



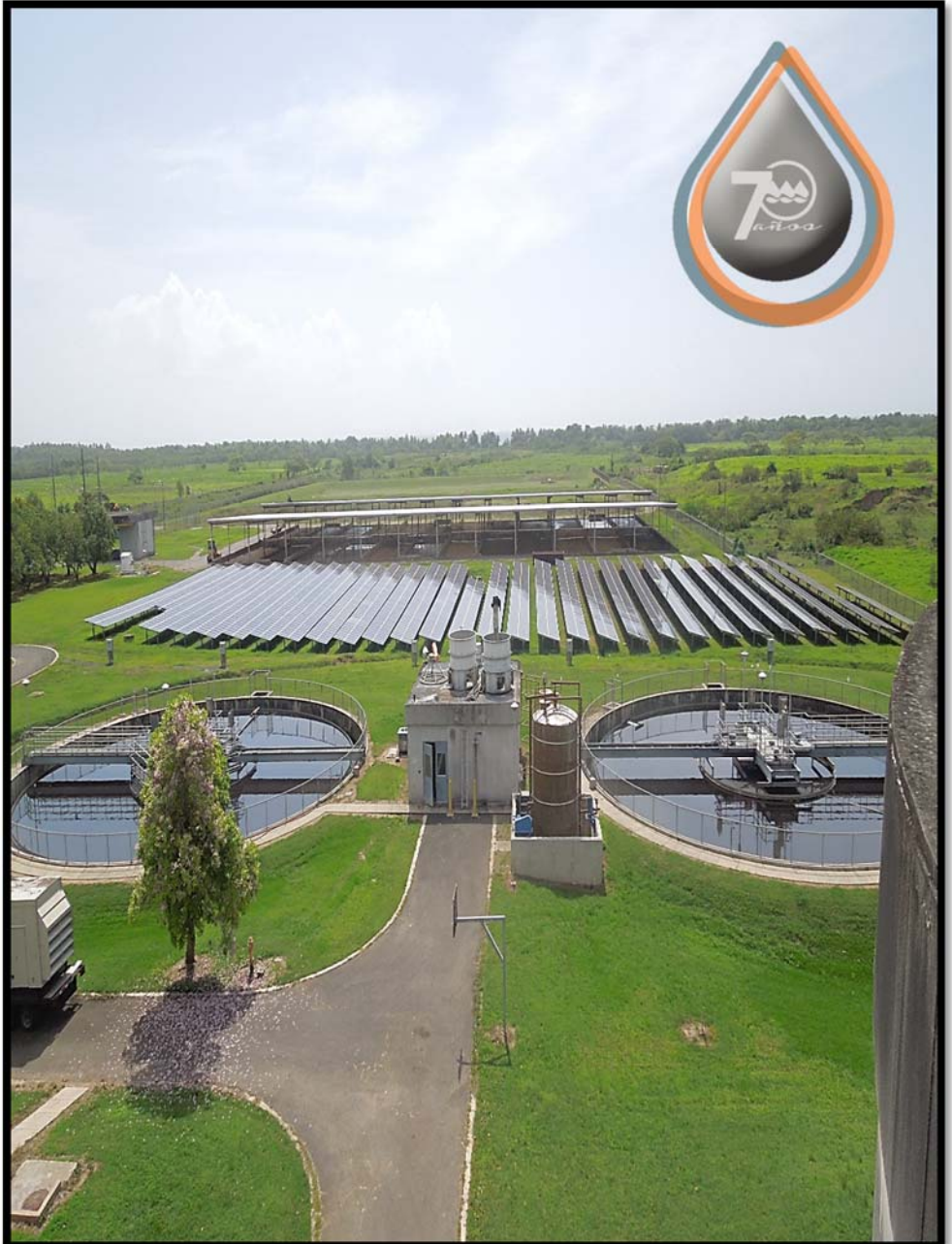
Puerto Rico
Aqueduct and
Sewer Authority

COMMONWEALTH OF PUERTO RICO

Puerto Rico Aqueduct and Sewer Authority

FINAL REPORT

2015 Consulting Engineer's Supplemental Report for the Puerto Rico Aqueduct and Sewer Authority



August 2015

MP ENGINEERS
of PUERTO RICO

affiliate of **ARCADIS**
Infrastructure - Water - Environment - Buildings



Puerto Rico Aqueduct and Sewer Authority

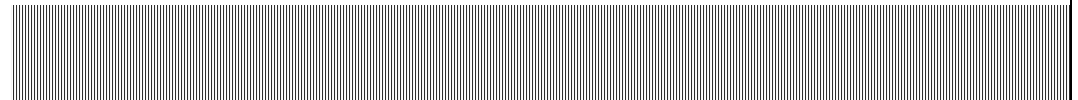
#604 Barbosa Ave. • Hato Rey, Puerto Rico 00918

FINAL REPORT

2015 Consulting Engineer's Supplemental Report

**Updated Review and Recommendations of PRASA's
Financial Projections and Adequacy of Rates for
Fiscal Years 2015 through 2019**

August 2015



Report Prepared By:

MP Engineers of Puerto Rico, PSC
Affiliate of ARCADIS U.S., Inc.



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1. Introduction

1.1. Introduction

Since 2008, MP Engineers of Puerto Rico, PSC an affiliate of ARCADIS U.S., Inc. (MPPR/ARCADIS), has been retained by the Puerto Rico Aqueduct and Sewer Authority (PRASA) as its Consulting Engineer to assist in satisfying several requirements of its Master Agreement of Trust with Banco Popular de Puerto Rico (the Trustee). MPPR/ARCADIS understands that in March of 2008 PRASA entered into a Master Agreement of Trust to enable it to issue revenue bonds and incur other indebtedness to partially finance its Capital Improvements Program (CIP) and to repay and refinance existing debt. The 2008 senior bond issuance totaled approximately \$1.3 billion. Also, on July of 2009 PRASA and the Government Development Bank for Puerto Rico (GDB) entered into a Fiscal Oversight and Support Agreement (FOA) that assigned responsibilities to the GDB as fiscal agent of PRASA.

In February of 2012, PRASA returned to the bond market and issued approximately \$2.1 billion in new debt. The proceeds of this bond issuance were used to (i) fund a portion of the cost of its CIP, (ii) refinance certain lines of credits and bond anticipation notes, (iii) establish a debt service reserve fund, (iv) establish a deposit for capitalized interest, (v) fund payments for termination of a forward interest rate swap agreement, (vi) pay for expenses related to the issuance of the Senior Lien Revenue Bonds, (vii) refund the outstanding PRASA Series 1995 Bonds (Commonwealth Guaranteed), and (viii) pay for expenses related to the issuance of the Revenue Refunding Bonds.

In connection with the 2012 bond issue, on January 24, 2012 PRASA's Governing Board (the Board) authorized the execution of an amended and restated Master Agreement of Trust by and between PRASA and the Trustee (2012 MAT). The Board also authorized the execution of an amended and restated FOA (2012 FOA) by and between PRASA, the Commonwealth of Puerto Rico and the GDB. Under the 2012 FOA, GDB will continue to act as fiscal agent for PRASA. Also, PRASA must continue to comply with continuous disclosure and reporting requirements which include, but are not limited to, the development and implementation of a multi-year financial and operating plan (the *Financial Improvement Plan*) that establishes milestones for PRASA to achieve self-sufficiency through rate and cost adjustments. Furthermore, under the 2012 FOA a Budgetary Reserve Fund was created.

1.2. 2015 Series Revenue Bonds Transaction

The 2015 Series Revenues Bonds (2015A Senior Bonds) are being issued pursuant to a Master Agreement of Trust with the Trustee, dated as of March 1, 2008, as amended and restated as of February 15, 2012, as further amended and supplemented by a Fifth Supplemental Agreement of Trust, to be dated as of August 1, 2015 (hereinafter the Trust Agreement or MAT). The 2015A Senior Bonds will be issued to provide funds to be used by PRASA to (i) finance a portion of

PRASA's capital improvement program (CIP) for the five fiscal year (FY) period ending June 30, 2019 and reimburse PRASA for certain CIP costs incurred during FY2013, FY2014 and FY2015, (ii) repay or refinance certain outstanding credit facilities of PRASA provided by a syndicate of local commercial banking institutions and by the Government Development Bank for Puerto Rico (GDB), and (iii) pay certain costs of issuance of the 2015A Senior Bonds.

1.3. Consulting Engineer's Report Requirement

As required by Section 7.07 of the MAT, unless the Senior Bonds have been rated investment grade by at least two Rating Agencies for 24 consecutive months, the Consulting Engineer shall prepare a Consulting Engineer's Report (CER) to document the current condition and changes, if any, in PRASA's operation and the performance of the water and wastewater systems (the System). Also, as required in Section 3.5 of the 2012 FOA, PRASA must maintain a continuous disclosure policy with GDB and satisfy certain reporting requirements throughout the fiscal year. Among these reporting requirements is the preparation and filing of a report prepared by the Consulting Engineer. As a result of the credit downgrades of PRASA's bonds to non-investment grade level in FY2013 and FY2014, and in compliance with the MAT and 2012 FOA, MPPR/ARCADIS prepared the Consulting Engineer's Report for FY2014 (2014 CER). The 2014 CER included MPPR/ARCADIS's review of the PRASA-prepared financial forecast which included preliminary results for FY2014, projections for FY2015 (based on results through December 31, 2014), and the forecast for FY2016 through FY2019.

Due to a delay in PRASA's intended 2015 Series Revenue Bonds transaction and considering the time elapsed since the preparation and issuance of the 2014 CER, PRASA has updated its financial projections to reflect the FY2014 audited results, the projection for FY2015 (based on results through May 31, 2015), and the forecast for FY2016 through FY2019, considering the applicable proposed amendments included in the Fifth Supplemental Agreement of Trust. Hence, at PRASA's request and in connection with its 2015A Senior Bonds, MPPR/ARCADIS has reviewed the revised, PRASA-prepared financial forecast for FY2015 through FY2019 (the Forecast), and has prepared this 2015 Consulting Engineer's Supplemental Report (the Supplemental Report or the Report) summarizing its findings, opinions, and recommendations. The purpose of this review was to assess the sufficiency of the proposed financial plan to provide the revenues necessary to support the projected costs of the system, included as Exhibit 1 at the end of this Supplemental Report, including operation and maintenance (O&M) expenses, debt service payments, and required deposits, in compliance with the MAT and the 2012 FOA.

1.4. Conventions

PRASA's fiscal year begins on July 1st and ends June 30th. Throughout this Supplemental Report, fiscal year is identified as "FY" followed by the calendar year in which the fiscal year ends, i.e., FY2015 is the fiscal year from July 1, 2014 through June 30, 2015.

1.5. Statement of Disclosure

This document was prepared solely for the benefit of and use by PRASA. Under its contract with PRASA, PRASA did not request MPPR/ARCADIS to provide and MPPR/ARCADIS do not offer to provide nor provide any services constituting the services of a “municipal advisor” as defined by the Dodd–Frank Wall Street Reform and Consumer Protection Act (Pub.L. 111-203, H.R. 4173) and regulations promulgated thereunder, or any successor statute or provisions thereto. Further, in the performance of its services on behalf of PRASA, MPPR/ARCADIS did not intent to create, and hereby expressly denies the creation of, any right on the part of any third party to rely upon this document. Except as otherwise provided by statute not subject to waiver, PRASA is not permitted to distribute copies of this document to third parties without the prior consent of MPPR/ARCADIS and, further, any such distribution of this document is only for informational purposes and third parties have no right to rely on it.

Further, MPPR/ARCADIS is required to make disclosures stating the limitations of the work contained within the 2014 CER and this 2015 Supplemental Report and its use. In accordance with the Exchange Act, the following disclosure statements are incorporated into the 2014 CER and the 2015 Supplemental Report prepared by MPPR/ARCADIS.

This 2014 CER and the 2015 Supplemental Report was prepared by MPPR/ARCADIS for PRASA; hereinafter referred to individually as the “Authorized Recipient.”

In the performance of its services on behalf of the Authorized Recipient, MPPR/ARCADIS is (a) not recommending any action on the behalf of the Authorized Recipient to municipal financial products or the issuance of municipal securities; (b) is not acting as a municipal advisor to the Authorized Recipient and does not owe a fiduciary duty pursuant to Section 15B of the Securities Exchange Act of 1934, as amended by the Dodd-Frank Wall Street Reform and Consumer Protection Act, to Authorized Recipient with respect to the information and material prepared in connection with this scope of work; and (c) acting for its own interests. PRASA engaged a registered municipal advisor and discussed any information and material prepared in connection with this Report with any and all internal or external registered municipal advisors and experts that the Authorized Recipient deems appropriate before acting on this information and material.

Accordingly, MPPR/ARCADIS is not a municipal advisor registered with the SEC. PRASA acknowledges that: (a) it shall retain the services of an independent registered municipal advisor, which, during the past two years, was not associated with MPPR/ARCADIS, and that (b) MPPR/ARCADIS is required to comply with the requirements set forth in the federal Exchange Act, Municipal Advisor Rule (17 CFR 200, 240, 249), which requires that the engineering company (i) receive from the municipal entity a representation in writing that it is represented by, and will rely on the advice of, an independent registered municipal advisor; (ii) provide written disclosure to the municipal entity that MPPR/ARCADIS is not serving as a municipal advisor and, with respect to the municipal entity, is not subject to the statutory fiduciary duty applicable to municipal

advisors under the federal Exchange Act, and (iii) provide a copy of such disclosure to the municipal entity's independent registered municipal advisor. MPPR/ARCADIS does not provide opinions on or advocates for using a financial product (issuing debt) or the choice of financial products employed. As such, MPPR/ARCADIS submitted its work products to PRASA and its registered municipal advisor for review and approval.

MPPR/ARCADIS devoted effort is consistent with (i) that degree of care and skill ordinarily exercised by members of the same profession currently practicing under same or similar circumstances and (ii) the time and budget available for its work in its efforts to endeavor to ensure that the data contained in the report is accurate as of the date of its preparation. This study was based on estimates, assumptions and other information developed by MPPR/ARCADIS from its independent research effort, general knowledge of the industry, and information provided by and consultations with the Authorized Recipient and the Authorized Recipient's representatives. No responsibility was assumed for inaccuracies in reporting by the Authorized Recipient, the Authorized Recipient's agents and representatives, or any third-party data source used in preparing or presenting this study. MPPR/ARCADIS assumes no duty to update the information contained in the report unless it is separately retained to do so pursuant to a written agreement signed by MPPR/ARCADIS and PRASA.

MPPR/ARCADIS's findings represent its professional judgment. Neither MPPR/ARCADIS nor its parent corporation, or their respective subsidiaries and affiliates, makes any warranty, expressed or implied, with respect to any information or methods disclosed in the document. Excluding PRASA, whose rights are governed by its contract with MPPR/ARCADIS, no recipient of the document shall have any claim against MPPR/ARCADIS, its parent corporation, and its and their subsidiaries and affiliates, for any liability for direct, indirect, consequential, or special loss or damage arising out of its receipt and use of this document whether arising in contract, warranty (express or implied), tort or otherwise, and irrespective of fault, negligence and strict liability.

No recipient of this document other than the Authorized Recipient may abstract, excerpt, or summarize this document without the prior written consent of MPPR/ARCADIS. Any changes made to this document, or any use of this document not specifically identified within MPPR/ARCADIS's contract with PRASA, or otherwise expressly approved in writing by MPPR/ARCADIS, shall be at the sole risk of the party making such changes or adopting such use. MPPR/ARCADIS hereby authorizes the inclusion of this document in the preliminary official statement and official statement of the Series 2015 Revenue Bonds.

MPPR/ARCADIS relied on assumptions, forecasts, data and statistics provided by PRASA, its other consultants, and published industry references. MPPR/ARCADIS reviewed the PRASA-prepared forecast over a future five-year period of time and "forward-looking statements." These statements relate to MPPR/ARCADIS's expectations, beliefs, intentions, or strategies regarding the future. These statements may be identified by the use of words like "anticipate," "believe," "estimate,"

“expect,” “intend,” “may,” “plan,” “project,” “will,” “should,” “seek,” and similar expressions. The forward-looking statements reflect MPPR/ARCADIS’s views and assumptions with respect to future events as of the date of this study and are subject to future economic conditions and other risks and uncertainties. Actual and future results and trends could differ materially from those set forth in such statements due to various factors, including, without limitation, those that were discussed in the 2014 CER and that will be discussed in this 2015 Supplemental Report. These factors are beyond MPPR/ARCADIS’s ability to control or predict. Accordingly, MPPR/ARCADIS makes no warranty or representation that any of the projected values or results contained in this document will actually be achieved.

This Report summarizes the work completed up to the date of issuance. Changed conditions occurring or becoming known after such date could affect the material presented and the conclusions reached herein to the extent of such changes. MPPR/ARCADIS has no responsibility for updating this report for changes that occur after the date of the report.

This report is qualified in its entirety by, and should be considered in light of, these limitations, conditions and considerations.

2. Updated Financial Forecast FY2015-FY2019

2.1. Introduction

Compliant with the MAT and 2012 FOA, and in connection with the 2015A Senior Bonds, as Consulting Engineer MPPR/ARCADIS evaluated PRASA's most recent financial forecast and assessed the appropriateness of rates and charges.

2.1.1. Proposed Amendments to the Master Agreement of Trust

In connection with the 2015A Senior Bonds, a Fifth Supplemental Agreement of Trust will be executed. PRASA is proposing the following amendments to the MAT, which amendments are expected to become effective upon the issuance and delivery of the 2015A Senior Bonds and do not require consent of Bondholders. These are:

- 1) The definitions of Authority Revenues and Commonwealth Supported Obligations under Section 1.02 of the Master Trust Agreement are being amended to read as follows:

“Authority Revenues” shall mean Operating Revenues plus (i) any governmental grants or appropriations available to pay Current Expenses of the Authority, including grants or appropriations received by the Authority and specifically made for the payments of principal of and interest on obligations of the Authority or for reimbursing the Authority for such payments, (ii) any amounts received from the Commonwealth of Puerto Rico on account of Commonwealth Guaranteed Indebtedness (which is required to be deposited directly in the Commonwealth Payments Fund) or Commonwealth Supported Obligations (which is required to be deposited in the Commonwealth Payments Fund), (iii) any amounts transferred from the Budgetary Reserve Fund to the Trustee and (iv) any amounts received by the Authority from any source of funding that does not otherwise constitute Authority Revenues as reimbursement for Costs of Improvements paid by the Authority in the current or the immediately preceding three fiscal years from Operating Revenues.

Note: This amendment and the amendment to Section 5.02(a) below clarify the treatment under the MAT of reimbursements received by PRASA for Costs of Improvements previously paid from Operating Revenues. Those reimbursements will be treated as “Authority Revenues” and may be used, at PRASA’s discretion, to pay Current Expenses or to fund a deposit to the Senior Bond Fund or the Operating Reserve Fund.

“Commonwealth Supported Obligations” shall mean the note of the Authority, dated July 28, 2004, relating to the construction of the North Coast Superaqueduct.

Note: The purpose of this amendment is to clarify that the only debt that qualifies as a Commonwealth Supported Obligation is PRASA’s note relating to the North Coast Superaqueduct.

2) Section 5.02(c) of the Master Trust Agreement is being amended to read as follows:

(c) The Trustee shall provide the Authority with a monthly certificate setting forth that, to the extent that amounts on deposit in the Operating Revenue Fund were sufficient therefor, the transfers required by clauses (i) through (x) of subsection (b) above have been made and the respective balances of such Funds and Accounts. If the amount so deposited on or before any Deposit Date to the credit of the foregoing Funds, Account and subaccounts shall be less than the respective required amounts for such month, said requirements therefor shall nevertheless be cumulative and the amount of any deficiency on any Deposit Date shall be added to the amount otherwise required to be deposited in each month thereafter until such time as such deficiency shall have been eliminated; provided, however, that any deficiency in the amounts required to be deposited in the Commonwealth Payments Fund pursuant to clause (x) of subsection (b) above to pay the Interest Accrual and the Principal Accrual on Commonwealth Guaranteed Indebtedness or Commonwealth Supported Obligations on any applicable Interest Payment Date or principal payment date for such Indebtedness shall not be cumulative and shall be deemed to be eliminated as of such Interest Payment Date or principal payment date. In accordance with the provisions of Section 10.02 hereof, in the event that by any Deposit Date there are insufficient moneys to make in full the deposit to the Commonwealth Payments Fund for such month as required by clause (x) of subsection (b) above, the Trustee shall provide notice of such insufficiency to the Consulting Engineer, other Consultants, if any, and to the Government Development Bank for Puerto Rico. In no event will failure to make the transfers required by subsection (b) of this Section 5.02 be an Event of Default hereunder if such failure is due to insufficient moneys therefor.

Note: This amendment clarifies that any deficiency existing in Commonwealth Payments Fund as of any payment date for Commonwealth Guaranteed Indebtedness or Commonwealth Supported Obligations shall not be carried over and shall be deemed to be eliminated as of such date.

3) Section 5.09(a) of the Master Trust Agreement is being amended to read as follows:

(a) In accordance with Section 5.02, beginning on the first Business Day of the month and after making deposits required by Section 5.01(b)(i) through (vi), the Trustee shall transfer to the Current Expenses Fund, Authority Revenues in an amount equal to the amount set forth in the Disbursement Schedule delivered on the most recent Deposit Date to pay Current Expenses of the Systems for the current month and, at the discretion of the Authority, up to two additional months.

Note: This amendment is being made to revise the Master Trust Agreement to make it consistent with PRASA's practice which has been to deposit an amount at least equal to one month's Operating Expenses into the Current Expense Fund.

- 4) A new Section 8.14 is being added to the Master Trust Agreement to read as follows:

Right to Receivership Upon an Event of Default. (a) Upon the occurrence of any Event of Default under Section 8.01(a) or 8.01(b) of the Master Trust Agreement, and such default shall continue for a period of thirty (30) days, or upon the declaration of any other Event of Default in accordance with the terms hereof, the Trustee shall have the right to apply to the part of the court of first instance where the main office of the Authority is located or any other court of competent jurisdiction in the Commonwealth of Puerto Rico, in an appropriate legal proceeding, for the appointment of a receiver of the property or part thereof, the income or revenue of which is pledged to the payment of the Bonds (which property or properties are referred to in Section 8.14(a) of the Master Trust Agreement as the “Property”). Except as described in clause (b) below, upon such application the court may appoint, but if the application is made by the Holders of twenty-five (25) percent or more in principal amount of such Bonds then Outstanding, or by the Trustee of Bonds in such principal amount, the court shall appoint a receiver of said Property.

(b) If the Trustee has the right to appoint a receiver in accordance with the terms of clause (a) above and there has occurred a non-payment of the bonds issued under the Authority’s Resolution No. 1583, adopted December 7, 1995, and amended and restated on March 7, 2008, authorizing and securing the Authority’s Bonds Guaranteed by the Commonwealth of Puerto Rico, then the court shall appoint a receiver of the Property pledged to the payment of Indebtedness upon the application by the Holders of twenty-five (25) percent or more in principal amount of Indebtedness then Outstanding, or by the Trustee of Indebtedness in such principal amount.

(c) The receiver so appointed shall forthwith, directly or by his agents and attorneys, take possession of the said Property of each and every part thereof, and may exclude the Authority, its board, officers, agents and employees, and all persons claiming under them, wholly therefrom and shall have, hold, use, operate, manage and control the same and each and every part thereof, and, in the name of the Authority or otherwise, as the receiver may deem best, shall exercise all the rights and powers of the Authority with respect to the said Property as the Authority itself might do and he will take into account the public interest and the public service character of the Authority. Such receiver shall maintain, restore, insure, and keep insured, such Property and from time to time shall make all such necessary or proper repairs as such receiver may deem expedient, together with all such replacements of the Property and such extensions thereto as may be necessary to maintain normal service, and shall establish, pursuant to the Act, and shall levy, maintain, and collect, such rates, fees, rentals and other charges in connection with the said Property as such receiver may deem necessary, proper and reasonable, and shall collect and receive all income and revenues and deposit the same in a separate account and apply the income and revenues so collected and received in such manner as the court shall direct.

(d) Whenever all that is due upon the Bonds, and interest thereon, shall have been paid or deposited as provided therein, and all defaults in consequence of which a receiver may be appointed shall have been cured and made good, the court shall, after notice and public hearing (if the court shall deem the same reasonable and proper) direct the receiver to surrender possession of said Property to the Authority, the same rights of the holders of the bonds to obtain the appointment of a receiver to exist upon any subsequent default as hereinabove provided.

(e) Such receiver shall act, in the performance of the powers hereinabove conferred upon him, under the direction and supervision of the court and shall at all times be subject to the orders and decrees of the court and may be removed thereby. Nothing herein contained shall limit or restrict the jurisdiction of the court to enter such other and further orders and decrees as such court may deem necessary or appropriate for the exercise by the receiver of any functions set forth in the Act.

(f) Notwithstanding anything in this section to the contrary, such receiver shall have no power to sell, assign, mortgage or otherwise dispose of any assets of whatever kind or character belonging to the Authority and useful for its corporate purposes, and the court shall not have jurisdiction to enter any order or decree requiring or permitting said receiver to sell, mortgage or otherwise dispose of any part of such assets.

Note: The purpose of this amendment is to incorporate into the Master Trust Agreement the provisions of the Act relating to the appointment of a receiver upon the occurrence of certain Events of Default under the Master Trust Agreement.

5) Section 9.1(e) of the Master Trust Agreement is being amended to read as follows:

(e) So long as the long-term unenhanced rating on the Authority is rated in an investment grade category by at least two Rating Agencies, to modify, amend or supplement the Master Trust Agreement in such manner as may be required by a Rating Agency to maintain or enhance its ratings on the Senior Bonds, provided that such modification, amendment or supplement does not materially adversely affect the Holders of all Outstanding Bonds.

Note: This amendment restricts PRASA's ability to make certain amendments to the Master Trust Agreement in reliance upon a receipt of a rating confirmation until the long-term unenhanced rating of PRASA is rated in an investment grade category by at least two Rating Agencies.

Refer to the *Summary of the Master Trust Agreement and Summary of the Proposed Amendments to the Master Trust Agreement* included in PRASA's Preliminary Official Statement.

2.1.2. Fiscal Oversight and Support Agreement

PRASA and GDB, as fiscal agent for PRASA, entered into a fiscal oversight agreement, dated July 9, 2009, as amended on October 20, 2010 (the Original FOA), pursuant to which PRASA agreed to implement a comprehensive expense reduction program, including certain fiscal oversight controls, subject to laws and existing agreements, and periodically provide the GDB with certain financial information and operating data, as well as other financial information reasonably requested by the GDB. In connection with the issuance of the 2012 Senior Bonds, PRASA, GDB, and the Commonwealth entered into a Fiscal Oversight and Support Agreement (the 2012 FOA) that amended and restated the Original FOA and established a Budgetary Reserve Fund, held by the GDB, to be used by PRASA to cover any budgetary deficiencies. The Budgetary Reserve Fund, which may be funded with Commonwealth appropriations or other funding sources, was initially funded with a portion of the proceeds of the 2012 Series A Bonds in an amount sufficient to cover projected deficits for FY2012 and FY2013, which funds have now been depleted.

Under the 2012 FOA, PRASA agreed to, among other things, provide the GDB and the Commonwealth with a Fiscal Improvement Plan FY2013 through FY2017, which PRASA agreed to update annually on or before August 1st of each year for the next five fiscal year period and to revise and deliver an update to the *Fiscal Improvement Plan* for the upcoming fiscal year annually on or before February 1st of each year. Such annual review of the *Fiscal Improvement Plan* for the upcoming fiscal year is to identify any projected deficits in PRASA's operation and the needs, if any, for Commonwealth appropriations or other funding sources. Upon receipt of such annual projection for the upcoming fiscal year, the Commonwealth agreed to notify PRASA at least five months prior to the beginning of each fiscal year if it will be able to request a budgetary appropriation or provide a commitment for another funding source in an amount sufficient to fund the Budgetary Reserve Fund at the Budgetary Reserve Requirement.

On February 1, 2013, in compliance with the requirements of the 2012 FOA, PRASA submitted to GDB an updated *Fiscal Improvement Plan* which presented annual deficits starting in FY2014. The GDB, in turn, informed PRASA that the Commonwealth would not appropriate additional funds to supplement PRASA's revenues for FY2014. As a result, and in compliance with the MAT and the 2012 FOA, PRASA moved forward with its rate revision and increase process.

2.1.3. PRASA's Rate Structure

On February 1, 2013, in compliance with the requirements of the 2012 FOA, PRASA submitted to GDB an updated *Fiscal Improvement Plan* which presented annual deficits starting in FY2014. The GDB, in turn, informed PRASA that it would not appropriate additional funds to supplement PRASA's revenues for FY2014. As a result, and in compliance with the MAT and the 2012 FOA, PRASA moved forward with its rate revision and increase process. The process was completed on July 3rd, 2013, when PRASA's Governing Board approved the final rate structure to be implemented and that would become effective on July 15, 2013. The Governing Board-approved rate structure includes increases of PRASA's base and volume charges and it incorporates a new

monthly fix charge, the Environmental Compliance and Regulatory Charge (ECRC), which varies by customer class and by either consumption or meter size. Subsequently, on December 18, 2013 the Governing Board amended the ECRC billing structure for non-residential customers.

PRASA also included an additional \$2.00 monthly special charge for all customers, to facilitate the development of projects that focus on the sustainable management of water resources in accordance with the existing Environmental Public Policy Law (Act No. 416 of September 2004, as amended) and the Puerto Rico Water Resources Comprehensive Plan (2008); and both water and wastewater improvement projects for Non-PRASA¹ systems.

PRASA's Governing Board also included rate revisions to other services provided by PRASA including, but not limited to: new service connections, service re-connections, and sprinkler systems service. The revised rates for these services were designed to cover PRASA's cost of services. The new rates for these services were implemented on a phased approach over three fiscal years (FY2014 through FY2016).

Tables 2-1 through 2-3 summarize the existing rates for residential customers as implemented on July 15, 2013.

**Table 2-1:
Residential Monthly Base Charge per Account
(includes first 10 cubic meters of monthly consumption)**

Water Service Line	Water	Wastewater	Water & Wastewater
1/2" & 5/8"	\$10.60	\$9.11	\$19.71
3/4"	18.40	15.86	34.26
1"	30.23	20.36	50.59
1-1/2"	57.12	31.32	88.44
2"	97.24	53.56	150.80
3"	149.15	89.23	238.38
4"	335.50	156.69	492.19
6"	894.72	731.19	1,625.91
8"	1,431.55	835.64	2,267.19
10"	2,290.50	1,337.02	3,627.52
12"	3,664.80	2,139.25	5,804.05

¹ A Non-PRASA system is a water community-operated or wastewater system that is not connected to PRASA's system.

**Table 2-2:
Residential Volumetric Rate per Cubic Meter¹**

Use Block (m ³)	Water	Wastewater	Water & Wastewater
>10 – 15	\$1.25	\$1.02	\$2.27
>15 – 25	1.99	1.59	3.58
> 25-35	2.69	2.14	4.83
>35	2.84	2.27	5.11

¹Under the Board-approved rate structure implemented on July 15, 2013, the number of residential volumetric blocks was increased from three to four and the use block thresholds were modified.

**Table 2-3:
Residential Environmental Compliance and Regulatory Charge (ECRC)**

Use Block (m ³)	Water	Wastewater	Water & Wastewater
Base Charge (0 – 10)	\$1.00	\$1.00	\$2.00
>10 - 15	6.50	6.50	13.00
>15 - 25	10.50	10.50	21.00
>25 - 35	17.50	17.50	35.00
> 35	31.50	31.50	63.00

Tables 2-4 through 2-7 summarize the existing rates for non-residential customers (includes commercial, industrial and certain government customer classes) as implemented on July 15, 2013, and amended on December 18, 2013. However, certain government customers continue to be billed using PRASA's previous non-residential rate structure as a result of the enactment of Act 66 of June 17, 2014 – Fiscal and Operational Sustainability Act for the Commonwealth of Puerto Rico (Act 66), further discussed in Section 2.2.1.

**Table 2-4:
Non-Residential Monthly Base Charge per Account¹**

Water Service Line	Water	Wastewater	Water & Wastewater
1/2" & 5/8"	\$24.37	\$20.10	\$44.47
3/4"	36.09	31.85	67.94
1"	61.10	44.85	105.95
1-1/2"	122.43	75.23	197.66
2"	194.62	117.32	311.94
3"	436.87	243.86	680.73
4"	725.75	459.81	1,185.56
6"	1,858.58	1,474.93	3,303.51
8"	2,939.80	2,288.04	5,227.84
10"	4,703.70	3,660.87	8,364.57
12"	7,525.91	5,857.39	13,383.30

¹Under the Board-approved rate structure implemented on July 15, 2013, the allotment of the first 10 cubic meters of consumption previously included in the base charge was eliminated.

**Table 2-5:
Commercial and Government Volumetric Rate per Cubic Meter**

Use Block (m ³)	Water	Wastewater	Water & Wastewater
>0 – 100	\$1.74	\$1.44	\$3.18
>100 – 200	2.16	1.73	3.89
> 200	2.84	2.27	5.11

**Table 2-6:
Industrial Volumetric Rate per Cubic Meter**

Use Block (m ³)	Water	Wastewater	Water & Wastewater
>0	\$2.27	\$1.82	\$4.09

**Table 2-7:
ECRC for Non-Residential Customers**

Commercial and Government ECRC Meter Size Equal to or Less than 2-inches			
Use Block (m ³)	Water	Wastewater	Water & Wastewater
>0-100	\$1.18	\$0.98	\$2.16
>100-200	1.22	1.01	2.23
>200	1.26	1.04	2.30
Industrial ECRC Meter Size Equal to or Less than 2-inches			
>0	\$1.54	\$1.22	\$2.76
Non-Residential ECRC Meter Size Greater than 2-inches			
Meter Size	Water	Wastewater	Water & Wastewater
3"	\$482.00	\$482.00	\$964.00
4"	839.50	839.50	1,679.00
6"	2,340.00	2,340.00	4,680.00
8"	3,703.00	3,703.00	7,406.00
10"	5,924.50	5,924.50	11,849.00
12"	9,479.50	9,479.50	18,959.00

2.1.3.1. Future Rate Increases

As approved by PRASA’s Governing Board, future rate increases, which shall not be implemented before FY2018, shall follow the provisions, as amended, that had been previously approved under Resolution No. 2167 (dated October 6, 2005) as follows:

- a) Adjustments and increases after July 1, 2017 will be calculated according to a specified formula (Coefficient of Annual Adjustment [CAA] described below);
- b) Beginning July 1, 2017, there is a cap or limit on future annual increases of 4.5% and a limit on the cumulative increases of 25% (as approved by PRASA's Governing Board);
- c) If PRASA requires an increase in excess of 4.5% in any single year, or once the 25% cumulative limit is reached, PRASA must follow the formal approval process required under Act 21 of 1985 for requesting a rate increase.

Adjustments and increases implemented after July 1, 2017 are limited by the calculation of the CAA described in the Resolution and as presented herein. There are three steps to determining the CAA as follows:

- STEP 1 – Calculate the Coefficient of Deficiency (CD) for the applicable year:

$$CD = \text{Operating Expenses and Debt Service} / \text{Operating Revenues}$$

- STEP 2 – Calculate the Annual Base Coefficient (CAB) for the Base Year:

$$CAB = \text{Operating Expenses and Debt Service (FY2007)} / \text{Operating Revenues (FY2007)}$$

- STEP 3 – Calculate the CAA:

$$CAA = CD/CAB$$

If the CD for any year is greater than the CAB from FY2007, i.e., CD for FY2017 greater than CAB, then the rates can be increased by the lesser of the CAA minus one (CAA-1) or 4.5% until the 25% cumulative maximum is reached. If the cumulative maximum is reached, or should PRASA in any given year require a higher rate increase than maximum annual adjustment amount of 4.5%, PRASA shall then follow the rate increase process required by Act 21 of 1985 (Act 21), as amended, of the Commonwealth of Puerto Rico. The first step under Act 21 requires review and ratification by PRASA's Governing Board of the proposed rate structure and approval to initiate the rate modification/increase process. The second step is the appointment of an independent Official Examiner that will conduct an independent review of the proposed changes and increases, and will lead public hearings. The third step is the development of a report by the Official Examiner that includes his findings and recommendations, to be considered by PRASA's management and Governing Board prior to final approval of the rate structure modifications and increases to be implemented. This report is published for public commentary. The fourth step and final step is the review and final approval by PRASA's Governing Board, considering the Official Examiner's recommendations

2.2. Financial Forecast Review

MPPR/ARCADIS reviewed the PRASA-prepared financial forecast shown in Exhibit 1. This section summarizes the findings of MPPR/ARCADIS's review and provides an assessment of the reasonableness of PRASA's assumptions in the preparation of the Forecast. The purpose of this review was to assess the sufficiency of the proposed financial plan to provide the revenues necessary to support the projected costs shown in Exhibit 1, including O&M expenses, debt service payments, and required deposits, in compliance with the MAT and the 2012 FOA. Additionally, the Forecast illustrates the FY2014 debt service coverage (DSC), and the anticipated DSC for FY2015 (based on results through May 31, 2015) through FY2019.

The Forecast represents PRASA's estimate of the most probable results of operations and debt service requirements for the forecast period. Thus, it reflects PRASA's judgment, based upon present circumstances, as to the most likely set of conditions and course of action. MPPR/ARCADIS worked closely with PRASA to obtain the information necessary to support its conclusions regarding the Forecast. The following information, provided by PRASA, was used in this review:

- 2012 MAT and 2012 FOA
- Draft Fifth Supplemental Agreement of Trust
- Audited financial statements for FY2014
- PRASA's FY2015 projection (based on year-to-date results through May 31, 2015, unless otherwise noted) and FY2016 through FY2019 updated revenue and expense projections
- Debt service schedules for all currently outstanding debt service and preliminary projected debt obligations, and debt service coverages

2.2.1. Operating Revenues

As defined in the MAT, **Operating Revenues** "shall mean all moneys received by or on behalf of the Authority, including (i) the moneys derived by or on behalf of the Authority from the sale of water produced, treated or distributed by, or the collection, transmission, treatment or disposal of sewage by the Systems, (ii) any proceeds of use and occupancy insurance on the Systems or any part thereof, (iii) except as provided in the following sentence, any income from the investments made under this Agreement, (iv) any special assessments, including assessments in the nature of impact fees, (v) amounts, if any, paid from the Rate Stabilization Account into the Operating Revenue Fund in any Fiscal Year minus the amounts, if any, paid from the Operating Revenue Fund into the Rate Stabilization Account during the same Fiscal Year; and (vi) regularly scheduled payments received under any Qualified Swap or Hedge Agreement during such period. In no event shall Operating Revenues include (i) income from the investment of moneys on deposit to the credit of the Construction Fund, proceeds of insurance (except use and occupancy insurance) or condemnation awards (which are required to be deposited directly to the credit of the Capital

Improvement Fund), (ii) proceeds of sales of property constituting a part of the Systems (which are required to be deposited directly to the credit of the Capital Improvement Fund), (iii) the proceeds of Bonds or other Indebtedness, (iv) any governmental grants or appropriations available to pay Current Expenses of the Authority, including grants or appropriations received by the Authority and specifically made for the payments of principal of and interest on obligations of the Authority or for reimbursing the Authority for such payments, (v) any amounts received from the Commonwealth of Puerto Rico on account of Commonwealth Guaranteed Indebtedness (which is required to be deposited directly in the Commonwealth Payments Fund) or Commonwealth Supported Obligations (which is required to be deposited in the Commonwealth Payments Fund), (vi) any amounts transferred from the Budgetary Reserve Fund to the Trustee and (vii) any termination or similar payment under any interest rate swap or similar hedge agreement received by the Authority (which are required to be deposited directly to the credit of the Capital Improvement Fund).”

PRASA’s projections for Operating Revenues, on a cash basis, are presented in Table 2-8.

**Table 2-8:
PRASA Operating Revenues (\$, Thousands)**

FY2014 Actual	FY2015 Projected¹	FY2016 Projected²	FY2017 Projected	FY2018 Projected	FY2019 Projected
\$1,045,539	\$1,080,327	\$1,029,196	\$1,153,092	\$1,191,914	\$1,209,736

¹ Based on Operating Revenues collected through June 30, 2015.

² Includes a one-time \$50M reduction in Service Revenues due to the drought water rationing plan.

While PRASA’s FY2015 projected results are higher than those previously projected by PRASA and included in the 2014 CER, projections for FY2016 through FY2019 are lower as shown in Table 2-8, as a result of lower Base Fee and Service Charges (Service Revenues). The FY2016 is materially lower given that PRASA has included in this projection an additional reduction of approximately \$50 million (M) to account for the estimated reduction in Services Revenues resulting from the ongoing drought water rationing plan first announced on May of 2015. Operating Revenues also include projected transfers from the Rate Stabilization Account in FY2017 through FY2019. A discussion on PRASA’s Operating Revenue assumptions is presented below.

1. **Base Fee and Service Charges, Net of Subsidies (Exhibit 1, line 1)** – PRASA’s single largest source of revenue is from the monthly base charge and volume rate for services, the ECRC, and the Special Charge of \$2.00. PRASA’s actual FY2014 revenues from Service Revenues net of subsidies, amounted to \$1,020M. For FY2015 PRASA had budgeted \$1,089M in Service Revenues; however, PRASA’s projection based on year-to-date (YTD) results through May 31, 2015 amounts to \$1,006M (approximately \$83M less than budgeted). PRASA’s FY2015 projection considers: 1) 12 full months of billings under PRASA’s current rate structure (in other words it does not include the Service Revenues’ implementation lag adjustment of FY2014); 2) additional customer accounts and consumption reductions; and 3) reduced

government charges as a result of Act 66 (estimated at approximately \$37M for FY2015). PRASA’s Forecast projections for FY2016 through FY2019 include Service Revenues, also net of subsidies, in the amounts of \$958M in FY2016, \$1,003M in FY2017, \$1,041M in FY2018, and \$1,080M in FY2019. For FY2018 and FY2019 PRASA has included in its Service Revenue projections, additional revenues to be generated from rate adjustments in the order of \$43M each year, which represents an annual adjustment of about 4.5% of projected Service Revenues. Table 2-9 provides a breakdown of PRASA’s Service Revenues for the forecast period.

**Table 2-9:
PRASA Service Revenues – Excluding Operational Initiatives (\$, Thousands)**

Service Revenue Category	FY2014 Actual	FY2015 Projected ³	FY2016 Projected	FY2017 Projected	FY2018 Projected	FY2019 Projected
Base Fee, Volume Charges, and ECRC ¹	\$995,853	\$977,388	\$928,751	\$973,857	\$968,988	\$1,007,747
Special Charges (\$2.00)	24,202	29,079	28,934	28,789	28,645	28,502
Rate Adjustments ²	-	-	-	-	43,604	43,387
Total	\$1,020,055	\$1,006,467	\$957,685	\$1,002,646	\$1,041,237	\$1,079,636

¹ Based on existing rates, includes rate adjustments, and projected reductions due to consumption reduction.

² Revenues generated from rate adjustments implemented in each year.

³ Based on Operating Revenues collected through June 30, 2015.

PRASA’s Service Revenues are presented net of subsidies. While all customers pay for service, PRASA provides a 35% subsidy to the base charge for residents over the age of 65 who are eligible under the PAN Program or residents under the TANF Program; both government assistance programs. Also, since FY2010, and in compliance with Act 69 of August 2009, PRASA provides a subsidy to all public housing residential customers limiting the monthly payments of these customers to only the water and wastewater base fee charge. Table 2-10 summarizes the number of residential customers that are provided a subsidy for water and wastewater bills as of June 30, 2015. The number of customers benefiting from the PAN subsidy increased from 41,304 reported by PRASA for FY2014 to 48,873 in FY2015; whereas, the number of customers benefiting from the TANF subsidy decreased from 13,143 in FY2014 to 11,676 in FY2015. The number of public housing customers under a fixed tariff reduced from 52,508 in FY2014 to 51,919 in FY2015.

**Table 2-10:
Water and Wastewater Subsidized Customer Accounts as of June 30, 2015**

Subsidy	Number of Customers	Percent of Total Residential Customers ¹
PAN Subsidy	48,873	4.2%
TANF Subsidy	11,676	1.0%
Fixed Tariff (Public Housing)	51,919	4.4%
Total	112,468	9.6%

¹Based on a total number of residential customers of 1,175,072 as of June 30, 2015.

PRASA's Service Revenue projections are based on certain assumptions, including growth and consumption assumptions that could be affected by various factors. For example, the continued strain on the economy could cause a further decline in the consumption patterns of PRASA customers, which in turn, would affect Service Revenues. Also, the effects of the drought and water rationing plan effective since May of 2015 could have a bigger impact on PRASA's Service Revenues than expected and projected as the plan continues to be modified as a result of the persisting island-wide drought conditions. Additional discussion on PRASA's Service Revenue assumptions is provided below.

Growth and Consumption Assumptions

From FY2004 through FY2014, PRASA experienced a compound annual growth rate (CAGR) in number of accounts of approximately 0.13% per year. However, in recent years, PRASA's customer accounts have decreased. PRASA has experienced a compound annual reduction in number of accounts of about 0.5% per year from FY2012 through FY2015. More recently, as shown in Table 2-11, from FY2014 to FY2015 the number of customer accounts decreased by 0.3% overall. The largest reduction (on a percentage base) was observed in the number of industrial accounts which decreased by about 5.7%, compared to FY2014 results; followed by commercial accounts which decreased by about 3.4%

**Table 2-11:
Customer Accounts**

Fiscal Year	Customer Class				Total
	Residential	Commercial	Industrial	Government	
FY 2014 ¹	1,177,347	53,702	916	10,500	1,242,465
FY 2015 ²	1,175,072	51,869	864	10,334	1,238,139
% Difference	-0.2%	-3.4%	-5.7%	-1.6%	-0.3%

¹ Number of accounts by customer class through June 30, 2014.

² Number of accounts by customer class through June 30, 2015.

From FY2004 through FY2014, PRASA experienced a CAGR of -1.12% in average monthly billed consumption and of -1.38% in average monthly consumption per account. Total average monthly consumption in FY2015 decreased by approximately 6.1% compared to FY2014, as

shown in Table 2-12. The largest reduction was observed in the average monthly billed consumption of industrial and government accounts which decreased by about 10% each, compared to FY2014 results.

**Table 2-12:
Average Monthly Billed Consumption by Class FY2014 – FY2015
(1,000 Cubic Meters)**

Fiscal Year	Customer Class				Total
	Residential	Commercial	Industrial	Government	
FY 2014 ¹	18,601	3,007	1,220	2,747	25,575
FY 2015 ²	17,654	2,790	1,098	2,472	24,014
% Difference	-5.1%	-7.2%	-10.0%	-10.0%	-6.1%

¹ Based on billed consumption through June 30, 2014.

² Based on billed consumption through June 30, 2015.

**Table 2-13:
Average Monthly Consumption per Account FY2014 – FY2015
(Cubic Meters)**

Fiscal Year	Customer Class				Total
	Residential	Commercial	Industrial	Government	
FY 2014 ¹	15.8	56.0	1,331.9	261.6	20.6
FY 2015 ²	15.0	53.8	1,270.8	239.2	19.4
% Difference	-4.9%	-3.9%	-4.6%	-8.6%	-5.8%

¹ Based on information as of June 30, 2014.

² Based on information as of June 30, 2015.

In recent years, the average monthly consumption per account fluctuated from an increase of 2.6% from FY2012 to FY2013 to a reduction of 4.2% from FY2013 to FY2014, and now by this additional reduction of 5.8% as shown in Table 2-13. According to the U.S. Census Bureau, there was a 6.8% decline in Puerto Rico's population between 2000 and 2014.² Additionally, both the U.S. Census Bureau and the Puerto Rico Planning Boards (PRPB) are projecting that Puerto Rico's population will continue to decline over the next 10 years at an estimated annual rate of 1.3%. Considering the historically low annual growth rate, the reduction in Puerto Rico's population (and PRPB projections), and the reduction in number of accounts that occurred from FY2012 to FY2014, PRASA has incorporated additional customer accounts and consumption reductions in its Forecast which result in an additional 0.5% decrease in Service Revenues in FY2016 (from the FY2015 projected amount), and an additional reduction from previous year results of about 0.5% in each year thereafter. However, if population continues to decline at a rate of 1.3% per year, and consumption/number of accounts do not increase, then this assumption may be overly optimistic.

² The U.S. Census Bureau shows Puerto Rico population in 2000 was 3,808,610 and 3,548,397 in 2014.

Act 66 Assumptions

A fiscal emergency situation for the Commonwealth of Puerto Rico was declared through the enactment of Act 66, which required that its instrumentalities (i.e., utilities, government agencies, and public corporations such as PRASA) implement certain measures to reduce its expenses. Act 66 has primacy over any other law and will remain in place for three years, up to FY2017, or until certain economic and financial conditions are met. Act 66 requires, among others, the following measures:

- 10% reduction in contracted services expense when compared to FY2014
- 20% reduction in appointed employees costs when compared to FY2012
- Freeze or reduction of some payroll benefits or compensation

Given the current fiscal crisis and as a budget balancing measure, agencies from the executive branch whose operating costs are covered in whole or in part with funds from the General Fund will not be required to pay the rate increase implemented by PRASA on July 15, 2013, as amended on December 18, 2013. This represented a reduction of billings of approximately \$20M for FY2014 and of about \$37M in FY2015. PRASA is projecting that this \$37M reduction will be maintained through the rest of the forecasted period.

2015 Drought and Water Rationing Plan Assumptions

On May 11, 2015, PRASA announced a water rationing plan covering certain areas located within the municipalities of San Juan, Carolina, Gurabo, Trujillo Alto and Canóvanas serviced by the Sergio Cuevas water treatment plant (WTP), which is impacting approximately 162,000 customers. Subsequently, on June 15, 2015 PRASA announced a water rationing plan covering certain areas located within the municipalities of Bayamón, Cataño, Toa Alta and Toa Baja serviced by the Enrique Ortega WTP, which is impacting approximately 110,000 customers. During the month of July 2015 (FY2016), the water rationing plan was expanded on several occasions to cover Bayamón, Guaynabo, additional areas of San Juan, Corozal, Naranjito, Caguas, areas of Gurabo, Río Grande, Loíza, Luquillo, Juncos, Coamo, Salinas and Santa Isabel as a direct consequence of the escalating drought condition affecting most of Puerto Rico³. As of the date of issuance of this Report, over 415,000 customers are affected by the water rationing plan. The water rationing plan divides each of the affected areas into zones, which experience water rationing periods of 72, 48, 24, 12 hours; depending on the zone and water treatment plant that services the area.

Based on the affected customers as of August 5, 2015, PRASA estimates that it will experience a reduction of monthly Service Revenues of approximately \$10M. This expected reduction in

³ Source: United States Drought Monitor
(<http://droughtmonitor.unl.edu/Home/StateDroughtMonitor.aspx?PR>)

monthly revenue does not take into account measures available to customers to reduce the impact of the rationing plan such as the installation and use of cisterns and other water storage units, which may provide customers with the opportunity to even out water consumption during the rationing periods. The estimated financial impact of the drought has been included in the projections for FY2016, as a reduction of \$50M in Service Revenues. However, given PRASA's meter reading and billing cycles, the short time elapsed since the implementation of the water rationing and the modifications and expansions of the water rationing plan, the financial impact of the rationing plan is currently unavailable; nevertheless, the estimated reduction in monthly Service Revenues mentioned above is an estimate that PRASA believes to be conservative, taking into account the particularities of the population and customers affected. Additionally, under PRASA's current rate structure (in place since July 15, 2013), approximately 30% of PRASA's Service Revenues are from fixed service charges that are not affected by decreases in consumption resulting, for example, from the implementation of the water rationing plans. However, PRASA cannot determine the time extension of the water rationing plan and the final number of customers to be affected. It is likely that as the drought conditions and the water rationing plan extends, the negative effects on its Service Revenues could increase beyond PRASA's current estimated levels.

MPPR/ARCADIS believes that PRASA's assumptions for Service Revenues are reasonable considering that: 1) PRASA is projecting lower Service Revenues for FY2016 based FY2015's projected results, considering recent trends on customer and consumption reduction, and the drought and water rationing program currently affecting Puerto Rico; and 2) is including further reductions in future fiscal years under the assumption that consumption and customer accounts may further reduce. Nevertheless the following should be noted:

- FY2015 results show that average billed consumption, average monthly consumption per account, and residential billings have continued to significantly reduce, a trend observed since FY2013. The FY2015 reduction was at a higher rate than that assumed by PRASA in its FY2015 Annual Budget.
- Continued strain on the economy, the high unemployment rate in Puerto Rico⁴, and the reduction in new construction permits and economic activity index⁵, among other economic factors, could continue to materially affect consumption profiles, resulting in 1) further declines in the consumption patterns and/or number of PRASA customers, and 2) further reductions of projected Service Revenues.
- PRASA's projected Service Revenues for FY2018 and FY2019 depend on the timeliness of implementation of the projected rate adjustments. These rate adjustments are subject to

⁴ Based on the U.S. Bureau of Labor Statistics, as of June of 2014 the unemployment rate in Puerto Rico was 13.1%, which is 5.1% lower than reported in June of 2013; Source: www.bls.gov/lau/

⁵ Source: Puerto Rico Economic Indicators; Puerto Rico Planning Board

approval by PRASA's Governing Board as part of the Annual Budget review and approval process. Prior to 2013, previous attempts by PRASA to implement the 4.5% rate adjustments proved unsuccessful, forcing PRASA to seek alternative funding sources and special assignments from the Central Government. However, on July 21, 2015, PRASA's Governing Board (under Board Resolution No. 2937) approved a 4.5% increase for FY2018, unless other recurring revenue sources are identified and that such revenue sources meet a coverage of at least 1.15 times the identified revenue requirement and are as such certified by the Consulting Engineer. Furthermore, under the existing rate structure, these projected rate adjustments could negatively affect Service Revenues as customers could adopt additional water conservation measures resulting in additional reductions in consumption and, in turn, Service Revenue.

2. Transfers from the Rate Stabilization Account (Exhibit 1, line 2) – In accordance with the MAT, a Rate Stabilization Account, the balance of which is determined in the annual budget, shall be established. This account is established within the Surplus Fund, which contains any remaining moneys after all required deposits are made. Equivalent monthly deposits during the fiscal year must be made into the account equal to the balance set forth in the annual budget.

In the 2014 CER, MPPR/ARCADIS presented PRASA's projections which included reductions in Operating Revenues by the amounts transferred to the Rate Stabilization Account in any given fiscal year, for example FY2014. However, as confirmed by Bond Counsel and in compliance with the MAT, Operating Revenues shall include all transfers from the Rate Stabilization Account minus any deposits made to the Rate Stabilization Account during the same fiscal year; hence, PRASA's projected transfers to the Rate Stabilization Account in FY2014 and FY2016 do not reduce Operating Revenues in those fiscal years. As such, PRASA has updated its financial model to reflect this opinion.

PRASA's July 15, 2013 increase was projected to generate excess Service Revenues during FY2014 and FY2015 that PRASA planned to use in future years to meet its operational and debt service obligations. PRASA's FY2014 actual results show a transfer of \$93M to the Rate Stabilization Account (current balance of the Rate Stabilization Account). The funds deposited in the Rate Stabilization Account in FY2014 are from net revenues available given the lower debt service payments (a delay in PRASA's planned bond issuances reduced the debt service payments due in FY2014), and lower electricity and maintenance and repair costs.

In its FY2015 Annual Budget, PRASA projected to transfer (deposit) to the Rate Stabilization Account approximately \$51M. PRASA's March 2015 projection of this deposit was increased to \$142M as a result of: additional savings of about \$3M to be achieved from certain cost reduction initiatives, reductions of about \$22M in the projected debt service amount due in FY2015 (as a result in the delay of issuance of bonds), and a projected net transfer of about \$65M from the CIP account to the Operational account. This net transfer considered a

repayment amount of \$90M for CIP project payments made by PRASA (to be funded with bond proceeds) and a projected deposit of \$25M to the CIP fund for projects to be funded with the Special Charges paid by PRASA’s customers. However, because PRASA’s bond issuance did not materialize during FY2015, and given PRASA’s need to continue funding its CIP, PRASA opted to forego the budgeted deposit to the Rate Stabilization Account and used Operating Revenues to partially fund its CIP.

PRASA is now projecting that in FY2016 it will transfer (deposit) about \$140.2M into the Rate Stabilization Account which would bring the Rate Stabilization Account’s total balance available for use in future years up to \$233.2M. PRASA projects the following deposits from the Rate Stabilization Account which, in accordance with the MAT, shall be considered Operating Revenues in the year of the transfer: \$82.1M in FY2017, \$84.4M in FY2018, and \$62.7M in FY2019.

MPPR/ARCADIS believes that PRASA’s assumptions are reasonable, but highly dependent of PRASA’s ability to execute the 2015A Senior Bonds transaction during FY2016 and PRASA’s ability to implement the projected rate adjustments during FY2018 and FY2019. Also, as previously mentioned, the continued strain on the economy and the high unemployment rate in Puerto Rico, among other economic factors, could cause a continued decline in the consumption patterns of PRASA customers, resulting in reductions of projected Service Revenues which could negatively impact PRASA’s ability to make the projected transfers.

3. Operational Initiatives (Exhibit 1, lines 3 & 4) – PRASA’s operational initiatives include: 1) Revenue Optimization Program which is a set of programs implemented by PRASA to increase revenues and collections, and 2) Additional Non-Revenue Water Reduction Initiatives. Table 2-14 presents a summary of the projected revenues PRASA has included in its Forecast.

Table 2-14:
Revenue Optimization Program Initiatives FY2014 – FY2019
(\$, Thousands)

	FY2014 Actual	FY2015 Projected¹	FY2016 Projection	FY2017 Projection	FY2018 Projection	FY2019 Projection
Additional Billings	\$97,567	\$99,893	\$99,394	\$98,897	\$98,402	\$97,910
Collections from Prior Years	\$5,546	\$14,793	\$5,400	\$4,500	\$4,500	\$3,600

¹ Based on Operating Revenues collected through June 30, 2015.

PRASA has included in the Forecast more conservative projections than the expected opportunity that could be achieved through these Operational Initiatives, detailed below. MPPR/ARCADIS believes that PRASA has a strong commitment to its Operational Initiatives (as evidenced by historical results), and to achieving the goals outlined for each initiative.

Considering the historical performance of Operational Initiatives, and the projected benefits that could be achieved (as detailed below), MPPR/ARCADIS finds the projections reasonable. Nonetheless, PRASA’s assumptions for the incremental revenues from Operational Initiatives rely on the effective and timely implementation of these initiatives. Any changes to the implementation schedule could materially affect PRASA’s projections. As such, PRASA should continuously monitor its results and make adjustments as necessary.

Revenue Optimization Program Assumptions

As part of the NRW Reduction Program, PRASA’s strategy has focused mostly on revenue optimization (enhancing) initiatives, which target apparent losses related to its commercial operation. These initiatives, which together make up the Revenue Optimization Program, have resulted in significant additional revenue for PRASA over the past five fiscal years.

Figure 2-1 depicts this increasing tendency in revenue generated from PRASA’s Revenue Optimization Program from FY2011 to FY2015. PRASA has consistently exceeded its budgeted amount for operational initiatives. In FY2015, PRASA collected approximately \$114.7M through its Revenue Optimization Program, which is about 17% higher than the FY2015 approved budget amount of \$97.9M. It should be noted that the significant increase from FY2013 results to FY2014 results (an increase of approximately 32%) and from there on, considers the rate increase implemented by PRASA on July of 2013.

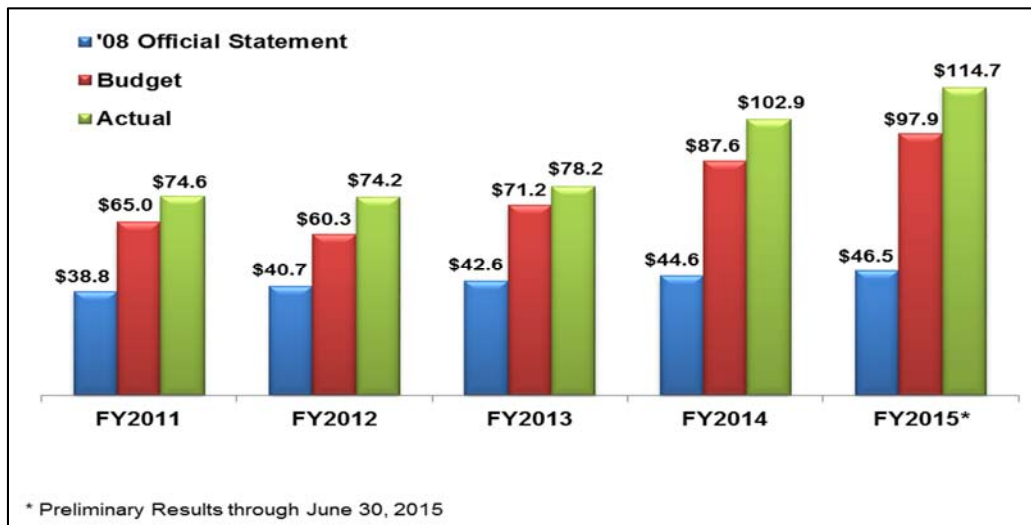


Figure 2-1: Revenue Optimization Program Results FY2010-FY2015 (\$, Millions)

Table 2-15 below, presents a breakdown of the Revenue Optimization Program initiatives, the FY2014 actual and the FY2015 projected results; and the FY2016 through FY2019 projected opportunities. The expected cost of all the above mentioned initiatives is projected at \$10M per year plus the cost of financing the required capital investments, which has been included in PRASA's financial projections.

**Table 2-15:
Revenue Optimization Program Initiatives FY2014 – FY2019 (\$, Thousands)**

Initiative	FY2014 Actual	FY2015 Projection ¹	FY2016 Projection	FY2017 Projection	FY2018 Projection	FY2019 Projection
Small Meters (net of degradation)	\$37,009	\$42,065	\$54,710	\$61,518	\$63,165	\$59,612
Large Meters	14,183	16,443	17,827	19,637	21,473	23,430
Theft and Inactive (Tx) Accounts	26,735	30,709	31,971	33,971	35,349	36,922
Sprinklers	1,695	2,460	773	943	1,114	1,284
Disconnections and Collections Efforts	13,051	14,159	5,400	4,500	4,500	3,600
Class Correction	6,424	1,966	1,461	1,929	2,397	2,865
Condominiums	874	583	1,386	1,386	1,386	1,386
Miscellaneous	3,143	6,299	1,281	1,281	1,281	1,281
Total Additional Revenues²	\$103,114	\$114,684	\$114,809	\$125,165	\$130,665	\$130,380

¹ Based on Operating Revenues collected through June 30, 2015.

² Numbers may not add up due to rounding.

Nonetheless, as abovementioned the prior detailed projections for this initiative, PRASA is assuming in its projections maximum annual revenues of not more than \$105 million during the projected period.

A description of each of the NRW operational initiatives, and underlying assumptions regarding their projected revenue impact, is discussed below.

- **Small Meters:** This operational initiative consists of replacing meters of 1-inch or less in diameter that are more than 10 years old, as these meters lose precision and account for less water than is delivered. By replacing them, PRASA increases billed consumption and improves revenues. Every year there is a cumulative revenue effect from meters previously changed as well as a revenue loss due to the slow degradation of an aging meter's accuracy. This degradation is accounted for in the calculation of the operational initiatives revenues.

PRASA replaced over 680,000 small meters from February 2009 to June 2015. Projected results for FY2015 indicate revenues from this initiative are about \$0.4M under the budgeted amount. PRASA replaced a total of 51,734 small meters in FY2015. Additional combined revenues expected from the small meters replacements initiative (minus adjustment for degradation) is about \$42M, including additional revenue generated from the previously replaced meters. The average additional monthly revenue per meter assumed, based on the results of prior replacements, was \$8.50 per month for the first year, \$7.50 for the second year, \$7.00 for the third year, \$6.00 for the fourth year and \$5.00 for the fifth year. From then a yearly reduction is assumed until the tenth year when there is no additional monthly revenue to be gained. Finally, the average monthly consumption per meter assumed, based on the results of prior replacements during the last seven fiscal years, was an additional 2.35 cubic meters per month, as indicated by PRASA's Revenue Optimization consultant. PRASA projects that over 415,000 additional meters will be replaced between FY2016 and FY2019.

- **Large Meters:** This operational initiative consists of replacing meters with a diameter equal to or greater than 1-inch. This initiative generates revenues from the additional billed consumption due to better accuracy of the meters and retroactive fines assessed to customers that present abnormally higher consumption than the average previous to the replacement of the meter.

PRASA replaced over 5,000 large meters from February 2009 to June 2015. Projected results for FY2015 revenues from this initiative are estimated about \$1.6M over the budgeted amount. PRASA replaced a total of 763 large meters in FY2015. The total projected additional revenue from these meter replacements, combined with the revenues from the meter replacements performed in previous fiscal years, amounts to approximately \$16.4M. The average additional monthly revenue per meter assumed, based on the results of prior replacements, was \$441 per month for the first year, \$309 for the second year, and \$216 for the third year, \$151 for the fourth year, \$106 for the fifth year, \$74 for the six year, \$52 for the seventh year, \$36 for the eighth year, and \$25 for the ninth year. Finally, the average monthly consumption per meter assumed, based on the results of prior replacements during the last seven fiscal years, was an additional 4.76 cubic meters per month, as indicated by PRASA's Revenue Optimization Consultant. PRASA projects that about 2,275 large meters will be replaced from FY2016 through FY2019.

- **Theft and Inactive Accounts:** The intervention of theft accounts initiative focuses on converting connected and non-paying customers into paying customers. This includes: 1) Tx accounts (inactive accounts with consumption), which specifically targets customer accounts currently included in PRASA's database categorized as inactive with recorded consumption (also referred to as water theft in inactive accounts); and 2) active accounts with irregularities (i.e., direct connections and meter tampering). This initiative leverages

a database desktop exercise to target the potential customers that are currently benefiting from PRASA's services, but are not paying for them.

Over the last seven fiscal years PRASA has normalized a total of 84,301 customers. However, it is expected that as accounts are handled and normalized, the number of inactive accounts with consumption will reduce over time. FY2015 projected results indicate that revenues from this initiative are estimated about \$0.9M over the budgeted amount. FY2015 projected results indicate that PRASA normalized a total 16,766 accounts, which yielded about \$30.7M in additional revenues to PRASA. PRASA plans to normalize approximately 20,000 customers from FY2016 through FY2019.

- **Fire Protection and Sprinkler Initiative:** PRASA currently provides fire protection sprinkler service to 1,337 accounts. In FY2009 and FY2010, PRASA visited 3,429 targeted customers, of which 604 accounts were found to be out of compliance. Of these accounts, PRASA fined 389 customers \$10,000 per account, collecting revenues of \$3.7M. From FY2011 through FY2013, PRASA normalized about 365 customers, which represented additional revenues in the amount of \$2.5M. In FY2013, PRASA reduced its efforts in this initiative in order to focus on higher investment-return initiatives; as such, only 99 additional accounts were added during the fiscal year, which represented approximately \$0.9M in additional revenues to PRASA. In FY2014, PRASA addressed 173 sprinkler accounts, normalizing 14 of these and collecting approximately \$1.7M in additional revenue for this initiative. Based on FY2015 projected results PRASA normalized a total of 63 new accounts, collecting 2.5M in additional revenue. Also, PRASA plans to normalize 100 sprinkler customers each year from FY2016 through FY2019.
- **Disconnections:** These initiatives focus on reducing uncollected accounts and ensuring customers pay on time. In a proactive approach, collection management consists of contacting residential, commercial, industrial and government customers with past due bills; disconnection consists of shutting-off service once a customer's bill is 60 days past due.

Disconnections continue to be a major factor contributing to revenues collected under these initiatives. Over the last seven fiscal years PRASA has performed over 1,260,000 disconnections. Between FY2009 and FY2015, PRASA collected about \$84.7M in additional revenues from this initiative. FY2015 projected results indicate that, PRASA performed a total of 298,279 disconnections and collected additional revenues in the order of \$7.4M, which is approximately \$1.1M over the budgeted amount. PRASA is projecting a tapering down of the revenues to be collected through this initiative from \$5.4M in FY2016 to \$3.6M in FY2019.

- **Class Correction:** This initiative includes revenues from rate classification/categorization (class and meter size) corrections and from a new specialized taskforce to improve collections. Over the last seven fiscal years PRASA has normalized a total of 2,975 customers, and has collected over \$18.3M from this initiative. PRASA reported additional revenues from this initiative in its FY2015 projected results of \$1.9M, this result is about \$0.8M over the budgeted amount. PRASA is projecting to correct about 500 customer accounts, (based on the potential identified through PRASA’s Geodatabase project⁶), and projects to normalize approximately 1,000 customers each year from FY2016 through FY2019.

 - **Condominiums:** This initiative consists in billing the master meter of the condominiums which were not being billed as a result of meter reading and billing problems. These meters were normalized and are being billed on a monthly basis without exceptions. FY2015 projected revenue results are about \$0.8M under the FY2015 budgeted amount. PRASA projects collections of approximately \$1.4M for each year from FY2016 through FY2019. Considering FY2014 and FY2015 results, PRASA should consider reducing the forecasted amounts closer to approximately \$0.7M, or about half of what is currently projected.

 - **Miscellaneous:** These initiatives include, among others:
 - Reductions of discounts to billed amounts due to deficiencies in service. The number of clients receiving deficient service credits was reduced from 27,000 in August of 2009 (up to \$20,000 in credits per month in total) to about 2,524 currently, focusing on the Municipalities of Carolina and Fajardo.
 - Sewer accounts not billed for the service. PRASA normalized 19,781 sewer accounts in FY2015.
 - Inactive Accounts Debt Transfer. This initiative searches for inactive accounts with pending balance that also has an active account with same social security number. Then the pending balance from the inactive account is transferred to the active account in order to initiate the collection process.
4. Adjustment for Uncollectibles (Exhibit 1, line 5) – Prior to the rate increases implemented in 2005 and 2006, PRASA’s historical percentage of Adjustment for Uncollectibles was approximately 4% of its Service Revenues. Although PRASA’s rate of uncollectibles increased significantly in the years following the 2005/2006 rate increases, in FY2012 and FY2013, PRASA’s rate of uncollectible accounts (including collections from prior years) stabilized below 5%.

⁶ This project consists in the development of an island-wide customer geodatabase to identify and map (geospatially) PRASA’s existing and potential customers including, but not limited to, developed and pre-developed parcels not included in PRASA’s SAP customer database. To date, PRASA has geo-referenced approximately 1.2 million customers.

PRASA's FY2014 actual results (first year after the rate increase implemented on July 15, 2013) include about \$81M in adjustments for uncollectible accounts. This represents a rate of uncollectibles of about 7.2% of Service Revenues and additional billings from Operational Initiatives, which is in line with the FY2011-FY2015 average. PRASA's FY2015 projected results includes an Adjustments for Uncollectibles amount of about \$34M (or 3.2% of Service Revenues and additional billings from Operational Initiatives). This is approximately \$47M less than FY2014 actual results and is about \$35M less than the amount budgeted for FY2015. PRASA's favorable collection rate is a result of proactive collection efforts by PRASA, and an improvement in the collection rate of government accounts as a result of payment plans.

In future years, PRASA has assumed an annual rate of uncollectibles of Service Revenues and additional billings from Operational Initiatives of 4% in FY2016 through FY2019. To achieve the reduction in its rate of uncollectibles PRASA has indicated that it will continue to promptly address complaints and service disconnections, and will continue to proactively pursue government account payments. It should be noted that on August of 2015, PRASA and the Puerto Rico Treasury Department (the Treasury) and the Puerto Rico Office of Management and Budget (OMB) will be entering into a Water Service Payment Agreement for PRASA's benefit and the stability of its finances, pursuant to which the Treasury and OMB agreed to create a new process for the appropriation and payment of water and sewer services payable to PRASA by Commonwealth central government entities and public corporation(s) receiving appropriations from the general fund.

MPPR/ARCADIS cautions that the uncollectibles rate could increase beyond the levels currently assumed by PRASA, considering the uncertain economic and fiscal situation for Puerto Rico as a whole. First, there is insufficient information available to determine the effect that the current drought conditions and water rationing plan could have on PRASA's collection rate. Second, at this time there is insufficient information to estimate the effect that recent modifications to the Commonwealth's taxation system could have on PRASA's Forecast. On May 29, 2015, the Commonwealth enacted Act No. 72 of 2015 (Act 72) to amend the Commonwealth's Internal Revenue Code of 2011, Act No. 1 of 2011, as amended (the PR Code). Act 72 modifies the PR Code and introduces various significant changes to the current Commonwealth's taxation system, including among others, (i) a temporary increase in the local SUT from 6% to 10.5%, which will remain in effect from July 1, 2015 through March 31, 2016; (ii) the temporary imposition of a new 4% SUT on services rendered by a business to another business and on certain professional services (including legal, accounting and other services rendered by licensed professionals), which is to remain in effect from October 1, 2015 through March 31, 2016; and (iii) the implementation of a Value Added Tax (VAT) of 10.5%, effective April 1, 2016, which would gradually phase out and replace the SUT. Although approximately 70% of PRASA's expenses are exempt from the SUT, PRASA's Forecast could be materially affected as a result of an indirect increase in costs of goods and services. PRASA has indicated that the implementation of the SUT in 2006 did not have a material impact on PRASA's

expenses. Nevertheless, the opinions provided by MPPR/ARCADIS regarding PRASA's Operating Expenses Forecast exclude the potential impacts of both the SUT increase and the future implementation of a VAT and its potential impacts on PRASA's Forecast.

With this in consideration, MPPR/ARCADIS finds PRASA's collection rate ambitious, and recommends that PRASA retain the more conservative projections previously reported in the 2014 CER of an annual rate of uncollectibles (percentage of Service Revenues and additional billings from Operational Initiatives) of 6% in FY2016, and 5.75% in FY2017; and the MPPR/ARCADIS's recommended 5.75% for both FY2018 and FY2019 considering that the Forecast includes rate adjustments in both these fiscal years.

5. Other Income (Exhibit 1, line 6) – PRASA's Other Income includes: Miscellaneous Income, Special Assessments (fees paid by developers), and income from other sources. Miscellaneous Income mainly includes fines, reconnection charges, bulk water sales, other miscellaneous revenues, and interest income. Special Assessments are fees paid by developers for construction projects or new development connections. These fees apply to new water and sewer connections to the System. The FY2015 fees were about \$500 each for water and sewer connections (\$1,000 total per unit). Special Assessments depend on the fees paid by developers of new projects and it is expected that the current economic situation will continue to impact the local new housing market during the foreseeable future.

Finally, PRASA is including income from other sources starting in FY2019. Through its subsidiary, PRASA Holdings, PRASA is projecting to generate additional revenues in the amount of \$4M each year (starting in FY2019) from its private subsidiary fiber optic installation and services. MPPR/ARCADIS has not reviewed this revenue projection in detail and, as such, is not providing an opinion on its reasonability. PRASA has indicated that it is currently seeking alternate financing sources for this project.

PRASA's Other Income revenues for FY2014 totaled \$8.8M. Miscellaneous Income for FY2014 totaled \$4.3M, while Special Assessments totaled \$4.5M. The FY2015 projected results show that PRASA collected approximately \$7.9M, of which approximately \$4.4M was from Miscellaneous Income and \$3.6M from Special Assessments. PRASA is projecting \$9M (\$5M from Miscellaneous Income and \$4M from Special Assessments) in additional revenues from Other Income in each year from FY2016 through FY2018. Finally, in FY2019, the amount projected from Other Income increases to \$13M considering the additional \$4M to be generated through PRASA Holdings, LLC.

Although the final phase of the revised rates for new service connections and some of the other services considered under Miscellaneous Income goes into effect in FY2016, over the past five fiscal years, Other Income has reduced at an annual rate of approximately 5.8%. Hence, based on the results from recent years, and considering Puerto Rico's economic outlook,

MPPR/ARCADIS recommends that PRASA use a more conservative assumption for Other Income from Miscellaneous Income and Special Assessments that is closer to \$7.5M in each year, or \$1.5M less than currently included in the Forecast. Also, it should be noted that the FY2019 forecast assumes that PRASA is able to implement the fiber optic project and is able to generate the projected revenues.

2.2.2. Authority Revenues (Other Sources of Revenues)

As per the MAT, the Authority Revenues (Exhibit 1, line 12) include all the Operating Revenues (previously discussed) plus other sources of revenues which are not from the System. Other sources of revenue include: transfers from the Budgetary Reserve Fund, Central Government grants, contributions, and appropriations, among others. Additionally, as proposed to be amended by the Fifth Supplemental Agreement of Trust, Authority Revenues shall also include any amounts received by PRASA from any source of funding that does not otherwise constitute Authority Revenues as reimbursement for Costs of Improvements paid by PRASA in the current or the immediately preceding fiscal year from Operating Revenues.

In past fiscal years, PRASA has required other sources of revenues to be able to meet its obligations. Because PRASA delayed implementing a rate increase until FY2014, PRASA required support from the Central Government. In FY2011, PRASA received a contribution of \$105M from the Central Government General Fund to fund an otherwise anticipated operational deficit. In FY2012, a similar contribution was approved by the Puerto Rico Legislature in the Central Government's Annual Budget. PRASA received \$70.3M of the \$183.9M approved from this assignment in FY2012. The difference was covered with a \$95M draw from the Budgetary Reserve Fund which was initially funded in FY2012 with bond proceeds from PRASA's 2012 bond issuance. In order to meet its FY2013 obligations and to comply with the requirements of Section 7.01 of the MAT, PRASA used \$145M (remaining balance) from the Budgetary Reserve Fund. While in FY2014 and FY2015 PRASA did not include additional revenues from other sources, during FY2016 PRASA is projecting \$288.8M in additional revenues to be deposited in the Current Expense Fund from a reimbursement for Costs of Improvements paid by PRASA from Operating Revenues during FY2013 through FY2015. No other additional revenues are projected in future fiscal years.

PRASA's Forecast shows that the revenues to be generated under the existing rate structure, combined with the projected transfers from the Rate Stabilization account and additional revenues reimbursed in FY2016, should be sufficient for PRASA to meet its obligations through FY2017, as presented in Exhibit 1. However, as previously mentioned, for FY2018 and FY2019 PRASA is projecting additional revenues from rate adjustments in the order of \$43M, or about 4.5% of projected Service Revenues, each year in order to meet its obligations in these two fiscal years. Should these rate adjustments not materialize, external support/other measures will likely need to be pursued by PRASA. These may include, but are not limited to one, or a combination of special assignments from the Central Government, additional revenues from Operational Initiatives,

reductions in Operating Expenses, reduction in the projected deposits to the Capital Improvement Fund, and/or alternative external funding sources.

2.2.3. Operating (Current) Expenses

As defined in the MAT, **Current Expenses** “shall mean the reasonable and necessary current expenses, incurred by the Authority in the ordinary course of business, calculated on an accrual basis, of maintaining, repairing and operating the properties constituting the Systems or causing said maintenance, repair and operation, which expenses shall exclude depreciation, reserves for allowances for doubtful accounts and other non-cash reserves or expenses. For purposes of the Rate Covenant and the Annual Budget required by Section 7.02 of the MAT, Current Expenses will be calculated on an accrual basis. For all other purposes of the MAT, Current Expenses will be calculated on a cash basis. Notwithstanding any accounting treatment to the contrary, the amount of any termination or similar payment under any interest rate swap or similar hedge agreement shall, if payable by the Authority, not be taken into account in computing Current Expenses to the extent the same is paid by or on behalf of the Authority from the proceeds of any Indebtedness.”

PRASA’s projections for Operating (Current) Expenses, on an accrual basis, and associated assumptions are discussed below.

1. Payroll and Benefits (Exhibit 1, line 13) – Payroll and Benefits continues to be PRASA’s largest expense category. Over the past five fiscal years, PRASA has averaged approximately \$303M annually for this expense category. Since FY2009, PRASA has implemented cost control methods to reduce its staff levels and, in turn, Payroll and Benefits costs. PRASA’s FY2015 projected results for Payroll and Benefits, Net of Expense Reduction due to Act 66, amounts to \$300.5M, which is \$14M over the budgeted amount. This increase is attributed to increase in overtime and a decrease in the estimated savings resulting from the Expense Reductions due to Act 66. For FY2016, PRASA is projecting Payroll and Benefits, Net of Expenses Reduction due to Act 66 in the amount of \$313.5M. In future years, PRASA is projecting Payroll and Benefits, again Net of Expenses Reduction due to Act 66, in the amount of \$315.9M for FY2017, \$320.9M for FY2018, and \$325.8M for FY2019.

As discussed below in detail, PRASA has decreased the headcount assumption of over the forecast period; however, assumptions regarding payroll and benefits costs per employee and overtime costs (as a percentage of total payroll and benefits costs) have been increased. Based on the historical results and the assumptions made by PRASA in its projections, MPPR/ARCADIS believes these projections are reasonable. However, as further discussed below, PRASA must continue to closely monitor the overtime costs to assure that the expected reductions to be achieved through the new personnel to be hired are realized and that estimated additional costs due to the water rationing plan are in line for FY2016.

Headcount and Overtime Assumptions

Over the past five fiscal years PRASA has reduced its staff levels by about 0.4% each year. As previously reported, PRASA ended FY2013 with 4,888 employees; however, this low staff level was mainly due to the one-time increase in personnel retirements, many of which occupied positions that PRASA would replace. During FY2014, PRASA was in the process of hiring new employees to fill certain critical operations positions that were left vacant as a result of the numerous personnel retirements that took place in FY2013 due to legislated changes to the retirement conditions. As a result, PRASA reported a 4.13% net increase of staff from FY2013 to FY2014. Although PRASA projected that staff levels would increase to about 5,373 during FY2014, actual staff levels on June 30, 2014 were 5,090. Similarly, PRASA had projected that during FY2015 it would hire about 283 new employees in order to reduce overtime hours (and costs) and contract positions, and fill certain open positions, which includes positions left vacant by employees who retired during FY2013 and FY2014. However, these hirings have not materialized and, as such, the costs budgeted to cover the additional headcount have been spent toward overtime costs. PRASA staff levels as of June 30, 2015 were at 4,989, or 101 less than the staff levels at the end of FY2014. Although PRASA previously projected to increase headcount in FY2015 up to 5,373 and maintain it over the forecast period, PRASA has revised the projection for the Forecast to 5,075 employees.

Based on FY2015 projected results through May 31, 2015, current overtime level is at approximately 11% of total payroll costs. PRASA has assumed a rate of overtime of 12% (as percentage of payroll) along with other adjustments that result in an increase of the average annual salary per employee; from \$56,000 previously used by PRASA, up to \$60,000 currently incorporated into the Forecast.

Retirement System Contributions

As required by Act 116 of 2011, PRASA's contribution to the retirement system will increase from 13.275% in FY2015 to 14.275% in FY2016. Subsequently PRASA is required to increase the contributions to the retirement system from an annual increment of 1% to 1.25% up to FY2021. Additionally, as required by Act 3 and Act 32 of 2013, PRASA is also required to pay for benefits granted by special laws as announced by the retirement system and to cover an annual Additional Uniform Contribution, which is expected to increase by \$9M for FY2016. In total, these increases represent about \$11M in additional Payroll and Benefits expenses for FY2016.

Collective Bargaining Agreements

In FY2012, PRASA and its larger union, the UIA-AAA, signed a new Collective Bargaining Agreement (CBA), effective from January 2012 through December 2015. It included certain retroactive and future economic agreements that have an impact on PRASA's payroll and

benefits expense projections which started in FY2013. Also, PRASA and the HIEPAAA signed a new CBA effective from May 2012 through June 2016. It also contains certain economic agreements (i.e., salary increases) that also have an impact on PRASA's Payroll and Benefits expenses. However, the Commonwealth of Puerto Rico, through the enactment of Act 66 declared a fiscal emergency situation and required that its instrumentalities (i.e., utilities, government agencies, and public corporations such as PRASA) implement certain measures to reduce its expenses. Act 66 has primacy over any other law and will remain in place for three years or until certain economic and financial conditions are met. Under Act 66, PRASA negotiated some terms included under the CBAs with both UIA-AAA and HIEPAAA. Both UIA-AAA and HIEPAAA unionized personnel agreed with PRASA that the CBAs will continue as stipulated with the exception of some terms which include: the saving plans, salary increases, holiday and sick days benefits, among others.

PRASA has included the costs associated with the negotiated terms with both UIA-AAA and HIEPAAA unionized personnel, as modified to comply with Act 66, in its Payroll and Benefits projections. These costs include salary increases and savings/retirement plan bonuses (as amended by the stipulations agreed to and signed by the parties under Act 66).

Act 66 Assumptions

As a result of Act 66, PRASA projected a reduction of \$37M in expenses for FY2015. The savings includes \$13M in cash items such as bonuses for years of service and removal of liquidation of vacation and sick days, a reduction of about \$10.9M in Payroll and Benefits (as a result of a decrease in collective agreements, in benefits including annual bonuses, etc.), an additional \$7.5M in savings to be reduced from the costs of the health plan provided to employees and from contracted services, and \$5.6M from universal brigades. However, PRASA's projected results for FY2015 show an expense reduction of \$31M; approximately \$18M in accrued expenses and \$13M in reductions in cash payments related to vacations, sick and retirement bonuses, which were accrued but not paid pursuant to the provisions of Act 66. The difference of \$6M is primarily the result of a delay in the implementation of the universal brigades (flexibilization of work) that were expected to generate savings in overtime and maintenance expenses and which implementation is currently being negotiated with the UIA-AAA.

2015 Drought Conditions and Water Rationing Plan Assumptions

As previously mentioned, since May of 2015, PRASA has implemented a water rationing plan as a measure to counteract the effects that the current drought is having on the raw water reserves particularly those that serve the Metropolitan area. This water rationing plan is currently affecting approximately 415,000 clients or a third of PRASA's clients. Based on the currently affected customers, in addition to the reduction of monthly Service Revenues

discussed above, PRASA estimates that it will experience an increase in its monthly operating expenses, including Payroll and Benefits. As a result, PRASA has included in its FY2016 projection incremental Payroll and Benefits costs totaling \$4M (assumes an incremental cost of \$1M per month and a duration of four months of the water rationing plan). However, as of the date of issuance of this report, PRASA cannot determine the time extension of the water rationing plan and the final number of customers to be affected. It is likely that as the drought conditions and the water rationing plan extends, the negative effects on its expenses, including Payroll and Benefits costs could increase beyond PRASA's current estimated levels.

2. Electric Power (Exhibit 1, line 14) – Electric Power is PRASA's second largest expense category. Up until FY2014 the electric power costs were in an upward trend. However, as approved under Act 50 of June 2013, a special all-in-rate of \$0.22 per kWh for the first 750 million kWh of consumption was legislated for PRASA and, subsequently approved by PREPA's Governing Board. The excess amount consumed above the 750 million kWh must be paid at PREPA's average cost per kWh for the most recent audited fiscal year. This rate has been effective since FY2014 and will remain in effect until unapproved by PREPA's Governing Board and until the necessary legislation is enacted. As a result of the preferential all-in-rate, for the first time in over ten years PRASA's Electric Power costs decreased, lowering the recent 10-yr CAGR from 8% to 6%. PRASA's FY2014 actual results for Electric Power amount to \$166.7M, which is \$7.3M less than the budgeted amount; and the FY2015 projected results total \$153M, which is about \$12M less than budgeted amount. In future years, PRASA is projecting Electric Power expenses of \$153.1M in FY2016, \$152.1M in FY2017, \$151.6M in FY2018, and \$151.5M in FY2019.

Up until FY2013, PRASA's electric power purchased from PREPA (in kWh) increased at an annual rate of about 2% per year. However, considering the on-going initiatives under PRASA's Comprehensive Energy Management Program, over the past three fiscal years PRASA has reduced its power consumption from 748 million kWh (FY2013) down to 685 million kWh (FY2015). In its Forecast, PRASA is projecting that the electric power purchased from PREPA will decrease over the forecast period at an annual rate of about 1.4% per year and that overall consumption (including power purchased from other providers through power purchase agreements) will decrease at an average rate of about 1.2% per year. PRASA is also projecting that the cost per kWh purchased from PREPA (limited to 750 million kWh) will remain at \$0.22 per kWh throughout the Forecast period. Considering PREPA's current fiscal situation and the high probability that the second phase of the preferential all-in-rate will not materialize come FY2017⁷, PRASA is not considering for its projections the second phase

⁷ PREPA is currently under a forbearance agreement with its creditors. On September of 2014, a chief restructuring officer was appointed to evaluate PREPA's fiscal situation and develop a comprehensive fiscal turnaround plan which was presented on June 2015. The plan calls for an overhaul of PREPA's management and its operational structure, along with a restructuring of its outstanding debt and improvements to its infrastructure.

reduction to \$0.16 per kWh of the preferential all-in-rate. As a result, the estimated additional savings which were to be deposited in the Capital Improvement Fund (approximately \$45M) previously reported in the 2013 CER, have been eliminated from PRASA's projections.

MPPR/ARCADIS finds the Forecast reasonable considering, a) PRASA's relatively low historical annual consumption growth rate and the consumption reduction trend over the past three fiscal years; b) the expected results of its Comprehensive Energy Management Program; and c) assuming that the preferential all-in-rate will remain in force throughout the forecast period. Although there is no specific mention of PRASA's preferential all-in-rate in PREPA's restructuring officer's report, the second stage of the preferential all-in-rate (and potentially the all-in-rate as a whole) may be eliminated as previously mentioned; however, as of the date of this report, the decision is still pending and no legislative action has been presented to modify or revoke the preferential all-in-rate. MPPR/ARCADIS recommends that PRASA closely and actively monitor PREPA's situation in order to adopt contingency measures, as necessary.

3. Maintenance and Repair (Exhibit 1, line 15) – PRASA's FY2014 actual results for Maintenance and Repair expenses amount to \$45.8M, while the FY2015 projected results amount to \$44.4M, which is about \$10M less than budgeted. The reduction is due again to the delay in the cleaning of the Superaqueduct sludge lagoons. PRASA is projecting \$49M in Maintenance and Repair expenses for FY2016, which is about \$4.6M higher than FY2015 projected results and about \$5M lower than the FY2015 budget. PRASA indicates that this projected reduction shall be achieved through a reduction of the scope and expected cost of the cleaning of the Superaqueduct sludge lagoons (approximately \$3M) and an additional reduction of approximately \$1.5M from the implementation of universal brigades. However, there is an inherent risk of these \$1.5M savings not materializing since negotiations are still underway with the unions and, as of the issuance of this report, a final agreement is not in place. Also, PRASA has revised its annual escalator assumption from a 3% to a 1% annual increase starting on FY2017 and in each year thereafter, to account for possible effects of inflation and unforeseeable increases in costs. PRASA also included an additional \$3M in FY2017 for the sanitary sewer O&M program. Puerto Rico's inflation rate forecasts show inflation levels remaining below 1% through 2016, and increasing in future years up to 3% in 2020⁸. As such, MPPR/ARCADIS believes that PRASA's annual cost escalation projections may be understated and cautions that in future years, specifically in FY2018 and FY2019, a higher than expected cost inflation rate could negatively impact (directly or indirectly) PRASA's Forecast.
4. Chemicals (Exhibit 1, line 16) – PRASA's FY2014 results for Chemical expenses amount to \$28.7M, while FY2015 projected results amount to \$28M which is about \$4.5M less than budgeted. This amount includes the Chemical costs for the Superaqueduct System facilities, which were previously included in the Superaqueduct O&M Contract Fee expense category.

⁸ Source: Trading Economics (<http://www.tradingeconomics.com/puerto-rico/inflation-cpi/forecast>)

Chemical costs are usually affected by inflation and worldwide demand as they are mostly commodities. The CAGR for the past five fiscal years for chemical costs has been about 1.3% per year. In FY2016, PRASA is projecting an increase of about 4.6% (approximately \$1.3M) over projected FY2015 results; this increase is to account for estimated additional Chemical consumption and costs due to the drought conditions. Also, as assumed for Maintenance and Repair expenses, PRASA has revised its annual escalator assumption from a 3% to a 1% annual increase starting on FY2017 and in each year thereafter, to account for possible effects of inflation and unforeseeable increases in costs. Although PRASA does not expect significant changes in its chemical usage pattern over the forecast period (except during FY2016), MPPR/ARCADIS believes that PRASA's annual cost escalation projections may be understated and cautions that in future years, specifically in FY2018 and FY2019, a higher than expected cost inflation rate could negatively impact (directly or indirectly) PRASA's Forecast.

5. Insurance (Exhibit 1, line 17) – Results for Insurance expenses in FY2014 totaled \$9.5M. Projected results for insurance expenses in FY2015 are projected to be \$8.2M, or \$0.7M less than the FY2015 budgeted amount. PRASA has projected Insurance costs for FY2016 at about \$8.7M; which is \$0.5M higher than the FY2015 projected results. This amount considers negotiated adjustments to PRASA's insurance premiums for the fiscal year. The preliminary premium amount for PRASA's FY2016 Insurance program is estimated at \$9.3M; which is \$0.6M higher than currently included in PRASA's FY2016 projection. Also, as assumed for Maintenance and Repair and Chemical expenses, PRASA has revised its annual escalator assumption from a 3% to a 1% annual increase starting on FY2017 and in each year thereafter, to account for possible effects of inflation and unforeseeable increases in costs. Finally, to the extent that PRASA elects to adopt some or all of the recommendations provided by MARSH SALDAÑA (refer to Section 6 of the 2014 CER), Insurance costs may vary in future years and projections may need to be adjusted. MPPR/ARCADIS believes the FY2016 budget amount should be increased to at least \$9M. Also, considering that PRASA's Insurance costs have decreased over the past four fiscal years, the FY2017 through FY2019 projections could be maintained at the same FY2016 recommended amount of \$9M. However, MPPR/ARCADIS cautions that in future years, specifically in FY2018 and FY2019, a higher than expected inflation rate could negatively impact (directly or indirectly) PRASA's Forecast.
6. Other Expenses (Exhibit 1, line 18) – Other Expenses include, for example: materials and supplies, security, treatment of residuals, rentals, professional services, third party services, and water transport. Also, the Other Expenses category has been updated to include the Superaqueduct contract fee costs, previously included as a separate Expense category. FY2014 actual results for this expense category are approximately \$166.5M, which is about \$12.4M above the FY2014 budgeted amount, and about \$36M higher than preliminarily reported in MPPR/ARCADIS' *FY2015 Annual Budget Review Report*. This deviation is due to: an increase in contingency reserves and higher expenses of materials and supplies (net effect of higher expenses and lower than expected capitalized costs). FY2015 projected results for Other

Expenses, totaling about \$154.3M, are \$5.6 under the \$159.9M budgeted amount. PRASA is forecasting \$160.9M for Other Expenses in FY2016, and has included in this projection the expected impact of the drought on Other Expenses which is mainly reflected in an increase of water transport cost projected at about \$4M. In future years, PRASA is forecasting \$158.6M in FY2017, \$160.1M in FY2018, and \$161.7M in FY2019.

FY2016 Other Expenses include a reduction in Material and Supplies reduction of \$4M (mainly due to a reclassification of asphalt costs to Third Party Vendors); a reduction in Contingencies and Fines of \$2.3M; a reduction in Professional Services decrease of \$1.2M derived from the effort to reduce non-essential compliance contracts and a reduction in expenses related to the NRW reduction program; and a projected reduction of about \$0.35M in both Rentals and Fuels and Oil costs. The reduction in Other Expenses is offset by the following increases: Water Purchase costs increase of \$0.8M (PRASA is negotiating water purchase rates with PREPA); Water Transport cost increase of \$3.6M (due to the water rationing plan); Third Party Vendors increase of \$6.1M (approximately \$4M due to asphalt reclassifications and the remainder due to the projected costs of the leak detection survey program and the water rationing plan); increase of \$3.8M in IT Services mainly for potential incremental licenses costs; and additional \$0.5M for Security related costs to hire additional personnel if need, at previously negotiated rates.

With the exception of Water Transport costs, all Other Expenses are being projected by PRASA to increase at a rate of 1% per year (compared to the previous fiscal year), on account of an increase due to inflation. A reduction of about \$4M in Water Transport costs is projected for FY2017 (assumes drought conditions improve and the water rationing plan ends and additional contracted water transport services are not required in future years). Also, as assumed for previously discussed expense categories, PRASA has revised its annual escalator assumption from a 3% to a 1% annual increase starting on FY2017 and in each year thereafter, to account for possible effects of inflation and unforeseeable increases in costs.

Regarding the Superaqueduct O&M fee, PRASA continues to contract CH2M Hill Puerto Rico, Inc. for the O&M of the Superaqueduct. PRASA is in the process of renewing CH2M Hill's contract for FY2016. The contract amount is expected to be equal to, or less than FY2015's contract amount. PRASA's FY2015 projected results for this expense category (which are in line with the budgeted amount) total \$3.8M. Even though the contract does not include an annual compensation escalator, in future years PRASA is projecting that the contract amount will increase at a rate of 1% per year, as a result of adjustments in materials and equipment costs.

MPPR/ARCADIS believes that PRASA's annual cost escalation projections may be understated and cautions that in future years, specifically in FY2018 and FY2019, a higher than expected cost inflation rate could negatively impact (directly or indirectly) PRASA's Forecast.

PRASA should monitor actual costs for fuels and oils, given that projected increases could materialize through the fiscal year. Also, the projected increases due to the additional costs resulting from the water rationing plan should be monitored. As of the date of issuance of this Supplemental Report, PRASA cannot determine the time extension of the water rationing plan and final effects that this may have on its Operating Expenses. It is likely that as the drought conditions and the water rationing plan extends, the negative effects on its expenses, including certain Other Expense costs could increase beyond PRASA's current estimated levels.

7. Additional Savings from Initiatives (Exhibit 1, line 19) – PRASA has included a new expense category to account for additional projected savings to be generated from certain initiatives not already considered in PRASA's Forecast. PRASA has revised its projected savings from Additional Initiatives to approximately \$11.4M in FY2017, \$16M in FY2018, and \$18.2M in FY2019. PRASA has indicated that these savings are to be achieved from: net savings due to the reduction of physical water losses (ranges from \$9.9M in FY2017 up to \$14.7M in FY2019), additional reduction in contract amounts (of about \$1.5M per year starting in FY2017), and further reductions in Other Expenses (of about \$2M per year starting in FY2018).

As previously reported, PRASA engaged an external NRW consultant who concluded that the potential net benefit opportunities to be achieved by addressing PRASA's physical losses could be in the range of \$1M up to \$100M (cumulative). Using the data collected through its water pipeline survey and water audits, PRASA has adjusted these projections and believes there is a net benefit opportunity that could be captured in the range of about \$7M to \$15M (cumulative). However, in its Forecast, PRASA has only included about two thirds, or 67% (previously 50%) of these potential benefits, which is a less conservative position than previously taken by PRASA. MPPR/ARCADIS has not independently validated PRASA's estimated net savings to be achieved from reducing physical losses.

Regarding the other initiatives, PRASA indicates that additional savings will be achieved from further consolidation of facilities (i.e., commercial offices), optimization of operations, and further reductions in contracted services (i.e., cost savings from re-procurements). MPPR/ARCADIS finds PRASA's projections for this expense category ambitious. PRASA's assumptions rely on the effective and timely implementation of these initiatives; on its ability to reduce water production (and in turn associated production costs) and future repair costs as a result of the reduction in physical losses, a task that could prove difficult to accomplish if financing sources are limited, and if there is further pressure on CIP and expense reductions; and, on its capacity to consolidate facilities such as commercial offices, an initiative that has been previously pursued but that PRASA has not been able to implement at the desired level. MPPR/ARCADIS recommends a more conservative Forecast assumption that excludes the projected Additional Savings from Initiatives, until such time PRASA demonstrates and confirms that the estimated results are achievable within the projected timeframe. Refer to the

sensitivity analysis discussed in Section 2.9 of this report for recommended assumptions and updated Forecast results.

8. Capitalized Expenses (Exhibit 1, line 20) – PRASA’s external consultant, PJ Sun LLC, completed a more recent review of PRASA’s capitalization rate on July 2015. The recommendations included in the updated report, as provided by PRASA, reduce PRASA’s capitalization rate from 5.1% to 4.7%. FY2014 actual results for Capitalized Expenses amounts to \$32.3M. During FY2014 PRASA experienced higher materials and supplies expenses with a lower capitalization rate which is not typical, as the focus was to assign internal resources to repair leaks instead of to pipelines renewals or replacements. For FY2015 and in each year of the Forecast thereafter, PRASA has adjusted its projection to reflect the revised Capitalization Rate of 4.7% of Operational Expenses. MPPR/ARCADIS assumes that the estimation for expense capitalization used by PRASA is reasonable given that, in previous years, it has been accepted by PRASA’s outside, independent auditors in the preparation of its financial statements. MPPR/ARCADIS has not reviewed this estimation in detail and, as such, is not providing an opinion on the reasonableness of the recommended capitalization percentage.

2.2.4. Other Expense Considerations

In FY2014 PRASA considered Adjustments for Non-Cash Reserves of approximately \$40M (Exhibit 1, line 22) in accordance with the MAT and in order to meet Rate Covenant requirements. These Adjustments for Non-Cash Reserves include: \$7.6M from labor complaints and \$32.4M in contingencies, fines, etc. In future years, PRASA’s Forecast does not include additional Adjustments for Non-Cash Reserves.

Finally, it must be noted that the modifications to Commonwealth’s taxation system, previously discussed, PRASA’s Forecast could be materially affected as a result of an indirect increase in costs of goods and services. However, at this time, there is insufficient information to estimate the potential effect that the SUT increase, or the future implementation of a VAT, could have on PRASA’s Forecast. As such, the opinions provided by MPPR/ARCADIS regarding PRASA’s Operating Expenses Forecast exclude the potential impacts of both the SUT increase and the future implementation of a VAT.

2.3. Funding of PRASA CIP

PRASA is projecting capital investment expenditures of \$1,451M from FY2015-FY2019. Projected sources of funds for the same period total \$1,456M. Table 2-16 provides a summary of the CIP uses of funds (as approved by PRASA’s Governing Board) along with the anticipated sources of funding. As with PRASA’s Operating Expenses, PRASA’s CIP Forecast could also be materially affected by the modifications to the Commonwealth’s taxation system previously discussed. However, at this time, there is insufficient information to estimate the potential impacts these events could have on PRASA’s CIP costs.

Due to the delay in the issuance of the 2015A Senior Bonds, PRASA voluntarily delayed some CIP projects to mitigate CIP cash flow deficiencies prior to the proposed bond issuance. These delays include approximately 108 projects in the pre-construction phase (design or bid) that were placed on hold; of which 11 are mandatory projects under existing consent decrees with Regulatory Agencies. Out of the total 151 projects identified by PRASA as being in construction, start-up, or closeout, 12 projects have been delayed. Seven of these projects were suspended⁹ (only one is mandatory) and five were terminated¹⁰ (only one is mandatory). PRASA estimates that it will incur \$0.8 million in overhead costs as a result of the CIP projects suspensions (assuming a 90-day suspension). Additional costs for the terminated contracts will be determined once new bids are received. The estimated investment for these suspended and terminated projects totals approximately \$61M.

Regarding delays of mandatory projects, since PRASA is in its renegotiation process with Regulatory Agencies, PRASA has maintained regulating officials updated on their CIP financing situation and the need to suspend/delay projects. PRASA has indicated that the U.S. Environmental Protection Agency (USEPA) and the Department of Justice (DOJ) have been updated regarding its fiscal situation and have allowed for the proposal of new project completion dates; hence, PRASA does not anticipate any penalties as a result. Extensions will also be required for the Puerto Rico Department of Health (PRDOH) consent decree projects. In this case, the PRDOH has been informed and, in turn, has requested PRASA to present its case for a time extension request.

PRASA also reduced the contracted support from engineering and consulting companies engaged to facilitate the implementation, development and evolution of its CIP (the Program Management Consultants or PMCs). These measures will remain in place until the issuance of the 2015A Senior Bonds or until other capital financing is obtained by PRASA that allows it to continue with the development and implementation of its CIP.

PRASA expects to restart all these projects and amend contracts to the PMCs once the 2015A Senior Bonds are issued. Although PRASA's CIP projections do not account for the potential and estimated cost increases resulting from the aforementioned delays, suspensions, and terminations, PRASA has the capacity to delay or postpone non-mandatory, lower-priority projects in the future, which should provide for the necessary funds to cover construction cost differentials resulting from these delays. In the case that PRASA is unable to issue bonds or identify alternative capital financing, PRASA may have to request additional deadline extensions to Regulatory Agencies, in order to avoid non-compliance with existing consent decrees and other mandatory obligations.

⁹ A work stoppage for up to 90 days and for which PRASA pays overhead costs to contractors as agreed to in the respective construction contracts.

¹⁰ Contract is cancelled by the parties and, for work to continue, a new contractor would have to be retained to complete the project.

Also, regarding payments to contractors, as of July 24, 2015, PRASA had \$85M in outstanding invoices/certifications due to contractors and estimates an additional \$35M in incurred project costs which are yet to be invoiced. Payments to contractors have been ongoing but have experienced some delays. At this time, outstanding payments reflect an average of around 120 days past due, which can be directly attributed to setbacks in obtaining financing sources. Currently, such payments are being covered from PRASA's Operating Expense Fund. Finally, amounts in dispute are immaterial to overall balance, representing less than 5% of payments due.

Table 2-16 below, shows the distribution of PRASA's revised projected CIP uses and sources of funds. In FY2014, PRASA's projected CIP expenditures amounted to \$316M. As required by PRASA's Governing Board, PRASA's Infrastructure Department must annually submit for its approval an updated five-year CIP plan. PRASA's CIP, as previously reported and included in the 2014 CER, included \$1,451.5M in capital expenditures from FY2015 through FY2019 as approved by PRASA's Governing Board under Board Resolution No. 2909. However, PRASA's projection for FY2015 and FY2016 was updated considering the delays in implementation of certain CIP projects in FY2015. Projected funding sources in the forecast period are as follows: 46% from bond proceeds (down from the historical 60%) and/or interim financing; 24% from Federal Funds (State Revolving Fund, Rural Development bonds, and other matching sources); 30% from PRASA's Operating Funds, projected deposits to the Capital Improvement fund and others. As noted in the 2014 CER, PRASA's Executive Management Team has revised and refining certain aspects of its Strategic Plan's Fiscal Health Initiative, to include a plan to self-finance PRASA's CIP in the future, and reduce the dependency on bonds within a 10-year period.

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**Table 2-16:
CIP Projected Uses and Sources of Funds (\$, Thousands)**

	FY2015 Projection ¹	FY2016 Projection ¹	FY2017 Projection	FY2018 Projection	FY2019 Projection	TOTAL
USES OF FUNDS²						
Repair & Replacement of Fixed Assets	\$97,911	\$47,831	\$51,870	\$78,523	\$83,356	\$359,491
CIP Infrastructure Projects	152,890	357,677	257,912	166,398	157,177	1,092,054
Total Projected Capital Expenses (Uses)	\$250,801	\$405,508	\$309,782	\$244,921	\$240,533	\$1,451,545
SOURCES OF FUNDS						
Surplus Cash Available from CIP ³	\$1,873	\$4,460	-	-	-	\$6,333
Federal Funds – Rural Development Funds	15,000	22,500	15,000	15,000	15,000	82,500
Federal Funds – State Revolving Funds	88,000	45,000	45,000	45,000	45,000	268,000
Operating Funds, Deposits to CIP Fund and Restricted Funds for Construction ⁴	88,820	85,000	50,000	75,000	75,000	373,820
2012 Bonds \$50M Construction Fund	30,000	-	-	-	-	30,000
Transfer from Excess Deposits in Debt Service Reserve Fund	24,068	-	-	-	-	24,068
Fleet Financing	7,500	-	-	-	-	7,500
Bonds Proceeds / Interim Financing	-	248,548	199,782	109,921	105,533	663,784
Total Sources of Funds⁵	\$255,261	\$405,508	\$309,782	\$244,921	\$240,533	\$1,456,005
Funding Surplus / (Shortfall)	\$4,460	-	-	-	-	-

¹ CIP sources and uses of funds for FY2015 and FY2016 were revised by PRASA due to delays in the implementation of certain CIP projects as a result of the delay of PRASA's 2015A Senior Bonds issuance.

² Includes the expenses capitalized to CIP costs.

³ Surplus from bonds proceeds/interim financing not used in previous fiscal year.

⁴ Sources: Special Charges (\$2.00) and forecasted deposits to the Capital Improvement Fund from Operating Revenues.

⁵ Numbers may not add up due to rounding.

2.4. Debt Service

2.4.1. Master Agreement of Trust

The MAT contains specific DSC requirements that must be met by PRASA including, but not limited to, a Rate Covenant. As stated in the Rate Covenant defined in the MAT, PRASA has covenanted to establish and collect rates, fees and charges so that it meets the following four independent requirements¹¹ (which will be calculated annually no later than six months after the end of each fiscal year based on Operating Revenues and Authority Revenues set forth in PRASA's most recent audited financial statements):

¹¹ Capitalized terms as defined in the MAT.

- Operating Revenues shall be at least equal to 250% of annual debt service with respect to Senior Indebtedness for the current fiscal year;
- Operating Revenues shall be at least equal to 200% of annual debt service with respect to Senior Indebtedness and Senior Subordinate Indebtedness for the current fiscal year;
- Operating Revenues shall be at least equal to 150% of annual debt service with respect to all Bonds and Other System Indebtedness for the current fiscal year; and
- Authority Revenues, shall be sufficient in each fiscal year to be at least equal to the sum of:
 - Annual debt service on Indebtedness;
 - Current expenses;
 - the amounts, if any, necessary to be deposited in any Senior Debt Service Reserve Account, Senior Subordinate Debt Service Reserve Account or Subordinate Debt Service Reserve Account to restore the amount on deposit therein to the amount of the applicable Debt Service Reserve Requirement (provided that each such Accounts will be deemed to be funded at the applicable Debt Service Reserve Requirement for so long as the deposits required by the MAT are being made);
 - the amount, if any, necessary to be deposited in the Operating Reserve Fund to maintain the balance therein at the Operating Reserve Fund Requirement; and
 - the amount, if any, necessary to be deposited in the Capital Improvement Fund and the Rate Stabilization Account of the Surplus Fund in accordance with the Annual Budget for the current fiscal year.

Should PRASA decide to issue additional debt while any of the debt issued under the MAT is outstanding, the additional bonds test (ABT) requirements of the MAT would also have to be met. The ABT is a measure of whether or not DSC will still be met after the proposed, additional bonds are issued. The modified ABT requirements which PRASA must meet (under the MAT) include the following:

- Senior Bonds ABT
 - Operating Revenues are at least equal to 2.5x Senior Bonds maximum annual debt service; and
 - Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.
- Senior Subordinated Bonds ABT
 - Operating Revenues are at least equal to 2.0x combined Senior Bonds and Senior Subordinate Bonds maximum annual debt service; and
 - Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.

■ Subordinated Bonds ABT

- Operating Revenues are at least equal to 1.5x maximum annual debt service on all System Indebtedness.

A summary of PRASA’s MAT DSC and ABT requirements is presented in Table 2-17 below.

**Table 2-17:
Summary of MAT DSC Requirements**

Lien Level	Debt Secured	DSC for Additional Bonds Test (MADS)	DSC for Covenant Test	In Default if DSC not Achieved?
Senior	2008, 2012 & 2015 Senior Bonds	2.5/1.5	2.5	Yes
Senior Subordinate	Bond Anticipation Note & Senior Subordinate Bonds	2.0/1.5	2.0	Yes
Subordinate	Not currently applicable	1.5	1.5	Yes
Below Subordinate	Commonwealth Guaranteed Indebtedness	N/A	1.0	No
Below Subordinate	Commonwealth Supported Obligations	N/A	1.0	No

¹ Two tests apply to future debt. The first test is Operating Revenues divided by existing and proposed debt service (at the existing lien level); the second test is Operating Revenues divided by existing and proposed debt service (regardless of lien level) plus specified Reserve Fund deposits.

In accordance with the MAT, the flow of funds shall be as follows:

- Senior, Senior Subordinate and Subordinate debt (and any debt that is secured on a parity therewith) takes priority over current Operating Expenses.
- Commonwealth Guaranteed and Commonwealth Supported debt would continue to be funded/paid only after funding of current operating expenses.
- All revenues shall be deposited by PRASA in the first instance to the Operating Revenue Fund to make the required deposits set forth below. The Trustee transfers the moneys on deposit in the Operating Revenue Fund to the following funds in the following order or priority:
 - Senior Bond Fund – to fund principal and interest payments on Senior Indebtedness;
 - Senior Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Senior Bonds or withdrawals or valuation losses;
 - Senior Subordinate Bond Fund – to fund principal and interest payments on Senior Subordinate Indebtedness;
 - Senior Subordinate Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Senior Subordinate Bonds or withdrawals or valuation losses;

- Subordinate Bond Fund – to fund principal and interest payments on Subordinate Indebtedness;
- Subordinate Debt Service Reserve Fund – to fund deficiencies in the reserve fund upon the issuance of additional Subordinate Bonds or withdrawals or valuation losses;
- Current Expense Fund (a new fund under the MAT) – to fund current operating expenses of PRASA;
- Operating Reserve Fund – to fund Operating Reserve Requirement and to pay reimbursement obligations on Operating Reserve Facilities;
- Capital Improvement Fund – to fund the Capital Improvement Fund Requirement;
- Commonwealth Payments Fund – to fund principal and interest payments on CGI and CSO; and
- Surplus Fund – to fund the Rate Stabilization Fund and, thereafter, for any lawful purpose.

2.4.2. Existing Senior Lien Debt Service

The 2008 Series A and B Senior Lien Revenue Bonds (the Senior Lien Bonds) and Revenue Refunding Bonds 2008 Series A and B (collectively, the 2008 Guaranteed Bonds) were issued as part of a comprehensive financial plan to fund PRASA's CIP and restructure PRASA's outstanding indebtedness to accommodate its current and future CIP needs. The proceeds of PRASA's \$1.3 billion Senior Lien Bonds were used by PRASA to (i) fund a portion of the cost of its CIP, (ii) refinance certain lines of credits and bond anticipation notes, (iii) establish a debt service reserve fund, (iv) establish a deposit for capitalized interest, (v) fund payments for termination of a forward interest rate swap agreement, and (vi) pay for expenses related to the issuance of the Senior Lien Revenue Bonds. The proceeds of PRASA's \$284.7M Revenue Refunding Bonds (Commonwealth Guaranteed) 2008 Series A and B were used by PRASA to (i) refund the outstanding PRASA Series 1995 Bonds (Commonwealth Guaranteed), and (ii) pay for expenses related to the issuance of the Revenue Refunding Bonds.

The 2012 Series A and B Senior Lien Revenue Bonds (the Senior Lien Bonds) were issued as part of a comprehensive financial plan to continue to fund PRASA's CIP. The proceeds of PRASA's \$1.8 billion tax exempt Senior Lien Bonds were used by PRASA to (i) refinance certain LOCs and bond anticipation notes (BANs), (ii) fund a portion of the cost of its CIP, (iii) provide initial funding for the Budgetary Reserve Fund, (iv) establish a deposit for capitalized interests, and (v) pay for expenses related to the issuance of the Senior Lien Revenue Bonds. Additionally, the proceeds of PRASA's \$295.2M taxable Senior Lien Bonds were used to refinance an existing \$241M BAN and provide additional financial liquidity to PRASA.

2.4.3. Proposed Debt Service

As previously discussed, PRASA is planning on issuing bonds during the first quarter of FY2016, the 2015A Senior Bonds, as part of a comprehensive financial plan to continue to fund PRASA's

CIP. The 2015 Series Revenues Bonds (2015A Senior Bonds) are being issued pursuant to a Master Agreement of Trust with the Trustee, dated as of March 1, 2008, as amended and restated as of February 15, 2012, as further amended and supplemented by a Fifth Supplemental Agreement of Trust, to be dated as of August 1, 2015 (the Master Trust Agreement or MAT). The 2015A Senior Bonds will be issued to provide funds to be used by PRASA to (i) finance a portion of PRASA's CIP for the five fiscal year period ending June 30, 2019 and reimburse PRASA for certain CIP costs incurred during FY2013, FY2014 and FY2015, (ii) repay or refinance certain outstanding credit facilities of PRASA provided by a syndicate of local commercial banking institutions and by the Government Development Bank for Puerto Rico (GDB), and (iii) pay certain costs of issuance of the 2015A Senior Bonds.

In addition to the 2015A Senior Bonds, PRASA has included the following bond issuances during the Forecast: a \$170M bond issuance in FY2017, a \$115M bond issuance in FY2018, and a \$111M bond issuance in FY2019 (note that these amounts have been revised from those included in the 2014 CER, based on PRASA's latest Forecast presented herein). PRASA has assumed a 10% interest rate (plus issuance and underwriters' costs) and a 30-year amortization period on projected (future) bond issuances. PRASA would rely on interim financing, assuming that it has access to said interim financing, projected deposits to the CIP Fund, and federal funds (i.e. USDA Rural Development Bonds and SRF Loans).

2.4.4. Debt Service Coverage

Exhibit 1 summarizes the existing and proposed debt service for the forecast period. Estimated debt service amounts include projected payments on the 2008 and 2012 Bonds, other current debt, future bond offerings (including the 2015A Senior Bonds), LOC payments, and payments for maintaining required debt service reserves, as applicable. The Senior bonds include existing Senior obligations, Senior obligations from the proposed issuance, and future bond offerings. The Senior Subordinated bonds include a Term Loan used for fleet renewal. There are no projected Subordinated bonds included in the Forecast.

Commonwealth Guaranteed Indebtedness (CGI) includes existing obligations of PRASA that are guaranteed by the Commonwealth of Puerto Rico including the 2008 Commonwealth Guaranteed Bonds, USDA Rural Development Bonds, and SRF Loans. In addition to the CGI, PRASA currently has a note outstanding held by the Puerto Rico Public Finance Corporation (PFC), the proceeds of which were used to finance the construction of the North Coast Superaqueduct System (the "PFC Superaqueduct Note") which is considered a Commonwealth Supported Obligation (CSO) under the MAT, subordinate to the payment of Senior, Senior Subordinate and Subordinate Indebtedness. The PFC Superaqueduct Note secures, in part, PFC's 2011 Series B Bonds. The PFC Superaqueduct Note is contractually payable "solely" from Commonwealth budgetary appropriations. Until 2006, the Commonwealth (directly or indirectly through budgetary appropriations) had made all of the debt service payments on the CGI and CSO, including the PFC Superaqueduct Note. In 2006, in order to help alleviate its budget constraints, the Commonwealth

requested that PRASA, as part of its actions to restore its operations to financial self-sufficiency, recommence, in respect of the CGI and begin, in respect of the PFC Superaqueduct Note, to make debt service payments on said obligation. In the case of the PFC Superaqueduct Note, under the MAT, funds on deposit in the CSO Account are required to be transferred by the Trustee to the trustee of the PFC Bonds prior to the applicable debt service payment date. No funds were deposited in the CSO Account during FY2015 or the first month of FY2016 and, accordingly, no funds were transferred by PRASA to the trustee of the PFC Bonds for the payment of debt service that was due on the PFC Bonds on August 3, 2015. In the order of payments under the MAT, debt service on CGI is paid prior to any funds being transferred for the payment of CSO.

A summary of the projected debt service for the forecast period is presented in Table 2-18. PRASA has revised its Senior Debt service projections considering the delay in PRASA's 2015 bond issuance, and has also reduced the projected CGI when compared to the projections included in the 2014 CER. Table 2-19 summarizes PRASA's projected DSC over the forecast period (as shown in Exhibit 1). The projected DSC results for the forecast period have been calculated using the Rate Covenant requirements as per the MAT as further amended by the Fifth Supplemental Agreement of Trust. PRASA's forecasted Operating and Authority Revenues would be sufficient to meet all DSC requirements through FY2019; however, as previously noted, PRASA did not make the projected deposit to meet the CSO debt amount due during FY2015.

**Table 2-18:
FY2014 – FY2019 Projected Debt Service (\$, Thousands)**

Debt Service Level	FY2014 Actual	FY2015 Projected	FY2016 Projection	FY2017 Projection	FY2018 Projection	FY2019 Projection
Senior Debt	\$237,255	\$243,865	\$310,998	\$328,359	\$340,549	\$352,276
Senior Subordinate Debt	-	1,821	2,732	2,732	911	-
Subordinate Debt	-	-	-	-	-	-
Commonwealth Guaranteed Indebtedness	81,275	87,821	89,201	90,073	91,323	93,364
Commonwealth Supported Obligations	-	1,594 ¹	8,999	8,999	8,999	8,999
Total	\$318,530	\$335,101	\$411,930	\$430,163	\$441,782	\$454,639

¹ No funds were deposited in the CSO Account during FY2015 and, accordingly, no funds were transferred by PRASA to the trustee of the PFC Bonds for the payment of debt service that was due on the PFC Bonds on August 3, 2015.

**Table 2-19:
FY2014 – FY2019 Projected Debt Service Coverage**

Debt Service Level	DSC Requirement	FY2014 Actual ³	FY2015 Projected	FY2016 Projection ⁵	FY2017 Projection	FY2018 Projection	FY2019 Projection
Senior Debt ¹	2.50	5.40	4.43	3.31	3.51	3.50	3.43
Senior Subordinated Debt ¹	2.00	5.40	4.40	3.28	3.48	3.49	3.43
Subordinated Debt ¹	1.50	5.40	4.40	3.28	3.48	3.49	3.43
All Obligations ²	1.00	1.01	1.00 ⁴	1.00	1.00	1.00	1.00

¹ DSC calculated with respect to Operating Revenues.

² DSC calculated with respect to Authority Revenues.

³ Senior DSC results consider available balance of \$43.6M in the Senior Bond Fund and higher Operating Revenues due to correction in how Rate Stabilization Account deposits are accounted for in the fiscal year.

⁴ Considers payment obligation of the PFC bonds under the CSO, which was not made by PRASA in FY2015.

2.4.1. Additional Bonds Tests (ABT)

For ABT purposes, Operating Revenues are divided by the maximum annual debt service for any fiscal year. Table 2-20 summarizes PRASA's projected ABT compliance over the forecast period (as shown in Exhibit 1). The projected ABT results for the forecast period have been calculated using the requirements of the MAT (as further amended and supplemented by the Fifth Supplemental Agreement of Trust by and between PRASA and the Trustee in connection with the 2015A Senior Revenue Bonds), and the PRASA-provided debt service re-payment schedule. Note that actual ABT calculations will depend on the actual amount borrowed by PRASA in each of its projected bond issuances during the forecast period, including the projected 2015 Senior Lien Revenues Bonds.

**Table 2-20:
FY2015 – FY2019 Projected ABT Calculation**

Debt Service Level	Requirement ¹	FY2016	FY2017	FY2018	FY2019
Senior Debt	2.5/1.5	3.31	3.51	3.50	3.43
Senior Subordinate Debt	2.0/1.5	3.28	3.48	3.49	3.43
Subordinate Debt	1.5	3.28	3.48	3.49	3.43

¹Two tests apply to future debt. The first test is Operating Revenues divided by existing and proposed debt service (at the existing lien level); the second test is Operating Revenues divided by existing and proposed debt service (regardless of lien level) plus specified Reserve Fund deposits.

2.5. Reserve Funds

2.5.1. Debt Service Reserve Funds

In accordance with the MAT as amended by the Fifth Supplemental Agreement of Trust, Reserve Funds for Senior Debt, Senior Subordinate, and Subordinate Debt must be maintained in a reserve account at least equal to:

- (i) The amount set forth in the Supplemental Agreement authorizing the issuance of a particular Series of Bonds, or
- (ii) If not otherwise specified in a Supplemental Agreement authorizing the issuance of a particular Series of Bonds, the lesser of:
 - Maximum Annual Debt Service on the Outstanding Bonds secured by such Account, payable in any fiscal year for the related Bonds,
 - Ten percent (10%) of the proceeds of the Outstanding Bonds secured by such Account calculated in accordance the Code and
 - 125% of the average Annual Debt Service for the payment of the principal of and interest on the Outstanding Bonds secured by such Account.

Requirements for debt service reserve funds for FY2015, as calculated by PRASA and reviewed by Banco Popular de Puerto Rico as Trustee, were provided to MPPR/ARCADIS. Debt service costs include the required contributions to the debt service reserves which were originally created and funded with 2008 bond proceeds. The 2015A Senior Bonds will not be secured by a Senior Debt Service Reserve Account. Should future bond issuances include required reserves, PRASA plans to contribute the additional funds in each of these reserves with part of the bond issuance proceeds, as necessary.

2.5.2. Operating Reserve Fund

In accordance with the MAT as amended by the Fifth Supplemental Agreement of Trust, an Operating Reserve Fund must be established in the amount of \$150M until March 1, 2013; thereafter:

- (i) If there is a line of credit on deposit in the reserve fund, the reserve shall mean for the term of line of credit an amount equal to at least ninety (90) days of current expenses determined on the first day of the fiscal year in which such line of credit is delivered or renewed as set forth in the annual budget for such fiscal year; or
- (ii) If the reserve fund is funded from revenues, the reserve shall mean an amount equal to not less than ninety (90) days of current expenses determined annually based on the current expenses relating to the fiscal year of such calculation as set forth in the annual budget for such fiscal year.

PRASA has a loan agreement (the GDB Loan Agreement) with the GDB under which the GDB provides a revolving line of credit to PRASA in the amount of \$180M (previously \$150M) that currently satisfies the balance that PRASA is required to maintain in the Operating Reserve Fund under the MAT. Under the GDB Loan Agreement, this line of credit is payable from moneys on deposit in the Operating Reserve Fund (after making deposits to the Current Expenses Fund) or proceeds from additional indebtedness issued under the MAT. The maturity of such line of credit has been extended to June 30, 2018, effective upon the issuance of the 2015A Senior Bonds. In the event that the revolving line of credit is not extended beyond June 30, 2018, PRASA is required to fund the Operating Reserve Fund at its requirement from Operating Revenues in accordance with the flow of funds (as defined in the MAT) or obtain a new line of credit to satisfy the Operating Reserve Fund Requirement. If bonds are not issued on or before August 31, 2015, the facility will mature on June 30, 2016 and, as such, additional negotiations will likely be required between PRASA and GDB, or PRASA would be forced to seek out other alternatives to satisfy this requirement.

2.5.3. Capital Improvement Fund

In accordance with the MAT as amended by the Fifth Supplemental Agreement of Trust, a Capital Improvement Fund must be established and funded for each fiscal year, for the purpose of partially or entirely funding the annual CIP, in an amount equal to the greater of:

- (i) The amount set forth in the annual budget for such fiscal year, or
- (ii) The amount recommended by the Consulting Engineer.

Equal monthly deposits over the fiscal year must be deposited to the Fund to make the balance of the Fund equal to the requirement. In addition, the following must be credited to the Fund:

- (i) The proceeds of any condemnation awards,
- (ii) The proceeds of insurance (other than use and occupancy insurance),
- (iii) The proceeds of sales of property constituting a part of the Systems, and
- (iv) The proceeds of any termination or similar payment received by PRASA under any interest rate swap or similar hedge agreement.

PRASA’s projected CIP sources of funds (federal funds, additional bond or interim financing proceeds and other sources) were previously presented. Also, PRASA’s projections include additional deposits to the Capital Improvement Fund from its net Operating Revenues after all obligations are met, starting on FY2016. A summary of these deposits is provided in Table 2-21. PRASA has modified the projected deposit amounts for FY2015 and FY2016. Given the delays in the 2015A Senior Bonds transaction, PRASA has postponed the FY2015 deposit until FY2016. PRASA had previously projected a deposit of \$50M in FY2016; this amount has now been increased to \$85M to cover the originally projected FY2015 deposit.

**Table 2-21:
Projected Deposits to the Capital Improvement Fund (\$, Thousands)**

Fiscal Year	Deposit Amount	Funding Source
2015 ¹	\$0	\$0
2016	\$85,000	\$60M – Special Charge (\$2) \$25M – Net Authority Revenues
2017	\$50,000	\$25M – Special Charge (\$2) \$25M – Net Authority Revenues
2018	\$75,000	\$25M – Special Charge (\$2) \$50M – Net Authority Revenues
2019	\$75,000	\$25M – Special Charge (\$2) \$50M – Net Authority Revenues

¹Projected deposit delayed until FY2016, given delay in bond issuance and need to cover CIP expenses during FY2015.

2.5.4. Budgetary Reserve Fund

Under the 2012 FOA, a new Budgetary Reserve Fund was created. PRASA initially funded the Budgetary Reserve Fund with \$240M of the 2012 bond proceeds. According to the 2012 FOA, GDB will hold the Budgetary Reserve Fund in trust for, and for the benefit of, PRASA. The Commonwealth agrees that, no later than February 1, 2013 and by each February 1st thereafter it shall either (i) obtain an appropriation or a commitment for another source of funding for the projected Budgetary Reserve Requirement applicable to the next succeeding fiscal year (for example, in FY2013 the Commonwealth will request an appropriation or funding source sufficient

to cover the estimated Budgetary Reserve Requirement for FY2014) or (ii) advise PRASA that it does not intend to request an appropriation or provide a commitment for another source of funding to cover all or a portion of the projected Budgetary Reserve Requirement for that fiscal year. The Budgetary Reserve Requirement will be projected by PRASA in its five-year *Fiscal Improvement Plan* (a requirement of the 2012 FOA) which will be reviewed and commented, as necessary, by GDB. The Budgetary Reserve Requirement will be recalculated annually in connection with the update to the *Fiscal Improvement Plan* each February 1st.

If the DSC requirement under the Rate Covenant is not met, and neither the Commonwealth nor the GDB advance funds to PRASA to cover shortfalls, PRASA would then be required to implement rate increases and/or revenue enhancement, expense reducing measures, or a combination of these measures, in order to satisfy the requirements of the Rate Covenant.

In FY2013, PRASA drew the \$145M balance available in the Budgetary Reserve Fund for the purposes of satisfying the requirements of the Rate Covenant. Upon receiving the GDB's notice that it would not intend to request an appropriation or provide a commitment for another source of funding to cover all or a portion of PRASA's projected Budgetary Reserve Requirement for FY2014, PRASA proceeded to activate its rate revision process in order to implement the necessary rate increase which would allow it to meet all its obligations over the forecast period. No additional deposits to the Budgetary Reserve Fund have been included in PRASA's Forecast.

2.5.5. Surplus Fund and Rate Stabilization Account

After all the deposits required by the MAT have been accordingly made, any remaining moneys shall be deposited to the credit of the Surplus Fund which includes the Rate Stabilization Account. PRASA is projecting deposits to and withdrawals from the Rate Stabilization Account in each year of the Forecast (Exhibit 1, lines 2 and 35). The projected deposits, withdrawals and annual balances are summarized in Table 2-22.

**Table 2-22:
Rate Stabilization Account Projected Annual Balances (\$, Thousands)**

Fiscal Year	FY2015	FY2016	FY2017	FY2018	FY2019
Projected Starting Balance	\$93,000	\$93,000	\$233,151	\$151,040	\$66,680
Projected Deposit To/ (Withdrawal From)	-	140,151	(82,111)	(84,360)	(62,692)
Projected Ending Balance	\$93,000	\$233,151	\$151,040	\$66,680	\$3,988

2.6. Sensitivity Analysis

MPPR/ARCADIS performed a sensitivity analysis of PRASA's Forecast. The objective of the sensitivity analysis is to demonstrate the impact that a change in certain Forecast assumptions will have on PRASA's projected financial results and DSC. MPPR/ARCADIS has presented the results of this sensitivity analysis in the Alternate Case, included as Exhibit 2 of this Report. The following

adjustments to the Forecast prepared by PRASA have been included in the Alternate Case in order to stress PRASA's projections and determine PRASA's DSC, rate covenant compliance, and appropriateness of rates in case less favorable financial projections materialize in future fiscal years:

1. *Decrease in Base Fee and Service Charges (Service Revenues) in FY2016 through FY2019 (Exhibit 2, line 1)* – Instead of PRASA's assumed 0.5% annual reduction in Service Revenues throughout the Forecast, the Alternate Case assumes a reduction of 1% (compared to previous year projected results and using FY2015 as the base year), in FY2016 and FY2017; a 0.5% in reduction in FY2018, and no further reductions in FY2019. Note that the additional estimated reduction of \$50M due to the drought and water rationing plan was also included in FY2016 and adjusted out of the projections for FY2017 through FY2019.
2. *Higher Adjustment for Uncollectibles (Exhibit 2, line 5)* – The Alternate Case includes a rate of uncollectibles (collections reduction) of 6% of Operating Revenues and additional billings from Operational Initiatives in FY2016, and of 5.75% in each year from FY2017 through FY2019.
3. *Lower Other Income (Exhibit 2, line 6)* – The Alternate Case includes a reduction of \$1M in each year from FY2016 through FY2019 of the projected amounts by PRASA, which reduces the Forecast for this revenue category in each fiscal year to \$8M.
4. *Lower Additional Savings from Operational Initiatives (Exhibit 2, line 19)* – The Alternate Case assumes that the projected Additional Savings from Operational Initiatives will not materialize as currently projected by PRASA during FY2017 through FY2019.
5. *Higher Maintenance and Repair, Chemical, Insurance, and certain Other Expenses and higher annual escalator to cover inflation or possible unforeseen costs (Exhibit 2, lines 15, 16, and 18)* – The Alternate Case includes the following adjustments in FY2016: Maintenance and Repairs exclude the projected savings of \$1.5M from the use of universal brigades, and Insurance costs were increased to \$9M. The annual escalator used for Maintenance and Repairs, Insurance, and Other Expenses was increased from 1% (assumed by PRASA in its Forecast) up to 2% in FY2018, and 3% in FY2019. Finally, annual Insurance costs for FY2017 through FY2019 were maintained at \$9M. The additional adjustments included by PRASA in its FY2016 to account for incremental costs due to the drought and water rationing plan were adjusted out in future fiscal years.
6. *Higher Capitalized Expenses (Exhibit 2, line 20)* – The Operating (Current) Expense stressed assumptions included in the Alternate Case, in turn, increase the amount of Capitalized Expenses. Nevertheless, the same rate of 4.7% recommended by PRASA's consultant was used.

As shown in Exhibit 2, in the case that the above conditions all hold true and that the projected rate adjustments for both FY2018 and FY2019 are held at 4.5%, the following would be affected in PRASA's Forecast:

- Projected transfers to/from the Rate Stabilization Account throughout the forecast period, which would reduce the ending balance in the Rate Stabilization Account available in FY2019 from the projected \$4M to approximately \$0.36M.
- Projected deposits to the Capital Improvement Fund throughout the forecast period which could in turn increase the Senior Debt Service due (reflected in the Alternate Case) as PRASA would need to increase the amounts of its projected bond issuances for FY2017 through FY2019 in order to implement the projected CIP as presented in this Report. Alternatively, PRASA could further reduce its CIP projected expenditures in future years, although the effects of such reduction have not been analyzed to determine if a reduced level of CIP implementation would be sufficient to meet mandatory obligations and overall system renewal, replacement, and renovation needs. However, to the extent that PRASA is able to implement and achieve the projected Additional Savings from Operational Initiatives in FY2017 through FY2019 (excluded in the Alternate Case), PRASA could then use the available net Operating Revenues to supplement its CIP sources of funds, reducing the need to increase financed funding.

As shown in the Alternate Case, with the appropriate modifications to its projected deposits to the Capital Improvement Fund, PRASA could still be able to meet its DSC requirements. Nevertheless, PRASA's Forecast is very sensitive to deviations in the assumptions discussed throughout this report. In the case that one, or a combination, of the sensitivity analysis stressed assumptions holds true, PRASA's ability to meet its Forecasted transfers to/from the Rate Stabilization Account and/or projected deposits to the Capital Improvement Fund could be materially affected. In the case that the Alternate Case assumptions all hold true, for PRASA to meet its DSC requirements, achieve the projected deposits to both the Rate Stabilization Account and Capital Improvement Fund (as included in its Forecast), and implement the projected CIP as presented in this Report, PRASA may have to implement higher rate adjustments than currently projected for FY2018 and FY2019 which would require following the Act 21 rate increase process.

Finally, MPPR/ARCADIS cautions that the following events could also have material negative effects on PRASA's Forecast:

- Higher staffing levels or overtime than currently planned.
- Elimination of the approved PREPA electric energy all-in-rate, which would result in higher Electric Power costs to PRASA.
- Lower savings achieved than those projected as a result of the enactment of Act 66.

- Indirect increases in the costs of goods and services as a result of the increase in the SUT in FY2016 and the future implementation of a VAT by the Commonwealth of Puerto Rico.
- Higher interest rates on future bond issuances, as a result of PRASA's credit rating and overall market risk assessment.

3. Conclusions and Recommendations

3.1. Conclusions

In preparation of this Supplemental Report and the conclusions contained herein, MPPR/ARCADIS has relied on certain assumptions and information provided by PRASA with respect to the conditions which may exist or events which may occur in the future. MPPR/ARCADIS believes the information and assumptions are reasonable, but has not independently verified information provided by PRASA and others. To the extent that actual future conditions differ from those assumed herein or provided by others, the actual results will vary from those forecast.

MPPR/ARCADIS has made no determination as to the validity and enforceability of any contracts, agreements, existing laws, rules, or regulations applicable to PRASA and its operations. However, for purposes of this report, MPPR/ARCADIS has assumed that all such contracts, agreements, laws, rules and regulations will be fully enforceable in accordance with their terms.

Set forth below are the most relevant opinions which MPPR/ARCADIS has reached regarding the review of PRASA's Forecast. PRASA is forecasting to meet all DSC requirements for each fiscal year, while also including deposits to the Rate Stabilization Account, and deposits to the Capital Improvement Fund starting in FY2016. PRASA's Forecast is reasonable considering recent historical performance (including projected results for FY2015); however, as mentioned in the Report MPPR/ARCADIS finds PRASA's projected Adjustments for Uncollectibles, Additional Savings from Operational Initiatives and the forecast of certain Operating (Current) Expenses ambitious. PRASA's Forecast has been revised considering recent financial results as reflected, for example, in the lower projections for Service Revenues (following trends in customer and consumption decline). Also, PRASA has relaxed certain assumptions used in the preparation of its Forecast which are less conservative than those previously used for forecasting purposes, including: 1) higher assumed revenues and cost reductions from Operational Initiatives; and 2) the annual escalator applied year-over-year for Maintenance and Repairs, Chemicals, Insurance, and certain Other Expenses which was reduced from the 3% historically used down to 1% over the forecast period. As shown in the sensitivity analysis, PRASA's Forecast is sensitive to deviations in the critical assumptions previously listed, which could have a negative impact on projected deposits to certain accounts and DSC results if these or other material Forecast deviations materialize.

In the case that one, or a combination of multiple stressed assumptions included in the Alternate Case hold true, PRASA's ability to meet its Forecasted transfers to/from the Rate Stabilization Account and/or projected deposits to the Capital Improvement Fund could be negatively affected. In such case, PRASA may pursue alternative options including, but not limited to one or a combination of the following: lowering projected Capital Improvement Fund deposits, lowering CIP expenditures, increasing CIP financing (i.e., higher projected bond issuances), lowering

Operating Expenses (to the extent possible), and/or implementing higher rate adjustments than those projected for FY2018 and FY2019.

The probability of PRASA achieving its Forecast and meeting its DSC requirements throughout the forecast period is conditioned on the following key assumptions:

1. **PRASA’s ability to maintain its Service Revenues, billings, and collections in a very challenging economic environment** – Continued uncertainty and strain on the economy, and population shifts, and consumption patterns could continue to cause further declines in PRASA’s billings (reflected in lower Service Revenues than projected) and collections (reflected in high Adjustment for Uncollectibles). Also, the effects of the FY2016 drought and water rationing plans could have a material impact on PRASA’s Forecast, depending on the continuing severity and the length of the event. Finally, PRASA’s FY2018 and FY2019 Forecast highly depend on its ability to implement the projected rate adjustments.
2. **PRASA’s ability to continue to successfully implement all of its Operational Initiatives** – PRASA’s Forecast includes results from select Operational Initiatives that are described throughout this report. The Forecast also includes certain revenue enhancing and cost reduction initiatives that are currently underway. MPPR/ARCADIS’s conclusions regarding the Forecast assume the framework and execution of the revenue optimization Operational Initiatives will not materially change, and that the cost reduction Operational Initiatives such as the reduction in physical losses will be successfully executed; any changes could significantly alter the findings contained and presented in this report. Although PRASA has made a dedicated commitment to implement the initiatives described in this report, there is a possibility that the projected results and, more specifically, the timing of those results may not be achieved.
3. **PRASA’s ability to maintain the PREPA preferential all-in-rate** – Changes to the PREPA preferential all-in-rate would materially affect PRASA’s Forecast. MPPR/ARCADIS’s conclusions regarding the Forecast assume that the preferential all-in-rate will be maintained as currently implemented (excludes any additional potential savings that could be achieved from the second phase reduction which is unlikely to be implemented). The currently favorable market costs of crude oil could work in PRASA’s favor by offsetting part of the savings that could be lost if the preferential all-in-rate is eliminated; however, there is a possibility that the offset amount may not be sufficient to reach the savings amount being achieved through the preferential all-in-rate.
4. **PRASA’s ability to secure future CIP financing sources at an affordable cost** – PRASA’s Forecast assumes that it will be able to secure future financing from either interim sources or through bond issuances to partially finance its CIP. However, given Puerto Rico’s current economic and fiscal situation there is a possibility that the projected bond issuances and, more specifically the timing of these, and/or the assumed issuance terms will not be achieved. In this

case PRASA would need to implement one, or a combination of the following measures: a) reduce its CIP spending, b) increase Operating and/or Authority Revenues, or c) further decrease its Operating (Current) Expenses; in order to increase the projected deposits to the Capital Improvement Fund.

3.2. Recommendations

Considering the overall conclusions presented above, MPPR/ARCADIS recommends the following with regards to PRASA's Forecast:

1. PRASA should consider adopting the more conservative assumptions discussed in this Report, and consider the results of the sensitivity analysis as part of its fiscal planning process.
2. PRASA must continue the implementation and monitoring of Operational Initiatives so that adjustments, if needed, are made on a timely basis to both the program's operational elements and budget projections. If results are not achieved as projected over the course of each fiscal year, PRASA shall re-assess the implementation and performance of Operational Initiatives.
3. Considering the current economic outlook and limited access to financing sources, PRASA should maintain its existing line of credit to meet the Operational Reserve Fund requirement of the MAT (as further amended by the Fifth Supplemental Agreement of Trust).
4. PRASA shall make all deposits as included in its Annual Budgets. Also, considering that PRASA's Forecast shows that Authority Revenues would be sufficient to meet all debt service payments due, including the CSO debt service, PRASA should make all the necessary deposits to its Debt Funds and Accounts, including the Commonwealth Payments Fund and CSO Account as projected.

These conclusions and recommendations, as well as the and the report in its entirety, is qualified by, and should be considered in light of, the limitations, conditions and considerations described in Section 1.5.

EXHIBIT 1

PRASA FINANCIAL FORECAST PRO FORMA ^a		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
(\$, Thousands)		ACTUAL	PROJECTION ^b	PROJECTION	PROJECTION	PROJECTION	PROJECTION
OPERATING REVENUES							
1.	Service Revenues (Base Fee and Service Charges, Net of Subsidies)	\$1,020,055	\$1,006,467	\$957,685	\$1,002,646	\$1,041,237	\$1,079,636
2.	Transfer from Rate Stabilization Account ^c	-	-	-	82,111	84,360	62,692
3.	Operational Initiatives - Additional Billings	97,567	99,893	99,394	98,897	98,402	97,910
4.	Operational Initiatives - Collections from Prior Years	5,546	14,793	5,400	4,500	4,500	3,600
5.	Adjustment for Uncollectibles	(86,443)	(48,746)	(42,283)	(44,062)	(45,585)	(47,102)
6.	Other Income (Miscellaneous/Special Assessments/ZumFiber-PRASA Holdings)	8,814	7,920	9,000	9,000	9,000	13,000
7.	Total Operating Revenues [Sum Lines 1-6]	\$1,045,539	\$1,080,327	\$1,029,196	\$1,153,092	\$1,191,914	\$1,209,736
ADDITIONAL REVENUES							
8.	Transfer from Budgetary Reserve Fund	-	-	-	-	-	-
9.	General Fund Grants/Appropriations/Contributions	-	-	-	-	-	-
10.	Reimbursements to the Authority Revenues	-	-	288,820 ^e	-	-	-
11.	Total Other Sources of Revenue [Sum Lines 8-10]	\$0	\$0	\$288,820	\$0	\$0	\$0
12.	Total Authority Revenues [Line 7 + Line 11]	\$1,045,539	\$1,080,327	\$1,318,016	\$1,153,092	\$1,191,914	\$1,209,736
OPERATING EXPENSES							
13.	Payroll and Benefits	\$324,988	\$300,491	\$313,500	\$315,903	\$320,868	\$325,833
14.	Electric Power	166,720	153,280	153,070	152,149	151,621	151,503
15.	Maintenance and Repair	45,841	44,448	49,066	52,557	53,083	53,613
16.	Chemicals	28,659	28,001	29,288	29,581	29,877	30,175
17.	Insurance	9,492	8,217	8,670	8,756	8,844	8,932
18.	Other Expenses	166,485	154,342	160,922	158,550	160,135	161,737
19.	Additional Savings from Operational Initiatives	-	-	-	(11,380)	(15,998)	(18,156)
20.	Capitalized Operating Expenses	(32,295)	(32,373)	(33,582)	(33,187)	(33,296)	(33,541)
21.	Total Operating Expenses [Sum Lines 13-20]	\$709,890	\$656,406	\$680,934	\$672,929	\$675,134	\$680,096
22.	Adjustment for Non-Cash Reserves	(39,927)	-	-	-	-	-
23.	Total Operating Expenses, Adjusted [Line 21 + Line 22]	\$669,963	\$656,406	\$680,934	\$672,929	\$675,134	\$680,096
DEPOSITS							
24.	Deposit to the Senior Bond Fund	\$193,611 ^f	\$243,865	\$310,998	\$328,359	\$340,549	\$352,276
25.	Deposit to the Senior Debt Service Reserve Fund	-	-	-	-	-	-
26.	Deposit to the Senior Subordinate Bond Fund	-	1,821	2,732	2,732	911	-
27.	Deposit to the Senior Subordinate Debt Service Reserve Fund	-	-	-	-	-	-
28.	Deposit to the Subordinate Bond Fund	-	-	-	-	-	-
29.	Deposit to the Subordinate Debt Service Reserve Fund	-	-	-	-	-	-
30.	Deposit to the Current Expense Fund	-	-	-	-	-	-
31.	Deposit to the Operating Reserve Fund	-	-	-	-	-	-
32.	Deposit to the Capital Improvement Fund	-	88,819	85,000	50,000	75,000	75,000
33.	Deposit to the Commonwealth Payments Fund	81,275	87,821	98,200	99,072	100,322	102,363
34.	Deposit to the Surplus Fund	-	-	-	-	-	-
35.	Deposit to the Rate Stabilization Account	93,000	- ^g	140,151	-	-	-
36.	Total Deposits [Sum Lines 24-32]	\$67,886	\$422,326	\$637,081	\$480,163	\$516,782	\$529,639
37.	Net Authority Revenues After Obligations and Deposits [Line 12-Line 23-Line 36]	\$7,690	\$1,594	\$0	\$0	\$1	\$0
DEBT SERVICE PAYMENTS DUE							
38.	Senior (S)	\$237,255	\$243,865	\$310,998	\$328,359	\$340,549	\$352,276
39.	Senior Subordinated (SSUB)	-	1,821	2,732	2,732	911	-
40.	Subordinated (SUB)	-	-	-	-	-	-
41.	Commonwealth Guaranteed Indebtedness (CGI)	81,275	87,821	89,201	90,073	91,323	93,364
42.	Commonwealth Supported Obligations (CSO)	-	1,594 ^h	8,999	8,999	8,999	8,999
43.	Total Debt Service, Net of Existing Deposits [Sum Lines 38-42]	\$318,530	\$335,101	\$411,930	\$430,163	\$441,782	\$454,639
RATE STABILIZATION ACCOUNT BALANCE							
44.	Rate Stabilization Account Balance, beginning of period	-	\$93,000	\$93,000	\$233,151	\$151,040	\$66,680
45.	Rate Stabilization Account Balance, end of period	\$93,000	\$93,000	\$233,151	\$151,040	\$66,680	\$3,988

^a Numbers may not add up due to rounding.

^b Based on results through May 31, 2015.

^c In accordance with Master Agreement of Trust, as confirmed by Bond Counsel.

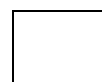
^d In accordance with the Fifth Supplemental Trust Agreement, any source of funding that does not otherwise constitute Authority Revenues as reimbursement for Costs of Improvements paid by PRASA in the current or the immediately preceding fiscal year from Operating Revenues, and may be used, at PRASA's discretion, to pay Current Expenses or to fund a deposit to the Senior Bond Fund or the Operating Reserve Fund.

^e To be deposited in the Current Expense Fund in accordance with the Fifth Supplemental Agreement of Trust.

^f Available starting balance of \$43.6M in the Senior Bond Fund from FY2013 used to cover remaining debt service payment amount due not reflected.

^g PRASA opted to forego the budgeted deposit to the Rate Stabilization Account in FY2015 and used Operating Revenues to partially fund its CIP.

^h No funds were deposited in the Commonwealth Supported Obligations Account during FY2015 for payment of the Puerto Rico Public Finance Corporation (PFC) debt included in the CSO; and, accordingly, no funds were transferred by PRASA to the trustee of the PFC Superaqueduct Bonds for the payment of debt service that was due on August 3, 2015 (as per the MAT, this is not considered an Event of Default). All of the PFC Bonds are contractually payable "solely" from the payments made by PRASA under such notes, and such notes, in turn, are contractually payable "solely" from Commonwealth budgetary appropriations.



**PRASA FINANCIAL FORECAST PRO FORMA
DEBT SERVICE COVERAGE^a
(\$, Thousands)**

	FY2014 ACTUAL ^b	FY2015 PROJECTION ^c	FY2016 PROJECTION	FY2017 PROJECTION	FY2018 PROJECTION	FY2019 PROJECTION
1. Operating Revenues	\$1,045,539	\$1,080,327	\$1,029,196	\$1,153,092	\$1,191,914	\$1,209,736
2. Additional Revenues	-	-	288,820	-	-	-
3. Authority Revenues [Line 1 + Line 2]	\$1,045,539	\$1,080,327	\$1,318,016	\$1,153,092	\$1,191,914	\$1,209,736
4. Senior Debt						
5. Annual Debt Service Due	\$237,255	\$243,865	\$310,998	\$328,359	\$340,549	\$352,276
6. Deposit Available in Senior Bond Fund	(43,622)	-	-	-	-	-
7. DS Coverage Required = 2.50	5.40	4.43	3.31	3.51	3.50	3.43
8. Senior & Senior Subordinated Debt						
9. Annual Debt Service	\$237,255	\$245,686	\$313,730	\$331,091	\$341,460	\$352,276
10. Deposits Available in Senior and Senior Subordinated Bond Funds	(43,622)	-	-	-	-	-
11. DS Coverage Required = 2.00	5.40	4.40	3.28	3.48	3.49	3.43
12. Senior, Subordinated Subordinated & Subordinated Debt						
13. Annual Debt Service	\$237,255	\$245,686	\$313,730	\$331,091	\$341,460	\$352,276
14. Deposits Available in Senior, Senior Subordinated, and Subordinated Bond Funds	(43,622)	-	-	-	-	-
15. DS Coverage Required = 1.50	5.40	4.40	3.28	3.48	3.49	3.43
16. Operating (Current) Expenses	\$669,963	\$656,406	\$680,934	\$672,929	\$675,134	\$680,096
17. Total CGI & CSO Debt	81,275	89,415	98,200	99,072	100,322	102,363
18. Total Deposits to Other Funds and Accounts	93,000	88,819	225,151	50,000	75,000	75,000
Authority Revenues / All Obligations						
19. DS Coverage Required = 1.00	1.01	1.00	1.00	1.00	1.00	1.00

^a Numbers may not add up due to rounding.

^b Senior DSC results consider available balance of \$43.6M in the Senior Bond Fund and higher Operating Revenues due to correction in how Rate Stabilization Account deposits are accounted for in the fiscal year.

^c Based on results through May 31, 2015.

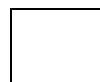


EXHIBIT 2

ALTERNATE CASE FINANCIAL FORECAST PRO FORMA ^a		FY2014	FY2015	FY2016	FY2017	FY2018	FY2019
(\$, Thousands)		ACTUAL	PROJECTION ^b	PROJECTION	PROJECTION	PROJECTION	PROJECTION
OPERATING REVENUES							
1.	Service Revenues (Base Fee and Service Charges, Net of Subsidies)	\$1,020,055	\$1,006,467	\$946,402	\$986,438	\$1,024,398	\$1,069,220
2.	Transfer from Rate Stabilization Account ^c	-	-	-	85,488	78,598	70,212
3.	Operational Initiatives - Additional Billings	97,567	99,893	99,394	98,897	98,402	97,910
4.	Operational Initiatives - Collections from Prior Years	5,546	14,793	5,400	4,500	4,500	3,600
5.	Adjustment for Uncollectibles	(86,443)	(48,746)	(62,748)	(62,407)	(64,561)	(67,110)
6.	Other Income (Miscellaneous/Special Assessments/ZumFiber-PRASA Holdings)	8,814	7,920	8,000	8,000	8,000	8,000
7.	Total Operating Revenues [Sum Lines 1-6]	\$1,045,539	\$1,080,327	\$996,449	\$1,120,917	\$1,149,337	\$1,181,832
ADDITIONAL REVENUES							
8.	Transfer from Budgetary Reserve Fund	-	-	-	-	-	-
9.	General Fund Grants/Appropriations/Contributions	-	-	-	-	-	-
10.	Reimbursements to the Authority Revenues	-	-	288,820 ^e	-	-	-
11.	Total Other Sources of Revenue [Sum Lines 8-10]	\$0	\$0	\$288,820	\$0	\$0	\$0
12.	Total Authority Revenues [Line 7 + Line 11]	\$1,045,539	\$1,080,327	\$1,285,269	\$1,120,917	\$1,149,337	\$1,181,832
OPERATING EXPENSES							
13.	Payroll and Benefits	\$324,988	\$300,491	\$313,500	\$315,903	\$320,868	\$325,833
14.	Electric Power	166,720	153,280	153,070	152,149	151,621	151,503
15.	Maintenance and Repair	45,841	44,448	50,566	54,072	55,153	56,808
16.	Chemicals	28,659	28,001	29,288	29,581	30,173	31,078
17.	Insurance	9,492	8,217	9,000	9,000	9,000	9,000
18.	Other Expenses	166,485	154,342	160,922	158,550	161,721	166,573
19.	Additional Savings from Operational Initiatives	-	-	-	-	-	-
20.	Capitalized Operating Expenses	(32,295)	(32,373)	(33,668)	(33,805)	(34,241)	(34,817)
21.	Total Operating Expenses [Sum Lines 13-20]	\$709,890	\$656,406	\$682,678	\$685,450	\$694,295	\$705,977
22.	Adjustment for Non-Cash Reserves	(39,927)	-	-	-	-	-
23.	Total Operating Expenses, Adjusted [Line 21 + Line 22]	\$669,963	\$656,406	\$682,678	\$685,450	\$694,295	\$705,977
DEPOSITS							
24.	Deposit to the Senior Bond Fund	\$193,611 ^f	\$243,865	\$310,998	\$333,663	\$353,809	\$373,492
25.	Deposit to the Senior Debt Service Reserve Fund	-	-	-	-	-	-
26.	Deposit to the Senior Subordinate Bond Fund	-	1,821	2,732	2,732	911	-
27.	Deposit to the Senior Subordinate Debt Service Reserve Fund	-	-	-	-	-	-
28.	Deposit to the Subordinate Bond Fund	-	-	-	-	-	-
29.	Deposit to the Subordinate Debt Service Reserve Fund	-	-	-	-	-	-
30.	Deposit to the Current Expense Fund	-	-	-	-	-	-
31.	Deposit to the Operating Reserve Fund	-	-	-	-	-	-
32.	Deposit to the Capital Improvement Fund	-	88,819	49,000	-	-	-
33.	Deposit to the Commonwealth Payments Fund	81,275	87,821	98,200	99,072	100,322	102,363
34.	Deposit to the Surplus Fund	-	-	-	-	-	-
35.	Deposit to the Rate Stabilization Account	93,000	- ^g	141,660	-	-	-
36.	Total Deposits [Sum Lines 24-32]	367,886	422,326	602,590	435,467	455,042	475,855
37.	Net Authority Revenues After Obligations and Deposits [Line 12-Line 23-Line 36]	\$7,690	\$1,594	\$0	\$0	\$0	\$0
DEBT SERVICE PAYMENTS DUE							
38.	Senior (S)	\$237,255	\$243,865	\$310,998	\$333,663	\$353,809	\$373,492
39.	Senior Subordinated (SSUB)	-	1,821	2,732	2,732	911	-
40.	Subordinated (SUB)	-	-	-	-	-	-
41.	Commonwealth Guaranteed Indebtedness (CGI)	81,275	87,821	89,201	90,073	91,323	93,364
42.	Commonwealth Supported Obligations (CSO)	-	1,594 ^h	8,999	8,999	8,999	8,999
43.	Total Debt Service, Net of Existing Deposits [Sum Lines 38-42]	\$318,530	\$335,101	\$411,930	\$435,467	\$455,042	\$475,855
RATE STABILIZATION ACCOUNT BALANCE							
44.	Rate Stabilization Account Balance, beginning of period	-	\$93,000	\$93,000	\$234,660	\$149,172	\$70,574
45.	Rate Stabilization Account Balance, end of period	\$93,000	\$93,000	\$234,660	\$149,172	\$70,574	\$362

Denotes stressed categories in sensitivity analysis.

^a Numbers may not add up due to rounding.

^b Based on results through May 31, 2015.

^c In accordance with Master Agreement of Trust, as confirmed by Bond Counsel.

^d In accordance with the Fifth Supplemental Trust Agreement, any source of funding that does not otherwise constitute Authority Revenues as reimbursement for Costs of Improvements paid by PRASA in the current or the immediately preceding fiscal year from Operating Revenues, and may be used, at PRASA's discretion, to pay Current Expenses or to fund a deposit to the Senior Bond Fund or the Operating Reserve Fund.

^e To be deposited in the Current Expense Fund in accordance with the Fifth Supplemental Agreement of Trust.

^f Available starting balance of \$43.6M in the Senior Bond Fund from FY2013 used to cover remaining debt service payment amount due not reflected.

^g PRASA opted to forego the budgeted deposit to the Rate Stabilization Account in FY2015 and used Operating Revenues to partially fund its CIP.

^h No funds were deposited in the Commonwealth Supported Obligations Account during FY2015 for payment of the Puerto Rico Public Finance Corporation (PFC) debt included in the CSO; and, accordingly, no funds were transferred by PRASA to the trustee of the PFC Superaqueeduct Bonds for the payment of debt service that was due on August 3, 2015 (as per the MAT, this is not considered an Event of Default). All of the PFC Bonds are contractually payable "solely" from the payments made by PRASA under such notes, and such notes, in turn, are contractually payable "solely" from Commonwealth budgetary appropriations.



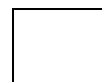
ALTERNATE CASE FINANCIAL FORECAST PRO FORMA
DEBT SERVICE COVERAGE^a
(\$, Thousands)

	FY2014 ACTUAL ^b	FY2015 PROJECTION ^c	FY2016 PROJECTION	FY2017 PROJECTION	FY2018 PROJECTION	FY2019 PROJECTION
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2. Additional Revenues	-	-	288,820	-	-	-
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4. Senior Debt						
5. Annual Debt Service Due	\$237,255	\$243,865	\$310,998	\$333,663	\$353,809	\$373,492
6. Deposit Available in Senior Bond Fund	(43,622)	-	-	-	-	-
7. DS Coverage Required = 2.50	5.40	4.43	3.20	3.36	3.25	3.16
8. Senior & Senior Subordinated Debt						
9. Annual Debt Service	\$237,255	\$245,686	\$313,730	\$336,395	\$354,720	\$373,492
10. Deposits Available in Senior and Senior Subordinated Bond Funds	(43,622)	-	-	-	-	-
11. DS Coverage Required = 2.00	5.40	4.40	3.18	3.33	3.24	3.16
12. Senior, Subordinated Subordinated & Subordinated Debt						
13. Annual Debt Service	\$237,255	\$245,686	\$313,730	\$336,395	\$354,720	\$373,492
14. Deposits Available in Senior, Senior Subordinated, and Subordinated Bond Funds	(43,622)	-	-	-	-	-
15. DS Coverage Required = 1.50	5.40	4.40	3.18	3.33	3.24	3.16
16. Operating (Current) Expenses	\$669,963	\$656,406	\$682,678	\$685,450	\$694,295	\$705,977
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18. Total Deposits to Other Funds and Accounts	93,000	88,819	190,660	-	-	-
Authority Revenues / All Obligations						
19. DS Coverage Required = 1.00	1.01	1.00	1.00	1.00	1.00	1.00

^a Numbers may not add up due to rounding.

^b Senior DSC results consider available balance of \$43.6M in the Senior Bond Fund and higher Operating Revenues due to correction in how Rate Stabilization Account deposits are accounted for in the fiscal year.

^c Based on results through May 31, 2015.



Respectfully Submitted,

MP ENGINEERS OF PUERTO RICO, P.S.C.

/s/ Melissa L. Pomales, P.E.
President





Puerto Rico
Aqueduct and
Sewer Authority

COMMONWEALTH OF PUERTO RICO

Puerto Rico Aqueduct and Sewer Authority

