-BS44 [m3]	25 años-6 horas-90 %	4650	0	3190	0	0	0	1460
EC-BS44 [ha-m]	25 años-6 horas-90 %	0,47	0,00	0,32	0	0	0	0,15

Lavabo simple: EC-BS45

Escenario: 38701-EC
Nodo: EC-N45
Método hidrográfico: Método de infiltración hidrográfico unitario NRCS: Número de curva
Tiempo de concentración: 6,0000 min Q máximo permitido: 0,000 cms
Desplazamiento temporal: 0,0000 h
Hidrograma unitario: UH484
Factor de pico: 484,0
Área: 1,4000 ha
Número de curva: 83.0
% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0,00 Nombre de la precipitación:

Comentario:

Resumen simple de la escorrentía de la cuenca [38701-EC]

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta caudal máximo [h]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Curva equivalente Número	% Impermeable	% DCIA
EC-BS45	100 años-12 h r-10 %	0,415	0,7667	27,7	22,3	1,4000	83,0	0	0
EC-BS45	100 años-12 h r-90 %	0,338	12,0000	27,7	22,3	1,4000	83,0	0	0
EC-BS45	100 años-24 h r-10 %	0,392	1,0000	36,7	31,1	1,4000	83,0	0.00	0
EC-BS45	100 años-24 h r-90 %	0,372	24,0000	36,7	31,1	1,4000	83,0	0	0
EC-BS45	100 años-6 horas-10	0,425	0,6833	19,7	14,6	1,4000	83,0	0	0
EC-BS45	100 años-6 horas-90	0,297	6,0000	19,7	14,6	1,4000	83,0	0	0
EC-BS45	10 años-12 horas-10	0,197	1,0167	15,7	10,8	1,4000	83,0	0	0
EC-BS45	10 años-12 horas-90	0,183	12,0000	15,7	10,8	1,4000	83	0	0
EC-BS45	10 años-24 horas-10	0,174	1,0167	19,5	14,4	1,4000	83,0	0	0
EC-BS45	10 años-24 horas-90	0,191	24,00	19,5	14,4	1,4000	83,0	0	0
EC-BS45	10 años-6 horas-10	0,240	0,8500	12,9	8,2	1,4000	83,0	0,00	0
EC-BS45	10 años-6 horas-90	0,185	6,0000	12,9	8,2	1,4000	83,0	0	0

Nombre de la cuenca	Nombre del simulador	Caudal máximo [cms]	Tiempo hasta el caudal máximo [horas] [hrs]	Precipitación total [cm]	Total Escorrentía [cm]	Área [ha]	Número de curva Número de curva	% Impermeable	% DCIA
EC-BS45	25 años-12 horas-10	0,273	0,7833	20,1	15	1,4000	83,0	0	0
EC-BS45	25 años-12 horas-90	0,240	12,0000	20,1	15	1,4000	83	0	0
EC-BS45	25 años-24 horas-10	0,253	1,0167	25,7	20,4	1,4000	83,0	0,00	0
EC-BS45	25 años, 24 horas, 90 %	0,257	24,0000	25,7	20,4	1,4000	83	0	0
EC-BS45	25 años-6 horas-10	0,310	0,7000	15,5	10,6	1,4000	83,0	0,00	0
EC-BS45	25 años-6 horas-90	0,228	6,0000	15,5	10,6	1,4000	83,0	0	0

Resumen del balance de masa de la cuenca simple [38701-EC]

Nombre de la cuenca	Nombre del simulador	Total Precipitaciones	Total Riego	Escorrentía total	Total ET	Total inicial Abst	Total Recarga	Cambio de suelo Almacenamiento
EC-BS45 [cm]	100 años-12 horas-10	27,7	0,0	22,3	0	0	0	5,4
EC-BS45 [m3]	100 años-12 horas-10	3878	0	3123	0	0	0	755
EC-BS45 [ha-m]	100 años-12 horas-10	0,39	0,00	0,31	0	0	0	0,08
EC-BS45 [cm]	100 años-12 horas-90 %	27,7	0	22,3	0	0	0	5,4
EC-BS45 [m3]	100 años-12 horas-90	3878	0	3123	0	0	0	755
EC-BS45 [ha-m]	100 años-12 horas-90	0,39	0,00	0,31	0	0	0	0,08
EC-BS45 [cm]	100 años-24 horas-10	36,7	0	31,1	0	0	0	5,6
EC-BS45 [m3]	100 años-24 horas-10	5138	0	4357	0	0	0	781
EC-BS45 [ha-m]	100 años-24 horas-10	0,51	0,00	0,44	0,00	0	0	0,08
EC-BS45 [cm]	100 años-24 horas-90	36,7	0,0	31,1	0	0	0	5,6
EC-BS45 [m3]	100 años-24 horas-90	5138	0	4357	0	0	0	781
EC-BS45 [ha-m]	100 años-24 horas-90	0,51	0,00	0,44	0,00	0	0	0,08
EC-BS45 [cm]	100 años-6 horas-10 %	19,7	0	14,6	0	0	0	5,1
EC-BS45 [m3]	100 años-6 horas-10	2758	0	2043	0	0	0	715

Nombre de la cuenca	Nombre Sim	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total Inicial Abst	Total Recarga	Cambiar el suelo Almacenamiento
EC-BS45 [ha-m]	100a-6h-1 0%	0.28	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	100yr-6hr-9 0%	19.7	0.0	14.6	0.0	0.0	0.0	5.1
EC-BS45 [m3]	100yr-6hr-9 0%	2758	0	2043	0	0	0	715
EC-BS45 [ha-m]	100yr-6hr-9 0%	0.28	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-12hr-1 0%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS45 [m3]	10yr-12hr-1 0%	2198	0	1515	0	0	0	683
EC-BS45 [ha-m]	10yr-12hr-1 0%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-12hr-9 0%	15.7	0.0	10.8	0.0	0.0	0.0	4.9
EC-BS45 [m3]	10yr-12hr-9 0%	2198	0	1515	0	0	0	683
EC-BS45 [ha-m]	10yr-12hr-9 0%	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-24hr-1 0%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS45 [m3]	10yr-24hr-1 0%	2730	0	2016	0	0	0	714
EC-BS45 [ha-m]	10yr-24hr-1 0%	0.27	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10yr-24hr-9 0%	19.5	0.0	14.4	0.0	0.0	0.0	5.1
EC-BS45 [m3]	10yr-24hr-9 0%	2730	0	2016	0	0	0	714
EC-BS45 [ha-m]	10yr-24hr-9 0%	0.27	0.00	0.20	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10años-6horas-10 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS45 [m3]	10años-6horas-10 %	1806	0	1154	0	0	0	652
EC-BS45 [ha-m]	10años-6horas-10 %	0.18	0.00	0.12	0.00	0.00	0.00	0.07
EC-BS45 [cm]	10 años-6 horas-90 %	12.9	0.0	8.2	0.0	0.0	0.0	4.7
EC-BS45 [m3]	10 años-6 horas-90 %	1806	0	1154	0	0	0	652
EC-BS45 [ha-m]	10 años-6 horas-90 %	0.18	0.00	0.12	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25años-12horas-1 0%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS45 [m3]	25años-12horas-1 0%	2814	0	2096	0	0	0	718

Nombre de la cuenca	Nombre Sim	Total Precipitaciones	Total Riego	Escorrentía total	ET total	Total Inicial Abst	Total Recarga	Cambiar el suelo Almacenamiento
EC-BS45 [ha-m]	25años-12horas-1 0%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25años-12horas-9 0%	20.1	0.0	15.0	0.0	0.0	0.0	5.1
EC-BS45 [m3]	25años-12horas-9 0%	2814	0	2096	0	0	0	718
EC-BS45 [ha-m]	25años-12horas-9 0%	0.28	0.00	0.21	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25 años-24 horas-1 0%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS45 [m3]	25 años-24 horas-1 0%	3598	0	2851	0	0	0	747
EC-BS45 [ha-m]	25 años-24 horas-1 0%	0.36	0.00	0.29	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25 años-24 horas-9 0%	25.7	0.0	20.4	0.0	0.0	0.0	5.3
EC-BS45 [m3]	25 años-24 horas-9 0%	3598	0	2851	0	0	0	747
EC-BS45 [ha-m]	25 años-24 horas-9 0%	0.36	0.00	0.29	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25años-6horas-10 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS45 [m3]	25años-6horas-10 %	2170	0	1489	0	0	0	681
EC-BS45 [ha-m]	25años-6horas-10 %	0.22	0.00	0.15	0.00	0.00	0.00	0.07
EC-BS45 [cm]	25 años-6 horas-90 %	15.5	0.0	10.6	0.0	0.0	0.0	4.9
EC-BS45 [m3]	25 años-6 horas-90 %	2170	0	1489	0	0	0	681
EC-BS45 [ha-m]	25 años-6 horas-90 %	0.22	0.00	0.15	0.00	0.00	0.00	0.07

Lavabo Simple: EC-BS46

Escenario: 38701-EC

Nodo: EC-N46

Método del hidrograma: NRCS Unit Hydrograph Método de infiltración:

Número de curva

Tiempo de Concentración: 8.0000 min Max

Allowable Q: 0.000 cms

Desplazamiento temporal:

0.0000 hr Hidrograma unitario: UH484

Factor de pico: 484.0

Superficie: 15.1000 ha

Número de curva: 87.0

% Impermeable: 0.00
% DCIA: 0.00
% Directo: 0.00
Nombre de la precipitación:

Comentario:

Resumen de escorrentía de cuenca simple [38701-EC]

Nombre de la cuenca	Nombre Sim	Caudal máximo [cms]	Tiempo hasta caudal máximo [hrs]	Precipitaciones totales [cm]	Escorrentía total [cm]	Superficie [ha]	Curva equivalente Número	% Imperv	% DCIA
EC-BS46	100a-12hr-10%	4.743	0.7667	27.7	23.7	15.1000	87.0	0.00	0.00
EC-BS46	100a-12hr-90%	3.684	12.0000	27.7	23.7	15.1000	87.0	0.00	0.00
EC-BS46	100 años-24 horas r-10%	4.427	0.5333	36.7	32.6	15.1000	87.0	0.00	0.00
EC-BS46	100 años-24 horas r-90%	4.050	24.0000	36.7	32.6	15.1000	87.0	0.00	0.00
EC-BS46	100yr-6hr-10%	4.911	0.7000	19.7	15.8	15.1000	87.0	0.00	0.00
EC-BS46	100yr-6hr-90%	3.280	5.8833	19.7	15.8	15.1000	87.0	0.00	0.00
EC-BS46	10yr-12hr-10%	2.343	0.7833	15.7	11.9	15.1000	87.0	0.00	0.00
EC-BS46	10yr-12hr-90%	2.030	12.0000	15.7	11.9	15.1000	87.0	0.00	0.00
EC-BS46	10yr-24hr-10%	2.081	1.0167	19.5	15.6	15.1000	87.0	0.00	0.00
EC-BS46	10yr-24hr-90%	2.108	24.0000	19.5	15.6	15.1000	87.0	0.00	0.00
EC-BS46	10yr-6hr-10%	2.890	0.7167	12.9	9.3	15.1000	87.0	0.00	0.00
EC-BS46	10yr-6hr-90%	2.078	6.0000	12.9	9.3	15.1000	87.0	0.00	0.00
EC-BS46	25yr-12hr-10%	3.225	0.7833	20.1	16.2	15.1000	87.0	0.00	0.00
EC-BS46	25yr-12hr-90%	2.640	12.0000	20.1	16.2	15.1000	87.0	0.00	0.00
EC-BS46	25yr-24hr-10%	2.930	1.0167	25.7	21.7	15.1000	87.0	0.00	0.00
EC-BS46	25yr-24hr-90%	2.811	24.0000	25.7	21.7	15.1000	87.0	0.00	0.00
EC-BS46	25años-6horas-10%	3.662	0.7000	15.5	11.7	15.1000	87.0	0.00	0.00
EC-BS46	25años-6horas-90%	2.539	6.0000	15.5	11.7	15.1000	87.0	0.00	0.00