

**STATE OF RHODE ISLAND
PUBLIC UTILITIES COMMISSION**

**IN RE: PROVIDENCE WATER SUPPLY BOARD'S :
APPLICATION TO CHANGE RATES : DOCKET NO. 4994**

REPORT AND ORDER

I. Introduction

On December 2, 2019, the Providence Water Supply Board (Providence Water) filed with the Public Utilities Commission (PUC or Commission) a multi-year request to increase its rates, over the course of three years, pursuant to R.I. Gen. Laws § 39-15.1-4.¹ This rate filing is the first time that Providence Water has sought a multi-year rate increase.

The first increase, proposed for implementation on January 2, 2020, sought additional operating revenues of \$13,311,349 to satisfy a revenue requirement of \$85,932,149. The rate impact differed by customer class, but for a residential account with an average annual consumption of 100 HCF, the increase was 15.84%. The second increase of \$6,131,341, with a proposed effective date of July 1, 2021, was to support a total cost of service of \$92,063,489.² The rate impact would be based on the overall percentage increase in revenues required and would be applied equally to retail, wholesale and fire service customers. The impact to the residential class, for the average residential customer, was an increase of 7.26%. The third increase, with a proposed effective date of July 1, 2022, sought additional operating revenues of \$3,574,759 to support total operating revenue requirement of \$95,638,248. The rate impact would be based on the overall percentage increase in revenues required and would be applied equally to retail, wholesale and fire

¹ All filings in this docket are available at the PUC offices located at 89 Jefferson Boulevard, Warwick, R.I. or at <http://www.ripuc.ri.gov/eventsactions/docket/4994page.html>.

² Filing at 4 (Dec. 2, 2019); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-Transmittal%2012-2-19.pdf>.

service customers. The impact to the residential class, for the average residential customer, was an increase of 3.94%.³ Significantly, the filing included an allocated cost of service study which was used to allocate the revenue requirement to the various rate classes. In the filing, Providence Water proposed to retain a uniform wholesale rate that applied to all seven wholesale customers as one rate class.

On December 17, 2019, the PUC exercised its statutory right to suspend the proposed effective date, and to conduct discovery and evidentiary hearings.⁴ By virtue of the suspension, the PUC delayed the effective date of the increase to no later than September 2, 2020. The Kent County Water Authority (KCWA or Kent County), the Bristol County Water Authority (BCWA or Bristol County), the City of Warwick (Warwick), and the City of East Providence (East Providence) all intervened in the case.⁵ Thereafter, the parties engaged in discovery and negotiations which ultimately resulted in a proposed Settlement Agreement (Settlement) between Providence Water and the Division of Public Utilities and Carriers (Division), Kent County and the Warwick. BCWA did not join the Settlement and continued to litigate its contested issues.⁶

On July 13, 2020, the Commission conducted a public comment hearing,⁷ This hearing had been rescheduled from March 30, 2020, due to the COVID-19 pandemic. One member of the public provided extensive comment. On July 14 and 15, 2020, the Commission conducted evidentiary hearings on the proposed Settlement via web conferencing. All three of these July

³ *Id.*

⁴ R.I. Gen. Laws §39-3-11. The transcript of the proceedings was not available as of the time of the signing of the final order, but will be available at a later date. For that reason, citations to the record reference the Live Stream recordings of the proceeding. Should there be an appeal of this order, the Commission will provide a “footnote index” which more specifically references the official transcript.

⁵ Although Warwick and East Providence each achieved Intervenor status, neither one filed any testimony or issued data requests. Warwick did sign on to the proposed Settlement filed on July 3, 2020.

⁶ East Providence did not reject or join the Settlement.

⁷ Live Stream recording (July 13, 2020); <https://video.ibm.com/recorded/127252217>.

hearings were simultaneously streamed to the public over the internet and have been archived on the Commission's website.⁸

At an Open Meeting on August 18, 2020, the Commission modified the Settlement.⁹ Among other adjustments and modifications, the Commission's key departure from the Settlement was the Commission's decision to reject the uniform wholesale rate and require implementation of graduated individual wholesale rates. The Commission also ordered a new allocated cost of service study (COSS) to be filed with the Commission within six months. The Commission will use the new COSS to inform the Commission's decision-making for wholesale class rate allocations for rate years two and three. Other issues addressed by the Commission related to a renewable energy study that will be performed by Providence Water to evaluate specific issues identified by the Commission during the proceedings, an adjustment to the power purchase expense, a potential claw back provision relating to the expenses allowed for the filling of job vacancies, and cost allowances relating to the costs of the COSS and the renewable energy study.

On August 20, 2020, BCWA filed a motion to reopen, challenging the impact on RY-2, and RY-3 of the Commission's order awarding funding to Providence Water for the Cost of Service Study, and requesting that the study be funded from a reserve account. On August 21, 2020, Providence Water objected to the motion to reopen because the study expense was only included in the first rate-year of its compliance filing.

On August 25, 2020, Providence Water submitted an executed Amended Settlement Agreement, together with compliance schedules. For the first year of the rate plan, Providence

⁸ Live Stream recording July 14, 2020 (vol. 2); <https://video.ibm.com/recorded/127267932>;
Live Stream recording Jul. 14, 2020 (vol. 3); <https://video.ibm.com/recorded/127268794>;
Live Stream recording Jul. 14, 2020 (vol. 4); <https://video.ibm.com/recorded/127270795>;
Live Stream recording Jul.15, 2020 (vol.1); <https://video.ibm.com/recorded/127286475>;
Live Stream recording Jul.15, 2020 (vol.2); <https://video.ibm.com/recorded/127289730>;
Live Stream recording Jul.15, 2020 (vol.3); <https://video.ibm.com/recorded/127290777>;

⁹ PUC's Open Meeting Aug. 18, 2020; <https://video.ibm.com/recorded/127622561>.

Water was allowed additional revenues of \$12,200,091 (an increase of 17.59%) to provide total pro forma revenues of \$83,456,144. For the second year of the rate plan, Providence Water was allowed additional revenues of \$4,310,146 (an increase of 5.17%) to provide total pro forma revenues of \$87,766,290. For the third year of the rate plan, Providence Water was allowed additional revenues of \$3,437,650 (an increase of 3.92%) to provide total pro forma revenues of \$91,203,939.¹⁰ Under the Amended Settlement, a typical residential customer using 100 HCF per year would experience an increase of 12.8% in RY-1, and increase of 5.5% in RY-2, and an increase of 4.2% in RY-3.¹¹

On August 27, 2020, the Commission voted to deny BCWA's motion to reopen and to accept Providence Water's Amended Settlement Agreement and associated schedules.¹²

II. Providence Water's Filing

This rate filing was the first full rate case Providence Water filed since 2016 (Docket No. 4618). The test year was Providence Water's fiscal year ending June 30, 2019. Providence Water sought additional revenues of \$13,311,349 (an increase of 18.32%) to support total revenues of \$85,932,149 for the 12 months ending June 30, 2021 (Rate Year 2021 or RY-1). Providence Water's filing also requested additional revenues of \$6,131,341 (an increase of 7.13%) for the 12 months ending June 30, 2022 (Rate Year 2022 or RY-2) and additional revenues of \$3,574,759 (an increase of 3.88%) for the 12 months ending June 30, 2023 (Rate Year 2023 or RY-3).

Providence Water's proposal sought: (1) an increase in salaries and wages;¹³ (2) an increase in pensions and other benefits;¹⁴ (3) a decrease to purchase power expenses;¹⁵ an increase to

¹⁰ Amended Settlement Agreement (Aug.25, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Amended%20Settlement%20Agreement%20v8-25-2020%20FINAL.pdf>.

¹¹ Amended Settlement Sch. HJS-25.

¹² PUC's Open Meeting (Aug. 25, 2020); <https://video.ibm.com/recorded/127699801>.

¹³ Sch. HJS-3(b) (Dec. 2, 2019).

¹⁴ Sch. HJS-4(a) (Dec. 2, 2019).

¹⁵ Sch. HJS-5 (Dec. 2, 2019).

materials, supplies and services;¹⁶ (4) an increase to regulatory and rate case expense;¹⁷ (5) an increase to the chemicals and sludge maintenance fund;¹⁸ (6) a statutory maximum increase to property taxes;¹⁹ (7) total rate funding for the restricted capital fund of \$2,127,000 in each Rate Year;²⁰ total rate funding in the Western Cranston restricted account of \$40,000 in each Rate Year;²¹ (8) increases in the Infrastructure Replacement Fund (IFR);²² (9) an increase in the AMR/Meter Replacement Fund restricted account;²³ (10) an increase in the Equipment/Vehicle Replacement Fund Replacement restricted account;²⁴ level funding for the restricted account Insurance Fund; (11) an increase to the restricted fund account for Private Side Lead Replacement;²⁵ (12) an increase to the restricted account- Revenue Reserve;²⁶ (13) inflation adjustments;²⁷ and (14) an increase to City Services.²⁸

In support of its application, Providence Water presented pre-filed testimony from four witnesses: (1) Ricky Caruolo, General Manager; (2) Nancy E. Parillo, Sr. Manager-Finance; (3) Gregg M. Giasson, Deputy General Manager of Operations/Executive Engineer; and (4) Harold J. Smith, Vice President of Raftelis Financial Consultants, Inc.

A. Testimony of Ricky Caruolo

Mr. Caruolo testified that Providence Water's requested funding increase was to cover known and measurable expenses for the next three years. He averred that Providence Water's

¹⁶ Sch. HJS-6 (Dec. 2, 2019).

¹⁷ Sch. HJS-7 (Dec. 2, 2019).

¹⁸ Sch. HJS-8 (a) & (b) and Sch. HJS-10 (g) (Dec. 2, 2019).

¹⁹ Sch. HJS-9 (Dec. 2, 2019).

²⁰ Sch. HJS-10(a) (Dec. 2, 2019).

²¹ Sch. HJS-10(b) (Dec. 2, 2019).

²² Sch. HJS-10(c) (Dec. 2, 2019).

²³ Sch. HJS-10(d) (Dec. 2, 2019).

²⁴ Sch. HJS-10 (e) (Dec. 2, 2019).

²⁵ Sch. HJS-10 (i) (Dec. 2, 2019).

²⁶ Sch. HJS-10(j) (Dec. 2, 2019).

²⁷ Sch. HJS-11 (Dec. 2, 2019).

²⁸ Sch. HJS-CS-1 through HJS-CS-3 (Dec. 2, 2019).

revenues were down because consumption decreased, in part due to customers' increased water conservation efforts.²⁹ Mr. Caruolo provided an update on Providence Water's water quality and corrosion control program and efforts. He described Providence Water's request to fund 100% of the cost for private-side lead replacements with new funding from the Rhode Island Infrastructure Bank (RIIB).³⁰ Mr. Caruolo reported that Providence Water installed 1,926 solar panels on its new Central Operations Facility (COF). This solar facility generates 497 kilowatts which provides approximately 55% of Providence Water's total electricity and total annual savings of \$98,000.³¹

He further detailed Providence Water's plans to construct a 15,800-panel solar array field on its property in Johnston, Rhode Island. Providence Water executed a lease for twenty-five years, with no capital outlay for this project. Mr. Caruolo forecasted that once the solar field is up and running, it will produce 4.99 megawatts of electricity, saving Providence Water an estimated \$500,000-\$600,000 per year. He further estimated a lifetime savings to ratepayers of \$22,000,000 to \$24,000,000.³² Mr. Caruolo reported that Providence Water's Board voted to retire the renewable energy certificates (RECs) to effectuate its desire to be 100% renewable.

Mr. Caruolo also reported on Providence Water's initiatives since the last rate case which included: (1) the renovation of the new COF; (2) inspection and rehabilitation of the 78" and 102" mains; (3) completion of a new filter bed project; (4) completion of the influent and aeration project; (5) evaluation of alternate clarification technologies; (6) implementation of a new asset system; (7) construction of a new security guard facility at the water treatment plant in Scituate; (8) execution of new tax treaty with the Town of Scituate; (9) possible acquisition of the Johnston

²⁹ Direct Test. Ricky Caruolo at 3 (Dec. 2, 2019); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-Caruolo%2012-2-19.pdf>

³⁰ *Id.* at 4-5.

³¹ *Id.* at 6.

³² *Id.* at 7.

Water District; and (10) plans to replace Providence Water's antiquated billing system at an estimated cost of \$3.0 million to \$5.0 million.³³ Finally, Mr. Caruolo provided an update on the COF and the multitude of benefits it has provided to Providence Water.³⁴

In rebuttal testimony, Mr. Caruolo addressed: (1) the ownership of Academy Avenue;³⁵ (2) Providence Water's decision to retire RECs;³⁶ and (3) Providence Water's property tax refund account.³⁷

B. Testimony of Nancy Parrillo

Ms. Parrillo presented Providence Water's funding requests for restricted accounts together with supporting details.³⁸ She explained that debt service would comprise a significant element of the Infrastructure Replacement Fund (IFR) and that Providence Water would be requesting approval from the Division to borrow for the next phase of the main rehabilitation project. Assuming a construction fund of \$19 million, she estimated debt service, including debt service reserve, origination fees, and costs of bond issuance, to be \$1.9 million per year for the next 20 years.³⁹ Ms. Parrillo noted that current funding for IFR was \$27.3 million per year. Providence Water requested an increase of \$2.0 million for each rate year.⁴⁰

For the AMR/ Meter Replacement Fund, Providence Water sought an increase of \$500,000 per year, from \$500,000 to \$1.0 million. Ms. Parrillo reported that Providence Water would focus

³³ *Id.* at 9-12.

³⁴ *Id.* at 12-15.

³⁵ Rebuttal Test. of Ricky Caruolo at 2 (June 5, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Caroulo%206-5-20.pdf>.

³⁶ *Id.* at 2-3.

³⁷ *Id.* at 3-5.

³⁸ Direct Test. Nancy Parrillo at 2-3 (Dec. 2, 2019); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-Parrillo%2012-2-19.pdf>.

³⁹ *Id.* at 3.

⁴⁰ *Id.*

on four main areas for the next five years: (1) meter replacement; (2) leak detection; (3) technology upgrades for meter reading; and (4) emergency repairs.⁴¹

For the Equipment/Vehicle Replacement Fund, Providence Water requested an increase in annual funding from \$600,000 to \$1.6 million.⁴² Ms. Parrillo explained that while Providence Water has been able to manage its vehicle replacement program fairly well to date, this model was becoming harder to sustain, due to the age of the assets and rising replacement costs incurred with a changeover from traditional gasoline/diesel engines to electric/hybrid options.⁴³

For the Chemicals/Sludge Maintenance Fund, Providence Water sought an increase of \$1.0 million, annually for each of the rate years. Ms. Parrillo argued that this fund had been reduced in Docket No. 4618 in 2017 by \$1.5 million because the accumulating balance would support spending over the next few years. However, the current chemical spending plan predicted an increase in chemical costs. Additionally, the sludge maintenance contract is scheduled to expire in FY-2022 and Providence Water will need to competitively bid for a new contract.⁴⁴

The Private Side Lead Service Replacement Fund was approved in Docket No. 4618 at an amount of \$250,000 per year. The program provided homeowners with a three-year, no-interest loan for replacement of the private-side of their water service. Providence Water partnered with RIIB for \$1.0 million loan funding at 0% interest. Providence Water sought an increase in the program funding to \$2,750,000 for FY 2022 and FY 2023.⁴⁵

In her rebuttal testimony, Ms. Parrillo defended Providence Water's requests against the Division's and Kent County's proposed adjustments to: (1) the Restricted Insurance Fund;⁴⁶ (2)

⁴¹ *Id.* at 4; Sch. HJS-10 (d).

⁴² Parrillo Direct Test. at 5.

⁴³ *Id.*

⁴⁴ *Id.* at 6.

⁴⁵ *Id.* at 7; Sch. HJS-10 (i).

⁴⁶ Parrillo Rebuttal Test. at 3; <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Parillo%206-5-20.pdf>.

the Equipment Fund;⁴⁷ (3) the Infrastructure Replacement Fund;⁴⁸ and (4) the Property Tax Expense.⁴⁹

C. Testimony of Gregg Giasson

Mr. Giasson's testimony introduced and explained Providence Water's IFR plan which called for spending \$196.99 million from 2021 through 2025. The largest projects, in terms of costs, for the five-year plan were: (1) water mains rehabilitation; (2) sedimentation basin rehabilitation; (3) major transmission main inspection and rehabilitation; and (4) storage reservoir water quality improvements.⁵⁰

1. Water Main Rehabilitation

Mr. Giasson provided an update on Providence Water's compliance with the Environmental Protection Agency's Lead and Copper Rule. If a water utility exceeds action limits for lead or copper, the utility must engage in biannual testing. Additionally, the utility must evaluate erosion control practices, implement public education requirements, and achieve annual replacement of 7% of the utility's lead-service line inventory. Providence Water and the Rhode Island Department of Health entered into an agreement that required Providence Water to establish a public and private side lead service line database and investigate ways to increase the number of customers who would replace their private side services. The agreement also required Providence Water to annually flush 90 miles of water mains and spend \$19.1 million per year to rehabilitate mains in fiscal years 2020 through 2022.⁵¹ Mr. Giasson reported that since 1997, Providence Water

⁴⁷ *Id.* at 3-4.

⁴⁸ *Id.* at 5-6.

⁴⁹ *Id.* at 6.

⁵⁰ Direct Test of Gregg M. Giasson at 2 (Dec. 2, 2019); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-Giasson%2012-2-19.pdf>; Sch. GG-1.

⁵¹ Giasson Direct Test. at 4.

has rehabilitated approximately 93 miles of water main at a total cost of \$120,456,883, with an overall average cost of \$245 per lineal foot.⁵²

2. Sedimentation Basin Rehabilitation

Mr. Giasson explained how sedimentation basins work to clarify water and that Providence Water's basins were constructed in the 1920's and were nearing the end of their useful lives. He reported that a study revealed the cost for replacement of the sedimentation basins could range between \$40 million and \$146 million. The study concluded that using the existing sedimentation basin, along with the distribution storage tank mixing, was the most cost-effective means for addressing future disinfection byproduct control. However, since the basins need repair, Providence Water was investigating methods for short-term and long-term repair.⁵³

3. Major Transmission Main Inspection and Rehabilitation

Providence Water has two major transmission lines that deliver water from the treatment plant in Scituate: (1) a 90-inch tunnel, approximately 4.5 miles in length; and (2) a 78-inch /102-inch aqueduct which has deteriorated. The 90-inch tunnel has not been inspected in several years and Providence Water must isolate and inspect this tunnel within the next five years. Providence Water will repair the aqueduct in stages.⁵⁴

4. Storage Reservoir Water Quality Improvements

Mr. Giasson explained that Providence Water installed an aeration and tank mixing system in 2018-2019 in its Ridge Road reservoir to: (1) address an immediate need for disinfection byproduct reduction in the area served by the Ridge Road reservoir; and (2) evaluate full scale

⁵² *Id.*; Sch. GG-4.

⁵³ Giasson Direct Test. at 5-6.

⁵⁴ *Id.* at 7.

results of aeration and tank mixing. Providence Water will, depending upon evaluation of this project, develop a plan for installation of aeration and/or mixing in five other storage reservoirs.⁵⁵

In rebuttal testimony and at the evidentiary hearings, Mr. Giasson addressed: Unidirectional Flushing; the Chemical and Sludge Fund; and the Private Side Lead Service Replacement Fund.

5. Unidirectional Flushing

Mr. Giasson asserted that wholesale customers benefit from unidirectional flushing because flushing helps to remove stagnant water from the system.⁵⁶

6. Chemical and Sludge Fund

Providence Water reported that its organophosphate feed system would be operational by August 2020 and that bid prices for chemicals were lower than anticipated at the time the rate case was filed. Therefore, Providence Water agreed to reduce its funding request for the Chemical and Sludge Fund by \$200,000 annually.⁵⁷

7. Private Side Lead Service Replacement Fund

Providence Water has approximately 28,000 private-side lead services and 11,000 public-side lead services remaining in its distribution system. Changes to the Lead and Copper Rule require a utility, if it hits a trigger point, to perform full service line replacement, including both the public side and private side. Providence Water had been administering a 0% interest loan for private side service replacement, but only 428 were replaced in a one-year period. A survey of customers who opted not to replace their services reported cost as the major obstacle.⁵⁸

⁵⁵ *Id.*

⁵⁶ Giasson Rebuttal Test. at 2; Sch. GMG-1; <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Giasson%206-5-20.pdf>; Hr'g Tr. at 218-20.

⁵⁷ *Id.* at 4.

⁵⁸ *Id.* at 11.

To significantly ramp up private-side service replacement, Providence Water proposed additional funding of \$2.75 million in order to pay for private-side lead-service replacements, at no cost to homeowners. Providence Water estimated that it could annually fund replacements for 3% of the approximately 28,000 private services, with priority given to high risk homes with pregnant women and young children.⁵⁹

Mr. Giasson defended Providence Water's proposal to provide grants to homeowners as important to meeting the EPA requirements. He said: "the main focus of the revised [Lead and Copper Rule] is lead service identification and full lead service line replacement (from the main to the home). Specifically, only full lead service line replacements will count towards a utility's goal/requirement. Approximately 204 private side lead services were replaced in 2018 and 228 private side lead services were replaced in 2019. Approximately 1,114 public-side lead-services have been replaced over the same time period. Cost is a major reason for a customer to not replace the private side portion of the lead service line. By Providence Water replacing the private side of the lead service line at no cost to the homeowner, Providence Water can ensure that most private side lead service lines will eventually be replaced."⁶⁰

D. Testimony of Harold J. Smith

Mr. Harold Smith provided testimony and supporting schedules on the COSS that he prepared for Providence Water, including the cost allocation and rate design. He concluded that Providence Water needed additional rate revenue in each of the three rate years to properly fund operation and maintenance (O&M) and capital costs.⁶¹ He noted that the base extra capacity method employed in this rate case varied in two ways from Providence Water's prior rate filings:

⁵⁹ *Id.*

⁶⁰ *Id.* at 6.

⁶¹ Harold J. Smith Direct Test.; <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-Smith%2012-2-19.pdf>.

- (1) costs for both retail and wholesale customers were allocated on average and peak demand; and
- (2) prior allocation factors were eliminated.⁶²

Mr. Harold Smith explained that he developed his COSS using a base/extra capacity method which allocated costs to customer classes in proportion to their use of the water system. He noted that water systems are designed to deliver water to customers to meet both average and peak demands. Therefore, treatment, storage, and pumping facilities must be designed with additional capacity to meet peak demands.⁶³ He treated Providence Water's seven wholesale customers as a single class of customers, with a uniform blended rate.

In rebuttal testimony, Mr. Harold Smith agreed to adjust Providence Water's funding for City Services, PUC assessment, payroll, payroll taxes, miscellaneous revenue, chemical and sludge fund, and the Private-Side Lead-Service Replacement Fund.⁶⁴

III. The Division of Public Utilities and Carriers

The Division submitted direct and surrebuttal testimony from: (1) Jerome D. Mierzwa, a utilities consultant, on rate design; and (2) Ralph Smith, CPA, on revenue requirement.

A. Testimony of Jerome Mierzwa

Mr. Mierzwa identified the following concerns with Providence Water's COSS: (1) the failure to assign costs of non-revenue water⁶⁵ to wholesale customers; (2) the functionalization of water treatment salaries/wages and pensions/benefits (labor expense); (3) the functionalization to wholesale customers of bad debt expense and the revenues associated with interest on delinquent

⁶² *Id.* at 17.

⁶³ *Id.* at 14-15.

⁶⁴ *Id.* at 3.

⁶⁵ NRW water is water that has been produced which is not registered as consumption by customers.

accounts; (4) the functionalization of base costs to Direct Fire Protection service; and (5) the failure to assign COF costs to wholesale customers.⁶⁶

Mr. Mierzwa claimed that the most significant contribution to non-revenue water in the Providence Water system is water that is used for water quality and other testing purposes. Although wholesale customers benefit from the water quality and other testing performed by Providence Water, none of the costs associated with non-revenue water were assigned to wholesale customers. He found this unreasonable and contended that wholesale customers should be allocated a proportionate share of non-revenue water for water quality and other testing.⁶⁷

Mr. Mierzwa objected to Providence Water's assignment of water treatment labor expenses which functionalized and allocated costs partially based on average-day demands and partially based on maximum hour demands. He contended that these labor expenses did not vary with changes in water usage and, therefore, these costs should be functionalized and allocated based on average-day demands.⁶⁸

Mr. Mierzwa further argued that bad debt expense, and interest on delinquent accounts, should be assigned to all retail functional cost, not wholesale costs, to be consistent with assignment of bad debt expense in the AWWA M-1 Manual.⁶⁹ He did not, however, reflect these modifications in his revised schedules because it would require an extensive resource effort, and such an effort was not justified by the magnitude of the impact.⁷⁰

Mr. Mierzwa found that it was unreasonable to fail to assign base functional costs to Direct Fire Protection service. He recommended that Direct Fire Protection be assigned 0.5 percent of

⁶⁶ Direct Test. Jerome Mierzwa at 8 (May 4, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-DIV-Mierzwa%205-4-20.pdf>.

⁶⁷ *Id.* at 9.

⁶⁸ *Id.* at 10.

⁶⁹ American Water Works Associations' Manual M-1, Principles of Water Rates, Fees, and Charges (7th 21 Edition)

⁷⁰ Mierzwa Test. at 11.

functionalized base costs.⁷¹ He also found Providence Water's proposal to functionalize all commercial costs for the COF to retail as unreasonable. He recommended that Providence Water assign 10% of commercial services costs of the COF to wholesale customers.⁷²

Mr. Mierzwa discussed principles of rate redesign. He said that a sound allocation should: (1) utilize class cost of service study results as a guide; (2) provide stability and predictability of the rates themselves, with a minimum of unexpected changes seriously adverse to ratepayers or the utility (gradualism); (3) yield the total revenue requirement; (4) provide for simplicity, certainty, convenience of payment, understandability, public acceptability, and feasibility of application; and (5) reflect fairness in the apportionment of the total cost of service among the various customer classes.⁷³

B. Testimony of Ralph Smith

Mr. Ralph Smith recommended lower revenue requirements than those proposed by Providence Water for each rate year except RY-3 which he did not adjust.⁷⁴ He incorporated Mr. Mierzwa's suggestion that City Services funding remain at the current funding level of \$839,167.⁷⁵ For the PUC Assessment, Mr. Ralph Smith favored using the FY-2020 amount of \$377,369 as the starting point, and then increasing it 6.72% for each rate year, which was the same percentage increase from 2019 to 2020.⁷⁶ He found Providence Water's payroll estimates unreasonable in light of historical staffing levels and reduced payroll and associated expenses to reflect more expected staffing.⁷⁷

⁷¹ *Id.* at 12.

⁷² *Id.*

⁷³ *Id.* at 13-14.

⁷⁴ Direct Test. of Ralph Smith (May 11, 2020); [http://www.ripuc.ri.gov/eventsactions/docket/4994-DIV-Smith%20\(5-11-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-DIV-Smith%20(5-11-20).pdf).

⁷⁵ *Id.* at 6.

⁷⁶ *Id.* at 7.

⁷⁷ Ralph Smith Test. at 15; Sch. RCS-6.

Mr. Ralph Smith disagreed with Providence Water that inflation was increasing and recommended no inflation for RY-1, with downward reductions in the other two rate years.⁷⁸ He found Providence Water's estimate of Miscellaneous Revenue unreasonably low and increased it by \$128,417.⁷⁹ Mr. Smith agreed with Providence Water's funding proposals for only three of its restricted funds: (1) Capital Fund⁸⁰; (2) Western Cranston Fund⁸¹; and (3) AMR/Meter Replacement Fund.⁸²

For the IFR Fund, he advocated a decrease in RY-3 of \$2.0 million, to help mitigate the rate increase. He noted that this fund, when reduced, would still have a projected ending balance of \$4,634,750 at the end of RY-3.⁸³ Mr. Smith reduced funding for the Equipment/Vehicle Replacement Fund in each rate year. He opined that these reductions would mitigate the impact of the rate increase while still providing an adequate balance in the funds.⁸⁴

Mr. Ralph Smith recounted that funding for insurance expense was increased in the last rate case, and the projected ending balances for this fund had been accumulating significantly. Therefore, he decreased funding in each rate year by \$502,113, to mitigate the rate increase, while allowing Providence Water to maintain reserves of over \$1.0 million throughout the three-year rate plan.⁸⁵ Mr. Smith also proposed a reduction of \$200,000 per rate year in the Chemicals and Sludge Fund. He opined that this reduction would provide sufficient funding for Providence Water to cover its projected expenditures and maintain positive year-end balances in the fund during the rate plan period, while also mitigating the amount of rate increases.⁸⁶ Mr. Smith opposed

⁷⁸ Ralph Smith Test. at 15-16; RCS-7.

⁷⁹ Ralph Smith Test. at 17; RCS-8.

⁸⁰ Ralph Smith Test. at 18.

⁸¹ *Id.* at 19.

⁸² *Id.* at 21.

⁸³ *Id.* at 20; RCS-9.

⁸⁴ Ralph Smith Test. at 22; RCS-10.

⁸⁵ Ralph Smith Test. at 23; RCS-11.

⁸⁶ Ralph Smith Test. at 24; RCS-12.

Providence Water's proposal for year-end balances greater than \$400,000 in the Property Tax Refund Fund and reduced funding by \$100,000 in each rate year.⁸⁷

Mr. Smith did not endorse Providence Water's plan to provide zero-cost replacements of private side lead services to homeowners, but recommended Providence Water continue with zero cost loans to customers, with a ten-year repayment schedule, instead of three years. He also advocated an increase in funding from \$250,000 per year to \$1.0 million in RY-1, \$2.0 million in RY-2 and \$3.0 million in RY-3.⁸⁸ Finally, Mr. Smith adjusted the Operating Reserve and Revenue Reserve accounts, based upon all his other adjustments.⁸⁹

IV. Intervenor Bristol County Water Authority

A. Testimony of Pamela Marchand

BCWA Executive Director and Chief Engineer, Pamela Marchand, filed both direct and surrebuttal testimony. She noted that BCWA purchases all its water supply from Providence Water and would be impacted by its requested rate increase. Providence Water's filing sought a 20.67% increase for wholesale customers in FY-1; a 7.26% increase in FY-2; and, a 3.94% increase in FY-3.⁹⁰ Ms. Marchand's testimony addressed four issues: (1) the COSS Study; (2) allocation of unidirectional flushing costs to wholesale customers; (3) allocation of transmission and distribution labor costs; and (4) chemical expense.⁹¹

1. Providence Water's Cost of Service Study

Ms. Marchand testified that BCWA agreed with the conclusion reached by its rate consultant that Providence Water should not have proposed a single, uniform, wholesale class rate.

⁸⁷ Ralph Smith Test. at 26; RCS-13.

⁸⁸ Ralph Smith Test. at 28; RCS-14.

⁸⁹ Ralph Smith Test. at 29; RCS-15.

⁹⁰ Pamela Marchand Direct Test. at 2; [http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Marchand%20\(5-11-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Marchand%20(5-11-20).pdf).

⁹¹ *Id.*

Rather, she argued that Providence Water should implement individual wholesale customer rates. She expanded on this issue in her rebuttal testimony and argued that it was a matter of fundamental fairness and equity for BCWA, to be charged rates based on the way that BCWA demanded service. She contended that Providence Water had the peaking factors necessary to calculate individual wholesale customer rates and that BCWA, with lower peaking factors, should not have to subsidize rates for other wholesale customers. Ms. Marchand further provided that BCWA had made considerable investments in demand management through storage and a Supervisory Control and Data Acquisition (SCADA) Instrumentation System. Therefore, she argued, BCWA's peaking factors should not be averaged with the other wholesale customers.⁹²

2. Unidirectional Flushing

Ms. Marchand asserted that flushing programs, including unidirectional flushing, were only effective in the distribution system and that it was not possible to develop enough velocity in the larger transmission mains to flush any sediment. Since the transmission system is a constant supply, and does not have static periods, there is no need to flush for water quality. She also noted that BCWA was not fed by an 8-inch or 12-inch line like some other wholesale customers and should not be allocated any costs, including contractor, operational employee, overhead, or any other expenses, for flushing those lines.⁹³

3. Allocation of Transmission and Distribution (T&D) Labor Costs

Providence Water allocated T&D labor costs based on inch-miles of transmission pipe vs. distribution pipe. She stated: "However, with most water utilities, the proportion of in-house maintenance performed on transmission pipes (classified by Providence Water as pipes larger than

⁹² Marchand Surrebuttal Test. at 3; <http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Marchand%206-26-20.pdf>.

⁹³ *Id.*

12 inches) is considerably less than maintenance performed on distribution pipes (classified by Providence Water at 12 inches and smaller).”⁹⁴ She averred that most water systems hire outside contractors for maintenance and repair of pipes larger than 12 inches because such work requires a substantial investment in equipment, spare parts, and training for work that is performed infrequently. Therefore, only a small portion, if any portion at all, of T&D labor costs, should be assigned to wholesale customers.

In her rebuttal testimony, Ms. Marchand highlighted the fact that Providence Water confirmed in discovery that its employees only spent five percent of their time on transmission mains in FY-2019. Therefore, she argued that no more than 5% of T&D labor costs should be allocated to any of the wholesale customers.⁹⁵

4. Chemical Expense

In direct testimony, Ms. Marchand expressed concern that there was insufficient information to justify Providence Water’s request for an additional million dollars per year for chemical expense. In surrebuttal testimony, BCWA accepted Providence Water’s reduction of this funding to \$800,000 per year.⁹⁶

B. Testimony of Michael Maker

Mr. Maker averred that Providence Water’s COSS failed to develop rates and charges to recover costs from specific customers in relation to the way each customer demands service. He contended that Providence Water’s single wholesale rate runs contrary to ratemaking principles set forth in the AWWA M-1 Manual.⁹⁷ Mr. Maker argued that each of Providence Water’s

⁹⁴ *Id.* at 4.

⁹⁵ *Id.* at 6.

⁹⁶ *Id.* at 8.

⁹⁷ Michael Maker Direct Test. at 3; [http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Maker%20\(5-11-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Maker%20(5-11-20).pdf).

wholesale customers should be treated individually because each has different usage and peaking characteristics, like that of a retail customer class (e.g., residential, commercial, industrial). He noted that each wholesale customer is a group of customer classes; that is, each wholesale customer is composed of a mixture of its own residential, commercial and industrial customers.⁹⁸

Mr. Maker submitted several reasons why individual wholesale rates should be implemented in this rate case: (1) the Commission ordered Providence Water to complete a cost of service study for this rate case, without applying previously used allocators; (2) Providence Water previously acknowledged that prior wholesale rates did not reflect the true cost associated with providing wholesale service; (3) Providence Water has the necessary information to calculate separate rates for each wholesale customer; (4) if the proper cost of service rates for individual wholesale customers are not calculated now, BCWA will pay higher rates than it should for many more years because Providence Water has requested a multi-year increase in this Docket; (5) the calculation of separate wholesale rates is consistent with the AWWA's M-1 Manual; (6) Providence Water's consultant, Harold Smith, has prepared cost of service studies for Newport Water, which is regulated by the Commission, that charge separate rates for wholesale customers.⁹⁹

Mr. Maker noted that not only does Providence Water have the peaking data necessary to allocate extra-capacity costs to customers based upon their relative contributions to peak demand, but that Providence Water has had this data since 2013. He testified that without changing the methodology employed by Providence Water's model, he simply incorporated peaking factors for each wholesale customer (as opposed to using the average for the entire group) for several of Providence Water's schedules and calculated individual wholesale rates.¹⁰⁰ Mr. Maker claimed

⁹⁸ *Id.* at 6.

⁹⁹ *Id.* at 6-7.

¹⁰⁰ *Id.* at 11.

that his adjustments caused the proposed revenue increase for the entire wholesale group for RY-1 to be 24.24%, as opposed to 20.67%.

Mr. Maker contended that Providence Water should not assign pumping costs to BCWA because its connection was gravity-fed and did not require pumping. When Mr. Maker calculated rates without pumping costs assigned to BCWA, other customers' costs increased slightly and BCWA's decreased slightly.¹⁰¹ Mr. Maker similarly maintained that BCWA should not be charged for unidirectional pumping costs for 8-inch and 12-inch mains because BCWA was not served by these mains. Rates without those costs included would result in a slight decrease to BCWA and a slight increase to other customers.¹⁰²

Mr. Maker opined that funding for two of Providence Water's restricted funds accounts, IFR and Insurance, should be modified. Providence Water's original filing projected an ending balance in the IFR account at the end of FY-2023 of \$6,634,750. He questioned the need for such a large balance. He averred that Providence Water has not typically spent its budgeted amounts on projects funded by the IFR Account.¹⁰³

Mr. Maker recognized that while Providence Water had not sought an increase to its insurance funding, Providence Water did not adequately demonstrate that annual funding of \$2,302,113 was still needed. However, Mr. Maker did not propose a specific reduction. He also recommended that City Services be level funded.¹⁰⁴

Mr. Maker opposed Providence Water's plan to retire all the RECs earned from its solar array. He argued that Providence Water acknowledged that it could produce enough renewable energy to offset electricity use at all its facilities and sell its RECs. He contended that the annual

¹⁰¹ *Id.* at 12.

¹⁰² *Id.* at 13.

¹⁰³ *Id.* at 16.

¹⁰⁴ *Id.* at 19.

income Providence Water would receive from RECs could be used to reduce rates for its customers, and Providence Water could still utilize renewable energy for its electricity needs.¹⁰⁵

C. Rebuttal Issues

1. Non-Revenue Water for Water Quality Testing

Providence Water did not allocate expense for non-revenue water to the wholesale customers in its initial filing. However, the Division argued that wholesale customers should be assigned costs. In rebuttal testimony, Providence Water assigned 47.4 % of the non-revenue water to wholesale customers.¹⁰⁶ BCWA contested this allocation at the evidentiary hearings, which will be discussed below.

2. Central Operations Facility Costs

The Division recommended that Providence Water allocate a portion of COF expenses to wholesale customers. In rebuttal testimony, Providence Water agreed and allocated 10% of COF costs to wholesale rates. Ms. Marchand argued that Providence Water only had seven wholesale customers as opposed to approximately 77,000 retail customers. Furthermore, Providence Water has 57,812 5/8” meters, which are typically used to service residential customers as opposed to the large venturi meters that are owned and tested by its wholesale customers. She concluded that an allocation of 10% of COF costs overstated the wholesale customers’ share of meter, billing and collection activities.¹⁰⁷

V. Kent County Water Authority

Intervenor, KCWA, submitted prefiled direct testimony from its consultant, David G. Bebyn.¹⁰⁸ KCWA argued that Providence Water’s request for an increase in City Services should

¹⁰⁵ *Id.* at 20.

¹⁰⁶ *Id.* at 5.

¹⁰⁷ *Id.* at 7.

¹⁰⁸ David G. Bebyn Direct Test.; <http://www.ripuc.ri.gov/eventsactions/docket/4994-KCWA-Bebyn%205-11-20.pdf>.

be denied because Providence Water was simply unable to justify the expense.¹⁰⁹ Mr. Bebyn opposed Providence Water's proposed increase for taxes and claimed that the evidence in the record did not support an increase beyond 3.3%. Mr. Bebyn declared, as KCWA did in Providence Water's prior docket, that Providence Water owned the building it occupied for many decades on Academy Avenue. He insisted that Providence Water should be receiving rent from the building's current occupant, the City of Providence.¹¹⁰

Mr. Bebyn expressed concern for the method of allocating the maximum-day and maximum-hour demand to wholesale rates. He noted that demand by one wholesale customer, Warwick, was affecting rates for the entire wholesale group. Nevertheless, he did not advocate for individual wholesale rates for KCWA because of perceived funding issues and problems with water wheeling between KCWA and Warwick.¹¹¹

Finally, Mr. Bebyn addressed the Lead-Service Replacement Fund and claimed that the current rate design with across-the-board increases in years two and three would cause wholesale customers to bear some of the expense for this program which is exclusively a retail expense. He suggested moving this expense to RY-1.¹¹²

VI. Proposed Settlement Agreement

On July 3, 2020, Providence Water filed a Settlement resolving all issues between Providence Water, the Division, the KCWA, and Warwick.¹¹³ After extensive negotiations, the Settling Parties agreed that Providence Water could be granted additional revenues of \$12,245,566

¹⁰⁹ *Id.* at 5.

¹¹⁰ *Id.* at 6.

¹¹¹ *Id.* at 7.

¹¹² *Id.* at 8.

¹¹³ Settlement Agreement (July 1, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-SettlementAgreement%207-3-20.pdf>.

(an increase of 17.66%) for RY-1, to provide total pro forma revenues of \$83,501,619 with additional increases in RY-2 and RY-3.¹¹⁴

In addition, the parties agreed to the following revenue adjustments: (1) maintain City Services at the current Commission-approved funding level of \$839,167;¹¹⁵ (2) funding for a total of 248 employees for Providence Water's Operations, resulting in reductions in the revenue requirement for labor in each of the rate years; (4) reduced payroll taxes in each of the rate years;¹¹⁶ (3) downward adjustments for PUC assessment in each of the three rate years;¹¹⁷ a \$200,000 decrease in annual funding for chemical costs;¹¹⁸ increased funding for private side lead service replacement as proposed by the Division;¹¹⁹ elimination of inflation adjustments in each of the rate years;¹²⁰ funding for the Operating Reserve and Revenue Reserve accounts were set at 1.5% and 0.5% of net revenue, respectively;¹²¹ an increase to the Miscellaneous Revenue account of \$128,417 in each rate year;¹²² reduced funding of the Equipment account in each rate year;¹²³ reduced funding of the Insurance account by \$251,057 in each rate year;¹²⁴ reduced funding of the IFR account by \$1,000,000 in RY-3;¹²⁵ and reduced funding in Service and Materials Account.¹²⁶

In addition to funding changes, the parties also agreed to include several rate design changes proffered by Division witness, Jerome Mierzwa: (1) proportionate share (based on pro forma water sales) of water quality and other testing of non-revenue water will be allocated to

¹¹⁴ Settlement, Par. 2.

¹¹⁵ Settlement Par. 4 (a).

¹¹⁶ Settlement Par. 4 (b).

¹¹⁷ Settlement Par. 4 (c).

¹¹⁸ Settlement Par. 4 (d).

¹¹⁹ Settlement Par. 4 (e).

¹²⁰ Settlement Par. 4 (f).

¹²¹ Settlement Par. 4 (g).

¹²² Settlement Par. 4 (h).

¹²³ Settlement Par. 4 (i).

¹²⁴ Settlement Par. 4 (j).

¹²⁵ Settlement Par. 4 (k).

¹²⁶ *Id.*

wholesale customers;¹²⁷ (2) water treatment plant labor expenses will be functionalized and allocated based on average day demands (Factor 1);¹²⁸ (3) bad debt expense will be assigned to all retail functional costs;¹²⁹ (4) interest on delinquent accounts will be assigned to all retail functional costs;¹³⁰ (5) Direct Fire Protection will be assigned 0.5% of functionalized base costs;¹³¹ (6) 10% of the square footage dedicated to commercial services in the COF will be assigned to wholesale customers;¹³² (7) increases in monthly service charges and public fire surcharge will be limited to 1.75 times the system average increase;¹³³ (8) public fire hydrant and private fire will be 1.75 times the system average increase;¹³⁴ (9) increases for Steps 2 and 3 will include the private-side lead-service replacement for retail customers only;¹³⁵

The Settlement also set forth new rates: (1) a wholesale rate of \$2,158.02 per million gallons;¹³⁶ (2) residential retail rate of \$3.684 per HCF;¹³⁷ (3) commercial rate of \$3.859 per HCF;¹³⁸ and (4) industrial retail rate of \$3.512 per HCF.¹³⁹ The Settlement established the retail consumption level at 12,625,037 HCF and the wholesale consumption level at 11,362,760 HCF.¹⁴⁰ The Public Fire Supply rate was set at \$595.68 per hydrant and the Private Fire Service rates varied.¹⁴¹ The step increases for retail rates, which include the cost for private-side lead-service replacement, would be 5.54% in RY-2 and 4.22% in RY-3. The step increases for the wholesale

¹²⁷ Settlement Par. 5 (a).

¹²⁸ Settlement Par. 5 (b).

¹²⁹ Settlement Par. 5 (c).

¹³⁰ Settlement Par. 5 (d).

¹³¹ Settlement Par. 5 (e).

¹³² Settlement Par. 5 (f).

¹³³ Settlement Par. 5 (g).

¹³⁴ Settlement Par. 5 (h).

¹³⁵ Settlement Par. 6.

¹³⁶ Settlement Par. 7.

¹³⁷ Settlement Par. 8.

¹³⁸ *Id.*

¹³⁹ *Id.*

¹⁴⁰ Settlement Par. 9.

¹⁴¹ Settlement Par. 9.

rate, which exclude the cost for private-side lead-service replacement, would be 4.07% in RY-2 and 2.84% in RY-3.¹⁴²

VII. Hearings & Open Meetings -Adjustments to Settlement Agreement

On July 14 and 15, 2020, the Commission held evidentiary hearings on the proposed Settlement. BCWA did not join the Settlement and continued to litigate several issues, including arguing for an individual wholesale rate structure. Upon conclusion of the hearings, the parties were ordered to file briefs. On August 18, 2020, the Commission held an Open Meeting to discuss and decide the outstanding revenue requirement and rate design issues. The Commission determined several modifications and additional study were required to approve rates for RY-1 and beyond.

A. Contested Rate Design Issues

1. Uniform Wholesale Rate Design/ Providence Water's Cost of Service Study

The settlement's wholesale rate design was contested by BCWA. Providence Water's filing proposed a single, uniform wholesale rate for the entire wholesale class which consisted of seven wholesale customers. This rate structure was opposed by BCWA which asserted that Providence Water did not meet its burden of establishing that its proposed rates were just and reasonable.

In Docket No. 4618, this Commission ordered Providence Water "to complete and submit a new cost of service study conducted without reference to previously used Commission adjusted allocators."¹⁴³ At the evidentiary hearings, BCWA cross-examined Mr. Harold Smith on his involvement with prior Providence Water dockets and the history of uniform wholesale customer

¹⁴² Settlement Par. 10.

¹⁴³ PUC Order No. 23666, Docket No. 2618 (Feb. 20, 2017); [http://www.ripuc.ri.gov/eventsactions/docket/4618-ProvWater-Ord23666%20\(9-16-19\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4618-ProvWater-Ord23666%20(9-16-19).pdf).

rates. In Docket No. 4618, Providence Water's most recent rate case, Mr. Smith explained how the results of Providence Water's COSS in that docket would differ if the standard base/extra capacity approach had been used. Mr. Smith indicated that the major difference would be the analysis using the standard approach would allocate costs to the wholesale customers based on their peaking characteristics. He testified then, that "it is important to note that use of the standard approach would dictate the need for separate and different rates for each wholesale customer since it is likely that the peaking characteristics of each wholesale customer are different from the peaking characteristics of the class as a whole."¹⁴⁴ At the hearing in this docket, when asked about information from Docket No. 4406, Mr. Smith agreed that "if one or more wholesale customers had demand characteristics that put significantly more customers [sic] demands (on a unit basis) on the system than other wholesale customers, it could result in some wholesale customers...subsidizing other customers."¹⁴⁵

In this docket, despite having used the base-extra capacity method which could have been applied to each of the wholesale customers individually, Mr. Smith, did not utilize the available peaking factors to develop individual wholesale rates. Rather, he treated all wholesale customers as a class. Yet, he did use peaking factors to set rates for the retail class of residential, commercial, and industrial customers.¹⁴⁶ Mr. Smith related that before filing in this docket, although he did not run his model for using peaking factors for wholesale customers, he did conduct a high-level analysis on uniform wholesale rates to look at the implications. He conceded that the implication was that uniform wholesale rates would result in some customers receiving significant subsidies.¹⁴⁷

¹⁴⁴ *Id.* at 116-117; Docket 4618, Div. 4-5; <http://www.ripuc.ri.gov/eventsactions/docket/4618-PWSB-DR-DPU4.pdf>; Hr'g. Tr. (Jul. 15, 2020) at 117.

¹⁴⁵ *Id.* at 120-21, affirming a statement made in Providence Water's data response to BCWA 1-27 in Docket No. 4406; <http://www.ripuc.ri.gov/eventsactions/docket/4406-ProvWater-DR-BCWA1.pdf>.

¹⁴⁶ Hr'g. Tr. (Jul 15, 2020) at 135.

¹⁴⁷ *Id.* at 136.

When faced with BCWA's opposition to uniform wholesale rates, he asserted that Providence Water was unable, at this time, to calculate individual wholesale rates which were just and reasonable, because Providence Water did not have sufficient information to reflect all the "nuances" involved in serving each customer.¹⁴⁸ Mr. Smith explained that Providence Water had maintained a single wholesale rate to be consistent with prior rate filings and Commission approvals.¹⁴⁹ He stated, therefore, that Providence Water gathered only the information necessary to calculate uniform wholesale rates and did not gather all of the required information for the "nuances" involved in calculating individual wholesale rates.¹⁵⁰

Mr. Smith testified that he believed he had complied with the Commission's prior order.¹⁵¹ While there may have been some debatable ambiguity in the Commission's directive from the prior rate case, the Commission finds that the study was not consistent with the intent of the Commission's directive.

With respect to the issues relating to the Providence Water's decision to propose uniform wholesale rates instead of individual rates, BCWA argued that Providence Water's proposed rates were unfair, unreasonable, and discriminatory, in violation of the law. BCWA asserted that since Providence Water had a new COSS and the peaking factors necessary for individual wholesale rates, Providence Water had no justification for its failure to calculate and include these rates in its filing. By averaging the wholesale customer's peak demands, the cost of providing service to each customer will not be recovered from those customers. BCWA asserted that each customer would not pay its own way and unjust subsidies would be created. BCWA contended that a subsidy was especially unfair to it because BCWA has undertaken investments and management decisions to

¹⁴⁸ *Id.*

¹⁴⁹ *Id.* at 140.

¹⁵⁰ *Id.* at 139.

¹⁵¹ *Id.* at 210.

curb its peak demand. According to BCWA, uniform wholesale rates would allow other wholesale customers to unjustly reap the benefits of BCWAs' investment.

BCWA's witness, Mr. Maker, used Mr. Smith's model and added in the peaking factors for each wholesale customer to determine what their rates would be with such an allocation. He found under Providence Water's proposal, the City of Warwick would receive a \$3,724,323 discount in the revenues it should contribute to Providence Water over the course of the multi-year rate plan, and the BCWA's customers would contribute \$812,596 to subsidize this discount.¹⁵² Mr. Maker's testimony on this significant disparity was unrebutted by any other witness.

The purpose of a COSS is to fairly allocate a utility's costs to the customers who cause those costs to be incurred. The AWWA Manual M-1 sets the industry standard for generally accepted ratemaking principles.

Providence Water's Consultant, Harold J. Smith, testified that he utilized the "Base-Extra Capacity Method" as outlined in the AWWA M-1 Manual. This approach allocates costs to customer classes in proportion to their use of the Providence Water system. Under this approach, costs are primarily allocated based on peak demand, both on a maximum day and maximum hour basis.¹⁵³ He explained that the steps used in a COSS using the Base-Extra Capacity Method are functionalization, allocation, and distribution.

In functionalization, costs are assigned to the functions which Providence Water must perform to deliver water to customers. In Providence Water's case, given the use of the National Association of Regulatory Commissioners (NARUC) chart of accounts, costs are already tracked

¹⁵² Maker Surrebuttal Test. at 14 (Jun. 26, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-Maker%206-26-20.pdf>.

¹⁵³ Harold J. Smith Direct Test. at 14.

according to function. These functions are source of supply, treatment, pumping, transmission and distribution, customer accounts, and administrative and general.¹⁵⁴

When allocating costs, functionalized costs are then allocated to cost components which include Base, Max Day, Max Hour, Meters & Services, Billing & Collection and Direct Fire. These components represent different types of customer demand which drive variations in the cost of performing each function. For example, source of supply costs are driven by base demand, or demand on an average day. Higher customer base demand means higher source of supply costs.¹⁵⁵

In distribution, costs are distributed to customer classes in proportion to their demand for each cost component. In other words, once the costs are assigned to Base, Max Day, Max Hour, Meters & Services, Billing & Collection, and Direct Fire, they can then be assigned to customer classes in proportion to their units for each cost component.¹⁵⁶

On cross-examination, Mr. Harold Smith¹⁵⁷ agreed that a cost of service study should adhere to the following principles: (1) the cost of providing service to a utility's customers must be recovered from those customers; (2) a cost of service study should recognize that different types of customers generate different costs because their patterns of use or demand characteristics are different; (3) a cost of service study allows the matching of rates charged to each group to the cost of serving them; (4) each group of customers pays its own way - no subsidies; and (5) a cost of service study should recover costs from users in proportion to their use of the system and by recognizing the impact of each class on system facilities and operations.¹⁵⁸

¹⁵⁴ *Id.* at 15.

¹⁵⁵ *Id.*

¹⁵⁶ *Id.*

¹⁵⁷ Mr. Smith has served as Providence Water's rate consultant for over 10 years.

¹⁵⁸ Hr'g Tr. (Jul. 15, 2020) at 125-127.

BCWA's rate consultant, Mr. Maker used the model created by Mr. Harold Smith, added the wholesale peaking factors, and developed individual wholesale rates. Mr. Maker also calculated different sets of rates by removing both pumping and flushing costs which BCWA was disputing as applicable to BCWA. Mr. Harold Smith characterized Mr. Maker's approach as "limited" and asserted they would not result in just and reasonable rates because of operational, financial, engineering and contractual issues which have not yet been studied.¹⁵⁹

Nevertheless, Mr. Harold Smith conceded that wholesale rates could be calculated by using his model and incorporating individual peaking factors for wholesale customers. However, he asserted that such rates would be missing nuances that should be addressed.¹⁶⁰ Mr. Smith indicated that a new study to address the nuances would take from six months, to a year, depending upon the level of cooperation of the parties involved in such a study.¹⁶¹

Regardless of Providence Water's belief with respect to the Commission's directive in the last rate case, the Commission has evaluated the evidence and rejects the continued implementation of a uniform wholesale rate. In this case, BCWA's witness Maker's testimony supporting the appropriateness for individual wholesale rates was entirely unrebutted. Not one witness for any of the settling parties contradicted Mr. Maker's testimony on this issue. In fact, Providence Water's own witness conceded that the points made by Mr. Maker had merit. Providence Water's witness offered that there were other considerations that needed to be taken into account when developing individual wholesale rates that would need more time, relating to

¹⁵⁹ *Id.* at 171; PUC 2-2 (Jul. 3, 2020); [http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-PUC2%20\(7-3-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-PUC2%20(7-3-20).pdf).

¹⁶⁰ Hr'g. Tr. (Jul. 15, 2020) at 172.

¹⁶¹ *Id.* at 182.

the nuances of how each customer relied upon Providence Water's facilities. Providence Water also offered to perform a new study in its next rate case.¹⁶²

Based on Mr. Maker's testimony, the Commission determined that the weight of evidence indicated that a uniform rate resulted in unjustified cross-subsidies among and between wholesale customers.¹⁶³ Therefore, the Commission rejects the uniform wholesale rate as being unjust and unreasonable.

The Commission, however, is mindful of the significant impact such a change will have on Warwick.¹⁶⁴ As illustrated in the schedules of Mr. Maker, the impact on Warwick could be as much as a 46% increase in one year.¹⁶⁵ For that reason, the Commission is requiring that individual wholesale rates be implemented in the first year of the multi-year rate plan based upon the principle of gradualism, as described below.

Specifically, Providence Water shall move to individual wholesale rates in two steps. The first step occurs in year one, followed by a second step for year two. In year one, individual wholesale rates shall be calculated by allocating costs to each wholesale customer based upon the individual peaking factors used in the Amended Settlement. However, the rate shall be established by moving only one-third of the way from the Amended Settlement rates, using the first-year revenue requirement as established by the Commission by this order. The Commission is choosing this one-third gradualism approach for two reasons: (1) Providence Water proposed a three-year plan. Moving one-third of the way for year one coincides with a potential three-year phase-in; (2)

¹⁶² Smith Rebuttal Test. at 13.

¹⁶³ Maker Direct Test. at 12.

¹⁶⁴ The settling parties raised a concern that moving to individual wholesale rates would be unfair to Warwick because it would not be giving adequate notice. The Commission is not persuaded. Warwick was an intervenor in this case and was in a position to protect its own interests. Further, when counsel for Providence Water alluded to this concern in opening arguments, the Chairman asked whether Providence Water was identifying a legal defect in the proceeding. Counsel answered that he was not alleging a legal defect in the case. *See also Town of Narragansett v. Malachowski*, 621 A.2d 190, 196 (1993).

¹⁶⁵ *See* Maker Direct Test. Maker Amended Schedule HJS-22 (last page of Exhibit 5).

while the allocation issues raised by BCWA have merit, the Commission finds that it would nevertheless be appropriate to have a new COSS performed that takes into account all factors, including the allocation issues. Gradually implementing individual rates by one-third per year of the rate plan reduces the likelihood that the Commission's decision over-corrects the cross-subsidies inherent in uniform rates that it aims to solve. Once the new COSS is completed and reviewed, the Commission will be in a position to approve individual rates that have taken into account all relevant factors, in a manner that is fair to all the affected parties.

For RY-2, the Commission is directing Providence Water to file a new COSS by February 18, 2021. Providence Water also must propose individual wholesale rates based on that study for implementation in RY-2. The Commission will hold hearings on the new COSS and establish individual rates in RY-2, and or RY-3, based upon its findings regarding the new COSS.¹⁶⁶

In addition to BCWA challenging the general principle of individual versus uniform wholesale rates, BCWA also raised several other issues relating to the allocations of cost to the entire wholesale class, as well as allocations of cost to some of the individual wholesale customers. Specifically, these related to the allocation of transmission and distribution labor costs, the allocation of costs associated with the central operations facility, the allocation of the cost of non-revenue water, the allocations of pumping costs, and the allocation of unidirectional flushing costs. The Commission finds that each of these issues raised by BCWA need to be addressed when a new COSS is performed by Providence Water. With respect to the first three issues, the next COSS must address these allocations with data that firmly supports the allocators chosen. With respect to pumping and unidirectional flushing costs, the allocations must be based upon the benefits received by each wholesale customer. Each of these issues is directly addressed below.

¹⁶⁶ Depending upon the Commission's findings relating to the study, the Commission may complete the move to individual rates in RY-2 or continue some form of gradualism.

2. Allocations to Entire Wholesale Class

a. Transmission & Distribution (T&D) Labor

The Division challenged Providence Water's method of allocation for T&D labor expenses which functionalized and allocated costs partially based on average-day demands and partially based on maximum-hour demands. Mr. Mierzwa asserted that these labor expenses do not vary with changes in water usage and, therefore, these costs should be functionalized and allocated based on average-day demands.¹⁶⁷

In surrebuttal testimony, Ms. Marchand contended that because BCWA is supplied by 30-inch and larger transmission mains, the allocation of T&D labor costs should be minimal. She asserted that most water systems do not have the resources to perform work on larger mains. Instead, the work is performed by outside contractors. In Providence Water's response to BCWA 5-3(a), Providence Water confirmed that its employees only spent five percent of their time on transmission mains in FY 2019. Therefore, she argued, no more than 5% of T&D labor expense should be allocated to any of the wholesale customers. In Harold Smith's rebuttal testimony, he indicated that the BCWA's position had merit, but could only be properly implemented with individual wholesale rates.¹⁶⁸

The Settlement provided that the labor costs would be functionalized and allocated based upon based on average-day demands, as suggested by Mr. Mierzwa, but did not limit the allocation to wholesale customers at 5% as advocated by BCWA. The Commission questions the validity of the allocation and orders Providence Water to address this issue in its new allocated COSS, with data that firmly supports the allocators for future rate years.

¹⁶⁷ Mierzwa Direct Test. at 10.

¹⁶⁸ Harold Smith Rebuttal Test. at 13.

b. Central Operations Facility

In Providence Water's filing, Mr. Smith functionalized COF costs based on square footage of various functions performed at the COF.¹⁶⁹ Each area of the facility that can be directly assigned is allocated based on factors indicated on his Sch. HJS-13(A). Any space that could not be directly assigned was allocated in proportion to the directly assignable space.¹⁷⁰ All commercial services areas were assigned to retail customers. Commercial services included all large and small meter related services, all billing related activity, and all collection related activity.

The Division objected to this functionalization because no costs were assigned to the wholesale customers who clearly required these services. Mr. Mierzwa recommended that Providence Water address the allocation of COF Commercial Services costs in its rebuttal testimony. He suggested that unless Providence Water could demonstrate that an alternative allocation was more reasonable, 10 % of Commercial Services COF costs be assigned to wholesale customers.¹⁷¹ In its rebuttal, Providence Water agreed to incorporate Mr. Mierzwa's suggestion.¹⁷² This agreement was further incorporated into the Settlement.¹⁷³

BCWA objected to this allocation as having no supporting factual basis. At hearing, Mr. Mierzwa testified that larger customers require more of these services; wholesale customers use is recorded hourly. Mr. Mierzwa conceded that his recommendation of 10% was an assumption of what might be reasonable and was not based on a study.¹⁷⁴

BCWA argued that Providence Water only has seven wholesale customers as opposed to approximately 77,000 retail customers. Furthermore, Providence Water has 57,812 5/8" meters,

¹⁶⁹ Sch. HJS-13(a).

¹⁷⁰ Harold J. Smith Direct Test. at 22.

¹⁷¹ Mierzwa Direct Test. at 12.

¹⁷² Harold J. Smith Rebuttal Test. at 3 (June 5, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Smith%206-5-20.pdf>.

¹⁷³ Settlement at 5 (F).

¹⁷⁴ Hr'g. Tr. (Jul 14, 2020) at 222.

which are typically used to service residential customers as opposed to the large venturi meters that are owned and tested by its wholesale customers. Thus, BCWA contended, an allocation of 10% overstated the wholesale customers' share of meter, billing and collection activities and should be rejected.¹⁷⁵

BCWA focused on the number of meters for the wholesale class, (7) vis a vis the retail class of 77,000. There was no evidence in the record to suggest that Providence Water used a proportionally smaller area in the COF to administer the needs of wholesale customers than the retail customers.

The Commission notes that in Docket No. 4618, at Paragraph 17, the Commission specifically ordered Providence Water "to address the allocation of the central operations facility in its new cost of service study."¹⁷⁶ Despite this order, Providence Water's new COSS did not address cost allocation of the COF to wholesale customers.

The Commission finds that there was little in the record to support the specific allocation of 10%, as opposed to a higher or lower figure. However, we find that a minimal allocation to the wholesale class for the areas used by commercial services is appropriate, temporarily. Therefore, for RY-1 only, the Commission accepts the settled figure of 10%. The Commission orders Providence Water to address this issue in its new allocated COSS, with data that firmly supports the allocators for future rate years.

¹⁷⁵ BCWA Post-Hearing Brief at 41-42; [http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-PHMemorandum%20\(8-11-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-BCWA-PHMemorandum%20(8-11-20).pdf).

¹⁷⁶ Order No. 23666, Docket No. 2618 (Feb. 20, 2017) at par. 17.

3. Allocation to BCWA and Others in Class

a. Non-Revenue Water

In direct testimony, Mr. Harold Smith stated that wholesale customers' share of NRW included a proportionate share of leakage in transmission mains, which represented 2.42% of NRW. He indicated that the remaining sources of NRW, including unauthorized consumption, customer metering inaccuracy, firefighting allowance, water quality and testing, distribution main flushing and distribution main leakage were all allocated 100% to retail customers.¹⁷⁷

Division witness Mierzwa found that the most significant contribution to NRW was water used for water quality and other testing services. None of the NRW costs for this function were allocated to wholesale customers which Mr. Mierzwa argued was unreasonable. He adjusted Providence Water's allocation to wholesale customers, for this NRW function, to 47.4%.¹⁷⁸ Providence Water agreed to this adjustment in its rebuttal testimony and schedules.

At hearing, Mr. Harold Smith testified that he was not initially aware of the volume of NRW, but when Mr. Mierzwa called attention to the matter, he determined that a significant amount of water was being used for maintaining water quality on the Aqueduct Reservoir from which all wholesale customers derive benefit. He then assigned a 47.4% allocation of NRW in the water quality testing category only, to wholesale customers because the wholesale customer class is responsible for 47.4% of all the water sold by Providence Water.¹⁷⁹

BCWA objected to this allocation, and claimed that according to BCWA 10-1, only 1,075,338 HCF of this total amount benefits wholesale customers because that is the amount used to flush the Aqueduct Reservoir. BCWA averred that the remainder of NRW, used to flush the

¹⁷⁷ Harold J. Smith Direct Test. at 24.

¹⁷⁸ Mierzwa Direct Test. at 9; Sch. JDM-15 (b).

¹⁷⁹ Hr'g. Tr. (Jul.15, 2020) at 222.

retail system, including the old East Smithfield distribution system and the Ridge Road Tank, did not benefit the wholesale customers. BCWA argued that this figure should be adjusted.

For RY-1, the Commission accepts the settled allocation of 47.4% of the water testing category as a reasonable adjustment. However, the Commission orders Providence Water to address this issue in its new allocated COSS with data that firmly supports the allocators for rate years two and three.

b. Pumping Costs

Providence Water's COSS allocated pumping costs to all wholesale customers. In Providence Water's system, four wholesale customers are fed by gravity and three require pumping. BCWA's connection is one of the systems that is gravity-fed.

In support of its argument that BCWA should not be charged pumping costs, BCWA quoted Providence Water's answer to Div. 4-5: "The Greenville Water District, Lincoln Water Commission, and Smithfield Water District are all served by the High Service Area which requires the use of pumps and an increase in operation and maintenance costs. The high service system is comprised of the Neutaconkanut Pumping Station, Bath Street Pumping Station, and Longview Storage Reservoir. The Bristol County Water Authority, East Providence Water Department, Warwick Water Department, and Kent County Water Authority are all served by the Low Service system that is fed by gravity. The low service system is comprised of the Aqueduct Storage Reservoir, and Neutaconkanut Storage Reservoir.' As such, pumping costs should not be allocated to the BCWA, KCWA, East Providence and Warwick."¹⁸⁰

Mr. Harold Smith conceded that Mr. Maker's position, opposing the imposition of pumping costs, had merit, but he claimed that that adjustment could only be implemented if Providence

¹⁸⁰ Maker Direct Test. at 12-13; BCWA Post-Hearing Brief at 43.

Water were to develop separate rates for each wholesale customer. Mr. Smith further recommended that Providence Water should study this issue, and others, to examine the possibility of implementing separate wholesale rates, in Providence Water's next full rate filing.¹⁸¹

The Commission agrees with BCWA that pumping costs should be allocated based upon the benefits received by each customer and orders Providence Water's new allocated COSS to allocate pumping costs based upon the benefits received by each wholesale customer.

c. Unidirectional Flushing (UDF)

As with cost allocation for the COF discussed *infra*, the Commission ordered Providence Water in Docket No. 4618 to "address the allocation of the unidirectional flushing program in its new cost of service study."¹⁸² Providence Water's filing herein included an allocation of unidirectional flushing costs to wholesale customers, but it did not assign wholesale customer costs individually, as the Commission expected with a brand new, from scratch, COSS.

According to Mr. Giasson, UDF is the process of surgically flushing water mains within a distribution system. When conducting a unidirectional flush, selected mains are isolated by closing valves to ensure that the selected main is being flushed. The selected mains are typically 12 inches and below. Flushing helps utilities remove sediment within a distribution system and reduce water age.¹⁸³

Providence Water derives four main benefits from UDF: (1) reduction of water age within the distribution and transmission system; (2) removal of sediment within isolated water mains; (3) water valves exercised for operation and to help emergency readiness; (4) hydrants exercised to help emergency readiness.¹⁸⁴ Mr. Giasson asserted that several of Providence Water's wholesale

¹⁸¹ Harold J. Smith Rebuttal Test. at 13.

¹⁸² PUC Order 23666, Docket 4618 (Feb. 20, 2017) at par. 18.

¹⁸³ Giasson Rebuttal Test. at 2-3; Sch. GMG-1.

¹⁸⁴ *Id.*

customers are directly fed through 8-inch and 12-inch water mains. Additionally, smaller diameter water mains are fed from larger transmission mains and flushing helps remove potentially stagnant water.

BCWA argued that “according to Providence Water’s response to Div. 5-1, it allocated unidirectional flushing costs to wholesale customers because it flushes all mains in the system that are 12 inches and below and some wholesale customers are fed by 8-inch and 12-inch mains. BCWA is not one of these customers and should not be allocated any of these costs. The BCWA maintained that Providence Water should not allocate unidirectional flushing costs to the BCWA.”¹⁸⁵ Mr. Maker performed calculations to show that BCWA would pay slightly less when the charge for unidirectional flushing was eliminated.¹⁸⁶

At hearing, Mr. Harold Smith testified that Mr. Maker’s calculation removed pumping costs from the entire wholesale class and contended that the calculation was not appropriate because unidirectional flushing does have “some benefit to some of the wholesale customers.”¹⁸⁷ He further asserted that removing the UFD charge from all wholesale customers class, the retail class would be subsidizing certain wholesale customers for the UDF costs.¹⁸⁸

Mr. Giasson concurred with Mr. Smith’s testimony that some of the wholesale customers are fed off 12-inch and 8-inch pipes, so they do see some benefit from flushing. However, Mr. Giasson claimed that when flushing the water in the smaller diameter pipes, fresher water is then brought into larger transmission lines, so there is a benefit to wholesale customers for moving water throughout the system and reducing the age of water in the lines.¹⁸⁹

¹⁸⁵ Marchand Direct Test. at 3; BCWA post-hearing brief at 43.

¹⁸⁶ Maker Direct Test. at 12-13; Exh. 6.

¹⁸⁷ Hr’g. Tr. (Jul.15, 2020) at 218.

¹⁸⁸ *Id.*

¹⁸⁹ *Id.* at 219-220.

The Commission agrees with Mr. Smith's contention that removing all the UDF costs from all the wholesale customers would cause retail customers to subsidize costs that clearly benefit some wholesale customers that receive water from the flushed lines. However, the Commission is not convinced that wholesale customers who receive their water through larger transmission lines that are not flushed, receive a quantifiable, tangible benefit from the flushing. There was simply no direct evidence of such benefits. The Commission notes again that this matter should have been fully addressed in the COSS that Providence Water conducted for this filing.

Therefore, the Commission agrees with BCWA that pumping costs should be allocated based upon the benefits received by each customer. The Commission orders Providence Water's new allocated COSS to allocate unidirectional flushing costs based upon the actual benefits received by each wholesale customer. The Commission will revisit this issue for RY-2 and RY-3.

B. Contested Revenue Requirement Issues

1. Restricted Account/IFR

Providence Water sought an increase in IFR funding of \$2.0 million in RY-1, \$2.0 million in RY-2, and \$2.0 million in RY-3 and projected an ending balance in FY 2023 of \$6,634,750.¹⁹⁰

In its direct testimony, the Division advocated for reducing the FY 2023 addition from Providence Water's requested amount of \$6.0 million to \$4.0 million. The Division contended that rather than allowing the Company to accumulate greater reserves in this fund, removal of \$2.0 million in FY 2023 could mitigate the rate increase, and still leave a healthy ending balance of \$4,634,750.¹⁹¹

BCWA urged the Commission to question whether it was realistic to expect that Providence Water would spend the funds it had requested because Providence Water had

¹⁹⁰ Sch. HJS-10(c).

¹⁹¹ Ralph Smith Direct Test. at 22; Sch.RCS-9.

historically underspent its IFR estimates. Furthermore, BCWA challenged Providence Water's need to retain such a large amount in this reserve account.¹⁹²

In their rebuttal testimonies, both Mr. Harold Smith and Ms. Parrillo opposed the Division's proposed \$2.0 million downward adjustment for FY 2023.¹⁹³ Ms. Parrillo argued that the IFR Fund was the key to maintaining clean, safe drinking water for over 600,000 people in the State of Rhode Island. Providence Water's IFR plan included 40 projects that total \$28.8 million in FY 2021, \$52.7 million in FY 2022, and \$35.6 million in FY 2023.¹⁹⁴

Providence Water will borrow from the RIIB for the Water Main Rehabilitation project, allowing Providence to reallocate pay-as-you-go cash dollars to smaller projects that do not qualify for State Revolving Fund loans and add a smaller annual dollar amount to the debt service obligation expense for that Water Main Replacement project. Ms. Parrillo contended that such financing permits Providence Water to stay in compliance with a bilateral Consent Agreement with the Department of Health (RIDOH) for the water main work and complete many other projects. She noted that a schedule of IFR projects was not bound by fiscal years. Many of these projects are multi-year projects and it is imperative to maintain sufficient funds in the IFR fund year-to-year to pay for those projects, and at the same time mitigate rate spikes to fund the IFR in specific fiscal years to cover project costs that may fluctuate from year-to-year.

She maintained that increased funding for the IFR Fund was necessary to match the funding needs for the projects included in the IFR plan that was approved by RIDOH. Providence Water's plan meets the debt service requirements for future borrowings that are necessary to fund the water

¹⁹² Maker Direct Test. at 13-14.

¹⁹³ Harold Smith Rebuttal Test. at 5; Nancy Parrillo Rebuttal Test. at 5.

¹⁹⁴ Giasson Direct Test., Exhibit GG-1; BCWA 1-12.

main replacement, without Providence Water having to come back to the Commission every year for rate increases to cover new debt service payments.

The settling parties agreed to meet each other halfway and agreed to a \$1.0 million reduction in FY 2023. The BCWA disagreed with the settled amount and argued that the Division's original reduction of \$2.0 million in FY 2023 was appropriate. BCWA also urged the Commission to order Providence Water to utilize funds from this account to finance the study on wholesale rates and to reexamine this account when Providence submits its compliance filing for FY 2023.

The Commission finds that the settled amount of \$1.0 million reduction in FY 2023 was fair and reasonable and appropriately balances Providence Water's need for substantial cash for its IFR Plan with rate mitigation. The Commission does not agree that funding for the new COSS should come from this account.

2. Restricted Account: Insurance

Providence Water requested annual funding of \$2,302,113 which was consistent with the allocation approved in Docket No. 4618. Providence Water projected balances in this account in excess of \$2.4 million at the end of each fiscal year. The Division originally argued that annual funding should be reduced by \$502,113 (from \$2,302,113 to \$1,800,000) because the projected ending balances in this account were accumulating significantly.¹⁹⁵ In direct testimony, BCWA argued that Providence Water's filing did not provide sufficient support for its request and also suggested that funding should be reduced.¹⁹⁶ Providence Water opposed the Division's proposal and instead offered to reduce funding by \$100,000 for each rate year.¹⁹⁷ Providence later agreed

¹⁹⁵ Ralph Smith Direct Test. at 23; Sch. RCS-11.

¹⁹⁶ Maker Direct Test. at 17.

¹⁹⁷ Parrillo Rebuttal Test. at 3.

to settle this issue at 50% of the Division's request and reduced its annual funding by \$251,057 for each rate year.¹⁹⁸

BCWA advocated against the Settlement reduction of \$251,057 per rate year and averred that Providence Water did not adequately support its requested funding. BCWA argued that the Settlement would leave Providence Water with an ending balance of \$2,247,429 at the end of FY 2023, assuming Providence Water paid out an estimated \$224,654 in injuries and damages claims in FY 2021.¹⁹⁹ BCWA contended that, based on past experience of paying 16.7% of claims made, Providence Water would not pay out anything close to \$224,654 in injuries and damages.²⁰⁰

At the hearing, Ms. Parrillo defended Providence Water's position that the restricted insurance account should have an ending balance above \$2.0 million. Ms. Parrillo averred that Providence Water's insurance premiums are over \$2.0 million each year, including a general liability policy and a workers' compensation policy. Ms. Parrillo indicated that under Providence Water's bond indenture, Providence Water was required to certify that the fund could handle sensitive losses. She stated that Providence Water had an outside bond consultant that certified that the insurance fund, with an approximate ending balance of \$2.2 million, was necessary. Ms. Parrillo did not know how the \$2.2 million threshold was originally established as a required reserve, but that each year, the consultant has certified this level as sufficient.²⁰¹ Ms. Parrillo conceded on cross-examination that Providence Water did not file any testimony from its outside consultant on the reserve insurance account.²⁰²

¹⁹⁸ Settlement at Par. 5 (j); Sch. HJS Settlement 10(j).

¹⁹⁹ Sch. HJS Settlement-10 F.

²⁰⁰ BCWA Post-Hearing Brief at 44.

²⁰¹ Hr'g Tr. (Jul. 14, 2020) at 149-151.

²⁰² *Id.* at 205.

The Commission, notes that this is a reserve account, and finds that the settled amount of \$251,057 for a reduction in FY 2023, was fair and reasonable, and appropriately balances Providence Water's need for substantial cash for its restricted insurance account with rate mitigation.

3. Renewable Energy Certificates (RECs)

In Mr. Caruolo's direct testimony, he stated that Providence Water had studied hydro, solar, and wind renewable energy options and had settled on a solar array to effectuate its goal of using 100% renewable energy.²⁰³ Mr. Caruolo later confirmed that the decision to forego selling the RECs was to eliminate/reduce Providence Water's carbon footprint, utilize renewable energy, and lead by example.²⁰⁴

To achieve its purpose, Providence Water decided to construct a 15,800-panel solar field on a thirty-acre site owned by Providence Water in the Town of Johnston. Mr. Caruolo testified that it was his understanding that in order to claim 100% renewable status, Providence Water would need to retire its RECs. He related that the solar field would have an environmental impact equivalent to providing power to 700 houses annually or eliminating approximately 450 automobiles annually. He explained that Providence Water will be leasing the system for 25 years with no capital outlay. Projected annual savings upon full operation was \$500,000 - \$600,000 per year. The long-term forecast was a savings of \$22,000,000-\$24,000,000 to ratepayers over the life of the project.²⁰⁵

²⁰³ Caruolo Direct Test. at 7.

²⁰⁴ BCWA 2-24 (d) (Feb. 28, 2020).

²⁰⁵ *Id.*

BCWA opposed Providence Water's plan to retire all its RECs because the estimated annual value of the RECs was \$101,750 to \$370,000.²⁰⁶ BCWA argued that because Providence Water acknowledged that it could still utilize renewable energy for all its electricity needs, the substantial annual income that Providence Water could receive from RECs could be used to reduce rates for its customers. In surrebuttal testimony, Mr. Maker argued that over the course of the three-year rate plan, Providence Water could receive \$305,250 to \$1,100,000 to offset the increase in customers' rates and that Providence Water should do so.²⁰⁷

At the July 14, 2020 hearing, Commissioner Anthony inquired whether Providence Water had investigated purchasing RECs at a lower cost than the value Providence Water would receive by selling the renewable energy certificates that Providence Water would generate.²⁰⁸ Mr. Caruolo was uncertain, and the Commission issued this inquiry as a record request. In his response to the record request on July 24, 2020, Mr. Caruolo indicated that Providence Water "did not investigate whether it might be possible to purchase RECs at a lower cost than Providence Water could receive for selling its RECs until the Commission asked the question during the hearings on July 14, 2020."²⁰⁹ He further reported, that as requested by the Commission on July 14, 2020, Providence Water did then research the possibility of selling RECs high and purchasing them low. Providence Water's consultant advised there was a possibility for this to occur, but it would not be without risk factors. The price of RECs fluctuates and there was a risk associated with the timing of buying and selling RECs, similar to the risk of trying to time the stock market, to buy stocks low and sell them high."²¹⁰

²⁰⁶ BCWA 2-24 (Mar. 20, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-PWSB-DR-BCWA2%204-10-20.pdf>.

²⁰⁷ Maker surrebuttal test. at 22.

²⁰⁸ Hr'g. Tr. at 165 (Jul. 14, 2020).

²⁰⁹ Prov. Water's Response to RR-3 (July 24, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-RR%207-27-20.pdf>.

²¹⁰ *Id.*

Mr. Caruolo further provided that “Providence Water would support performing a study to determine whether it might be possible to buy other RECs low and sell our RECs high, thereby creating a monetary benefit to the ratepayers.”²¹¹ In addition, he indicated that Providence Water was willing to explore whether there were any other avenues for handling the RECs that could result in benefits to the ratepayers. Providence Water expressed willingness to work with the Commission and its staff and consultants as well as the Division and its staff and consultants and any other interested stakeholders on this issue. He reported that an effective study would require Providence Water to hire one or more consultants and requested funding in the revenue requirements for the consultants, which could be incorporated into Providence Water’s rates for the second and third year of this rate plan.²¹²

At the hearing, Division witness Ralph Smith indicated that the Division did not extensively examine the question of whether Providence Water could achieve its goal at a lower cost but concurred that Commission policy should promote renewable energy at the least cost.²¹³

Finally, in a response to Commission Post-Hearing Record Request, Providence Water stated that it would support performing a study to determine whether there are alternatives to achieving their goals at lower cost.²¹⁴ Providence Water also indicated in the same response that it would need to fund a consultant in order to perform the study.

The Commission has considered the issues raised by Providence Water’s renewable energy initiative and accepts Providence’s offer to undertake a study to determine how Providence Water could best meet its goal of 100% renewable energy in the least-cost manner.²¹⁵ The Commission

²¹¹ *Id.*

²¹² *Id.*

²¹³ Hr’g. Tr. (Jul. 14, 2020) at 183, 187.

²¹⁴ PUC Record Request 3 (July 14, 2020).

²¹⁵ The Commission considered “directing” Providence Water to perform the study. Given the fact that Providence Water offered to do the study, a majority of the Commission determined that it would be unnecessary to order it. This avoided any question regarding Commission authority to require Providence Water to perform a study on an activity

also approves an additional \$10,000 to be added to the revenue requirement for year one of the rate plan to fund the study. The study should be filed with the Commission within ninety days. Such study needs to address: (1) a determination of Providence Water's baseline annual electricity consumption; (2) a determination of the quantity of RECs needed in each rate year to meet the company's 100% renewable energy goal; (3) an explanation of the time period in which Providence Water wants to be considered renewable (e.g. monthly or annually); (4) a report on the quantity of excess RECs and the estimated market value; (5) an explanation of alternatives to achieving the company's 100% renewable energy goals; (6) justification of the company's recommended approach to meeting its 100% renewable energy goals; (7) estimated revenue requirements for electric supply procurement based on the recommended approach in #6, assuming two scenarios: (1) RY1 rates are updated on January 1, 2021, or (2) revenue requirement is updated for RY-2.

It is appropriate for the Commission to expect Providence Water to conduct this study in accordance with the requirements set forth above because the Commission sets a revenue requirement that is sufficient for the utility to provide safe and potable water. To justify an expenditure, a company must show that the expense was "necessary for the proper conduct of its business or was of direct benefit to the utility's ratepayers, and that the amount of the expenditure was reasonable."²¹⁶ A utility is required to manage its operating expenses for the "efficient and economical management" of the utility.²¹⁷ Thus, the Commission exercises its supervisory authority over the utility by approving a properly justified revenue requirement, but it does not

that might be considered something that is ordinarily left to management discretion. *See Providence Water Supply Board v. PUC*, 708 A.2d 537, 543 (1998).

²¹⁶ Charles Philips, Jr. *THE REGULATION OF PUBLIC UTILITIES*, (1993), 258 (citations omitted).

²¹⁷ PUC Order No. 18719 (Sept. 14, 2006), citing *Chicago & Grand T. Ry v. Wellman*, 143 U.S. 339, 345-46 (1892); *Missouri ex. Rel. Southwestern Bell Tel. Co. v. Missouri Pub. Serv. Comm.*, 262 U.S. 279, 289 (1923); *Bluefield Water Works v. Pub. Serv. Com.*, 262 U.S. 679, 693).

direct the utility on how to manage its budget. For example, the PUC can provide sufficient revenues for a utility to replace its meters but cannot tell the utility which brand of meters or which technology to use.²¹⁸ Accordingly, the PUC is well within its authority to direct Providence Water to study its options for achieving its renewable energy goals without improperly invading the role of company management.

Therefore, the Commission will not use the results of the study to direct Providence Water to meet its renewable energy goals in a certain way. Rather, if performed satisfactorily, the study should provide the Commission with an understanding of the most efficient way that Providence Water can achieve its goals. The Commission will then use that information to set a just and reasonable electric expense to be funded through rates. Then, Providence Water can adjust its business to achieve the goal.²¹⁹

C. Issues Raised by the PUC

1. Funded Vacancies

Providence Water projected total salaries and wages for 255 operations employees of \$16,529,051 in RY-1, \$17,121,025 in RY-2, and \$17,647,555 in RY-3.²²⁰ Providence Water

²¹⁸ *Providence Water Supply Bd. v. Public Utilities Com'n.*, 708 A.2d 537 (1998).

²¹⁹ This is consistent with the Commission's approach to funding Kent County Water Authority's (KCWAs) health care expense via rates in 2010, a decision later upheld by the Rhode Island Supreme Court, *In re Kent County Water Authority Rate Change Schedules*, 996 A.2d 123 (R.I. 2010). In that case, KCWA requested funding for 100% of its employee health care expense, despite prior Commission orders indicating it expected utilities to require employees to contribute to premium co-shares. The Commission funded 90 percent of KCWA's healthcare expense but did not tell KCWA that it must institute an employee co-share. KCWA had the option to find the difference in its operating reserve or through other efficiencies.

²²⁰ Div. 1-45 (Dec. 18, 2019); [http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DPU1%20\(DIV%201-27%20thru%201-45\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DPU1%20(DIV%201-27%20thru%201-45).pdf).

indicated that it fully expected to fill its current vacancies.²²¹ Providence Water noted that its employee count of 255 in this docket was lower than its prior rate case, Docket No. 4618.²²²

Division witness, Ralph Smith noted that Providence Water has typically experienced employee turnover, and that at any point in time, Providence Water has several budgeted but unfilled positions. He submitted that this appeared to be a continuing issue.²²³

Providence Water's reply to Div. 1-45 reported an average number of employees of 241 in FY 2018, 234 in FY 2019, and 234 in FY 2020. Despite these historical averages, Providence Water predicted an average employee count, for each of the rate years, of 248. In Div. 6-6, Providence Water identified 241 filled positions and 14 current vacancies, as well as the stage of the hiring process for the 14 vacant positions.²²⁴ In Div. 6-7, Providence Water described both its management and bargaining-unit hiring process and related that the entire process takes approximately six months.

At the hearing, Mr. Ralph Smith described how the Division adjusted Providence Water's projections of for FY 2020 payroll expense of \$15.8 million and then used that figure as a base for rate year projections.²²⁵ Mr. Smith acknowledged that the Settlement provided an adjustment of \$803,000 to fund vacancies, but he was unable to affirmatively state how Providence planned to fill those vacancies.²²⁶

Mr. Caruolo described Providence Water's need to increase its cyber security force and expressed his commitment and priority to find and hire talented IT personnel. He related the

²²¹ Div. 6-5 (b) (Apr. 30, 2020); [http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DIV6%20\(4-30-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DIV6%20(4-30-20).pdf).

²²² Comm.1-3 (Feb.5, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProWater-DR-PUC1%202-5-20.pdf>.

²²³ Ralph Smith Direct Test. at 11.

²²⁴ Div. 6-6 (Apr. 30, 2020); [http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DIV6%20\(4-30-20\).pdf](http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-DR-DIV6%20(4-30-20).pdf).

²²⁵ Hr'g. Tr. (Jul. 14, 2020) 105-106.

²²⁶ *Id.* at 106-111.

challenges in hiring, with Providence Water's available salary levels. He acknowledged that Providence Water has had its share of challenges in recruitment and retention, and administrative delays in the hiring process. He also explained that COVID-19 has presented difficulties and hiring lag, due to remote interviews. When pressed by Commission skepticism about the likelihood of filling the vacancies, Mr. Caruolo submitted that he had plans in place to bring extremely talented people on board. He said that it was not his practice to simply rubber stamp a new position, especially on the management side. Mr. Caruolo vigorously advocated for funding vacancies, especially in cyber-security and unidirectional flushing.²²⁷

The Commission appreciates Mr. Caruolo's impassioned plea for funding vacancies. Nevertheless, the Commission is concerned that there still might be obstacles to filling all the vacancies. The Commission will afford Providence Water the opportunity to effectuate its hiring plans and we approve the Settlement figure for payroll expense. However, the Commission expressly reserves authority to credit ratepayers for unused funds in RY-1 and to limit future funding in RY-2 and RY-3. Providence Water must file an update relating to its hiring status when it files for approval of rates for RY-2.

2. Johnston Solar Array

In examining the REC issue, discussed *infra*, the Commission reviewed documentation concerning Providence's anticipated solar array in Johnston. In order to determine how many RECs Providence Water needs to be 100% renewable, and to understand why the facility is designed the way it is, Providence Water needs to know its load requirements.

Providence Water's Schedule B, attached to its answer to the Commission's first set of post-hearing data requests, shows that the facility is *sized to generate* 108% of Providence Water's

²²⁷ *Id.* at 115-117.

3 year average kWh consumption.²²⁸ The Commission is at a loss to understand how this came to be, because an eligible net metering system means “a facility generating electricity using an eligible net-metering resource that is reasonably designed and sized to annually produce electricity in an amount that is equal to, or less than, the renewable self-generator's usage at the eligible net-metering-system site measured by the three-year (3) average annual consumption of energy over the previous three (3) years at the electric-distribution account(s) located at the eligible net-metering-system site.”²²⁹ While it is true that a net metering customer may receive an excess net metering credit for that portion of the production of electrical energy beyond one hundred percent (100%) and no greater than one hundred twenty-five percent (125%) of the renewable self-generator's own consumption at the eligible net-metering-system site or the sum of the usage of the eligible credit recipient accounts associated with the community remote-net-metering system during the applicable billing period,²³⁰ production of the credits and sizing of the facility are entirely separate matters.

The Commission finds that this issue is one that warrants further investigation beyond the decision in this rate case. Therefore, the Commission will continue discovery with respect to the sizing of the Johnston solar facility, noting that discovery would likely issue to National Grid on how the facility was designed to produce more than 100% of the three-year average.

3. Power Purchase Expense

As a collateral issue to RECs, the Commission examined Providence Water’s requested amount for its power purchase expense. Providence Water’s response to DIV 1-32, revised on August 12, 2020, shows \$584,096 in expected savings from the Johnston solar facility in year one.

²²⁸ Comm Post-Hearing Data Request, Sch. B (Aug.7, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-COMM-PH%20Set%201%20submission.pdf>.

²²⁹ R. I. Gen. Laws §39-26.4 -2 (5).

²³⁰ R.I. Gen. Laws §39-26.4-2 (7).

This was presented as an update to Ricky Caruolo's Schedule, RC-2. However, Schedule HJS-5 shows \$493,106 in expected savings from the Johnston solar facility.

The Commission inquired why there was a difference in the expected savings between the two schedules. Providence Water's response to Commission post hearing data request #5 simply did not explain the \$90,990 difference between revised RC-2 (\$493,106) and HJS-5 (\$493,106).²³¹ Therefore, the Commission is reducing Providence Water's power expense by \$90,990 to \$1,010,123.

VIII. Compliance Filing

Upon conclusion of the Commission's decision on the merits of the issues, the Commission directed the parties to notify it by August 19, 2020 at 12:00 PM, whether they accepted the modifications made to the Settlement. Providence Water accepted the modifications and submitted an Amended Settlement Agreement and associated schedules on August 25, 2020.²³² KCWA and Warwick also signed the Settlement. Although the Division respectfully disagreed with many of the Commission's determinations, the Division did not object to the Settlement's implementation. The Division indicated, however, that it would not join the Settlement Agreement.²³³ At an Open Meeting held on August 27, 2020, the Commission accepted Providence Water's Amended Settlement Agreement with associated schedules and tariffs. Later, on August 27, 2020, Providence Water filed final approved tariffs with the effective date.

Accordingly, it is hereby

(23928) ORDERED:

²³¹ PUC post hearing data requests (Aug. 7, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-COMM-PH%20Set%201%20submission.pdf>.

²³² Amended Settlement (Aug. 25, 2020); <http://www.ripuc.ri.gov/eventsactions/docket/4994-ProvWater-Amended%20Settlement%20Agreement%20v8-25-2020%20FINAL.pdf>.

²³³ East Providence did not respond in any way to the Commission's directives to inform it if the Amended Settlement was acceptable. East Providence did not join the Amended Settlement.

1. Providence Water Supply Board's Application to Change Rates, filed on December 2, 2019, is denied.
2. The Settlement Agreement filed on July 3, 2020 was ordered modified.
3. Providence Water Supply Board's proposal for uniform wholesale rates is rejected.
4. Providence Water Supply Board is ordered to implement individual wholesale rates in year one which are determined by inputting the individual peaking factors used in the Amended Settlement Agreement to establish the revenue requirement, but moving only one-third of the way from the Settlement rates, as amended by the Commission at Open Meeting on August 18, 2020, to the results of that calculation.
5. Providence Water Supply Board shall perform a new allocated cost of service study, taking into account the Commission's directives, and shall file it with the Commission by February 18, 2021.
6. Providence Water Supply Board's new allocated cost of service study shall address the Transmission & Distribution Labor Allocation, the Central Operations Allocation, and the Non-revenue Water Allocation with data that firmly supports the allocators chosen.
7. Providence Water Supply Board's new allocated cost of service study shall apply cost allocations for pumping costs and unidirectional flushing based upon the benefits received by each wholesale customer.
8. The Commission accepts Providence Water Supply Board's proposal to follow through on its offer to study alternatives to achieving its 100% renewable energy goal. Providence Water Supply Board shall submit a study of alternatives to achieving its 100% renewable energy goal to the Commission within 90 days from the effective date of rates, and Providence Water shall be allowed up to \$10,000 for this purpose. The study shall include, but not be limited to:
 - a. A determination of Providence Water's baseline annual electricity consumption.
 - b. A determination of the quantity of RECs needed in each rate year to meet the company's 100% renewable energy goal. The study shall explain all assumptions, including the treatment of Providence Water's current RES-compliant energy supply contract, RECs generated from the company's on-site solar facility, and RECs generated from the off-site renewable energy facility.
 - c. An explanation of the time period in which Providence Water wants to be considered renewable (e.g. monthly or annually).
 - d. A report on the quantity of excess RECs (derived from the answer to b, above) and the estimated market value.

- e. An explanation of alternatives to achieving the company's 100% renewable energy goals. This explanation should include descriptions of the costs (including administrative costs), benefits, and risks of each alternative. Alternatives considered should include purchasing new and/or existing RECs through an updated or new energy supply contract and participating in the anticipated municipal aggregation with the City of Providence.
 - f. Justification of the company's recommended approach to meeting its 100% renewable energy goals.
 - g. Providing a revised revenue requirement for electric supply procurement based on the recommended approach in #6, assuming two scenarios: (1) RY1 rates are updated on January 1, 2021, or (2) revenue requirement is updated for RY 2.
9. Providence Water Supply Board's request for funding for employee vacancies is approved, subject to the Commission's right to review Providence Water's success in filling these vacancies and further reserving the Commission's right to order Providence Water to credit ratepayers for unused funds for rate year one and to further modify funding for vacancies in rate year two.
10. Providence Water Supply Board is granted an allowance of \$30,000 to be used for the new allocated cost of service study. Providence Water shall file an estimate of the final accounting of the cost of the allocated COSS at the time it files the study and shall have the right to request recovery of additional costs through an amended rate case expense, provided it presents a detailed accounting and summary of the total hours of service including a reasonably granular description of the services provided by the consultant.
11. Providence Water Supply Board's power expense is reduced by \$90,990 to \$1,010,123.
12. The Amended Settlement Agreement and schedules submitted on August 25, 2020, attached hereto as Appendix A are accepted. The rates are effective for usage on and after August 27, 2020 for Rate Year 1.

EFFECTIVE AT WARWICK, RHODE ISLAND ON AUGUST 27, 2020, PURSUANT
TO OPEN MEETINGS HELD AUGUST 18, 2020 AND AUGUST 27, 2020. WRITTEN
ORDER ISSUED OCTOBER 20, 2020.

PUBLIC UTILITIES COMMISSION



Ronald T. Gerwatowski, Chairman



Marion S. Gold, Commissioner



Abigail Anthony, Commissioner

NOTICE OF RIGHT OF APPEAL: Pursuant to R.I. Gen. Laws §39-5-1, any person aggrieved by a decision or order of the PUC may, within seven days from the date of the order, petition the Supreme Court for a Writ of Certiorari to review the legality and reasonableness of the decision or order.

APPENDIX A

STATE OF RHODE ISLAND PUBLIC UTILITIES COMMISSION

**IN RE: PROVIDENCE WATER SUPPLY BOARD :
APPLICATION TO CHANGE RATE : Docket No. 4994
SCHEDULES :**

AMENDED SETTLEMENT AGREEMENT

Pursuant to Rule 1.25 of the Commission's Rules of Practice and Procedure, the Providence Water Supply Board (PWSB), and the Kent County Water Authority (collectively referred to hereinafter as the Settling Parties) hereby agree as follows:

1. On or about December 2, 2019, PWSB filed for additional revenues of \$13,311,349 (an increase of 19.07%) to support total revenues of \$85,932,149 for the 12 months ending June 30, 2021 (Rate Year 2021). PWSB's filing also requested additional revenues of \$6,131,341 (an increase of 7.26%) for the 12 months ending June 30, 2022 (Rate Year 2022) and additional revenues of \$3,574,759 (an increase of 3.94%) for the 12 months ending June 30, 2023 (Rate Year 2023).

2. After extensive negotiations, the Settling Parties agree that PWSB may be granted for Rate Year 2021, additional revenues of \$12,200,091 (an increase of 17.59%) to provide total pro forma revenues of \$83,456,144. For Rate Year 2022, additional revenues of \$4,310,146 (an increase of 5.17%) to provide total pro forma revenues of \$87,766,290. For Rate Year 2023, additional revenues of \$3,437,650 (an increase of 3.92%) to provide total pro forma revenues of \$91,203,939.

3. The agreed calculations and adjustments to PWSB's original proposal are set forth in the revised revenue requirement schedules (HJS Amended Settlement-1 through HJS Amended

Settlement-12) and cost of service and rate design schedules (HJS Amended Settlement-13 through HJS Amended Settlement-25) and Schedule HJS Amended Settlement-1a Settlement Summary.

4. The Settling Parties agree to the following expense and revenue adjustments that are summarized in Schedules HJS Amended Settlement-1 (Summary of Revenues and Expenses) and HJS Amended Settlement-1a (Summary of Amended Settlement Adjustments) and are further explained as follows:

A. **City Services (Schedule HJS Amended Settlement-12).** PWSB agrees to the Division's proposed adjustments to the City Services account, *i.e.*, to maintain the amount of City Services at the current Commission approved funding level of \$839,167. The Division's recommendation and proposed adjustments results in a reduction to City Services of \$651,527 per year in RY 2021, RY 2022 and RY 2023.

B. **Labor Cost and Payroll Tax (Schedules HJS Amended Settlement-3a through HJS Amended Settlement-4b).** PWSB accepts the Division's proposed Rate Year 2021, 2022 and 2023 adjustments to Labor Cost and the associated Payroll Tax account for each Rate Year based on 248 employees for PWSB Operations. These adjustments reduce the PWSB revenue requirement by \$278,128 for RY2021, by \$288,089 for RY2022 and by \$296,948 for RY2023 for labor cost and by \$21,277 for RY2021, by \$22,039 for RY2022 and by \$22,717 for RY2023 for payroll taxes.

C. **PUC Assessment (Schedule HJS Amended Settlement-7).** PWSB accepts the Division's recommended adjustments of \$17,315 for RY 2021, \$9,701 for RY 2022 and \$786 for RY 2023 to the amounts PWSB proposed to use in its cost of service for this account.

D. **Chemicals and Sludge (Schedules HJS Amended Settlement-8a, HJS Amended Settlement-8b and HJS Amended Settlement-10g).** The Division recommended

annual funding for this account of \$3.6 million per year. PWSB accepts the Division's recommendation and proposed adjustments in their entirety for this account. The agreed upon funding level is \$200,000 lower than the \$3.8 million per year in funding that PWSB had requested in its filing.

E. **Private Side Lead Service Replacement Fund (Schedule HJS Amended Settlement-10i).** The Division recommended that in lieu of zero-cost replacements for customers, PWSB will continue to provide zero cost loans to customers electing to have PWSB replace their private side lead service lines. The loans will be provided to customers with a ten-year repayment period. Further, funding in this restricted account will be ramped up from the current funding level of \$250,000 per year to a level of \$1 million in RY 2021, to \$2 million in RY 2022 and to \$3 million in RY 2023. PWSB accepts the Division's recommendation and proposed adjustments for this account in their entirety. Compared with the amounts originally proposed by PWSB of \$250,000 for RY2021 and \$3 million in each rate year for RY2022 and RY2023, these adjustments result in an increase of \$750,000 for RY2021, a decrease of \$1 million for RY2022 and no change for RY2023.

F. **General Inflation (Schedules HJS Amended Settlement-11 and HJS Amended Settlement-12).** PWSB applied adjustments from the Test Year to the Rate Year of 4.2% and general inflation from RY 2021 to RY 2022 and from RY 2022 to RY 2023 of 2.1%, respectively. By contrast, the Division recommended no generalized CPI-index inflation adjustment in the Rate Year 2021, removing the 4.2% CPI based inflation assumption that PWSB used for general inflation from the Test Year to the Rate Year for O&M expense. PWSB accepts the Division's recommendation, removing its proposed inflation adjustments for each Rate Year period, which

result in reductions to PWSB's proposed expenses of \$78,411 for RY2021, \$64,210 for RY2022 and \$65,562 for RY2023.

G. **Operating/Revenue Reserve (Schedule HJS Amended Settlement-1 and HJS Amended Settlement-26).** The Settling Parties agree upon the adjustments that are reflected in HJS Amended Settlement-2 "Summary of Settlement Adjustments". These adjustments are calculated figures based on the settled amounts of net revenues and the applicable percentages of 1.5% and .5%, respectively. The amounts originally proposed by PWSB have been reduced by \$21,850 for RY2021, \$57,559 for RY2022 and \$60,250 for RY2023.

H. **Miscellaneous Revenue and Property Tax Refund Fund (Schedule HJS Amended Settlement-1).** For the Miscellaneous Revenue account, the Division's analysis reflected that PWSB's Miscellaneous Revenue has been growing in the period FY 2015 through FY 2019. PWSB's proposed Rate Year amount of \$1,365,746 of Miscellaneous Revenue is lower than the amounts in FY 2017 and FY 2018 and is also lower than the two, three, four and five-year averages through FY 2019. As a result, the Division recommended an increase of \$128,417 to each proposed Rate Year amount.

For the Property Tax Refund Account, PWSB proposed annual funding for RY 2020 through RY 2023 of \$190,000, which is more than the amount PWSB would receive under a tax agreement it had reached with the Town of Foster in 2015. The Division, however, believed the proposed annual funding amount would result in a balance in each Rate Year of in excess of \$400,000; therefore, the Division recommended reducing the proposed funding amount by \$100,000 for each Rate Year.

To resolve their respective positions, PWSB accepted the Division's recommendation regarding Miscellaneous Revenue in its entirety at the same time proposing to include in the

proposed adjustment 50% of the Division's proposed property tax adjustment for each Rate Year. The Settling Parties, therefore, agree to increase Miscellaneous Revenue by \$178,417 in RY 2021 by \$178,417 in RY 2022 and by \$178,417 in RY 2023 with no adjustment to the Property Tax account in each of those years to resolve the annual funding amounts of these two accounts.

I. **Equipment (Schedule HJS Amended Settlement-10e).** The Division recommended an annual funding level of \$1.5 million for RY 2021, \$1.4 million for RY 2022 and \$1.3 million for RY 2023. This reduced PWSB's requested funding by \$100,000, \$200,000 and \$300,000, respectively in each of those Rate Years. PWSB offered to settle the funding of this account at 50% of the Division's proposed yearly adjustments. PWSB indicated it is experiencing higher than historical repair and maintenance costs to its fleet of vehicles due to advancements in technology making it more difficult to perform routine maintenance in-house. The Settling Parties agree to reduce funding of the Equipment account by \$50,000 in RY 2021, \$100,000 in RY 2022 and \$150,000 in RY 2023.

J. **Insurance (Schedule HJS Amended Settlement-10f).** The Division recommended reducing funding for this account for RY 2021 through RY 2023 to \$1,800,000 each year – a yearly downward adjustment of \$502,113 – due to the fact that projected balances for this fund are accumulating significantly. PWSB offered to resolve the disputed funding of this account at 50% of the Division's proposed yearly adjustment, which is approximately the cost associated with the yearly valuation/appraisal of all of PWSB's assets for insurance purposes. The Settling Parties agree to reduce funding of the Insurance account by \$251,057 for RY 2021, RY 2022 and RY 2023.

K. **IFR (Schedule HJS Amended Settlement-10c).** The Division recommended reducing PWSB RY 2023 requested funding amount of \$6 million to \$4 million – an adjustment

of \$2 million – based on a projected balance in the account of in excess of \$4 million. PWSB offered to resolve the disputed funding level of this account by offering 50% of the Division’s proposed adjustment. In settlement of these differing positions, PWSB agrees to reduce the requested funding in the IFR account by \$1,000,000 in RY 2023. The agreed to reduction will mitigate the surplus projected balance while allowing PWSB the flexibility it requires to fund ongoing IFR projects.

L. **Service and Materials (Schedule HJS Amended Settlement-6).** Based on its response to BCWA 5-1, PWSB agreed to reduce the funding level in its Service and Materials Account by \$100,000 in RY 2021 and increase it by \$137,750 in RY 2022. The Settling Parties accept PWSB’s proposed adjustment as a reasonable resolution of the funding of this account.

M. **Power Expense.** It is agreed that PWSB’s power expense will be reduced by \$90,990 to \$1,010,123 as reflected in Schedule HJS Amended Settlement-5.

N. Including rounding differences, the Settling Parties agree to total adjustments to decrease PWSB's proposed revenue requirement for RY2021 by \$1,111,259, for RY2022 by \$2,932,454 and for RY2023 by \$3,069,563.

5. The Settling Parties agree to the following cost of service and rate design recommendations of the Division reflected in the Direct Testimony of Jerome D. Mierzwa dated May 4, 2020, including the following:

A. A proportionate share (based on pro-forma water sales) of water quality and other testing of non-revenue water will be allocated to Wholesale customers;

B. Water treatment plant labor expenses will be functionalized and allocated based on average day demands (Factor 1);

C. Bad debt expense will be assigned to all retail functional costs.

- D. Interest on delinquent accounts will be assigned to all retail functional costs;
 - E. Direct Fire Protection will be assigned 0.5% of functionalized base costs in this docket;
 - F. 10% of the square footage related to Commercial Services, within the PWSB Central Operations Facility will be assigned to wholesale customers.
 - H. Increases in monthly service charges and Public Fire surcharge will be limited to 1.75 times the system average increase authorized by the Commission in this docket;
 - I. Public Fire Hydrant and Private Fire increases will be 1.75 times the system average increase;
 - J. Volumetric charges for retail customers will be sufficient to recover the indicated cost of service plus revenue shortfalls resulting from establishing monthly service charges, the Public Fire surcharge, the Public Fire Hydrant charge, and Private Fire charge at less than the indicated cost of service, less any increased revenue from wholesale customers resulting from the implementation of gradualism in the individual wholesale rate calculation (see #7 below) and
6. The parties agree that the increases for Step 2 (FY 2022) and Step 3 (FY 2023) will include the funding for the private side lead service replacement for retail and exclude such costs for wholesale.

7. **Individual Wholesale Rates and Cost of Service Study.** The individual wholesale rates are set forth on Schedule HJS Amended Settlement-22.

The Settling Parties agree that PWSB shall implement individual wholesale rates in year one which will be determined by inputting the individual peaking factors used in Bristol County Water Authority's Post-Hearing brief (Exhibit 1, Schedule HJS Settlement-16) into the rate calculation contemplated in the original Settlement Agreement filed on July 3, 2020 (with the

revenue requirement modifications identified herein), but moving only one-third of the way from the original Settlement Agreement rates to the results of that calculation.

PWSB shall perform a new allocated cost of service (COSS) study and file it by February 18, 2021. Providence Water's new COSS will address the Transmission & Distribution Labor Allocation, the Central Operations Facility Allocation, and the Non-revenue Water Allocation with data that firmly supports the allocators chosen. The COSS will apply cost allocations for pumping costs and unidirectional flushing based upon the benefits received by each individual wholesale customer.

The Settling Parties agree that PWSB is granted an allowance of \$30,000 to be used for the new allocated COSS. Providence Water shall file an estimate of the final accounting of the cost of the allocated COSS at the time it files the study and shall have the right to request recovery of additional costs through an amended rate case expense, provided it presents a detailed accounting and summary of the total hours of service including a reasonably granular description of the services provided by the consultant.

The Settling Parties agree that the results of the new allocated COSS will inform the Commission's decision-making for allocating the revenue requirement to the retail rate classes and the individual wholesale customers when approving their respective rates for rate years two and three.

8. The residential retail rate is set at \$3.671 per hundred cubic feet (hcf); the commercial rate is set at \$3.847 per hcf; and the industrial rate is set at \$3.498 per hcf.

9. Retail consumption is projected at 12,625,027 hcf based on FY 2019 sales plus an increase for the Johnston acquisition. Wholesale consumption is projected at 11,362,760 hcf based on FY 2019 sales less a reduction related to the Johnston acquisition.

10. The step increases for retail rates, which include the cost for private side lead service replacement, will be 5.50% in FY 2022 and 4.22% in FY 2023. The step increases for the wholesale rates, which exclude the cost for private side lead service replacement, will be 4.02% in FY 2022 and 2.84% in FY 2023.

11. The Public Fire Supply rate is set at \$595.68 per hydrant, and Private Fire Service rates are shown on Schedule E attached hereto.

12. The impact of this settlement on customers' bills is illustrated on HJS Amended Settlement-25 Comparison of Typical Bill Impacts.

13. It is agreed this change in rates may be implemented by PWSB for consumption on and after approval by the Commission at Open Meeting.

14. It is agreed that all accounts restricted by previous Commission Orders shall remain restricted, except as provided herein.

15. It is agreed that PWSB's new tariffs will be those shown as Schedules A through F attached hereto.

16. **Renewable Energy.** The Settling Parties agree that PWSB will follow through on its offer to study alternatives to achieving its 100% renewable energy goal. The study shall be submitted to the Commission by November 16, 2020, and PWSB shall be allowed up to \$10,000 for this purpose.

The study shall include, but not be limited to:

- a. Determination of PWSB's baseline annual electricity consumption.
- b. Determination of the quantity of RECs needed in each rate year to meet PWSB's 100% renewable energy goal. All assumptions will be explained, including the treatment of PWSB's current RES-compliant energy supply contract, RECs generated from PWSB's on-site solar facility, and RECs generated from the off-site renewable energy facility.
- c. Explanation of the time period in which PWSB wants to be considered renewable (e.g. monthly or annually).

- d. The quantity of excess RECs (derived from the answer to b) and the estimated market value.
- e. Explanation of alternatives to achieving PWSB's 100% renewable energy goals. This explanation will include descriptions of the costs (including administrative costs), benefits, and risks of each alternative. Alternatives considered will include purchasing new and/or existing RECs through an updated or new energy supply contract, and participating in the anticipated municipal aggregation with the City of Providence.
- f. Justification of PWSB's recommended approach to meeting its 100% renewable energy goals.
- g. Provide a revised revenue requirement for electric supply procurement based on the recommended approach in f. Two scenarios will be assumed 1) RY1 rates are updated on January 1, 2021, or 2) revenue requirement is updated for RY 2.

17. **Employee Vacancies.** PWSB's request for funding for employee vacancies is agreed to, subject to the Commission's right to review PWSB's success in filling these vacancies and further reserving the Commission's right to order PWSB to credit ratepayers for any unused funds for rate year one related to these vacancies and to further modify funding for vacancies in rate year two.

18. **Johnston Solar Facility.** It is agreed that the Commission may continue discovery in Docket 4994 with respect to the sizing of PWSB's Johnston solar facility, and that National Grid may be issued discovery questions but will not be joined as a party to this proceeding.

19. **Johnston Water System.** The wholesale rate as determined in Docket No. 4618 for the Johnston Water System will remain in effect until Providence Water acquires the Johnston Water System. In the event that the acquisition does not occur, Providence Water shall calculate an individual wholesale rate consistent with the approach required by the Public Utilities Commission for the calculation of individual wholesale rates in Docket No. 4994.

20. This Amended Settlement Agreement is the result of a negotiated settlement among the Settling Parties. The agreement by the Settling Parties shall not be construed as an agreement

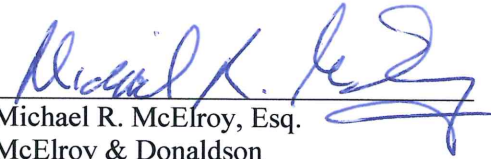
to any matter of fact or law addressed in the Amended Settlement Agreement in any future Division or Commission proceedings, and no party, by executing this Amended Settlement, is bound by any of the positions taken in this Amended Settlement on any issue is to be construed as a precedent in any future Division or Commission proceedings, nor shall it be cited as precedent.

21. In the event the Commission rejects or fails to approve any part of this Amended Settlement, the entire Amended Settlement shall be void.

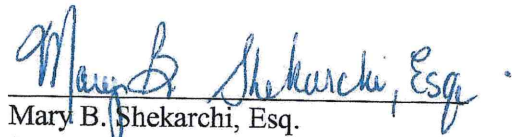
22. The Settling Parties attest that this Amended Settlement is reasonable, in the public interest, and in accordance with law and regulatory policy.

Executed this 15th day of August, 2020.

Providence Water Supply Board
By its attorney,


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City of Warwick
By its attorney,

A handwritten signature in blue ink, reading "Timothy M. Bliss", written over a horizontal line.

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Schedule HJS Amended Settlement-1: Cost of Service Summary

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	Test Year			Rate Year 1		Rate Year 2		Rate Year 3	
	Test Year FY 2019	Test Year FY 19 Adj.	Adj Test Year FY 2019	Rate Year FY 21 Adj.	Rate Year FY 2021	Rate Year FY 22 Adj.	Rate Year FY 2022	Rate Year FY 23 Adj.	Rate Year FY 2023
Revenue									
Service Charge	\$ 7,388,277	\$ 274,718	\$ 7,662,995	\$ 2,393,367	\$ 10,056,362	\$ 552,803	\$ 10,609,165	\$ 447,928	\$ 11,057,093
East Smithfield Debt Surcharge	\$ 69,152	\$ 13,299	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ 82,451
Retail Sales	\$ 40,048,230	\$ 2,143,436	\$ 42,191,666	\$ 4,833,758	\$ 47,025,424	\$ 2,585,012	\$ 49,610,436	\$ 2,094,596	\$ 51,705,032
Wholesale Sales	\$ 15,852,358	\$ (502,883)	\$ 15,349,475	\$ 3,107,042	\$ 18,456,517	\$ 741,614	\$ 19,198,131	\$ 546,124	\$ 19,744,255
Private Fire Protection	\$ 3,138,560	\$ (110,450)	\$ 3,028,110	\$ 944,855	\$ 3,972,965	\$ 218,396	\$ 4,191,361	\$ 176,963	\$ 4,368,324
Retail FPSC	\$ 1,348,721	\$ 86,197	\$ 1,434,918	\$ 451,041	\$ 1,885,959	\$ 103,672	\$ 1,989,631	\$ 84,004	\$ 2,073,635
Public Fire Protection	\$ 1,370,588	\$ 135,850	\$ 1,506,438	\$ 470,028	\$ 1,976,466	\$ 108,647	\$ 2,085,114	\$ 88,035	\$ 2,173,149
Miscellaneous Revenue	[D] \$ 1,727,024	\$ (233,861)	\$ 1,493,163	\$ 50,000	\$ 1,543,163	\$ -	\$ 1,543,163	\$ -	\$ 1,543,163
TOTAL REVENUE	\$ 70,942,910	\$ 1,806,306	\$ 72,749,216	\$ 12,250,091	\$ 84,999,307	\$ 4,310,146	\$ 89,309,453	\$ 3,437,650	\$ 92,747,102
Total Rate Revenues	\$ 69,215,886	\$ 2,040,167	\$ 71,256,053	\$ 12,200,091	\$ 83,456,144	\$ 4,310,146	\$ 87,766,290	\$ 3,437,650	\$ 91,203,939
Expenses									
Operations									
Operations and Maintenance	\$ 31,849,748	\$ 1,381,889	\$ 33,231,637	\$ 2,787,726	\$ 36,019,363	\$ 1,026,295	\$ 37,045,658	\$ 1,150,832	\$ 38,196,489
Insurance	\$ 2,027,425	\$ 274,688	\$ 2,302,113	\$ (251,057)	\$ 2,051,057	\$ -	\$ 2,051,057	\$ -	\$ 2,051,057
Chemical & Sludge	\$ 3,410,107	\$ (843,441)	\$ 2,566,667	\$ 1,033,333	\$ 3,600,000	\$ -	\$ 3,600,000	\$ -	\$ 3,600,000
City Service	\$ 839,167	\$ -	\$ 839,167	\$ -	\$ 839,167	\$ -	\$ 839,167	\$ -	\$ 839,167
Property Taxes	\$ 7,094,018	\$ -	\$ 7,094,018	\$ 535,128	\$ 7,629,145	\$ 305,166	\$ 7,934,311	\$ 317,372	\$ 8,251,684
Capital Reimbursement	\$ (1,815,587)	\$ -	\$ (1,815,587)	\$ (73,350)	\$ (1,888,937)	\$ (56,668)	\$ (1,945,605)	\$ (48,640)	\$ (1,994,245)
Net Operations	[B] \$ 43,404,877	\$ 813,137	\$ 44,218,014	\$ 4,031,780	\$ 48,249,794	\$ 1,274,793	\$ 49,524,587	\$ 1,419,564	\$ 50,944,151
Capital									
Capital Fund	\$ 2,127,000	\$ -	\$ 2,127,000	\$ -	\$ 2,127,000	\$ -	\$ 2,127,000	\$ -	\$ 2,127,000
Western Cranston Fund	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000	\$ -	\$ 40,000
IFR Fund	\$ 27,300,000	\$ -	\$ 27,300,000	\$ 2,000,000	\$ 29,300,000	\$ 2,000,000	\$ 31,300,000	\$ 1,000,000	\$ 32,300,000
Meter Replacement Fund	\$ 500,000	\$ -	\$ 500,000	\$ 500,000	\$ 1,000,000	\$ -	\$ 1,000,000	\$ -	\$ 1,000,000
Vehicle/Equipment Fund	\$ 600,000	\$ -	\$ 600,000	\$ 950,000	\$ 1,550,000	\$ (50,000)	\$ 1,500,000	\$ (50,000)	\$ 1,450,000
Lead Service Replacement Fund	\$ 250,000	\$ -	\$ 250,000	\$ 750,000	\$ 1,000,000	\$ 1,000,000	\$ 2,000,000	\$ 1,000,000	\$ 3,000,000
E. Smithfield Debt Service	\$ 69,152	\$ 13,299	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ 82,451	\$ -	\$ 82,451
Revenue Reserve Fund ⁽¹⁾	[C] \$ 362,119	\$ 5,590	\$ 367,709	\$ 40,909	\$ 408,618	\$ 21,124	\$ 429,742	\$ 16,848	\$ 446,590
Capital	[A] \$ 31,248,271	\$ 18,890	\$ 31,267,161	\$ 4,240,909	\$ 35,508,070	\$ 2,971,124	\$ 38,479,194	\$ 1,966,848	\$ 40,446,041
TOTAL EXPENSES	\$ 74,653,148	\$ 832,027	\$ 75,485,175	\$ 8,272,689	\$ 83,757,864	\$ 4,245,917	\$ 88,003,781	\$ 3,386,412	\$ 91,390,192
Operating Reserve (Unrestricted) ⁽²⁾	\$ 1,087,423	\$ 15,705	\$ 1,103,128	\$ 122,727	\$ 1,225,854	\$ 63,372	\$ 1,289,226	\$ 50,543	\$ 1,339,770
Total Incl. Reserves	\$ 75,740,571	\$ 847,732	\$ 76,588,302	\$ 8,395,416	\$ 84,983,718	\$ 4,309,289	\$ 89,293,007	\$ 3,436,955	\$ 92,729,962
Net Revenue Requirement			\$ 75,095,139		\$ 83,440,555		\$ 87,749,844		\$ 91,186,799
Revenues Over (Under) Expenses⁽³⁾	\$ (4,797,661)		\$ (3,839,086)		\$ 15,589		\$ 16,446		\$ 17,140

Total Increase to Break-Even⁽⁴⁾

16.82%

5.07%

3.85%

Rate Revenue Increase to Break-Even⁽⁵⁾

17.59%

5.17%

3.92%

Notes:

Step Increase (Wholesale)⁽⁶⁾

4.02%

2.84%

Step Increase (Retail)⁽⁷⁾

5.50%

4.22%

(1) Revenue Reserve is ((A+B)-C)-(D))* .005

(2) Operating Reserve is ((A+B)-C)-(D))* .015

(3) Slight revenue surplus due to rounding

(4) Based on Total Revenues

(5) Rate Revenues Only, Excludes East Smithfield

(6) **Excludes** increase to Lead Service Replacement Fund

(7) **Includes** increase to Lead Service Replacement Fund

Schedule HJS Amended Settlement-1a: Settlement Summary

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	Rate Year 1			Rate Year 2					Rate Year 3					
	Original RY 2021	Settle Adj RY 2021	Settlement RY 2021	Original RY 2021	Filed Adj RY 2022	Settle Adj RY 2021	Settle Adj RY 2022	Rate Year FY 2022	Original RY 2022	Filed Adj RY 2023	Settle Adj RY 2021	Settle Adj RY 2022	Settle Adj RY 2023	Rate Year FY 2023
Revenue														
Service Charge	\$ 10,732,613	\$ (676,251)	\$ 10,056,362	\$ 10,732,613	\$ 778,900	\$ (676,251)	\$ (226,096)	\$ 10,609,165	\$ 11,511,512	\$ 454,122	\$ (676,251)	\$ (226,096)	\$ (6,194)	\$ 11,057,093
East Smithfield Debt Surcharge	\$ 82,451	\$ -	\$ 82,451	\$ 82,451	\$ -	\$ -	\$ -	\$ 82,451	\$ 82,451	\$ -	\$ -	\$ -	\$ -	\$ 82,451
Retail Sales	\$ 47,777,226	\$ (751,802)	\$ 47,025,424	\$ 47,777,226	\$ 3,467,345	\$ (751,802)	\$ (882,332)	\$ 49,610,436	\$ 51,244,570	\$ 2,021,568	\$ (751,802)	\$ (882,332)	\$ 73,028	\$ 51,705,032
Wholesale Sales	\$ 18,521,968	\$ (65,451)	\$ 18,456,517	\$ 18,521,968	\$ 1,344,198	\$ (65,451)	\$ (602,584)	\$ 19,198,131	\$ 19,866,166	\$ 783,708	\$ (65,451)	\$ (602,584)	\$ (237,585)	\$ 19,744,255
Private Fire Protection	\$ 3,633,806	\$ 339,159	\$ 3,972,965	\$ 3,633,806	\$ 263,717	\$ 339,159	\$ (45,321)	\$ 4,191,361	\$ 3,897,522	\$ 153,755	\$ 339,159	\$ (45,321)	\$ 23,208	\$ 4,368,324
Retail FPSC	\$ 2,011,593	\$ (125,634)	\$ 1,885,959	\$ 2,011,593	\$ 145,988	\$ (125,634)	\$ (42,316)	\$ 1,989,631	\$ 2,157,580	\$ 85,115	\$ (125,634)	\$ (42,316)	\$ (1,111)	\$ 2,073,635
Public Fire Protection	\$ 1,807,746	\$ 168,720	\$ 1,976,466	\$ 1,807,746	\$ 131,194	\$ 168,720	\$ (22,546)	\$ 2,085,114	\$ 1,938,940	\$ 76,490	\$ 168,720	\$ (22,546)	\$ 11,545	\$ 2,173,149
Miscellaneous Revenue	[D] \$ 1,364,746	\$ 178,417	\$ 1,543,163	\$ 1,364,746	\$ -	\$ 178,417	\$ -	\$ 1,543,163	\$ 1,364,746	\$ -	\$ 178,417	\$ -	\$ -	\$ 1,543,163
TOTAL REVENUE	\$ 85,932,149	\$ (932,841)	\$ 84,999,307	\$ 85,932,149	\$ 6,131,341	\$ (932,841)	\$ (1,821,195)	\$ 89,309,453	\$ 92,063,489	\$ 3,574,759	\$ (932,841)	\$ (1,821,195)	\$ (137,109)	\$ 92,747,102
Total Rate Revenues	\$ 84,567,403	\$ (1,111,259)	\$ 83,456,144	\$ 84,567,403	\$ 6,131,341	\$ (1,111,259)	\$ (1,821,195)	\$ 87,766,290	\$ 90,698,743	\$ 3,574,759	\$ (1,111,259)	\$ (1,821,195)	\$ (137,109)	\$ 91,203,939
Expenses														
Operations														
Operations and Maintenance	\$ 36,530,853	\$ (511,490)	\$ 36,019,363	\$ 36,530,853	\$ 1,011,731	\$ (511,490)	\$ 14,564	\$ 37,045,658	\$ 37,542,583	\$ 1,235,414	\$ (511,490)	\$ 14,564	\$ (84,583)	\$ 38,196,489
Insurance	\$ 2,302,113	\$ (251,057)	\$ 2,051,057	\$ 2,302,113	\$ -	\$ (251,057)	\$ -	\$ 2,051,057	\$ 2,302,113	\$ -	\$ (251,057)	\$ -	\$ -	\$ 2,051,057
Chemical & Sludge	\$ 3,800,000	\$ (200,000)	\$ 3,600,000	\$ 3,800,000	\$ -	\$ (200,000)	\$ -	\$ 3,600,000	\$ 3,800,000	\$ -	\$ (200,000)	\$ -	\$ -	\$ 3,600,000
City Service	\$ 1,490,693	\$ (651,527)	\$ 839,167	\$ 1,490,693	\$ -	\$ (651,527)	\$ -	\$ 839,167	\$ 1,490,693	\$ -	\$ (651,527)	\$ -	\$ -	\$ 839,167
Property Taxes	\$ 7,629,145	\$ -	\$ 7,629,145	\$ 7,629,145	\$ 305,166	\$ -	\$ -	\$ 7,934,311	\$ 7,934,311	\$ 317,372	\$ -	\$ -	\$ -	\$ 8,251,684
Capital Reimbursement	\$ (1,888,937)	\$ -	\$ (1,888,937)	\$ (1,888,937)	\$ (56,668)	\$ -	\$ -	\$ (1,945,605)	\$ (1,945,605)	\$ (48,640)	\$ -	\$ -	\$ -	\$ (1,994,245)
Net Operations	[B] \$ 49,863,867	\$ (1,614,073)	\$ 48,249,794	\$ 49,863,867	\$ 1,260,228	\$ (1,614,073)	\$ 14,564	\$ 49,524,587	\$ 51,124,096	\$ 1,504,147	\$ (1,614,073)	\$ 14,564	\$ (84,583)	\$ 50,944,151
Capital														
Capital Fund	\$ 2,127,000	\$ -	\$ 2,127,000	\$ 2,127,000	\$ -	\$ -	\$ -	\$ 2,127,000	\$ 2,127,000	\$ -	\$ -	\$ -	\$ -	\$ 2,127,000
Western Cranston Fund	\$ 40,000	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -	\$ 40,000	\$ 40,000	\$ -	\$ -	\$ -	\$ -	\$ 40,000
IFR Fund	\$ 29,300,000	\$ -	\$ 29,300,000	\$ 29,300,000	\$ 2,000,000	\$ -	\$ -	\$ 31,300,000	\$ 31,300,000	\$ 2,000,000	\$ -	\$ -	\$ (1,000,000)	\$ 32,300,000
Meter Replacement Fund	\$ 1,000,000	\$ -	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ 1,000,000	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000
Vehicle/Equipment Fund	\$ 1,600,000	\$ (50,000)	\$ 1,550,000	\$ 1,600,000	\$ -	\$ (50,000)	\$ (50,000)	\$ 1,500,000	\$ 1,600,000	\$ -	\$ (50,000)	\$ (50,000)	\$ (50,000)	\$ 1,450,000
Lead Service Replacement Fund	\$ 250,000	\$ 750,000	\$ 1,000,000	\$ 250,000	\$ 2,750,000	\$ 750,000	\$ (1,750,000)	\$ 2,000,000	\$ 3,000,000	\$ -	\$ 750,000	\$ (1,750,000)	\$ 1,000,000	\$ 3,000,000
E. Smithfield Debt Service	\$ 82,451	\$ -	\$ 82,451	\$ 82,451	\$ -	\$ -	\$ -	\$ 82,451	\$ 82,451	\$ -	\$ -	\$ -	\$ -	\$ 82,451
Revenue Reserve Fund ⁽¹⁾	[C] \$ 414,081	\$ (5,462)	\$ 408,618	\$ 414,081	\$ 30,051	\$ (5,462)	\$ (8,927)	\$ 429,742	\$ 444,132	\$ 17,521	\$ (5,462)	\$ (8,927)	\$ (673)	\$ 446,590
Capital	[A] \$ 34,813,532	\$ 694,538	\$ 35,508,070	\$ 34,813,532	\$ 4,780,051	\$ 694,538	\$ (1,808,927)	\$ 38,479,194	\$ 39,593,583	\$ 2,017,521	\$ 694,538	\$ (1,808,927)	\$ (50,673)	\$ 40,446,041
TOTAL EXPENSES	\$ 84,677,400	\$ (919,536)	\$ 83,757,864	\$ 84,677,400	\$ 6,040,280	\$ (919,536)	\$ (1,794,363)	\$ 88,003,781	\$ 90,717,679	\$ 3,521,667	\$ (919,536)	\$ (1,794,363)	\$ (135,256)	\$ 91,390,192
Operating Reserve (Unrestricted) ⁽²⁾	\$ 1,242,242	\$ (16,387)	\$ 1,225,854	\$ 1,242,242	\$ 90,153	\$ (16,387)	\$ (26,782)	\$ 1,289,226	\$ 1,332,395	\$ 52,562	\$ (16,387)	\$ (26,782)	\$ (2,019)	\$ 1,339,770
Total Incl. Reserves	\$ 85,919,641	\$ (935,923)	\$ 84,983,718	\$ 85,919,641	\$ 6,130,433	\$ (935,923)	\$ (1,821,144)	\$ 89,293,007	\$ 92,050,074	\$ 3,574,230	\$ (935,923)	\$ (1,821,144)	\$ (137,274)	\$ 92,729,962
Net Revenue Requirement	\$ 84,554,896	\$ (1,114,340)	\$ 83,440,555	\$ 84,554,896	\$ 6,130,433	\$ (1,114,340)	\$ (1,821,144)	\$ 87,749,844	\$ 90,685,328	\$ 3,574,230	\$ (1,114,340)	\$ (1,821,144)	\$ (137,274)	\$ 91,186,799

\$ 4,309,289 \$ 3,436,955

Revenues Over (Under) Expenses⁽³⁾ \$ 15,589 \$ 16,446 \$ 17,140

RY 2021		RY 2021		RY 2022	RY 2022	RY 2022		RY 2023	RY 2023
O&M Settlement		O&M Settlement		Increment	O&M Total	O&M Settlement		Increment	O&M Total
PUC Assessment	\$ 17,315	PUC Assessment	\$ 17,315	\$ (7,613)	\$ 9,702	PUC Assessment	\$ 9,702	\$ (8,916)	\$ 786
Labor Cost	\$ (278,128)	Labor Cost	\$ (278,128)	\$ (9,961)	\$ (288,089)	Labor Cost	\$ (288,089)	\$ (8,860)	\$ (296,949)
Payroll Tax	\$ (21,277)	Payroll Tax	\$ (21,277)	\$ (762)	\$ (22,039)	Payroll Tax	\$ (22,039)	\$ (677)	\$ (22,716)
Payroll Tax (Impact of Prior Year)	\$ -	Payroll Tax (Impact of Prior Year)	\$ -	\$ (638)	\$ (638)	Payroll Tax (Impact of Prior Year)	\$ (638)	\$ (567)	\$ (1,205)
General Inflation	\$ (78,411)	General Inflation	\$ (78,411)	\$ 14,201	\$ (64,210)	General Inflation	\$ (64,210)	\$ (1,351)	\$ (65,562)
General Inflation (Impact of Prior Year)	\$ -	General Inflation (Impact of Prior Year)	\$ -	\$ (78,411)	\$ (78,411)	General Inflation (Impact of Prior Year)	\$ (78,411)	\$ (64,211)	\$ (142,622)
Adjustments per BCWA 1-5	\$ (100,000)	Adjustments per BCWA 1-5	\$ (100,000)	\$ 237,750	\$ 137,750	Adjustments per BCWA 1-5	\$ 137,750	\$ (137,750)	\$ -
BCWA 1-5 (Impact of Prior Year)	\$ -	BCWA 1-5 (Impact of Prior Year)	\$ -	\$ (100,000)	\$ (100,000)	BCWA 1-5 (Impact of Prior Year)	\$ (100,000)	\$ 137,750	\$ 37,750
Reduction in Power Expense per PUC	\$ (90,990)		\$ (90,990)	\$ -	\$ (90,990)		\$ (90,990)	\$ -	\$ (90,990)
Increase for REC Study per PUC	\$ 10,000		\$ 10,000	\$ (10,000)	\$ -		\$ -	\$ -	\$ -
Increase for Individual Wholesale Rate Study per PUC	\$ 30,000		\$ 30,000	\$ (30,000)	\$ -		\$ -	\$ -	\$ -
Total Adjustments ¹	\$ (511,491)	Total Adjustments ¹	\$ (511,491)	\$ 14,565	\$ (496,926)	Total Adjustments ¹	\$ (496,926)	\$ (84,583)	\$ (581,508)
1- The \$1 difference is due to rounding	\$ (1)		\$ (1)	\$ 1	\$ (0)		\$ (0)	\$ 0	\$ 0

Schedule HJS Amended Settlement-2: Pro-Forma Revenue Under Existing Rates

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Service Charges					
5/8"	56,181	1,631	57,812	\$ 7.56	\$ 5,244,705
3/4"	11,323	3	11,326	\$ 8.05	\$ 1,094,092
1"	5,292	43	5,335	\$ 9.50	\$ 608,190
1.5"	1,537	10	1,547	\$ 11.43	\$ 212,187
2"	1,344	13	1,357	\$ 16.76	\$ 272,920
3"	73	-	73	\$ 56.01	\$ 49,065
4"	35	-	35	\$ 70.55	\$ 29,631
6"	57	-	57	\$ 104.47	\$ 71,457
8"	42	-	42	\$ 143.23	\$ 72,188
10"	4	-	4	\$ 178.36	\$ 8,561
12"	0	-	0	\$ 213.49	\$ -
Total Retail Service Charges	75,888	1,700	77,588	\$	7,662,995
Fire Protection Service Charge (Providence Only)					
5/8"	25,954	-	25,954	\$ 1.38	\$ 429,798
3/4"	4,580	-	4,580	\$ 2.07	\$ 113,767
1"	2,091	-	2,091	\$ 5.15	\$ 129,224
1.5"	902	-	902	\$ 13.74	\$ 148,722
2"	792	-	792	\$ 32.96	\$ 313,252
3"	55	-	55	\$ 89.26	\$ 58,912
4"	20	-	20	\$ 151.05	\$ 36,252
6"	28	-	28	\$ 308.97	\$ 103,814
8"	15	-	15	\$ 466.89	\$ 84,040
10"	2	-	2	\$ 714.07	\$ 17,138
12"	-	-	-	\$ 1,180.95	\$ -
Total Retail FPSC (Providence Only)	34,439	-	34,439	\$	1,434,918
Total Retail Service Charge Revenue				\$	9,097,913
Retail Consumption Charges					
Residential (HCF)	8,103,732	292,444	8,396,176	\$ 3.403	\$ 28,572,187
Commercial (HCF)	4,031,169	10,496	4,041,665	\$ 3.223	\$ 13,026,286
Industrial (HCF)	164,973	22,213	187,186	\$ 3.169	\$ 593,192
Total	12,299,874	325,153	12,625,027	\$	42,191,666
East Smithfield Debt Surcharge	235,576	-	235,576	\$ 0.350	\$ 82,451
Total Retail Consumption Charge				\$	42,274,117
Total Retail Revenue				\$	51,372,030

Schedule HJS Amended Settlement-2: Pro-Forma Revenue Under Existing Rates

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Wholesale Consumption Charges					
Bristol County	1,494,845	-	1,494,845	\$1.350858	\$ 2,019,323.22
East Providence	1,822,773	-	1,822,773	\$1.350858	\$ 2,462,307.12
Greenville	421,521	-	421,521	\$1.350858	\$ 569,415.37
Johnston	385,925	(385,925)	-	\$1.350858	\$ -
Kent County	2,727,147	-	2,727,147	\$1.350858	\$ 3,683,988.95
Lincoln	1,038,229	-	1,038,229	\$1.350858	\$ 1,402,499.42
Smithfield	391,600	-	391,600	\$1.350858	\$ 528,996.36
Warwick	3,466,644	-	3,466,644	\$1.350858	\$ 4,682,944.19
Total Wholesale Revenue	11,748,684	(385,925)	11,362,760		\$ 15,349,475

Wholesale (per million gallons)	8,788	(289)	8,499	\$1,805.96	\$ 15,349,474.63
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Description	Units of Service Service	Adjustment	Adjusted Units of Service	Existing Rates	Existing Revenue
Private Fire Service Charges					
3/4"	2	-	2	\$ 8.64	\$ 207
1"	9	-	9	\$ 10.21	\$ 1,103
1.5"	2	-	2	\$ 12.57	\$ 302
2"	68	-	68	\$ 18.64	\$ 15,210
4"	391	-	391	\$ 79.67	\$ 373,812
6"	1,245	-	1,245	\$ 129.89	\$ 1,940,557
8"	256	-	256	\$ 196.73	\$ 604,355
10"	4	-	4	\$ 274.06	\$ 13,155
12"	18	-	18	\$ 367.64	\$ 79,410
16"	-	-	-	\$ 611.43	\$ -
Total	1,995	-	1,995		\$ 3,028,110

Hydrants (Excluding Providence)	3007	311	3,318	\$ 454.02	\$ 1,506,438
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Total Fire Protection Charge Revenue					\$4,534,548
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Total Rate Revenues	\$ 71,256,053.28
Miscellaneous Revenues	\$ 1,493,162.98
Total Revenues	\$72,749,216

Schedule HJS Amended Settlement-3a: Adjustments to Salaries and Wages

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

TEST YEAR FY 2019

Pay Periods 1 through 26 for FY2019	\$	15,158,073
ADD: Workers Comp	\$	252,893
ADD: Unpaid Time - Nopay, FMLA, LOA, Suspension	\$	115,873
ADD: Normalizing Adjustments vacant positions filled after 6/30/19	\$	193,689
ADD: Normalizing Adjustments vacant positions to be filled after 6/30/19	\$	511,178
LESS:848 payroll not charged to operations	\$	(523,851)
TOTAL ANNUALIZED SALARIES FY2019	\$	15,707,854

ESTIMATED FY 2020⁽¹⁾

Actuals through 3/30/20	\$	10,912,854
Annualized Salaries through 6/30/2020	\$	3,637,618
Funded Vacancies	\$	803,924
Unpaid Wages	\$	77,035
Workers Comp	\$	365,925
Step Increases through 6/30/2020	\$	44,987
Total Annualized Salaries FY 2020	\$	15,842,343

RATE YEAR FY 2021

Estimated Step Increases FY2020	\$	-
2% Contractual Raise 7/1/19 FY2020	\$	-
Total Annualized Salaries FY2020	\$	15,842,343
Estimated Step Increases FY2021 ⁽²⁾	\$	91,733
2% Contractual Raise 7/1/20 FY2021 ⁽²⁾	\$	316,847
Total Annualized Salaries FY2021	\$	16,250,923

Rate Year Adjustments (FY 2021) **\$ 543,068**

RATE YEAR FY 2022

Estimated Step Increases FY2022	\$	94,485
3% Contractual Raise 7/1/21	\$	487,528
Total Annualized Salaries FY2022	\$	16,832,936

Rate Year Adjustments (FY 2022) **\$ 582,013**

RATE YEAR FY 2023

Estimated Step Increases FY2023	\$	96,847
Estimated 2.5% Contractual Raise 7/1/22 FY2023	\$	420,823
Total Annualized Salaries FY2023	\$	17,350,606

Rate Year Adjustments (FY 2023) **\$ 517,670**

(1) Per Ralph Smith Direct (RCS-5)

(2) Reduced proportionately from original amount based on revised FY 2020 annualized salaries.

Schedule HJS Amended Settlement-3b: Adjustments to Salaries and Wages

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year				Pro-Forma Rate Year (Year 1)					Pro-Forma Rate Year (Year 2)					Pro-Forma Rate Year (Year 3)				
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	Rate Year FY 2023
Source of Supply																				
60110	Salaries & Wages - Emp	\$ 777,108	\$ 53,952	1	\$ 831,060	\$ 33,575	2	\$ (14,769)	3	\$ 849,865	\$ 25,939	4	\$ (529)	5	\$ 875,276	\$ 22,264	6	\$ (470)	7	\$ 897,069
60120	Salaries & Wages - Emp	\$ 391,728	\$ 162,996	1	\$ 554,724	\$ 22,411	2	\$ (7,445)	3	\$ 569,690	\$ 17,314	4	\$ (267)	5	\$ 586,738	\$ 14,861	6	\$ (237)	7	\$ 601,362
60210	Payroll Clearing -SOSO	\$ -	\$ -		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60220	Payroll Clearing -SOSM	\$ (454)	\$ 454		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60520	Overhead Rate Applied -SOSM	\$ (883)	\$ 883		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
Total Source of Supply		\$ 1,167,499	\$ 218,286		\$ 1,385,784	\$ 55,986		\$ (22,214)		\$ 1,419,556	\$ 43,253		\$ (796)		\$ 1,462,013	\$ 37,126		\$ (708)		\$ 1,498,431
Water Treatment																				
60130	Salaries & Wages - Emp	\$ 2,303,651	\$ 204,395	1	\$ 2,508,045	\$ 101,325	2	\$ (43,782)	3	\$ 2,565,589	\$ 78,281	4	\$ (1,568)	5	\$ 2,642,302	\$ 67,191	6	\$ (1,395)	7	\$ 2,708,098
60140	Salaries & Wages - Emp	\$ 287,963	\$ -	1	\$ 287,963	\$ 11,634	2	\$ (5,473)	3	\$ 294,123	\$ 8,988	4	\$ (196)	5	\$ 302,915	\$ 7,715	6	\$ (174)	7	\$ 310,456
Total Water Treatment		\$ 2,591,613	\$ 204,395		\$ 2,796,008	\$ 112,959		\$ (49,254)		\$ 2,859,712	\$ 87,269		\$ (1,764)		\$ 2,945,217	\$ 74,906		\$ (1,569)		\$ 3,018,554
Transmission + Dist. Expense:																				
60150	Salaries & Wages - Emp	\$ 557,922	\$ -	1	\$ 557,922	\$ 22,540	2	\$ (10,603)	3	\$ 569,858	\$ 17,414	4	\$ (380)	5	\$ 586,892	\$ 14,947	6	\$ (338)	7	\$ 601,501
60160	Salaries & Wages - Emp	\$ 2,880,826	\$ 126,941	1	\$ 3,007,767	\$ 121,514	2	\$ (54,751)	3	\$ 3,074,530	\$ 93,878	4	\$ (1,961)	5	\$ 3,166,448	\$ 80,579	6	\$ (1,744)	7	\$ 3,245,283
60250	Payroll Clearing-T&DO	\$ (206,396)	\$ 206,396		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60260	Payroll Clearing -T&DM	\$ (9,815)	\$ 9,815		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60550	Overhead Rate Applied-T&DO	\$ (485,940)	\$ 485,940		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60560	Overhead Rate Applied -T&DM	\$ (19,007)	\$ 19,007		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
Total Transmission + Dist. Expense		\$ 2,717,590	\$ 848,099		\$ 3,565,689	\$ 144,054		\$ (65,354)		\$ 3,644,388	\$ 111,292		\$ (2,341)		\$ 3,753,340	\$ 95,526		\$ (2,082)		\$ 3,846,784
Customer Accounts Expense:																				
60170	Salaries & Wages - Emp	\$ 1,945,516	\$ 147,456	1	\$ 2,092,972	\$ 84,556	2	\$ (36,975)	3	\$ 2,140,553	\$ 65,326	4	\$ (1,324)	5	\$ 2,204,554	\$ 56,071	6	\$ (1,178)	7	\$ 2,259,448
60270	Payroll Clearing -CAO	\$ (70,038)	\$ 70,038		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60570	Overhead Rate Applied-CAO	\$ (260,823)	\$ 260,823		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
Total Customer Accounts Expense		\$ 1,614,655	\$ 478,317		\$ 2,092,972	\$ 84,556		\$ (36,975)		\$ 2,140,553	\$ 65,326		\$ (1,324)		\$ 2,204,554	\$ 56,071		\$ (1,178)		\$ 2,259,448
Administrative and General																				
60180	Salaries & Wages - Emp	\$ 5,489,507	\$ 377,888	1	\$ 5,867,394	\$ 423,649	2	\$ (104,330)	3	\$ 6,186,714	\$ 284,833	4	\$ (3,736)	5	\$ 6,467,811	\$ 262,902	6	\$ (3,324)	7	\$ 6,727,389
60280	Payroll Clearing -A&GO	\$ (477,050)	\$ 477,050		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
60580	Overhead Rate Applied-A&GO	\$ (285,181)	\$ 285,181		\$ -	\$ -				\$ -	\$ -				\$ -	\$ -				\$ -
Total Administrative and General		\$ 4,727,276	\$ 1,140,118		\$ 5,867,394	\$ 423,649		\$ (104,330)		\$ 6,186,714	\$ 284,833		\$ (3,736)		\$ 6,467,811	\$ 262,902		\$ (3,324)		\$ 6,727,389
Total Salaries and Wages		\$ 12,818,633	\$ 2,889,215		\$ 15,707,847	\$ 821,204		\$ (278,128)		\$ 16,250,923	\$ 591,974		\$ (9,961)		\$ 16,832,936	\$ 526,531		\$ (8,860)		\$ 17,350,606
Capital Reimbursement		\$ (1,815,587)	\$ -	1	\$ (1,815,587)	\$ (73,350)	2			\$ (1,888,937)	\$ (56,668)	4			\$ (1,945,605)	\$ (48,640)	6			\$ (1,994,245)

- (1) Normalizing Adjustments. See Schedule HJS-3a.
(2) Estimated Step Increases, 2.0% Contractual Increases on 7/1/2019 and 7/1/2020. See Schedule HJS-3a
(3) FY 21 Adjustment per Ralph Smith Direct (RCS-5). See Schedule HJS-3a
(4) Estimated Step Increases, 3.0% Contractual Increases on 7/1/2021. See Schedule HJS-3a
(5) FY 22 Adjustment per Ralph Smith Direct (RCS-5). See Schedule HJS-3a
(6) Estimated Step Increases, 2.5% Contractual Increases on 7/1/2022. See Schedule HJS-3a

Schedule HJS Amended Settlement-4a: Adjustments to Pensions and Other Benefits

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Adjusted Test Year				Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)					
	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	FY 23 CPI	Rate Year FY 2023
1033 Union Combined Benefits	\$ 623,310	\$ 23,698	1	\$ 647,008	\$ 13,005	2			\$ -	\$ 660,013	\$ 6,600	2			\$ -	\$ 666,613	\$ 6,666	2			\$ -	\$ 673,279
Union Pension	\$ 755,320	\$ 28,717	1	\$ 784,037	\$ 164,648	3			\$ -	\$ 948,684	\$ 94,868	3			\$ -	\$ 1,043,553	\$ 104,355	3			\$ -	\$ 1,147,908
Death Benefit Insurance	\$ -	\$ -	1	\$ -					\$ -	\$ -					\$ -	\$ -					\$ -	\$ -
Educational Classes/Certification	\$ 1,560	\$ 59	1	\$ 1,619		4			\$ -	\$ 1,619		4			\$ -	\$ 1,619		4			\$ -	\$ 1,619
FICA & Medicare	\$ 1,080,005	\$ 41,061	1	\$ 1,121,066	\$ 184,468	5	\$ (21,277)	9	\$ -	\$ 1,284,257	\$ 38,528	5	\$ (762)	9	\$ -	\$ 1,322,023	\$ 33,051	5	\$ (678)	9	\$ -	\$ 1,354,395
State Unemployment Compensation	\$ -	\$ -	1	\$ -	\$ 10,404	5			\$ -	\$ 10,404	\$ 312	5			\$ -	\$ 10,716	\$ 268	5			\$ -	\$ 10,984
Healthcare EE Cash Payment	\$ -	\$ -	1	\$ -	\$ 14,250				\$ -	\$ 14,250					\$ -	\$ 14,250					\$ -	\$ 14,250
1/2% Wage Assignment	\$ 43,687	\$ 1,661	1	\$ 45,348	\$ 1,832	5			\$ -	\$ 47,180	\$ 1,415	5			\$ -	\$ 48,596	\$ 1,215	5			\$ -	\$ 49,810
Healthcare	\$ 2,347,067	\$ 89,234	1	\$ 2,436,301	\$ 224,201	6			\$ -	\$ 2,660,502	\$ 119,723	6			\$ -	\$ 2,780,224	\$ 125,110	6			\$ -	\$ 2,905,334
Delta Dental	\$ 209,697	\$ 7,973	1	\$ 217,670	\$ 20,031	6			\$ -	\$ 237,701	\$ 10,697	6			\$ -	\$ 248,397	\$ 11,178	6			\$ -	\$ 259,575
GASB 43/45 Reserve Required	\$ 579,256	\$ 22,023	1	\$ 601,279	\$ 100,053	7			\$ -	\$ 701,332	\$ 56,107	7			\$ -	\$ 757,438	\$ 60,595	7			\$ -	\$ 818,033
City Retirement	\$ 4,024,817	\$ 153,021	1	\$ 4,177,838	\$ 428,228	8			\$ -	\$ 4,606,066	\$ 230,303	8			\$ -	\$ 4,836,370	\$ 241,818	8			\$ -	\$ 5,078,188
Total	\$ 9,664,718	\$ 367,447		\$ 10,032,166	\$ 1,161,120		\$ (21,277)		\$ -	\$ 11,172,009	\$ 558,553		\$ (762)		\$ -	\$ 11,729,799	\$ 584,256		\$ (678)		\$ -	\$ 12,313,378

(1) Fringe Benefits on Additional Positions
(2) Per Union Contract - 1% per year
(3) Per Union Contract - 10% per year
(4) Inflation - See HJS-11
(5) Increased Per Union Contract: FY20 and 21 - 2%/yr, FY22 - 3.0%, FY23 Estimate - 2.5%
(6) 4.5%/yr estimate
(7) Increase from FY18 to FY19 - 8% used
(8) 3-Year Average Increase - 5%
(9) Payroll reduction reduction per Ralph Smith Direct (RCS-6)

Schedule HJS Amended Settlement-4b: Adjustment to Pension and Other Benefits

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year			Pro-Forma Rate Year (Year 1)							Pro-Forma Rate Year (Year 2)					Pro-Forma Rate Year (Year 3)					Adjustment ⁽¹⁾ Distribution %	
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note FY 19 Adj.	Rate Year FY 21 Adj. 1	Note FY 21 Adj. 2	Rate Year FY 21 Adj. 2	Note FY 21 Adj. 2	FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note FY 22 Adj. 2	Rate Year FY 22 Adj. 2	Note FY 22 Adj. 2	FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note FY 23 Adj. 2	Rate Year FY 23 Adj. 2	Note FY 23 Adj. 2	FY 23 CPI		Rate Year FY 2023
Source of Supply																							
60410	Employee Pension +Ben -SOSO	\$ 464,481	\$ 17,659		\$ 482,140		\$ 55,803		(1,023) 2	\$ -	\$ 536,920		\$ 26,844		\$ (37) 2	\$ -	\$ 563,727	\$ 28,079		\$ (33) 2	\$ -	\$ 591,774	4.8%
60420	Employee Pension + Ben -SOSM	\$ 289,896	\$ 11,022		\$ 300,918		\$ 34,828		(638) 2	\$ -	\$ 335,108		\$ 16,754		\$ (23) 2	\$ -	\$ 351,839	\$ 17,525		\$ (20) 2	\$ -	\$ 369,344	3.0%
Water Treatment Expenses																							
60430	Employee Pension+Benefit-WTO	\$ 1,299,196	\$ 49,395		\$ 1,348,591		\$ 156,085		(2,860) 2	\$ -	\$ 1,501,816		\$ 75,084		\$ (102) 2	\$ -	\$ 1,576,798	\$ 78,540		\$ (91) 2	\$ -	\$ 1,655,246	13.4%
60440	Employee Pension+Benefit-WTM	\$ 215,343	\$ 8,187		\$ 223,530		\$ 25,871		(474) 2	\$ -	\$ 248,927		\$ 12,445		\$ (17) 2	\$ -	\$ 261,356	\$ 13,018		\$ (15) 2	\$ -	\$ 274,358	2.2%
Transmission + Dist. Expense:																							
60450	Employee Pension+Benefit-T&DO	\$ 349,795	\$ 13,299		\$ 363,094		\$ 42,024		(770) 2	\$ -	\$ 404,349		\$ 20,216		\$ (28) 2	\$ -	\$ 424,537	\$ 21,146		\$ (25) 2	\$ -	\$ 445,658	3.6%
60460	Employee Pension+Benefit-T&DM	\$ 1,760,203	\$ 66,922		\$ 1,827,125		\$ 211,471		(3,875) 2	\$ -	\$ 2,034,721		\$ 101,727		\$ (139) 2	\$ -	\$ 2,136,309	\$ 106,409		\$ (123) 2	\$ -	\$ 2,242,594	18.2%
Customer Accounts Expense:																							
60470	Employee Pension+Benefit-CAO	\$ 1,356,960	\$ 51,591		\$ 1,408,550		\$ 163,025		(2,987) 2	\$ -	\$ 1,568,588		\$ 78,423		\$ (107) 2	\$ -	\$ 1,646,904	\$ 82,032		\$ (95) 2	\$ -	\$ 1,728,840	14.0%
Administrative and General																							
60480	Employee Pension+Ben-A&GO	\$ 3,928,845	\$ 149,373		\$ 4,078,218		\$ 472,012		(8,649) 2	\$ -	\$ 4,541,580		\$ 227,060		\$ (310) 2	\$ -	\$ 4,768,330	\$ 237,508		\$ (276) 2	\$ -	\$ 5,005,563	40.7%
Total		\$ 9,664,719	\$ 367,447		\$ 10,032,166		\$ 1,161,120		\$ (21,277)	\$ -	\$ 11,172,009		\$ 558,553		\$ (762)	\$ -	\$ 11,729,800	\$ 584,256		\$ (678)	\$ -	\$ 12,313,378	100.0%

(1) Total annual adjustment distributed to NARUC accounts in proportion to Test Year FY 2019 values.
(2) Payroll tax reduction, see HJS-4a

Schedule HJS Amended Settlement-5: Adjustments to Purchased Power Expense

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year				Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)				Pro-Forma Rate Year (Year 3)			
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	FY 23 CPI	Rate Year FY 2023
Source of Supply																			
61010	Purchased Power	\$ 1,475			\$ 1,475	\$ (574)	1	\$ (106)		\$ -	\$ 794	\$ (5)	1	\$ -	\$ 790	\$ (4)	1	\$ -	\$ 785
Total Source of Supply		\$ 1,475	\$ -		\$ 1,475	\$ (574)		\$ (106)		\$ -	\$ 794	\$ (5)		\$ -	\$ 790	\$ (4)		\$ -	\$ 785
Pumping																			
61523	Fuel or Power Purchase -PPO	\$ 858,210			\$ 858,210	\$ (331,568)	1	\$ (61,182)		\$ -	\$ 465,460	\$ (2,599)	1	\$ -	\$ 462,861	\$ (2,586)	1	\$ -	\$ 460,275
Total Water Treatment		\$ 858,210	\$ -		\$ 858,210	\$ (331,568)		\$ (61,182)		\$ -	\$ 465,460	\$ (2,599)		\$ -	\$ 462,861	\$ (2,586)		\$ -	\$ 460,275
Water Treatment																			
61530	Purchased Power-WTO	\$ 251,952			\$ 251,952	\$ (98,129)	1	\$ (18,107)		\$ -	\$ 135,715	\$ (769)	1	\$ -	\$ 134,946	\$ (765)	1	\$ -	\$ 134,181
61540	Power Purchased -WTM	\$ -			\$ -					\$ -	\$ -			\$ -	\$ -			\$ -	\$ -
61630	Fuel for Purchased Power-WTO	\$ 200,347			\$ 200,347					\$ -	\$ 200,347			\$ -	\$ 200,347			\$ -	\$ 200,347
Total Water Treatment		\$ 452,299	\$ -		\$ 452,299	\$ (98,129)		\$ (18,107)		\$ -	\$ 336,063	\$ (769)		\$ -	\$ 335,294	\$ (765)		\$ -	\$ 334,528
Transmission + Dist. Expense:																			
61550	Power Purchased-T&DO	\$ 19,556			\$ 19,556	\$ (7,617)	1	\$ (1,405)		\$ -	\$ 10,534	\$ (60)	1	\$ -	\$ 10,474	\$ (59)	1	\$ -	\$ 10,415
Total Transmission + Dist. Expense		\$ 19,556	\$ -		\$ 19,556	\$ (7,617)		\$ (1,405)		\$ -	\$ 10,534	\$ (60)		\$ -	\$ 10,474	\$ (59)		\$ -	\$ 10,415
Administrative and General																			
61580	Purchased Power-A&GO	\$ 262,680			\$ 262,680	\$ (55,218)	1	\$ (10,189)		\$ -	\$ 197,272	\$ (433)	1	\$ -	\$ 196,840	\$ (431)	1	\$ -	\$ 196,409
61680	Fuel Or Power Purchased-A&GO	\$ -			\$ -					\$ -	\$ -			\$ -	\$ -			\$ -	\$ -
Total Administrative and General		\$ 262,680	\$ -		\$ 262,680	\$ (55,218)		\$ (10,189)		\$ -	\$ 197,272	\$ (433)		\$ -	\$ 196,840	\$ (431)		\$ -	\$ 196,409
Total Power Expense		\$ 1,594,220	\$ -		\$ 1,594,220	\$ (493,106)		\$ (90,990)		\$ -	\$ 1,010,123	\$ (3,865)		\$ -	\$ 1,006,258	\$ (3,846)		\$ -	\$ 1,002,413

(1) Anticipated Reductions in Electric Costs Associated with Solar Generation

(2) Per Commission Decision at 8/18/2020 open meeting. Reduce power expense by \$90,990 to \$1,010,123 adjustment proportionate reductions associated with Solar Generation (see Note 1)

Schedule HJS Amended Settlement-6: Adjustment to Materials, Supplies and Services

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year				Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)			
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	FY 23 CPI	Rate Year FY 2023
Source of Supply																					
62010	Material and Supplies -SOSO	\$ 5,866	\$ -		\$ 5,866	\$ -		\$ -		\$ -	\$ 5,866	\$ -		\$ -		\$ -	\$ 5,866	\$ -		\$ -	\$ 5,866
62020	Material and Supplies - SOSM	\$ 18,893	\$ -		\$ 18,893	\$ -		\$ -		\$ -	\$ 18,893	\$ -		\$ -		\$ -	\$ 18,893	\$ -		\$ -	\$ 18,893
63110	Contractual Service -Eng-SOSO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63120	Contractual Service-Eng-SOSM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63610	Contractual Service Other-SOSO	\$ 13,827	\$ -		\$ 13,827	\$ -		\$ -		\$ -	\$ 13,827	\$ -		\$ -		\$ -	\$ 13,827	\$ -		\$ -	\$ 13,827
63620	Contractual Service Other-SOSM	\$ 12,278	\$ -		\$ 12,278	\$ -		\$ -		\$ -	\$ 12,278	\$ -		\$ -		\$ -	\$ 12,278	\$ -		\$ -	\$ 12,278
64210	Rental of Equipment-SOSO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
64220	Rental of Equipment-SOSM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
65010	Transportation Expense-SOSO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
65020	Transportation Expense-SOSM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
67510	Miscellaneous Expenses-SOSO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
67520	Miscellaneous Expenses-SOSM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
		\$ 50,864	\$ -		\$ 50,864	\$ -		\$ -		\$ -	\$ 50,864	\$ -		\$ -		\$ -	\$ 50,864	\$ -		\$ -	\$ 50,864
63523	Contractual Service Other-PPO	\$ 13,816	\$ -		\$ 13,816	\$ -		\$ -		\$ -	\$ 13,816	\$ -		\$ -		\$ -	\$ 13,816	\$ -		\$ -	\$ 13,816
		\$ 13,816	\$ -		\$ 13,816	\$ -		\$ -		\$ -	\$ 13,816	\$ -		\$ -		\$ -	\$ 13,816	\$ -		\$ -	\$ 13,816
Water Treatment Expenses																					
62030	Material and Supplies -WTO	\$ 217,299	\$ -		\$ 217,299	\$ -		\$ -		\$ -	\$ 217,299	\$ -		\$ -		\$ -	\$ 217,299	\$ -		\$ -	\$ 217,299
62040	Material and Supplies -WTM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63130	Contractual Service Eng-WTO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63140	Contractual Service Eng-WTM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63630	Contractual Service Other-WTO	\$ 209,400	\$ -		\$ 209,400	\$ 132,000		\$ -		\$ -	\$ 341,400	\$ -		\$ -		\$ -	\$ 341,400	\$ -		\$ -	\$ 341,400
63640	Contractual Service Other-WTM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
64230	Rental of Equipment -WTO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
64240	Rental of Equipment -WTM	\$ 3,799	\$ -		\$ 3,799	\$ -		\$ -		\$ -	\$ 3,799	\$ -		\$ -		\$ -	\$ 3,799	\$ -		\$ -	\$ 3,799
65030	Transportation Expense-WTO	\$ 1,333	\$ -		\$ 1,333	\$ -		\$ -		\$ -	\$ 1,333	\$ -		\$ -		\$ -	\$ 1,333	\$ -		\$ -	\$ 1,333
67530	Miscellaneous Expenses-WTO	\$ 204,372	\$ -		\$ 204,372	\$ -		\$ -		\$ -	\$ 204,372	\$ -		\$ -		\$ -	\$ 204,372	\$ -		\$ -	\$ 204,372
67540	Miscellaneous Expenses - WTM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
		\$ 636,202	\$ -		\$ 636,202	\$ 132,000		\$ -		\$ -	\$ 768,202	\$ -		\$ -		\$ -	\$ 768,202	\$ -		\$ -	\$ 768,202
Transmission + Dist. Expense:																					
62050	Material and Supplies -T&DO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
62060	Material and Supplies-T&DM	\$ 319,595	\$ -		\$ 319,595	\$ 107,769		\$ -		\$ -	\$ 427,364	\$ 22,248		\$ -		\$ -	\$ 449,613	\$ 50,374		\$ -	\$ 499,986
63150	Contractual Services Eng-T&DO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63160	Contractual Services Eng-T&DM	\$ 47,278	\$ -		\$ 47,278	\$ -		\$ -		\$ -	\$ 47,278	\$ -		\$ -		\$ -	\$ 47,278	\$ -		\$ -	\$ 47,278
63650	Contractual Service Other-T&DO	\$ 17,310	\$ -		\$ 17,310	\$ 5,288		\$ -		\$ -	\$ 22,598	\$ 1,970		\$ -		\$ -	\$ 24,568	\$ 2,069		\$ -	\$ 26,636
63660	Contractual Service Other-T&DM	\$ 891,828	\$ -		\$ 891,828	\$ 106,311		\$ -		\$ -	\$ 998,139	\$ 4,696		\$ -		\$ -	\$ 1,002,834	\$ 41,240		\$ -	\$ 1,044,074
65060	Transportation Expense -T&DM	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
67550	Miscellaneous Exp -T&DO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
67560	Miscellaneous Exp-T&DM	\$ 44,079	\$ -		\$ 44,079	\$ -		\$ -		\$ -	\$ 44,079	\$ -		\$ -		\$ -	\$ 44,079	\$ -		\$ -	\$ 44,079
		\$ 1,320,090	\$ -		\$ 1,320,090	\$ 219,367		\$ -		\$ -	\$ 1,539,457	\$ 28,914		\$ -		\$ -	\$ 1,568,371	\$ 93,682		\$ -	\$ 1,662,053
Customer Accounts Expense:																					
62070	Material and Supplies-CAO	\$ 4,043	\$ -		\$ 4,043	\$ -		\$ -		\$ -	\$ 4,043	\$ -		\$ -		\$ -	\$ 4,043	\$ -		\$ -	\$ 4,043
63670	Contratual Services Other -CAO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
65070	Transportation Expenses -CAO	\$ 3,002	\$ -		\$ 3,002	\$ -		\$ -		\$ -	\$ 3,002	\$ -		\$ -		\$ -	\$ 3,002	\$ -		\$ -	\$ 3,002
67070	Bad Debt Expense	\$ 207,146	\$ -		\$ 207,146	\$ -		\$ -		\$ -	\$ 207,146	\$ -		\$ -		\$ -	\$ 207,146	\$ -		\$ -	\$ 207,146
67570	Miscellaneous Expenses-CAO	\$ 578,923	\$ -		\$ 578,923	\$ 61,964		\$ -		\$ -	\$ 640,886	\$ -		\$ -		\$ -	\$ 640,886	\$ -		\$ -	\$ 640,886
		\$ 793,113	\$ -		\$ 793,113	\$ 61,964		\$ -		\$ -	\$ 855,076	\$ -		\$ -		\$ -	\$ 855,076	\$ -		\$ -	\$ 855,076
Administrative and General																					
62080	Material and Supplies -A&GO	\$ 716,310	\$ -		\$ 716,310	\$ -		\$ -		\$ -	\$ 716,310	\$ -		\$ -		\$ -	\$ 716,310	\$ -		\$ -	\$ 716,310
63180	Contractual Service Eng-A&GO	\$ 60,951	\$ -		\$ 60,951	\$ 75,000		\$ -		\$ -	\$ 135,951	\$ -		\$ -		\$ -	\$ 135,951	\$ -		\$ -	\$ 135,951
63280	Contractual Service Acctg-A&GO	\$ 51,615	\$ -		\$ 51,615	\$ -		\$ -		\$ -	\$ 51,615	\$ -		\$ -		\$ -	\$ 51,615	\$ -		\$ -	\$ 51,615
63380	Contractual Service Legal-A&GO	\$ 73,963	\$ -		\$ 73,963	\$ -		\$ -		\$ -	\$ 73,963	\$ -		\$ -		\$ -	\$ 73,963	\$ -		\$ -	\$ 73,963
63480	Contractual Service Mgmt fees-A&GO	\$ -	\$ -		\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -		\$ -	\$ -	\$ -		\$ -	\$ -
63680	Contractual Service Other-A&GO	\$ 1,383,724	\$ (59,186)		\$ 1,324,538	\$ 971,972		\$ (100,000)	1	\$ -	\$ 2,196,510	\$ (142,622)		\$ 137,750	1	\$ -	\$ 2,191,638	\$ (56,161)		\$ -	\$ 2,135,477
64280	Rental of Equipment-A&GO	\$ 2,686	\$ -		\$ 2,686	\$ -		\$ -		\$ -	\$ 2,686	\$ -		\$ -		\$ -	\$ 2,686	\$ -		\$ -	\$ 2,686
65080	Transportation Expenses-A&GO	\$ 9,564	\$ -		\$ 9,564	\$ 1,380		\$ -		\$ -	\$ 10,944	\$ -		\$ -		\$ -	\$ 10,944	\$ -		\$ -	\$ 10,944
67580	Miscellaneous Expenses- A&GO	\$ 357,305	\$ -		\$ 357,305	\$ 238,057		\$ -		\$ -	\$ 595,362	\$ (137,200)		\$ -		\$ -	\$ 458,162	\$ (14,500)		\$ -	\$ 443,662
		\$ 2,656,118	\$ (59,186)		\$ 2,596,932	\$ 1,286,409		\$ (100,000)		\$ -	\$ 3,783,341	\$ (279,822)		\$ 137,750		\$ -	\$ 3,641,269	\$ (70,661)		\$ -	\$ 3,570,608
		\$ 5,470,203	\$ (59,186)		\$ 5,411,018	\$ 1,699,740		\$ (100,000)		\$ -	\$ 7,010,757	\$ (250,908)		\$ 137,750		\$ -	\$ 6,897,599	\$ 23,022		\$ -	\$ 6,920,620

(1) Rebuttal adjustments per response to BCWA 1-5

Schedule HJS Amended Settlement-7: Adjustment to Regulatory and Rate Case Expense

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Actuals FY 2019	Note	Rate Year FY 2021	Note	Rate Year FY 2022	Note	Rate Year FY 2023
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Regulatory Commission Expense:

PUC Assessment	\$ 353,599	1	\$ 402,738	1	\$ 429,812	1	\$ 458,706
Legal Matters	63,608	2	25,567	2	26,845	2	28,188
Financial Consultant	56,260	3	-	3	15,000	3	15,000
Other	12,919	4	3,250	4	3,413	4	3,583
Total	\$ 486,386		\$ 431,555		\$ 475,070		\$ 505,477

Rate Case Expense:

Rate Filing Consultant	5	\$ 98,750	4	\$ 32,917	4	\$ 32,917
Legal	6	133,549	5	44,516	5	44,516
Division	7	79,687	6	26,562	6	26,562
Sub-Total Rate Case Expense		311,986		-		-

Three Year Amortization		\$ 103,995		\$ 103,995		\$ 103,995
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REC Study per PUC 8/18 Decision	8	\$ 10,000		\$ -		\$ -
Ind. Wholesale Rt Stdy per PUC 8/18 Decision	8	\$ 30,000		\$ -		\$ -

Rate Year Expenses		\$ 575,550		\$ 579,065		\$ 609,472
Test Year		\$ 486,386		\$ 575,550		\$ 579,065
Rate Year Adjustment		\$ 89,164		\$ 3,515		\$ 30,407

Original Adjustment		\$ 49,164		\$ 43,515		\$ 30,407
Increment for REC and Wholesale Studies	8	\$ 40,000		\$ (40,000)		\$ -

- (1) 6.72% per year, per Ralph Smith Direct Testimony (RCS-4)
- (2) Average Historical % Increase 2017 to 2019 (5%)
- (3) Estimated Cost of Compliance Filing for FY 22 and 23
- (4) 5% annual increase
- (5) Rate Filing and New Cost of Service Model
- (6) Legal Assistance for Rate Filing
- (7) 2018 + 5% Estimated Increase
- (8) per 8/18//20 Decision, RY 2021 only.

Schedule HJS Amended Settlement-8a: Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

									878-878-53305 ⁴	878-878-53401 ⁵	878-878-53500 ⁶
Description	Ferric (gal)	Lime (ton)	Chlorine (ton)	Fluoride (gal)	Ascorbic Acid (25kg box)	Sodium Hydroxide (gal)*	Orthophosphate Pilot (gal)*	Orthophosphate Full Scale (gal)*	Professional Engineering	Sludge Maintenance	Project Insp. Pump Rentals
Dosing Unit	gpg	gpg	lbs	mg/L	kg	mg/L	mg/L	mg/L			
Avg Dose	1.20	1.02	2.16	0.55		3.40	3.00	3.00			
Estimated Chemical Usage	674,356	1,622	200	54,522	3,125	5,600	1,350	57,794			
Unit Price	\$1.41	\$235.00	\$2,000.00	\$1.40	\$16.75	\$2.34	\$8.31	\$6.80			
Approx. Cost	\$950,842.5	\$381,208.6	\$400,770.0	\$76,331.5	\$52,343.8		\$11,221.2	\$392,999.2			
FY2019 Budget	\$950,000.0	\$390,000.0	\$400,000.0	\$84,000.0	\$52,350.0	\$20,000.0	\$15,000.0				
FY2020 Budget	\$960,000.0	\$390,000.0	\$425,000.0	\$84,000.0	\$52,350.0	\$15,000.0	\$15,000.0	\$0.0			
Project Chemical QTY FY20:	673,759	1,660	200	60,000	3,125	8,547	1,805	0			
Project Chemical QTY FY21-23:						1,450	300	58,824			
(FY19 Budget/Unit Price)	\$ 1.41	\$ 235.00	\$ 2,000.00	\$ 1.40	\$ 16.75	\$ 2.34	\$ 8.31	\$ -			
(FY20 Budget/Unit Price)	\$ 1.46	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.25	\$ 2.34	\$ 8.31	\$ 6.80			
FY2020 spending ****	\$ 983,687.94	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 53,912.69	\$ 11,700.00	\$ 15,000.00	\$ -	\$ 75,000.00	\$ 1,608,918.00	\$ 200,000.00
(FY21 Budget/Unit Price)	\$ 1.50	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.75	\$ 2.32	\$ 8.84	\$ 5.79			
FY2021 spending ****	\$ 1,010,638.30	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 55,475.37	\$ 3,364.00	\$ 2,652.00	\$ 261,993.05		\$ 1,608,918.00	\$ 80,000.00
(FY22 Budget/Unit Price)***	\$ 1.55	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.25	\$ -	\$ -	\$ 6.08			
FY2022 spending ****	\$ 1,044,326.24	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 57,038.06	\$ -	\$ -	\$ 357,649.92		\$ 1,608,918.00	
(FY23 Budget/Unit Price)***	\$ 1.60	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.75	\$ -	\$ -	\$ 6.38			
FY2023 spending ****	\$ 1,078,014.18	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 58,600.75	\$ -	\$ -	\$ 375,532.42		\$ 1,608,918.00	

* Pilot scale. Average day = 1.41 MGD. Chemical projection and budget increased slightly to allow for increased demonstration area, if needed.
** Full scale orthophosphate at treatment plant tentatively scheduled for fall 2019. Budget pricing included herein based on initial dose (3 mg/L) at average day (61 MGD).
*** Estimated
**** Estimated - based on FY2019 quantities being constant
4 Engineering costs required to complete current study along with estimated engineering costs for future studies
5 Conservative estimated of 10,000 dry tons removed from south sedimentation basin at \$200/dry ton
6 FY20: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 12 months. FY21: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 4 months.

Schedule HJS Amended Settlement-8b: Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board

Docket # 4994

Request for General Rate Relief

Amended Settlement Proposal

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Year	Total Chemicals	Professional Engineering	Sludge Maintenance	Project Insp Pump Rentals	Total C&S Maint
FY 2020	\$ 1,947,301	\$ 75,000	\$ 1,608,918	\$ 200,000	\$ 3,831,219
FY 2021	\$ 2,217,123	\$ -	\$ 1,608,918	\$ 80,000	\$ 3,906,041
FY 2022	\$ 2,353,312	\$ -	\$ 1,608,918	\$ -	\$ 3,962,230
FY 2023	\$ 2,406,445	\$ -	\$ 1,608,918	\$ -	\$ 4,015,363

Year	Funding Level	Total Uses	Funding Adjustment	Rate Year Funding
FY 2021	\$ 3,600,000	\$ 3,906,041	\$ (306,041)	\$ 3,600,000
FY 2022	\$ 3,600,000	\$ 3,962,230	\$ (362,230)	\$ 3,600,000
FY 2023	\$ 3,600,000	\$ 4,015,363	\$ (415,363)	\$ 3,600,000

Schedule HJS Amended Settlement-9: Adjustment to Property Taxes

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year				Pro-Forma Rate Year (Year 1)					Pro-Forma Rate Year (Year 2)			Pro-Forma Rate Year (Year 3)			
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 2023	Actual FY 2020
40820	North Providence	\$ 285,488	\$ -		\$ 285,488	\$ 6,406	1	\$ 11,676	2	\$ 303,569	\$ 12,143	2	\$ 315,712	\$ 12,628	2	\$ 328,340	\$ 291,893
40821	Glocester	\$ 67,742	\$ -		\$ 67,742	\$ 8,500	1	\$ 3,050	2	\$ 79,292	\$ 3,172	2	\$ 82,463	\$ 3,299	2	\$ 85,762	\$ 76,242
40822	West Glocester Fire	\$ 3,708	\$ -		\$ 3,708	\$ 701	1	\$ 176	2	\$ 4,585	\$ 183	2	\$ 4,769	\$ 191	2	\$ 4,959	\$ 4,409
40823	Harmony Fire Dist.	\$ 200	\$ -		\$ 200	\$ -	1	\$ 8	2	\$ 208	\$ 8	2	\$ 217	\$ 9	2	\$ 225	\$ 200
40824	Chepachet Fire Dist.	\$ 129	\$ -		\$ 129	\$ -	1	\$ 5	2	\$ 134	\$ 5	2	\$ 139	\$ 6	2	\$ 145	\$ 129
40825	Scituate	\$ 6,252,460	\$ -		\$ 6,252,460	\$ 248,223	1	\$ 259,993	2	\$ 6,760,676	\$ 270,427	2	\$ 7,031,103	\$ 281,244	2	\$ 7,312,347	\$ 6,500,683
40827	Johnston	\$ 89,354	\$ -		\$ 89,354	\$ 7,049	1	\$ 3,856	2	\$ 100,258	\$ 4,010	2	\$ 104,269	\$ 4,171	2	\$ 108,439	\$ 96,402
40828	Foster	\$ 289,570	\$ -		\$ 289,570	\$ 10,776	1	\$ 12,014	2	\$ 312,360	\$ 12,494	2	\$ 324,855	\$ 12,994	2	\$ 337,849	\$ 300,347
40829	Cranston	\$ 101,868	\$ -		\$ 101,868	\$ 2,395	1	\$ (43,198)	2,3	\$ 61,065	\$ 2,443	2	\$ 63,507	\$ 2,540	2	\$ 66,047	\$ 104,262
40830	West Warwick	\$ 3,500	\$ -		\$ 3,500	\$ 3,229	1	\$ 269	2	\$ 6,998	\$ 280	2	\$ 7,278	\$ 291	2	\$ 7,569	\$ 6,729
Total		\$ 7,094,018	\$ -		\$ 7,094,018	\$ 287,278		\$ 247,850		\$ 7,629,145	\$ 305,166		\$ 7,934,311	\$ 317,372		\$ 8,251,684	\$ 7,381,296

(1) Increase to FY 2020 Actual
(2) 4% Maximum Statutory Increase
(3) Remove Property Taxes for Demolished Cranston Operations Center

Schedule HJS Amended Settlement-10a: Restricted Funds - Capital Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 1,772,500	\$ 2,127,000	\$ 2,127,000	\$ 2,127,000	\$ 2,127,000
Bond RIIB 2015	\$ 14,239	\$ -	\$ -	\$ -	\$ -
Interest earnings	\$ (22,216)	\$ 40,000	\$ 30,000	\$ 30,000	\$ 20,000
Carryover funds from prior year estimated	\$ 5,081,531	\$ 3,458,711	\$ (411,156)	\$ (201,994)	\$ 9,045
Total Sources	\$ 6,846,054	\$ 5,625,711	\$ 1,745,844	\$ 1,955,006	\$ 2,156,045
Less obligated uses of funds:					
RIIB Debt (P&I)					
RIIB Debt 2015 (P&I)	\$ 1,948,871	\$ 1,948,174	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
Sub-total Debt Service	\$ 1,948,871	\$ 1,948,174	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
125 Dupont Drive	\$ -	\$ -	\$ -	\$ -	\$ -
Cash Funded Projects*	\$ 1,438,472	\$ 4,088,693	\$ -	\$ -	\$ -
Total Uses	\$ 3,387,343	\$ 6,036,867	\$ 1,947,838	\$ 1,945,960	\$ 1,944,371
End of Year Balance	\$ 3,458,711	\$ (411,156)	\$ (201,994)	\$ 9,045	\$ 211,674

Schedule HJS Amended Settlement-10b: Restricted Funds - Western Cranston Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 33,333	\$ 40,000	\$ 40,000	\$ 40,000	\$ 40,000
Impact Fees estimated	\$ 81,878	\$ 25,000	\$ 25,000	\$ 15,000	\$ 10,000
Carryover funds from prior year estimated	\$ 331,157	\$ 275,621	\$ 169,964	\$ 64,403	\$ (51,062)
Total Sources	\$ 446,368	\$ 340,621	\$ 234,964	\$ 119,403	\$ (1,062)
Less obligated uses of funds					
RIIB 2002B (P)	\$ 151,253	\$ 156,503	\$ 161,936	\$ 167,556	\$ -
RIIB 2002 (Pippin Main & WilburPS) (I)	\$ 19,494	\$ 14,153	\$ 8,626	\$ 2,908	\$ -
Sub-total Debt Service	\$ 170,747	\$ 170,656	\$ 170,562	\$ 170,464	\$ -
Miscellaneous Expense					
Cash Funded Projects	\$ -	\$ -	\$ -	\$ -	\$ -
Total Uses	\$ 170,747	\$ 170,656	\$ 170,562	\$ 170,464	\$ -
End of Year Balance	\$ 275,621	\$ 169,964	\$ 64,403	\$ (51,062)	\$ (1,062)

Schedule HJS Amended Settlement-10c: Restricted Funds - IFR Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 30,712,500	\$ 27,300,000	\$ 27,300,000	\$ 27,300,000	\$ 27,300,000
New Rate Funding			\$ 2,000,000	\$ 4,000,000	\$ 5,000,000
Miscellaneous Revenue (incl. Transfer for ESWD DS)	\$ 64,142	\$ 52,853	\$ 52,802	\$ 52,689	\$ 52,513
Interest Income ¹	\$ (38,113)	\$ 42,000	\$ 25,000	\$ 10,000	\$ 1,000
Carryover funds from prior year estimated	\$ 10,714,127	\$ 9,702,126	\$ 3,364,587	\$ 12,788,069	\$ 793,456
Total Sources	\$ 41,452,656	\$ 37,096,978	\$ 32,742,389	\$ 44,150,758	\$ 33,146,968
Less obligated uses of funds:					
RIIB (Arra) \$9.3M 2009 (P&I)	\$ 491,080	\$ 491,005	\$ 491,074	\$ 490,542	\$ 490,220
RIIB \$35M 2008 (P&I)	\$ 2,374,237	\$ 2,339,550	\$ 2,371,550	\$ 2,369,540	\$ 2,367,832
RIIB \$25M 2013 (P&I)	\$ 1,545,394	\$ 1,545,575	\$ 1,544,360	\$ 1,542,870	\$ 1,542,106
RIIB \$8M 2014 (P&I)	\$ 501,911	\$ 500,873	\$ 500,850	\$ 500,896	\$ 500,127
RIIB \$16.3M 2017 (P&I)	\$ 1,035,775	\$ 1,036,028	\$ 1,036,743	\$ 1,035,388	\$ 1,034,854
RIIB \$14.7M 2019 (P&I)		\$ 176,864	\$ 934,390	\$ 935,151	\$ 935,636
East Smithfield RIIB 2013 (P&I)	\$ 39,775	\$ 39,177	\$ 39,477	\$ 39,714	\$ 39,888
East Smithfield RIIB 2008 (P&I)	\$ 14,025	\$ 13,675	\$ 13,325	\$ 12,975	\$ 12,625
Est. New Debt Service Series 2020A		\$ -	\$ 313,342	\$ 1,251,662	\$ 1,251,545
Est. New Debt Service Series 2021A				\$ 344,414	\$ 1,375,822
Est. New Debt Service Series 2022A		\$ -			\$ 344,414
Sub-total Debt Service	\$ 6,002,197	\$ 6,142,748	\$ 7,245,112	\$ 8,523,151	\$ 9,895,068
Cash Funded Projects	\$ 25,748,333	\$ 27,589,644	\$ 12,709,208	\$ 34,834,151	\$ 17,724,246
Total Uses	\$ 31,750,530	\$ 33,732,392	\$ 19,954,320	\$ 43,357,302	\$ 27,619,314
End of Year Balance - Cash Balance Carry Fwd.	\$ 9,702,126	\$ 3,364,587	\$ 12,788,069	\$ 793,456	\$ 5,527,654
Bond Funding Activity					
Bond Proceeds	\$ 1,840,830	\$ 16,224,208	\$ 19,245,038	\$ 21,000,000	\$ 21,000,000
Cost of Issuance	\$ 1,082,095	\$ 2,685,757	\$ 1,669,246	\$ 1,669,246	\$ 1,669,246
Bond Funded Projects	\$ 758,735	\$ 13,538,451	\$ 17,575,792	\$ 19,330,754	\$ 19,330,754
Net Bond funding	\$ -	\$ -	\$ -	\$ -	\$ -
Note 1: Negative interest Income in FY2019 is reflective of actual interest earned of \$54,636.32 less a market adjustment of - \$92,7749.32 adjusted by the auditors at year end.					

Schedule HJS Amended Settlement-10d: Restricted Funds - AMR/Meter Replacement Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 416,667	\$ 500,000	\$ 500,000	\$ 500,000	\$ 500,000
New Rate Funding			\$ 500,000	\$ 500,000	\$ 500,000
East Smithfield Surcharge	\$ 69,152	\$ 83,000	\$ 83,000	\$ 83,000	\$ 83,000
Interest/Miscellaneous Revenue	\$ (183)	\$ 25,000	\$ 10,000	\$ 10,000	\$ 10,000
Carryover funds from prior year estimated	\$ 2,073,908	\$ 1,358,386	\$ 679,338	\$ 484,698	\$ 290,344
Total Sources	\$ 2,559,543	\$ 1,966,386	\$ 1,772,338	\$ 1,577,698	\$ 1,383,344
Less obligated uses of funds					
East Smithfield RIIB (Arra) \$400,000	\$ 27,011	\$ 26,931	\$ 27,573	\$ 27,401	\$ 27,198
Transfer to IFR for ESWD Debt Service	\$ 64,142	\$ 52,853	\$ 52,802	\$ 52,689	\$ 52,513
Meter Replacement, Test & Repair	\$ 1,110,005	\$ 1,207,264	\$ 1,207,264	\$ 1,207,264	\$ 1,207,264
Total Uses	\$ 1,201,158	\$ 1,287,048	\$ 1,287,640	\$ 1,287,354	\$ 1,286,974
End of Year Balance	\$ 1,358,386	\$ 679,338	\$ 484,698	\$ 290,344	\$ 96,370

Schedule HJS Amended Settlement-10e: Restricted Funds - Equipment/Vehicle Replacement Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000	\$ 600,000
New Rate Funding			\$ 950,000	\$ 900,000	\$ 850,000
Miscellaneous Revenue	\$ 295	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Interest	\$ 6,461	\$ 18,000	\$ 15,000	\$ 15,000	\$ 15,000
Carryover funds from prior year estimated	\$ 1,648,796	\$ 676,611	\$ (315,089)	\$ 74,684	\$ 314,320
Total Sources	\$ 2,255,552	\$ 1,299,611	\$ 1,254,911	\$ 1,594,684	\$ 1,784,320
Less obligated uses of funds					
Vehicle and Equipment purchases	\$ 375,418	\$ 741,200	\$ 735,227	\$ 567,614	\$ 495,000
Computer Equipment purchases	\$ 991,999	\$ 325,000	\$ 260,000	\$ 527,750	\$ 470,600
Office Furniture purchases	\$ 7,533	\$ 25,000	\$ 25,000	\$ 25,000	\$ 25,000
Security Equipment	\$ -	\$ 223,500	\$ 60,000	\$ 60,000	\$ 60,000
Shop & Plant Equipment	\$ 203,991	\$ 300,000	\$ 100,000	\$ 100,000	\$ 100,000
Total Uses	\$ 1,578,941	\$ 1,614,700	\$ 1,180,227	\$ 1,280,364	\$ 1,150,600
End of Year Balance	\$ 676,611	\$ (315,089)	\$ 74,684	\$ 314,320	\$ 633,720

Schedule HJS Amended Settlement-10f: Restricted Funds - Insurance Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113	\$ 2,302,113
New Rate Funding			\$ (251,057)	\$ (251,057)	\$ (251,057)
Reimbursements	\$ 40,797	\$ -	\$ -	\$ -	\$ -
Interest	\$ 12,953	\$ 9,000	\$ 9,100	\$ 9,250	\$ 9,500
Carryover funds from prior year estimated	\$ 2,005,575	\$ 2,334,013	\$ 2,630,506	\$ 2,307,449	\$ 2,292,139
Total Sources	\$ 4,361,438	\$ 4,645,126	\$ 4,690,662	\$ 4,367,756	\$ 4,352,695
Less obligated uses of funds					
Property & Casualty	\$ 1,119,941	\$ 1,129,479	\$ 1,151,934	\$ 1,174,839	\$ 1,198,201
Workers Compensation	\$ 774,580	\$ 779,142	\$ 785,125	\$ 794,279	\$ 800,564
Injuries & Damages *	\$ 113,412	\$ 85,000	\$ 224,654	\$ 85,000	\$ 85,000
Safety Supplies & Other	\$ 15,041	\$ 16,000	\$ 16,500	\$ 16,500	\$ 16,500
Program Expense	\$ 4,452	\$ 5,000	\$ 205,000	\$ 5,000	\$ 5,000
Total Uses	\$ 2,027,425	\$ 2,014,621	\$ 2,383,213	\$ 2,075,617	\$ 2,105,266
End of Year Balance	\$ 2,334,013	\$ 2,630,506	\$ 2,307,449	\$ 2,292,139	\$ 2,247,429

* Injuries and Claims for FY2021 includes 5 property damage claims that are in excess of \$5,000 and 2 pending claims of approximately \$50,000 each from flooding incidents in Cranston & Providence.

Schedule HJS Amended Settlement-10g: Restricted Funds - Chemicals and Sludge Maintenance Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 2,566,667	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000	\$ 2,800,000
New Rate Funding			\$ 800,000	\$ 800,000	\$ 800,000
Interest/Misc. Revenue	\$ 23,439	\$ 8,000	\$ 8,000	\$ 8,000	\$ 8,000
Carryover funds from prior year estimated	\$ 3,344,882	\$ 2,524,880	\$ 1,501,662	\$ 1,203,621	\$ 849,391
Total Sources	\$ 5,934,988	\$ 5,332,880	\$ 5,109,662	\$ 4,811,621	\$ 4,457,391
Less obligated uses of funds					
Chemicals	\$ 1,750,925	\$ 1,947,301	\$ 2,217,123	\$ 2,353,312	\$ 2,406,445
Professional Engineering/Contractors	\$ 50,264	\$ 75,000	\$ -	\$ -	\$ -
Miscellaneous Expenses - Project inspections, pump rentals		\$ 200,000	\$ 80,000	\$ -	\$ -
Sludge Maintenance	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918	\$ 1,608,918
Total Uses	\$ 3,410,107	\$ 3,831,219	\$ 3,906,041	\$ 3,962,230	\$ 4,015,363
End of Year Balance	\$ 2,524,880	\$ 1,501,662	\$ 1,203,621	\$ 849,391	\$ 442,028

Schedule HJS Amended Settlement-10h: Restricted Funds - Property Tax Refund Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
Foster Tax Refund	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000	\$ 190,000
Carryover funds from prior year estimated	\$ 501,231	\$ 384,840	\$ 394,840	\$ 354,840	\$ 314,840
Total Sources	\$ 691,231	\$ 574,840	\$ 584,840	\$ 544,840	\$ 504,840
Less obligated uses of funds					
Reimbursement to operations from Foster refund	\$ 291,667	\$ 175,000	\$ 175,000	\$ 175,000	\$ 175,000
Transfer to Operations - Legal Fees	\$ 14,724	\$ 5,000	\$ 5,000	\$ 5,000	\$ 5,000
Total Uses	\$ 306,391	\$ 180,000	\$ 180,000	\$ 180,000	\$ 180,000
Use of Property Tax Refund			\$ 50,000	\$ 50,000	\$ 50,000
End of Year Balance	\$ 384,840	\$ 394,840	\$ 354,840	\$ 314,840	\$ 274,840

Schedule HJS Amended Settlement-10i: Restricted Funds - Private Side Lead Service Replacement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000	\$ 250,000
New Rate Funding			\$ 750,000	\$ 1,750,000	\$ 2,750,000
Loan Proceeds	\$ 430,326	\$ 569,674	\$ 500,000		
Repayments	\$ 171,159	\$ 250,000	\$ 295,000	\$ 295,000	\$ 295,000
Carryover funds from prior year estimated	\$ 215,533	\$ 445,279	\$ 788,852	\$ 1,708,852	\$ 428,852
Total Sources	\$ 1,067,018	\$ 1,514,953	\$ 2,583,852	\$ 4,003,852	\$ 3,723,852
Less obligated uses of funds					
Project expenditures	\$ 542,028	\$ 500,000	\$ 600,000	\$ 3,000,000	\$ 3,000,000
New debt Service				\$ 300,000	\$ 300,000
RIIB \$1M 2018A (P&I)	\$ 79,711	\$ 226,101	\$ 275,000	\$ 275,000	\$ 144,188
Total Uses	\$ 621,739	\$ 726,101	\$ 875,000	\$ 3,575,000	\$ 3,444,188
End of Year Balance	\$ 445,279	\$ 788,852	\$ 1,708,852	\$ 428,852	\$ 279,664

Schedule HJS Amended Settlement-10j: Restricted Funds - Revenue Reserve Fund

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
Source of Funds					
D4618 (effective 2/17/2017)	\$ 362,119	\$ 362,119	\$ 362,119	\$ 362,119	\$ 362,119
New Rate Funding			\$ 46,499	\$ 67,623	\$ 84,471
Interest Revenue	40,706	-	-	-	-
Carryover funds from prior year estimated	\$ 5,147,770	\$ 271,784	\$ 386,024	\$ 794,642	\$ 1,224,384
Total Sources	\$ 5,550,596	\$ 633,903	\$ 794,642	\$ 1,224,384	\$ 1,670,974
Less obligated uses of funds					
Transfer to Restricted Funds*	\$ 5,278,812	\$ 247,879	\$ -	\$ -	\$ -
Total Uses	\$ 5,278,812	\$ 247,879	\$ -	\$ -	\$ -
End of Year Balance	\$ 271,784	\$ 386,024	\$ 794,642	\$ 1,224,384	\$ 1,670,974

Note:

* Commission approved to transfer funds from the Revenue Reserve Fund to Operations to fully fund IFR not funded in FY2017 and FY2018 due to revenue shortfalls on 1/14/2019.

Schedule HJS Amended Settlement-11: Inflation Adjustment

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Historical ¹ FY 16	Historical ¹ FY 17	Historical ¹ FY 18	Historical ¹ FY 19	CPI Adj. ² 3 Yr. CAGR	Rate Year ³ FY 21 CPI	Rate Year ⁴ FY 22 CPI	Rate Year ⁴ FY 23 CPI
CPI-U	239.842	243.79	251.134	255.305				
% Change		1.646%	3.012%	1.661%	2.10%	0.00%	0.00%	0.00%

(1) Consumer Price Index (CPI-U), All Items as of June 30. <https://www.bls.gov/cpi/tables/supplemental-files/home.htm>

(2) Adjustments Based on Compounded Average Growth Rate from FY 16 to FY 19

(3) Adjustment from Test Year FY 19 to Rate Year FY 21. 2 Years at CAGR of 2.10%

(4) Annual Adjustment of 2.10%

Schedule HJS Amended Settlement-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year				Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)					
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	Rate Year FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	Rate Year FY 23 CPI	Rate Year FY 2023
Operation and Maintenance																							
Source of Supply																							
60110	Salary + Wages -SOSO	\$ 777,108	\$ 53,952	3	\$ 831,060	\$ 33,575	3	\$ (14,769)	3	\$ -	\$ 849,865	\$ 25,939	3	\$ (529)	3	\$ -	\$ 875,276	\$ 22,264	3	\$ (470)	3	\$ -	\$ 897,069
60120	Salary + Wages -SOSM	\$ 391,728	\$ 162,996	3	\$ 554,724	\$ 22,411	3	\$ (7,445)	3	\$ -	\$ 569,690	\$ 17,314	3	\$ (267)	3	\$ -	\$ 586,738	\$ 14,861	3	\$ (237)	3	\$ -	\$ 601,362
60210	Payroll Clearing -SOSO	\$ -	-	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60220	Payroll Clearing -SOSM	\$ (454)	454	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60410	Employee Pension +Ben -SOSO	\$ 464,481	\$ 17,659	4	\$ 482,140	\$ 55,803	4	\$ (1,023)	4	\$ -	\$ 536,920	\$ 26,844	4	\$ (37)	4	\$ -	\$ 563,727	\$ 28,079	4	\$ (33)	4	\$ -	\$ 591,774
60420	Employee Pension + Ben -SOSM	\$ 289,896	\$ 11,022	4	\$ 300,918	\$ 34,828	4	\$ (638)	4	\$ -	\$ 335,108	\$ 16,754	4	\$ (23)	4	\$ -	\$ 351,839	\$ 17,525	4	\$ (20)	4	\$ -	\$ 369,344
60520	Overhead Rate Applied -SOSM	\$ (883)	883	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
61010	Purchased Power	\$ 1,475	\$ -	5	\$ 1,475	\$ (574)	5	\$ (106)	5	\$ -	\$ 794	\$ (5)	5	\$ -	5	\$ -	\$ 790	\$ (4)	5	\$ -	5	\$ -	\$ 785
62010	Material and Supplies -SOSO	\$ 5,866	\$ -	6	\$ 5,866	\$ -	6	\$ -	6	\$ -	\$ 5,866	\$ -	6	\$ -	6	\$ -	\$ 5,866	\$ -	6	\$ -	6	\$ -	\$ 5,866
62020	Material and Supplies - SOSM	\$ 18,893	\$ -	6	\$ 18,893	\$ -	6	\$ -	6	\$ -	\$ 18,893	\$ -	6	\$ -	6	\$ -	\$ 18,893	\$ -	6	\$ -	6	\$ -	\$ 18,893
63110	Contractual Service -Eng-SOSO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63120	Contractual Service-Eng-SOSM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63610	Contractual Service Other-SOSO	\$ 13,827	\$ -	6	\$ 13,827	\$ -	6	\$ -	6	\$ -	\$ 13,827	\$ -	6	\$ -	6	\$ -	\$ 13,827	\$ -	6	\$ -	6	\$ -	\$ 13,827
63620	Contractual Service Other-SOSM	\$ 12,278	\$ -	6	\$ 12,278	\$ -	6	\$ -	6	\$ -	\$ 12,278	\$ -	6	\$ -	6	\$ -	\$ 12,278	\$ -	6	\$ -	6	\$ -	\$ 12,278
64210	Rental of Equipment-SOSO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
64220	Rental of Equipment-SOSM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
65010	Transportation Expense-SOSO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
65020	Transportation Expense-SOSM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
67510	Miscellaneous Expenses-SOSO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
67520	Miscellaneous Expenses-SOSM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
Total Source of Supply Expense		\$ 1,974,215	\$ 246,967		\$ 2,221,181	\$ 146,042		\$ (23,981)		\$ -	\$ 2,343,243	\$ 86,846		\$ (855)		\$ -	\$ 2,429,234	\$ 82,725		\$ (761)		\$ -	\$ 2,511,198
Pumping Expenses																							
61523	Fuel or Power Purchase -PPO	\$ 858,210	\$ -	5	\$ 858,210	\$ (331,568)	5	\$ (61,182)	5	\$ -	\$ 465,460	\$ (2,599)	5	\$ -	5	\$ -	\$ 462,861	\$ (2,586)	5	\$ -	5	\$ -	\$ 460,275
63523	Contractual Service Other-PPO	\$ 13,816	\$ -	6	\$ 13,816	\$ -	6	\$ -	6	\$ -	\$ 13,816	\$ -	6	\$ -	6	\$ -	\$ 13,816	\$ -	6	\$ -	6	\$ -	\$ 13,816
Total Pumping Expenses		\$ 872,026	\$ -		\$ 872,026	\$ (331,568)		\$ (61,182)		\$ -	\$ 479,276	\$ (2,599)		\$ -		\$ -	\$ 476,677	\$ (2,586)		\$ -		\$ -	\$ 474,091

Schedule HJS Amended Settlement-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year			Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)						
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	Rate Year FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	Rate Year FY 23 CPI	Rate Year FY 2023
Water Treatment Expenses																							
60130	Salary + Wages -WTO	\$ 2,303,651	\$ 204,395	3	\$ 2,508,045	\$ 101,325	3	\$ (43,782)	3	\$ -	\$ 2,565,589	\$ 78,281	3	\$ (1,568)	3	\$ -	\$ 2,642,302	\$ 67,191	3	\$ (1,395)	3	\$ -	\$ 2,708,098
60140	Salary + Wages - WTM	\$ 287,963	\$ -	3	\$ 287,963	\$ 11,634	3	\$ (5,473)	3	\$ -	\$ 294,123	\$ 8,988	3	\$ (196)	3	\$ -	\$ 302,915	\$ 7,715	3	\$ (174)	3	\$ -	\$ 310,456
60430	Employee Pension+Benefit-WTO	\$ 1,299,196	\$ 49,395	4	\$ 1,348,591	\$ 156,085	4	\$ (2,860)	4	\$ -	\$ 1,501,816	\$ 75,084	4	\$ (102)	4	\$ -	\$ 1,576,798	\$ 78,540	4	\$ (91)	4	\$ -	\$ 1,655,246
60440	Employee Pension+Benefit-WTM	\$ 215,343	\$ 8,187	4	\$ 223,530	\$ 25,871	4	\$ (474)	4	\$ -	\$ 248,927	\$ 12,445	4	\$ (17)	4	\$ -	\$ 261,356	\$ 13,018	4	\$ (15)	4	\$ -	\$ 274,358
61530	Purchased Power-WTO	\$ 251,952	\$ -	5	\$ 251,952	\$ (98,129)	5	\$ (18,107)	5	\$ -	\$ 135,715	\$ (769)	5	\$ -	5	\$ -	\$ 134,946	\$ (765)	5	\$ -	5	\$ -	\$ 134,181
61540	Power Purchased -WTM	\$ -	\$ -	5	\$ -	\$ -	5	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	5	\$ -	\$ -
61630	Fuel for Purchased Power-WTO	\$ 200,347	\$ -	5	\$ 200,347	\$ -	5	\$ -	5	\$ -	\$ 200,347	\$ -	5	\$ -	5	\$ -	\$ 200,347	\$ -	5	\$ -	5	\$ -	\$ 200,347
62030	Material and Supplies -WTO	\$ 217,299	\$ -	6	\$ 217,299	\$ -	6	\$ -	6	\$ -	\$ 217,299	\$ -	6	\$ -	6	\$ -	\$ 217,299	\$ -	6	\$ -	6	\$ -	\$ 217,299
62040	Material and Supplies -WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63130	Contractual Service Eng-WTO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63140	Contractual Service Eng-WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63630	Contractual Service Other-WTO	\$ 209,400	\$ -	6	\$ 209,400	\$ 132,000	6	\$ -	6	\$ -	\$ 341,400	\$ -	6	\$ -	6	\$ -	\$ 341,400	\$ -	6	\$ -	6	\$ -	\$ 341,400
63640	Contractual Service Other-WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
64230	Rental of Equipment -WTO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
64240	Rental of Equipment -WTM	\$ 3,799	\$ -	6	\$ 3,799	\$ -	6	\$ -	6	\$ -	\$ 3,799	\$ -	6	\$ -	6	\$ -	\$ 3,799	\$ -	6	\$ -	6	\$ -	\$ 3,799
65030	Transportation Expense-WTO	\$ 1,333	\$ -	6	\$ 1,333	\$ -	6	\$ -	6	\$ -	\$ 1,333	\$ -	6	\$ -	6	\$ -	\$ 1,333	\$ -	6	\$ -	6	\$ -	\$ 1,333
67530	Miscellaneous Expenses-WTO	\$ 204,372	\$ -	6	\$ 204,372	\$ -	6	\$ -	6	\$ -	\$ 204,372	\$ -	6	\$ -	6	\$ -	\$ 204,372	\$ -	6	\$ -	6	\$ -	\$ 204,372
67540	Miscellaneous Expenses - WTM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
Total Treatment Expense		\$ 5,194,654	\$ 261,976		\$ 5,456,630	\$ 328,786		\$ (70,696)		\$ -	\$ 5,714,720	\$ 174,030		\$ (1,883)		\$ -	\$ 5,886,867	\$ 165,698		\$ (1,675)		\$ -	\$ 6,050,889
Transmission + Dist. Expense:																							
60150	Salary + Wages -T&DO	\$ 557,922	\$ -	3	\$ 557,922	\$ 22,540	3	\$ (10,603)	3	\$ -	\$ 569,858	\$ 17,414	3	\$ (380)	3	\$ -	\$ 586,892	\$ 14,947	3	\$ (338)	3	\$ -	\$ 601,501
60160	Salary + Wages -T&DM	\$ 2,880,826	\$ 126,941	3	\$ 3,007,767	\$ 121,514	3	\$ (54,751)	3	\$ -	\$ 3,074,530	\$ 93,878	3	\$ (1,961)	3	\$ -	\$ 3,166,448	\$ 80,579	3	\$ (1,744)	3	\$ -	\$ 3,245,283
60250	Payroll Clearing-T&DO	\$ (206,396)	\$ 206,396	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60260	Payroll Clearing -T&DM	\$ (9,815)	\$ 9,815	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60450	Employee Pension+Benefit-T&DO	\$ 349,795	\$ 13,299	4	\$ 363,094	\$ 42,024	4	\$ (770)	4	\$ -	\$ 404,349	\$ 20,216	4	\$ (28)	4	\$ -	\$ 424,537	\$ 21,146	4	\$ (25)	4	\$ -	\$ 445,658
60460	Employee Pension+Benefit-T&DM	\$ 1,760,203	\$ 66,922	4	\$ 1,827,125	\$ 211,471	4	\$ (3,875)	4	\$ -	\$ 2,034,721	\$ 101,727	4	\$ (139)	4	\$ -	\$ 2,136,309	\$ 106,409	4	\$ (123)	4	\$ -	\$ 2,242,594
60550	Overhead Rate Applied-T&DO	\$ (485,940)	\$ 485,940	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60560	Overhead Rate Applied -T&DM	\$ (19,007)	\$ 19,007	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
61550	Power Purchased-T&DO	\$ 19,556	\$ -	5	\$ 19,556	\$ (7,617)	5	\$ (1,405)	5	\$ -	\$ 10,534	\$ (60)	5	\$ -	5	\$ -	\$ 10,474	\$ (59)	5	\$ -	5	\$ -	\$ 10,415
62050	Material and Supplies -T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
62060	Material and Supplies-T&DM	\$ 319,595	\$ -	6	\$ 319,595	\$ 107,769	6	\$ -	6	\$ -	\$ 427,364	\$ 22,248	6	\$ -	6	\$ -	\$ 449,613	\$ 50,374	6	\$ -	6	\$ -	\$ 499,986
63150	Contractual Services Eng-T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63160	Contractual Services Eng-T&DM	\$ 47,278	\$ -	6	\$ 47,278	\$ -	6	\$ -	6	\$ -	\$ 47,278	\$ -	6	\$ -	6	\$ -	\$ 47,278	\$ -	6	\$ -	6	\$ -	\$ 47,278
63650	Contractual Service Other-T&DO	\$ 17,310	\$ -	6	\$ 17,310	\$ 5,288	6	\$ -	6	\$ -	\$ 22,598	\$ 1,970	6	\$ -	6	\$ -	\$ 24,568	\$ 2,069	6	\$ -	6	\$ -	\$ 26,636
63660	Contractual Service Other-T&DM	\$ 891,828	\$ -	6	\$ 891,828	\$ 106,311	6	\$ -	6	\$ -	\$ 998,139	\$ 4,696	6	\$ -	6	\$ -	\$ 1,002,834	\$ 41,240	6	\$ -	6	\$ -	\$ 1,044,074
65060	Transportation Expense -T&DM	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
67550	Miscellaneous Exp -T&DO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
67560	Miscellaneous Exp-T&DM	\$ 44,079	\$ -	6	\$ 44,079	\$ -	6	\$ -	6	\$ -	\$ 44,079	\$ -	6	\$ -	6	\$ -	\$ 44,079	\$ -	6	\$ -	6	\$ -	\$ 44,079
Total Transmission & Distribution		\$ 6,167,234	\$ 928,320		\$ 7,095,554	\$ 609,300		\$ (71,405)		\$ -	\$ 7,633,449	\$ 262,090		\$ (2,507)		\$ -	\$ 7,893,031	\$ 316,703		\$ (2,230)		\$ -	\$ 8,207,505

Schedule HJS Amended Settlement-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year			Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)						
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	Rate Year FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	Rate Year FY 23 CPI	Rate Year FY 2023
Customer Accounts Expense:																							
60170	Salary+Wages-CAO	\$ 1,945,516	\$ 147,456	3	\$ 2,092,972	\$ 84,556	3	\$ (36,975)	3	\$ -	\$ 2,140,553	\$ 65,326	3	\$ (1,324)	3	\$ -	\$ 2,204,554	\$ 56,071	3	\$ (1,178)	3	\$ -	\$ 2,259,448
60270	Payroll Clearing -CAO	\$ (70,038)	\$ 70,038	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60470	Employee Pension+Benefit-CAO	\$ 1,356,960	\$ 51,591	4	\$ 1,408,550	\$ 163,025	4	\$ (2,987)	4	\$ -	\$ 1,568,588	\$ 78,423	4	\$ (107)	4	\$ -	\$ 1,646,904	\$ 82,032	4	\$ (95)	4	\$ -	\$ 1,728,840
60570	Overhead Rate Applied-CAO	\$ (260,823)	\$ 260,823	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
62070	Material and Supplies-CAO	\$ 4,043	\$ -	6	\$ 4,043	\$ -	6	\$ -	6	\$ -	\$ 4,043	\$ -	6	\$ -	6	\$ -	\$ 4,043	\$ -	6	\$ -	6	\$ -	\$ 4,043
63670	Contratual Services Other -CAO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
65070	Transportation Expenses -CAO	\$ 3,002	\$ -	6	\$ 3,002	\$ -	6	\$ -	6	\$ -	\$ 3,002	\$ -	6	\$ -	6	\$ -	\$ 3,002	\$ -	6	\$ -	6	\$ -	\$ 3,002
67070	Bad Debt Expense	\$ 207,146	\$ -	6	\$ 207,146	\$ -	6	\$ -	6	\$ -	\$ 207,146	\$ -	6	\$ -	6	\$ -	\$ 207,146	\$ -	6	\$ -	6	\$ -	\$ 207,146
67570	Miscellaneous Expenses-CAO	\$ 578,923	\$ -	6	\$ 578,923	\$ 61,964	6	\$ -	6	\$ -	\$ 640,886	\$ -	6	\$ -	6	\$ -	\$ 640,886	\$ -	6	\$ -	6	\$ -	\$ 640,886
Total Customer Accounts		\$ 3,764,727	\$ 529,908		\$ 4,294,635	\$ 309,545		\$ (39,963)		\$ -	\$ 4,564,217	\$ 143,749		\$ (1,431)		\$ -	\$ 4,706,534	\$ 138,103		\$ (1,273)		\$ -	\$ 4,843,364
Administrative and General																							
60180	Salary+Wages -A&GO	\$ 5,489,507	\$ 377,888	3	\$ 5,867,394	\$ 423,649	3	\$ (104,330)	3	\$ -	\$ 6,186,714	\$ 284,833	3	\$ (3,736)	3	\$ -	\$ 6,467,811	\$ 262,902	3	\$ (3,324)	3	\$ -	\$ 6,727,389
60280	Payroll Clearing -A&GO	\$ (477,050)	\$ 477,050	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
60480	Employee Pension+Ben-A&GO	\$ 3,928,845	\$ 149,373	4	\$ 4,078,218	\$ 472,012	4	\$ (8,649)	4	\$ -	\$ 4,541,580	\$ 227,060	4	\$ (310)	4	\$ -	\$ 4,768,330	\$ 237,508	4	\$ (276)	4	\$ -	\$ 5,005,563
60580	Overhead Rate Applied-A&GO	\$ (285,181)	\$ 285,181	3	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -	\$ -	3	\$ -	3	\$ -	\$ -
61580	Purchased Power-A&GO	\$ 262,680	\$ -	5	\$ 262,680	\$ (55,218)	5	\$ (10,189)	5	\$ -	\$ 197,272	\$ (433)	5	\$ -	5	\$ -	\$ 196,840	\$ (431)	5	\$ -	5	\$ -	\$ 196,409
61680	Fuel Or Power Purchased-A&GO	\$ -	\$ -	5	\$ -	\$ -	5	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	5	\$ -	\$ -	\$ -	5	\$ -	5	\$ -	\$ -
62080	Material and Supplies -A&GO	\$ 716,310	\$ -	6	\$ 716,310	\$ -	6	\$ -	6	\$ -	\$ 716,310	\$ -	6	\$ -	6	\$ -	\$ 716,310	\$ -	6	\$ -	6	\$ -	\$ 716,310
63180	Contractual Service Eng-A&GO	\$ 60,951	\$ -	6	\$ 60,951	\$ 75,000	6	\$ -	6	\$ -	\$ 135,951	\$ -	6	\$ -	6	\$ -	\$ 135,951	\$ -	6	\$ -	6	\$ -	\$ 135,951
63280	Contractual Service Acctg-A&GO	\$ 51,615	\$ -	6	\$ 51,615	\$ -	6	\$ -	6	\$ -	\$ 51,615	\$ -	6	\$ -	6	\$ -	\$ 51,615	\$ -	6	\$ -	6	\$ -	\$ 51,615
63380	Contractual Service Legal-A&GO	\$ 73,963	\$ -	6	\$ 73,963	\$ -	6	\$ -	6	\$ -	\$ 73,963	\$ -	6	\$ -	6	\$ -	\$ 73,963	\$ -	6	\$ -	6	\$ -	\$ 73,963
63480	Contractual Service Mgmt fees-A&GO	\$ -	\$ -	6	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -	\$ -	6	\$ -	6	\$ -	\$ -
63680	Contractual Service Other-A&GO	\$ 1,383,724	\$ (59,186)	6	\$ 1,324,538	\$ 971,972	6	\$ (100,000)	6	\$ -	\$ 2,196,510	\$ (142,622)	6	\$ 137,750	6	\$ -	\$ 2,191,638	\$ (56,161)	6	\$ -	6	\$ -	\$ 2,135,477
64280	Rental of Equipment-A&GO	\$ 2,686	\$ -	6	\$ 2,686	\$ -	6	\$ -	6	\$ -	\$ 2,686	\$ -	6	\$ -	6	\$ -	\$ 2,686	\$ -	6	\$ -	6	\$ -	\$ 2,686
65080	Transportation Expenses-A&GO	\$ 9,564	\$ -	6	\$ 9,564	\$ 1,380	6	\$ -	6	\$ -	\$ 10,944	\$ -	6	\$ -	6	\$ -	\$ 10,944	\$ -	6	\$ -	6	\$ -	\$ 10,944
66780	Regulatory Commission Expense	\$ 486,386	\$ -	7	\$ 486,386	\$ 49,164	7	\$ 40,000	7	\$ -	\$ 575,550	\$ 43,515	7	\$ (40,000)	7	\$ -	\$ 579,065	\$ 30,407	7	\$ -	7	\$ -	\$ 609,472
67580	Miscellaneous Expenses- A&GO	\$ 357,305	\$ -	6	\$ 357,305	\$ 238,057	6	\$ -	6	\$ -	\$ 595,362	\$ (137,200)	6	\$ -	6	\$ -	\$ 458,162	\$ (14,500)	6	\$ -	6	\$ -	\$ 443,662
Total Administration + General		\$ 12,061,305	\$ 1,230,305		\$ 13,291,611	\$ 2,176,016		\$ (183,168)		\$ -	\$ 15,284,458	\$ 275,153		\$ 93,704		\$ -	\$ 15,653,314	\$ 459,726		\$ (3,599)		\$ -	\$ 16,109,441
Total Operation & Maintenance		\$ 30,034,161	\$ 3,197,476		\$ 33,231,637	\$ 3,238,121		\$ (450,395)		\$ -	\$ 36,019,363	\$ 939,268		\$ 87,027		\$ -	\$ 37,045,658	\$ 1,160,370		\$ (9,538)		\$ -	\$ 38,196,489

Schedule HJS Amended Settlement-12: Rate Year Revenue Requirements

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Adjusted Test Year			Pro-Forma Rate Year (Year 1)						Pro-Forma Rate Year (Year 2)						Pro-Forma Rate Year (Year 3)						
Account	Description	Test Year FY 2019	Test Year FY 19 Adj. 1	Note	Test Year FY 19 Adj.	Rate Year FY 21 Adj. 1	Note	Rate Year FY 21 Adj. 2	Note	Rate Year FY 21 CPI	Rate Year FY 2021	Rate Year FY 22 Adj. 1	Note	Rate Year FY 22 Adj. 2	Note	Rate Year FY 22 CPI	Rate Year FY 2022	Rate Year FY 23 Adj. 1	Note	Rate Year FY 23 Adj. 2	Note	Rate Year FY 23 CPI	Rate Year FY 2023
Source of Supply		\$ 1,974,215	\$ 246,967		\$ 2,221,181	\$ 146,042		\$ (23,981)		\$ -	\$ 2,343,243	\$ 86,846		\$ (855)		\$ -	\$ 2,429,234	\$ 82,725		\$ (761)		\$ -	\$ 2,511,198
Pumping		\$ 872,026	\$ -		\$ 872,026	\$ (331,568)		\$ (61,182)		\$ -	\$ 479,276	\$ (2,599)		\$ -		\$ -	\$ 476,677	\$ (2,586)		\$ -		\$ -	\$ 474,091
Treatment		\$ 5,194,654	\$ 261,976		\$ 5,456,630	\$ 328,786		\$ (70,696)		\$ -	\$ 5,714,720	\$ 174,030		\$ (1,883)		\$ -	\$ 5,886,867	\$ 165,698		\$ (1,675)		\$ -	\$ 6,050,889
Transmission & Distrib.		\$ 6,167,234	\$ 928,320		\$ 7,095,554	\$ 609,300		\$ (71,405)		\$ -	\$ 7,633,449	\$ 262,090		\$ (2,507)		\$ -	\$ 7,893,031	\$ 316,703		\$ (2,230)		\$ -	\$ 8,207,505
Customer Accounts		\$ 3,764,727	\$ 529,908		\$ 4,294,635	\$ 309,545		\$ (39,963)		\$ -	\$ 4,564,217	\$ 143,749		\$ (1,431)		\$ -	\$ 4,706,534	\$ 138,103		\$ (1,273)		\$ -	\$ 4,843,364
Administration & General		\$ 12,061,305	\$ 1,230,305		\$ 13,291,611	\$ 2,176,016		\$ (183,168)		\$ -	\$ 15,284,458	\$ 275,153		\$ 93,704		\$ -	\$ 15,653,314	\$ 459,726		\$ (3,599)		\$ -	\$ 16,109,441
Total Operation & Maintenance		\$ 30,034,161	\$ 3,197,476		\$ 33,231,637	\$ 3,238,121		\$ (450,395)		\$ -	\$ 36,019,363	\$ 939,268		\$ 87,027		\$ -	\$ 37,045,658	\$ 1,160,370		\$ (9,538)		\$ -	\$ 38,196,489
Capitalized Overheads		\$ 1,815,587	\$ (1,815,587)		\$ -	\$ -		\$ -		\$ -	\$ -					\$ -	\$ -					\$ -	\$ -
Full Operation & Maint. Operating Fund		\$ 31,849,748	\$ 1,381,889		\$ 33,231,637	\$ 3,238,121		\$ (450,395)		\$ -	\$ 36,019,363	\$ 939,268		\$ 87,027		\$ -	\$ 37,045,658	\$ 1,160,370		\$ (9,538)		\$ -	\$ 38,196,489
857 Insurance Fund																							
62080	Material and Supplies -A&GO	\$ 15,041	\$ -	10	\$ 15,041	\$ 1,459	10	\$ -	10		\$ 16,500	\$ -	10		10		\$ 16,500	\$ -	10		10		\$ 16,500
62080	Injuries and Damages	\$ 113,412	\$ -	10	\$ 113,412	\$ 111,242	10	\$ -	10		\$ 224,654	\$ (139,654)	10		10		\$ 85,000	\$ -	10		10		\$ 85,000
63680	Contract Services - Other A&GO	\$ -	\$ -	10	\$ -	\$ -	10	\$ -	10		\$ -	\$ -	10		10		\$ -	\$ -	10		10		\$ -
65780 +	Ins. Gen. Liability																						
65980	Insurance- Other A&GO	\$ 1,119,941	\$ -	10	\$ 1,119,941	\$ 31,993	10	\$ -	10		\$ 1,151,934	\$ 22,905	10		10		\$ 1,174,839	\$ 23,363	10		10		\$ 1,198,201
65880	Insurance - W/C	\$ 774,580	\$ -	10	\$ 774,580	\$ 10,545	10	\$ -	10		\$ 785,125	\$ 9,154	10		10		\$ 794,279	\$ 6,286	10		10		\$ 800,564
67580	Misc. Expense	\$ 4,452	\$ -	10	\$ 4,452	\$ 200,548	10	\$ -	10		\$ 205,000	\$ (200,000)	10		10		\$ 5,000	\$ -	10		10		\$ 5,000
	Funding Adjustment	\$ 0	\$ 274,688	10	\$ 274,688	\$ (606,845)	10	\$ -	10		\$ (332,156)	\$ 307,596	10		10		\$ (24,561)	\$ (29,648)	10		10		\$ (54,209)
Total Insurance Fund		\$ 2,027,425	\$ 274,688		\$ 2,302,113	\$ (251,057)		\$ -		\$ -	\$ 2,051,057	\$ -		\$ -		\$ -	\$ 2,051,057	\$ -		\$ -		\$ -	\$ 2,051,057
878 Chemical and Sludge Maintenance Fund																							
61830	Chemicals - WTO	\$ 1,750,925	\$ -	8	\$ 1,750,925	\$ 466,197	8	\$ -	8		\$ 2,217,123	\$ 136,189	8		8		\$ 2,353,312	\$ 53,133	8				\$ 2,406,445
63130	Contract Services - Eng WTM	\$ 50,264	\$ -	8	\$ 50,264	\$ (50,264)	8	\$ -	8		\$ -	\$ -	8		8		\$ -	\$ -	8				\$ -
63640	Contract Services - Other WTM	\$ 1,608,918	\$ -	8	\$ 1,608,918	\$ (0)	8	\$ -	8		\$ 1,608,918	\$ -	8		8		\$ 1,608,918	\$ -	8				\$ 1,608,918
67540	Miscellaneous Expenses - WTM	\$ -	\$ -	8	\$ -	\$ 80,000	8	\$ -	8		\$ 80,000	\$ (80,000)	8		8		\$ -	\$ -	8				\$ -
	Funding Adjustment	\$ -	\$ (843,441)	8	\$ (843,441)	\$ 537,400	8	\$ -	8		\$ (306,041)	\$ (56,189.38)	8		8		\$ (362,230)	\$ (53,133)	8				\$ (415,363)
Total Chemical and Sludge Maintenance Fund		\$ 3,410,107	\$ (843,441)		\$ 2,566,667	\$ 1,033,333		\$ -		\$ -	\$ 3,600,000	\$ -		\$ -		\$ -	\$ 3,600,000	\$ -		\$ -		\$ -	\$ 3,600,000
Total O&M		\$ 37,287,280	\$ 813,137		\$ 38,100,417	\$ 4,020,397		\$ (450,395)		\$ -	\$ 41,670,419	\$ 939,268		\$ 87,027		\$ -	\$ 42,696,714	\$ 1,160,370		\$ (9,538)		\$ -	\$ 43,847,546

Schedule HJS Amended Settlement-13a: Allocation Factors

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Factor	Description	Common To All			Retail Only						
		Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire	
1	99.5% CTA Base 0.5% Direct Fire	99.50%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.50%	100.00%
2	CTA Base, Max Day	56.57%	43.43%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
3	CTA Base, Max Day, Max Hour	33.02%	25.35%	41.63%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%
4	99.5% Retail Base, 0.5% Direct Fire	0.00%	0.00%	0.00%	99.50%	0.00%	0.00%	0.00%	0.00%	0.50%	100.00%
5	Retail Base, Max Day	0.00%	0.00%	0.00%	56.57%	43.43%	0.00%	0.00%	0.00%	0.00%	100.00%
6	Retail Base, Max Day, Max Hour	0.00%	0.00%	0.00%	33.02%	25.35%	41.63%	0.00%	0.00%	0.00%	100.00%
7	100% M&S	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	0.00%	100.00%
8	100% Billing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	0.00%	100.00%
9	50% M&S, 50% Billing	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	50.00%	50.00%	0.00%	100.00%
10	100% Public Fire	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	100.00%	100.00%
11	100% E. Smithfield	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
12	As Pump Station Electric Costs	28.05%	21.53%	35.36%	4.97%	3.82%	6.27%	0.00%	0.00%	0.00%	100.00%
13	As T&D Work/Service Orders	4.25%	3.26%	5.36%	6.46%	4.96%	8.15%	49.69%	0.01%	17.86%	100.00%
14	As T&D Contract Services	12.08%	9.27%	15.23%	18.23%	14.00%	22.99%	8.20%	0.00%	0.00%	100.00%
15	As Labor O&M Excl. A&G	42.68%	1.19%	1.95%	2.35%	1.81%	2.97%	18.11%	22.22%	6.72%	100.00%
16	As Non-Labor O&M Excl. A&G	23.76%	17.27%	8.86%	6.81%	5.23%	8.58%	9.80%	17.19%	2.51%	100.00%
17	As Total O&M Excl. A&G	39.00%	4.32%	3.30%	3.22%	2.47%	4.06%	16.49%	21.24%	5.90%	100.00%
18	As Pump Station Capacity	69.95%	8.21%	13.49%	2.66%	2.04%	3.35%	0.00%	0.00%	0.30%	100.00%
19	As T&D Plant Excl. M&S, Land, Structures	22.10%	16.97%	1.47%	18.45%	14.16%	23.26%	0.00%	0.00%	3.61%	100.00%
20	As Total Plant Excl. Gen. Plant	35.90%	11.87%	0.84%	10.33%	7.94%	13.03%	17.97%	0.00%	2.12%	100.00%
21	As Total Plant Excl. Land, COF	27.81%	13.37%	0.94%	11.64%	8.94%	14.67%	20.30%	0.00%	2.33%	100.00%
22	As Central Operations Facility Square Footage	18.19%	6.90%	4.72%	12.00%	6.88%	11.30%	27.19%	7.15%	5.66%	100.00%
23	As Total Insurance Before Adjustment	31.78%	10.45%	5.93%	4.92%	3.78%	6.20%	13.32%	19.32%	4.29%	100.00%
24	As Total Chemicals Before Adjustment	80.94%	18.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.28%	100.00%
25	As Total Revenue Requirement Before Reserve:	40.93%	8.42%	2.13%	6.02%	4.62%	7.58%	15.93%	10.79%	3.58%	100.00%
26	As Retail Req. Excl. Bad Debt	0.00%	0.00%	0.00%	12.24%	9.39%	15.41%	33.21%	22.46%	7.29%	100.00%
27	As Total Plant Excl. Land	26.98%	12.82%	1.27%	11.67%	8.76%	14.38%	20.89%	0.61%	2.61%	100.00%

Factor	Description	Base	MDEC	MHEC	Total
1	100% CTA Base	100.00%			100.00%
2	CTA Base, Max Day				
	System Demand (Ccf/Day)	65,720	50,462	-	116,182
	Allocation Factor (%)	56.57%	43.43%	0.00%	100.00%
3	CTA Base, Max Day, Max Hour				
	System Demand (Ccf/Day)	65,720	50,462	82,860	199,042
	Allocation Factor (%)	33.02%	25.35%	41.63%	100.00%
4	100% Retail Base	100.00%			100.00%
5	Retail Base, Max Day	56.57%	43.43%	0.00%	100.00%
6	Retail Base, Max Day, Max Hour	33.02%	25.35%	41.63%	100.00%

Schedule HJS Amended Settlement-13b: Pumping Capacity and Power (Factors 12 and 18)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Station	Capacity (MGD)	Power Cost	Allocation	Common To All			Retail Only					
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Neutaconkanut	38.6	\$ 321,096	3	\$ 106,020	\$ 81,405	\$ 133,671	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Bath Street	28.9	\$ 212,118	3	\$ 70,037	\$ 53,777	\$ 88,304	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Aqueduct	11.5	\$ 182,312	3	\$ 60,196	\$ 46,220	\$ 75,896	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Fruit Hill	4.3	\$ 39,175	6	\$ -	\$ -	\$ -	\$ 12,935	\$ 9,932	\$ 16,309	\$ -	\$ -	\$ -
Alpine Estates	1.7	\$ 3,637	6	\$ -	\$ -	\$ -	\$ 1,201	\$ 922	\$ 1,514	\$ -	\$ -	\$ -
Cranston	3.8	\$ 17,420	6	\$ -	\$ -	\$ -	\$ 5,752	\$ 4,416	\$ 7,252	\$ -	\$ -	\$ -
Dean Estates	5.1	\$ 31,886	6	\$ -	\$ -	\$ -	\$ 10,528	\$ 8,084	\$ 13,274	\$ -	\$ -	\$ -
Greenville	2.5	\$ 23,469	6	\$ -	\$ -	\$ -	\$ 7,749	\$ 5,950	\$ 9,770	\$ -	\$ -	\$ -
Ashby Street	1.4	\$ -	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Structure "D" PS	8.0	\$ 7,048	3	\$ 2,327	\$ 1,787	\$ 2,934	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Waltham	2.7	\$ 12,502	6	\$ -	\$ -	\$ -	\$ 4,128	\$ 3,170	\$ 5,205	\$ -	\$ -	\$ -
Totals	108.7	\$ 850,664		\$ 238,580	\$ 183,189	\$ 300,804	\$ 42,293	\$ 32,474	\$ 53,323	\$ -	\$ -	\$ -

Factor 12 - As Pump Station Electric Costs	28.05%	21.53%	35.36%	4.97%	3.82%	6.27%	0.00%	0.00%	0.00%
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Station	Capacity (MGD)	Percent of Capacity	Allocation	Common To All			Retail Only					
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Raw Water	160.0	59.55%	1	59.25%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.30%
Neutaconkanut	38.6	14.36%	3	4.74%	3.64%	5.98%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Bath Street	28.9	10.77%	3	3.56%	2.73%	4.48%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Aqueduct	11.5	4.29%	3	1.42%	1.09%	1.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Fruit Hill	4.3	1.61%	6	0.00%	0.00%	0.00%	0.53%	0.41%	0.67%	0.00%	0.00%	0.00%
Alpine Estates	1.7	0.65%	6	0.00%	0.00%	0.00%	0.21%	0.16%	0.27%	0.00%	0.00%	0.00%
Cranston	3.8	1.43%	6	0.00%	0.00%	0.00%	0.47%	0.36%	0.59%	0.00%	0.00%	0.00%
Dean Estates	5.1	1.90%	6	0.00%	0.00%	0.00%	0.63%	0.48%	0.79%	0.00%	0.00%	0.00%
Greenville	2.5	0.94%	6	0.00%	0.00%	0.00%	0.31%	0.24%	0.39%	0.00%	0.00%	0.00%
Ashby Street	1.4	0.54%	6	0.00%	0.00%	0.00%	0.18%	0.14%	0.22%	0.00%	0.00%	0.00%
Structure "D" PS	8.0	2.98%	3	0.98%	0.75%	1.24%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%
Waltham	2.7	0.99%	6	0.00%	0.00%	0.00%	0.33%	0.25%	0.41%	0.00%	0.00%	0.00%
Totals	268.7	100.00%		69.95%	8.21%	13.49%	2.66%	2.04%	3.35%	0.00%	0.00%	0.30%

Factor 18 - As Pump Station Capacity	69.95%	8.21%	13.49%	2.66%	2.04%	3.35%	0.00%	0.00%	0.30%
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Schedule HJS Amended Settlement-13c: Pipe Length/Inch-Miles

Providence Water Supply Board

Docket # 4994

Request for General Rate Relief

Amended Settlement Proposal

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Pipe Size	Length	Inch-Miles
Services	225.0	
6	446.7	2,680
8	343.6	2,749
10	1.3	13
12	97.2	1,166
16	46.9	750
20	8.2	164
24	27.0	648
30	18.6	558
36	1.9	68
42	9.2	386
48	3.2	154
60	4.4	264
66	1.6	106
78	4.4	343
90	4.5	405
102	5.2	530
	1,248.9	10,985
Totals		
	Length	Inch-Miles
Distribution (<=12 inches)	1,114	6,608
Transmission (>12 inches)	135	4,377
	1,249	10,985
	Length %	Inch-Miles %
Distribution (<=12 inches)	89.18%	60.16%
Transmission (>12 inches)	10.82%	39.84%
	100.00%	100.00%

Schedule HJS Amended Settlement-13d: T&D Labor Allocation (Factor 13)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	CTA	Retail Only	Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Common To All			Retail Only					
									Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Hydrant - Install	2017	\$ 189,318	0.00%	100.00%	\$ -	\$ 189,318	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 189,318
Hydrant - Install Custodian	2017	\$ 2,573	0.00%	100.00%	\$ -	\$ 2,573	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,573
Hydrant - Maintenance	2017	\$ 2,525	0.00%	100.00%	\$ -	\$ 2,525	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,525
Hydrant - Relocate Existing	2017	\$ 2,852	0.00%	100.00%	\$ -	\$ 2,852	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,852
Hydrant - Remove	2017	\$ 92,751	0.00%	100.00%	\$ -	\$ 92,751	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 92,751
Hydrant - Repair	2017	\$ 135,902	0.00%	100.00%	\$ -	\$ 135,902	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 135,902
Service - Curb Box - Adjust to Grade	2017	\$ 18,097	0.00%	100.00%	\$ -	\$ 18,097	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,097	\$ -	\$ -
Service - Curb Box - Check	2017	\$ 45,865	0.00%	100.00%	\$ -	\$ 45,865	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 45,865	\$ -	\$ -
Service - Curb Box - Dig Up	2017	\$ 180,976	0.00%	100.00%	\$ -	\$ 180,976	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 180,976	\$ -	\$ -
Service - Curb Stop - Close	2017	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Curb Stop - Locate	2017	\$ 1,168	0.00%	100.00%	\$ -	\$ 1,168	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,168	\$ -	\$ -
Service - Curb Stop - Repair	2017	\$ 12,022	0.00%	100.00%	\$ -	\$ 12,022	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,022	\$ -	\$ -
Service - Dig Up For Meter	2017	\$ 3,995	0.00%	100.00%	\$ -	\$ 3,995	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,995	\$ -	\$ -
Service - Install - IFR	2017	\$ 134,678	0.00%	100.00%	\$ -	\$ 134,678	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 134,678	\$ -	\$ -
Service - Install - T&D	2017	\$ 281,647	0.00%	100.00%	\$ -	\$ 281,647	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 281,647	\$ -	\$ -
Service - Remove	2017	\$ 153,262	0.00%	100.00%	\$ -	\$ 153,262	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 153,262	\$ -	\$ -
Service - Repair Leak	2017	\$ 178,649	0.00%	100.00%	\$ -	\$ 178,649	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 178,649	\$ -	\$ -
TD Misc - Miscellaneous Maint	2017	\$ 3,090	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 131	\$ 101	\$ 166	\$ 200	\$ 153	\$ 252	\$ 1,536	\$ 0	\$ 552
Valve - Adjust Gate Box	2017	\$ 30,476	39.84%	60.16%	\$ 12,143	\$ 18,333	3	6	\$ 4,009	\$ 3,078	\$ 5,055	\$ 6,053	\$ 4,648	\$ 7,632	\$ -	\$ -	\$ -
Valve - Check / Inspect	2017	\$ 13,317	39.84%	60.16%	\$ 5,306	\$ 8,011	3	6	\$ 1,752	\$ 1,345	\$ 2,209	\$ 2,645	\$ 2,031	\$ 3,335	\$ -	\$ -	\$ -
Valve - Install	2017	\$ 89,979	39.84%	60.16%	\$ 35,851	\$ 54,128	3	6	\$ 11,837	\$ 9,089	\$ 14,925	\$ 17,872	\$ 13,723	\$ 22,533	\$ -	\$ -	\$ -
Valve - Locate	2017	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Valve - Remove	2017	\$ 53,742	39.84%	60.16%	\$ 21,413	\$ 32,329	3	6	\$ 7,070	\$ 5,429	\$ 8,914	\$ 10,675	\$ 8,196	\$ 13,459	\$ -	\$ -	\$ -
Valve - Repair / Repack	2017	\$ 69,879	39.84%	60.16%	\$ 27,842	\$ 42,037	3	6	\$ 9,193	\$ 7,059	\$ 11,591	\$ 13,880	\$ 10,657	\$ 17,500	\$ -	\$ -	\$ -
Valve - Replace Box Cover	2017	\$ 3,204	39.84%	60.16%	\$ 1,277	\$ 1,928	3	6	\$ 422	\$ 324	\$ 532	\$ 636	\$ 489	\$ 802	\$ -	\$ -	\$ -
Water Main - Install	2017	\$ 4,846	39.84%	60.16%	\$ 1,931	\$ 2,915	3	6	\$ 638	\$ 490	\$ 804	\$ 963	\$ 739	\$ 1,214	\$ -	\$ -	\$ -
Water Main - Remove	2017	\$ 1,129	39.84%	60.16%	\$ 450	\$ 679	3	6	\$ 148	\$ 114	\$ 187	\$ 224	\$ 172	\$ 283	\$ -	\$ -	\$ -
Water Main - Repair Leak	2017	\$ 91,906	39.84%	60.16%	\$ 36,619	\$ 55,287	3	6	\$ 12,091	\$ 9,284	\$ 15,244	\$ 18,255	\$ 14,017	\$ 23,016	\$ -	\$ -	\$ -
Blowoff - Inspect	2018	\$ 487	39.84%	60.16%	\$ 194	\$ 293	3	6	\$ 64	\$ 49	\$ 81	\$ 97	\$ 74	\$ 122	\$ -	\$ -	\$ -
Blowoff - Install	2018	\$ 7,488	39.84%	60.16%	\$ 2,984	\$ 4,505	3	6	\$ 985	\$ 756	\$ 1,242	\$ 1,487	\$ 1,142	\$ 1,875	\$ -	\$ -	\$ -
Blowoff - Locate	2018	\$ 487	39.84%	60.16%	\$ 194	\$ 293	3	6	\$ 64	\$ 49	\$ 81	\$ 97	\$ 74	\$ 122	\$ -	\$ -	\$ -
Blowoff - Remove	2018	\$ 2,048	39.84%	60.16%	\$ 816	\$ 1,232	3	6	\$ 269	\$ 207	\$ 340	\$ 407	\$ 312	\$ 513	\$ -	\$ -	\$ -
Blowoff - Repair	2018	\$ 9,260	39.84%	60.16%	\$ 3,689	\$ 5,570	3	6	\$ 1,218	\$ 935	\$ 1,536	\$ 1,839	\$ 1,412	\$ 2,319	\$ -	\$ -	\$ -
Hydrant - Check / Inspect	2018	\$ 15,350	0.00%	100.00%	\$ -	\$ 15,350	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 15,350
Hydrant - Close	2018	\$ 902	0.00%	100.00%	\$ -	\$ 902	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 902
Hydrant - Flush	2018	\$ 406	0.00%	100.00%	\$ -	\$ 406	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 406
Hydrant - Install	2018	\$ 162,309	0.00%	100.00%	\$ -	\$ 162,309	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 162,309
Hydrant - Install Custodian	2018	\$ 2,301	0.00%	100.00%	\$ -	\$ 2,301	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,301
Hydrant - Maintenance	2018	\$ 1,980	0.00%	100.00%	\$ -	\$ 1,980	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,980
Hydrant - Open	2018	\$ 51	0.00%	100.00%	\$ -	\$ 51	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 51
Hydrant - Relocate Existing	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hydrant - Remove	2018	\$ 63,775	0.00%	100.00%	\$ -	\$ 63,775	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 63,775
Hydrant - Repair	2018	\$ 130,599	0.00%	100.00%	\$ -	\$ 130,599	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 130,599
Hydrant - Repair/Repack Valve	2018	\$ 11,909	0.00%	100.00%	\$ -	\$ 11,909	N/A	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,909
Service - Curb Box - Adjust to Grade	2018	\$ 23,247	0.00%	100.00%	\$ -	\$ 23,247	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,247	\$ -	\$ -
Service - Curb Box - Check	2018	\$ 46,892	0.00%	100.00%	\$ -	\$ 46,892	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 46,892	\$ -	\$ -
Service - Curb Box - Dig Up	2018	\$ 179,792	0.00%	100.00%	\$ -	\$ 179,792	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 179,792	\$ -	\$ -
Service - Curb Stop - Close	2018	\$ 19,119	0.00%	100.00%	\$ -	\$ 19,119	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 19,119	\$ -	\$ -
Service - Curb Stop - Locate	2018	\$ 4,695	0.00%	100.00%	\$ -	\$ 4,695	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,695	\$ -	\$ -
Service - Curb Stop - Open	2018	\$ 23,311	0.00%	100.00%	\$ -	\$ 23,311	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,311	\$ -	\$ -
Service - Curb Stop - Repair	2018	\$ 10,965	0.00%	100.00%	\$ -	\$ 10,965	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,965	\$ -	\$ -
Service - Curb Stop - Replace	2018	\$ 6,194	0.00%	100.00%	\$ -	\$ 6,194	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,194	\$ -	\$ -
Service - Dig Up For Meter	2018	\$ -	0.00%	100.00%	\$ -	\$ -	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Service - Install - IFR	2018	\$ 64,995	0.00%	100.00%	\$ -	\$ 64,995	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 64,995	\$ -	\$ -
Service - Install - T&D	2018	\$ 294,119	0.00%	100.00%	\$ -	\$ 294,119	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 294,119	\$ -	\$ -
Service - Meter - Bypass Meter	2018	\$ 205	0.00%	100.00%	\$ -	\$ 205	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 205	\$ -	\$ -
Service - Remove	2018	\$ 100,614	0.00%	100.00%	\$ -	\$ 100,614	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 100,614	\$ -	\$ -
Service - Remove Lead - CS Apps	2018	\$ 6,492	0.00%	100.00%	\$ -	\$ 6,492	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 6,492	\$ -	\$ -

Schedule HJS Amended Settlement-13d: T&D Labor Allocation (Factor 13)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	CTA	Retail Only	Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Common To All			Retail Only					
									Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Service - Remove Lead - TD	2018	\$ 25,454	0.00%	100.00%	\$ -	\$ 25,454	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,454	\$ -	\$ -
Service - Repair Leak	2018	\$ 169,990	0.00%	100.00%	\$ -	\$ 169,990	N/A	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 169,990	\$ -	\$ -
TD Misc - Miscellaneous Maint	2018	\$ 6,000	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 255	\$ 196	\$ 322	\$ 388	\$ 298	\$ 489	\$ 2,981	\$ 0	\$ 1,072
TD Misc - Pre-Mark for Digup	2018	\$ 335	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 14	\$ 11	\$ 18	\$ 22	\$ 17	\$ 27	\$ 167	\$ 0	\$ 60
TD Misc - Pre-Mark for Saw Cut	2018	\$ 1,024	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 44	\$ 33	\$ 55	\$ 66	\$ 51	\$ 83	\$ 509	\$ 0	\$ 183
TD Misc - Trench Repair	2018	\$ 393	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 17	\$ 13	\$ 21	\$ 25	\$ 20	\$ 32	\$ 195	\$ 0	\$ 70
Trench - Check For Failure	2018	\$ 100	39.84%	60.16%	\$ 40	\$ 60	3	6	\$ 13	\$ 10	\$ 17	\$ 20	\$ 15	\$ 25	\$ -	\$ -	\$ -
Trench Restoration	2018	\$ 257,373	39.84%	60.16%	\$ 102,547	\$ 154,826	3	6	\$ 33,859	\$ 25,998	\$ 42,690	\$ 51,121	\$ 39,252	\$ 64,453	\$ -	\$ -	\$ -
Valve - Adjust Gate Box	2018	\$ 30,505	39.84%	60.16%	\$ 12,154	\$ 18,351	3	6	\$ 4,013	\$ 3,081	\$ 5,060	\$ 6,059	\$ 4,652	\$ 7,639	\$ -	\$ -	\$ -
Valve - Check / Inspect	2018	\$ 8,958	39.84%	60.16%	\$ 3,569	\$ 5,389	3	6	\$ 1,178	\$ 905	\$ 1,486	\$ 1,779	\$ 1,366	\$ 2,243	\$ -	\$ -	\$ -
Valve - Install	2018	\$ 75,028	39.84%	60.16%	\$ 29,894	\$ 45,134	3	6	\$ 9,870	\$ 7,579	\$ 12,445	\$ 14,902	\$ 11,443	\$ 18,789	\$ -	\$ -	\$ -
Valve - Locate	2018	\$ 2,206	39.84%	60.16%	\$ 879	\$ 1,327	3	6	\$ 290	\$ 223	\$ 366	\$ 438	\$ 336	\$ 553	\$ -	\$ -	\$ -
Valve - Raise Gate Box To Grade	2018	\$ 489	39.84%	60.16%	\$ 195	\$ 294	3	6	\$ 64	\$ 49	\$ 81	\$ 97	\$ 75	\$ 122	\$ -	\$ -	\$ -
Valve - Remove	2018	\$ 41,701	39.84%	60.16%	\$ 16,615	\$ 25,085	3	6	\$ 5,486	\$ 4,212	\$ 6,917	\$ 8,283	\$ 6,360	\$ 10,443	\$ -	\$ -	\$ -
Valve - Repair / Repack	2018	\$ 51,060	39.84%	60.16%	\$ 20,344	\$ 30,716	3	6	\$ 6,717	\$ 5,158	\$ 8,469	\$ 10,142	\$ 7,787	\$ 12,787	\$ -	\$ -	\$ -
Valve - Replace Box Cover	2018	\$ 1,122	39.84%	60.16%	\$ 447	\$ 675	3	6	\$ 148	\$ 113	\$ 186	\$ 223	\$ 171	\$ 281	\$ -	\$ -	\$ -
Water Main - Install	2018	\$ 9,226	39.84%	60.16%	\$ 3,676	\$ 5,550	3	6	\$ 1,214	\$ 932	\$ 1,530	\$ 1,833	\$ 1,407	\$ 2,311	\$ -	\$ -	\$ -
Water Main - Remove	2018	\$ 6,846	39.84%	60.16%	\$ 2,728	\$ 4,118	3	6	\$ 901	\$ 692	\$ 1,136	\$ 1,360	\$ 1,044	\$ 1,714	\$ -	\$ -	\$ -
Water Main - Repair Leak	2018	\$ 137,742	39.84%	60.16%	\$ 54,882	\$ 82,860	3	6	\$ 18,121	\$ 13,914	\$ 22,847	\$ 27,359	\$ 21,007	\$ 34,494	\$ -	\$ -	\$ -
DigSafe - Pre-Mark	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Leak Detection	2018	\$ 642	39.84%	60.16%	\$ 256	\$ 386	3	6	\$ 84	\$ 65	\$ 106	\$ 127	\$ 98	\$ 161	\$ -	\$ -	\$ -
Miscellaneous Work	2018	\$ -	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Report Leak	2018	\$ 3,424	39.84%	60.16%	\$ 1,364	\$ 2,060	3	6	\$ 450	\$ 346	\$ 568	\$ 680	\$ 522	\$ 857	\$ -	\$ -	\$ -
Shut Down Not	2018	\$ 299	0.00%	100.00%	\$ -	\$ 299	n/a	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 299	\$ -
TD Collect Sample	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Trench - Check	2018	\$ 4,632	39.84%	60.16%	\$ 1,846	\$ 2,786	3	6	\$ 609	\$ 468	\$ 768	\$ 920	\$ 706	\$ 1,160	\$ -	\$ -	\$ -
Water Pressure	2018	\$ 25	39.84%	60.16%	\$ 10	\$ 15	3	6	\$ 3	\$ 3	\$ 4	\$ 5	\$ 4	\$ 6	\$ -	\$ -	\$ -
Water Quality Issue	2018	\$ 95	39.84%	60.16%	\$ 38	\$ 57	3	6	\$ 12	\$ 10	\$ 16	\$ 19	\$ 14	\$ 24	\$ -	\$ -	\$ -
DigSafe - Blasting	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Emergency	2018	\$ 1,162	39.84%	60.16%	\$ 463	\$ 699	3	6	\$ 153	\$ 117	\$ 193	\$ 231	\$ 177	\$ 291	\$ -	\$ -	\$ -
DigSafe - Freeform	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
DigSafe - Regular	2018	\$ 2,849	39.84%	60.16%	\$ 1,135	\$ 1,714	3	6	\$ 375	\$ 288	\$ 473	\$ 566	\$ 435	\$ 713	\$ -	\$ -	\$ -
DigSafe - Violation	2018	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Blowoff - Inspect	2019	\$ 79	39.84%	60.16%	\$ 31	\$ 47	3	6	\$ 10	\$ 8	\$ 13	\$ 16	\$ 12	\$ 20	\$ -	\$ -	\$ -
Blowoff - Install	2019	\$ 15,186	39.84%	60.16%	\$ 6,051	\$ 9,135	3	6	\$ 1,998	\$ 1,534	\$ 2,519	\$ 3,016	\$ 2,316	\$ 3,803	\$ -	\$ -	\$ -
Blowoff - Locate	2019	\$ 79	39.84%	60.16%	\$ 31	\$ 47	3	6	\$ 10	\$ 8	\$ 13	\$ 16	\$ 12	\$ 20	\$ -	\$ -	\$ -
Blowoff - Remove	2019	\$ 6,165	39.84%	60.16%	\$ 2,456	\$ 3,708	3	6	\$ 811	\$ 623	\$ 1,023	\$ 1,224	\$ 940	\$ 1,544	\$ -	\$ -	\$ -
Blowoff - Repair	2019	\$ 7,612	39.84%	60.16%	\$ 3,033	\$ 4,579	3	6	\$ 1,001	\$ 769	\$ 1,263	\$ 1,512	\$ 1,161	\$ 1,906	\$ -	\$ -	\$ -
Hydrant - Check / Inspect	2019	\$ 18,086	0.00%	100.00%	\$ -	\$ 18,086	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,086
Hydrant - Close	2019	\$ 3,592	0.00%	100.00%	\$ -	\$ 3,592	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,592
Hydrant - Flush	2019	\$ 75	0.00%	100.00%	\$ -	\$ 75	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 75
Hydrant - Gate Box Adjust / Replace	2019	\$ 1,943	0.00%	100.00%	\$ -	\$ 1,943	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,943
Hydrant - Install	2019	\$ 104,475	0.00%	100.00%	\$ -	\$ 104,475	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 104,475
Hydrant - Install - TD	2019	\$ 18,592	0.00%	100.00%	\$ -	\$ 18,592	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,592
Hydrant - Install Custodian	2019	\$ 1,748	0.00%	100.00%	\$ -	\$ 1,748	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,748
Hydrant - Maintenance	2019	\$ 3,485	0.00%	100.00%	\$ -	\$ 3,485	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,485
Hydrant - Open	2019	\$ 113	0.00%	100.00%	\$ -	\$ 113	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 113
Hydrant - Relocate Existing	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Hydrant - Remove	2019	\$ 34,757	0.00%	100.00%	\$ -	\$ 34,757	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 34,757
Hydrant - Remove - TD	2019	\$ 4,678	0.00%	100.00%	\$ -	\$ 4,678	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,678
Hydrant - Repair	2019	\$ 94,220	0.00%	100.00%	\$ -	\$ 94,220	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 94,220
Hydrant - Repair/Repack Valve	2019	\$ 10,469	0.00%	100.00%	\$ -	\$ 10,469	n/a	10	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,469
Sampling Station - Install	2019	\$ 6,817	0.00%	100.00%	\$ -	\$ 6,817	n/a	6	\$ -	\$ -	\$ -	\$ 2,251	\$ 1,728	\$ 2,838	\$ -	\$ -	\$ -
Sampling Station - Remove	2019	\$ 1,330	0.00%	100.00%	\$ -	\$ 1,330	n/a	6	\$ -	\$ -	\$ -	\$ 439	\$ 337	\$ 554	\$ -	\$ -	\$ -
Service - Curb Box - Adjust to Grade	2019	\$ 18,893	0.00%	100.00%	\$ -	\$ 18,893	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 18,893	\$ -	\$ -
Service - Curb Box - Check	2019	\$ 37,952	0.00%	100.00%	\$ -	\$ 37,952	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 37,952	\$ -	\$ -
Service - Curb Box - Dig Up	2019	\$ 122,415	0.00%	100.00%	\$ -	\$ 122,415	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 122,415	\$ -	\$ -
Service - Curb Stop - Close	2019	\$ 47,417	0.00%	100.00%	\$ -	\$ 47,417	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,417	\$ -	\$ -

Schedule HJS Amended Settlement-13d: T&D Labor Allocation (Factor 13)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	CTA	Retail Only	Total CTA	Total Retail Only	CTA Factor	Retail Only Factor	Common To All			Retail Only						
									Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire	
Service - Curb Stop - Locate	2019	\$ 13,968	0.00%	100.00%	\$ -	\$ 13,968	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 13,968	\$ -	\$ -	
Service - Curb Stop - Open	2019	\$ 56,932	0.00%	100.00%	\$ -	\$ 56,932	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 56,932	\$ -	\$ -	
Service - Curb Stop - Repair	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Service - Curb Stop - Replace	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Service - Curb Stop - Replace / Repair	2019	\$ 25,813	0.00%	100.00%	\$ -	\$ 25,813	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 25,813	\$ -	\$ -	
Service - Dig Up For Meter	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Service - Field Asset Measurement	2019	\$ 10,028	0.00%	100.00%	\$ -	\$ 10,028	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,028	\$ -	\$ -	
Service - Install - IFR	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Service - Install - T&D	2019	\$ 473,668	0.00%	100.00%	\$ -	\$ 473,668	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 473,668	\$ -	\$ -	
Service - Meter - Bypass Meter	2019	\$ 1,554	0.00%	100.00%	\$ -	\$ 1,554	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,554	\$ -	\$ -	
Service - MLOG Leak Investigation	2019	\$ 276	0.00%	100.00%	\$ -	\$ 276	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 276	\$ -	\$ -	
Service - Reconnect	2019	\$ 2,096	0.00%	100.00%	\$ -	\$ 2,096	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,096	\$ -	\$ -	
Service - Remove	2019	\$ 42,450	0.00%	100.00%	\$ -	\$ 42,450	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 42,450	\$ -	\$ -	
Service - Remove Lead - CS Apps	2019	\$ -	0.00%	100.00%	\$ -	\$ -	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Service - Remove Lead - TD	2019	\$ 116,483	0.00%	100.00%	\$ -	\$ 116,483	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 116,483	\$ -	\$ -	
Service - Repair Leak	2019	\$ 136,350	0.00%	100.00%	\$ -	\$ 136,350	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 136,350	\$ -	\$ -	
TD Misc - Miscellaneous Maint	2019	\$ 226	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 10	\$ 7	\$ 12	\$ 15	\$ 11	\$ 18	\$ 113	\$ 0	\$ 40	
TD Misc - Pre-Mark for Digup	2019	\$ -	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TD Misc - Pre-Mark for Saw Cut	2019	\$ -	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
TD Misc - Trench Repair	2019	\$ 17,844	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 758	\$ 582	\$ 956	\$ 1,153	\$ 885	\$ 1,453	\$ 8,867	\$ 1	\$ 3,187	
Trench - Check For Failure	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Trench Restoration	2019	\$ 747,233	39.84%	60.16%	\$ 297,726	\$ 449,507	3	6	\$ 98,304	\$ 75,480	\$ 123,942	\$ 148,419	\$ 113,960	\$ 187,128	\$ -	\$ -	\$ -	
Valve - Adjust Gate Box	2019	\$ 5,989	39.84%	60.16%	\$ 2,386	\$ 3,603	3	6	\$ 788	\$ 605	\$ 993	\$ 1,190	\$ 913	\$ 1,500	\$ -	\$ -	\$ -	
Valve - Check / Inspect	2019	\$ 5,836	39.84%	60.16%	\$ 2,325	\$ 3,510	3	6	\$ 768	\$ 589	\$ 968	\$ 1,159	\$ 890	\$ 1,461	\$ -	\$ -	\$ -	
Valve - Install	2019	\$ 17,734	39.84%	60.16%	\$ 7,066	\$ 10,668	3	6	\$ 2,333	\$ 1,791	\$ 2,941	\$ 3,522	\$ 2,705	\$ 4,441	\$ -	\$ -	\$ -	
Valve - Install - TD	2019	\$ 13,701	39.84%	60.16%	\$ 5,459	\$ 8,242	3	6	\$ 1,802	\$ 1,384	\$ 2,272	\$ 2,721	\$ 2,089	\$ 3,431	\$ -	\$ -	\$ -	
Valve - Locate	2019	\$ 741	39.84%	60.16%	\$ 295	\$ 446	3	6	\$ 98	\$ 75	\$ 123	\$ 147	\$ 113	\$ 186	\$ -	\$ -	\$ -	
Valve - Raise Gate Box To Grade	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Valve - Remove	2019	\$ 6,774	39.84%	60.16%	\$ 2,699	\$ 4,075	3	6	\$ 891	\$ 684	\$ 1,124	\$ 1,345	\$ 1,033	\$ 1,696	\$ -	\$ -	\$ -	
Valve - Remove - TD	2019	\$ 755	39.84%	60.16%	\$ 301	\$ 454	3	6	\$ 99	\$ 76	\$ 125	\$ 150	\$ 115	\$ 189	\$ -	\$ -	\$ -	
Valve - Repair / Repack	2019	\$ 28,008	39.84%	60.16%	\$ 11,160	\$ 16,849	3	6	\$ 3,685	\$ 2,829	\$ 4,646	\$ 5,563	\$ 4,272	\$ 7,014	\$ -	\$ -	\$ -	
Valve - Replace Box Cover	2019	\$ 2,329	39.84%	60.16%	\$ 928	\$ 1,401	3	6	\$ 306	\$ 235	\$ 386	\$ 463	\$ 355	\$ 583	\$ -	\$ -	\$ -	
Water Main - Install	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Water Main - Remove	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Water Main - Repair Leak	2019	\$ 115,527	39.84%	60.16%	\$ 46,030	\$ 69,496	3	6	\$ 15,198	\$ 11,670	\$ 19,162	\$ 22,946	\$ 17,619	\$ 28,931	\$ -	\$ -	\$ -	
DigSafe - Pre-Mark	2019	\$ 398	39.84%	60.16%	\$ 158	\$ 239	3	6	\$ 52	\$ 40	\$ 66	\$ 79	\$ 61	\$ 100	\$ -	\$ -	\$ -	
Leak Detection	2019	\$ 477	39.84%	60.16%	\$ 190	\$ 287	3	6	\$ 63	\$ 48	\$ 79	\$ 95	\$ 73	\$ 119	\$ -	\$ -	\$ -	
Miscellaneous Work	2019	\$ 2,630	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 112	\$ 86	\$ 141	\$ 170	\$ 130	\$ 214	\$ 1,307	\$ 0	\$ 470	
Report Leak	2019	\$ 9,774	39.84%	60.16%	\$ 3,895	\$ 5,880	3	6	\$ 1,286	\$ 987	\$ 1,621	\$ 1,941	\$ 1,491	\$ 2,448	\$ -	\$ -	\$ -	
Shut Down Not	2019	\$ 22	0.00%	100.00%	\$ -	\$ 22	n/a	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22	\$ -	
TD Collect Sample	2019	\$ 142	39.84%	60.16%	\$ 57	\$ 85	3	6	\$ 19	\$ 14	\$ 24	\$ 28	\$ 22	\$ 36	\$ -	\$ -	\$ -	
Trench - Check	2019	\$ 5,914	39.84%	60.16%	\$ 2,356	\$ 3,558	3	6	\$ 778	\$ 597	\$ 981	\$ 1,175	\$ 902	\$ 1,481	\$ -	\$ -	\$ -	
Water Pressure	2019	\$ 279	39.84%	60.16%	\$ 111	\$ 168	3	6	\$ 37	\$ 28	\$ 46	\$ 55	\$ 43	\$ 70	\$ -	\$ -	\$ -	
Water Quality Issue	2019	\$ 47	39.84%	60.16%	\$ 19	\$ 28	3	6	\$ 6	\$ 5	\$ 8	\$ 9	\$ 7	\$ 12	\$ -	\$ -	\$ -	
DigSafe - Blasting	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
DigSafe - Emergency	2019	\$ 5,209	39.84%	60.16%	\$ 2,075	\$ 3,134	3	6	\$ 685	\$ 526	\$ 864	\$ 1,035	\$ 794	\$ 1,304	\$ -	\$ -	\$ -	
DigSafe - Freeform	2019	\$ 107	39.84%	60.16%	\$ 43	\$ 65	3	6	\$ 14	\$ 11	\$ 18	\$ 21	\$ 16	\$ 27	\$ -	\$ -	\$ -	
DigSafe - Regular	2019	\$ 1,128	39.84%	60.16%	\$ 449	\$ 678	3	6	\$ 148	\$ 114	\$ 187	\$ 224	\$ 172	\$ 282	\$ -	\$ -	\$ -	
DigSafe - Violation	2019	\$ -	39.84%	60.16%	\$ -	\$ -	3	6	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
3-Year Total (Direct Allocations)								\$6,223,596	\$264,515	\$203,103	\$333,503	\$402,055	\$308,710	\$506,915	\$3,092,737	\$321	\$1,111,735	
Indirect Allocation %								100.00%	4.25%	3.26%	5.36%	6.46%	4.96%	8.15%	49.69%	0.01%	17.86%	
3-Year Total (All Allocations)								\$6,255,138	\$ 265,856	\$ 204,132	\$ 335,193	\$ 404,093	\$ 310,275	\$ 509,484	\$ 3,108,412	\$ 323	\$ 1,117,370	
Factor 13 - As T&D Work/Service Orders								100.00%	4.25%	3.26%	5.36%	6.46%	4.96%	8.15%	49.69%	0.01%	17.86%	

Schedule HJS Amended Settlement-13e: T&D Contract Services Allocation (Factor 14)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Year	Total	Common to All Share	Retail Only Share	Common to All Cost	Retail Only Cost	Common to All Factor	Retail Only Factor	Common To All			Retail Only					
									Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Uniforms	2017	\$ 25,500	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 3,080	\$ 2,365	\$ 3,883	\$ 4,650	\$ 3,570	\$ 5,862	\$ 2,091	\$ -	\$ -
Markouts/Dig Safe	2017	\$ 31,727	39.84%	60.16%	\$ 12,641	\$ 19,086	3	6	\$ 4,174	\$ 3,205	\$ 5,262	\$ 6,302	\$ 4,839	\$ 7,945	\$ -	\$ -	\$ -
Switchboard Monitoring	2017	\$ 2,929	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 354	\$ 272	\$ 446	\$ 534	\$ 410	\$ 673	\$ 240	\$ -	\$ -
Service Repair	2017	\$ 93,580	0.00%	100.00%	\$ -	\$ 93,580	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 93,580	\$ -	\$ -
Police Details	2017	\$ 174,132	39.84%	60.16%	\$ 69,381	\$ 104,751	3	6	\$ 22,908	\$ 17,590	\$ 28,883	\$ 34,587	\$ 26,557	\$ 43,608	\$ -	\$ -	\$ -
T&D Contractor	2017	\$ 47,871	39.84%	60.16%	\$ 19,074	\$ 28,797	3	6	\$ 6,298	\$ 4,836	\$ 7,940	\$ 9,508	\$ 7,301	\$ 11,988	\$ -	\$ -	\$ -
Repair Leak on Service	2017	\$ 47,130	0.00%	100.00%	\$ -	\$ 47,130	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,130	\$ -	\$ -
Road Restoration - Contractor	2017	\$ 590,536	39.84%	60.16%	\$ 235,292	\$ 355,244	3	6	\$ 77,689	\$ 59,652	\$ 97,951	\$ 117,295	\$ 90,063	\$ 147,887	\$ -	\$ -	\$ -
Telephone	2017	\$ 8,719	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,053	\$ 809	\$ 1,328	\$ 1,590	\$ 1,221	\$ 2,004	\$ 715	\$ -	\$ -
Uniforms	2018	\$ 7,100	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 857	\$ 658	\$ 1,081	\$ 1,295	\$ 994	\$ 1,632	\$ 582	\$ -	\$ -
Markouts/Dig Safe	2018	\$ 32,903	39.84%	60.16%	\$ 13,110	\$ 19,793	3	6	\$ 4,329	\$ 3,324	\$ 5,458	\$ 6,535	\$ 5,018	\$ 8,240	\$ -	\$ -	\$ -
Switchboard Monitoring	2018	\$ 3,373	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 407	\$ 313	\$ 514	\$ 615	\$ 472	\$ 776	\$ 277	\$ -	\$ -
Police Details	2018	\$ 124,242	39.84%	60.16%	\$ 49,503	\$ 74,739	3	6	\$ 16,345	\$ 12,550	\$ 20,608	\$ 24,677	\$ 18,948	\$ 31,114	\$ -	\$ -	\$ -
T&D Contractor	2018	\$ 143,850	39.84%	60.16%	\$ 57,315	\$ 86,535	3	6	\$ 18,924	\$ 14,531	\$ 23,860	\$ 28,572	\$ 21,939	\$ 36,024	\$ -	\$ -	\$ -
Repair Leak on Service	2018	\$ 44,813	0.00%	100.00%	\$ -	\$ 44,813	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 44,813	\$ -	\$ -
Road Restoration - Contractor	2018	\$ 538,228	39.84%	60.16%	\$ 214,451	\$ 323,778	3	6	\$ 70,808	\$ 54,368	\$ 89,275	\$ 106,905	\$ 82,085	\$ 134,787	\$ -	\$ -	\$ -
Telephone	2018	\$ 10,860	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,312	\$ 1,007	\$ 1,654	\$ 1,980	\$ 1,520	\$ 2,497	\$ 890	\$ -	\$ -
Markouts/Dig Safe	2019	\$ 31,113	39.84%	60.16%	\$ 12,396	\$ 18,716	3	6	\$ 4,093	\$ 3,143	\$ 5,161	\$ 6,180	\$ 4,745	\$ 7,791	\$ -	\$ -	\$ -
Switchboard Monitoring	2019	\$ 3,000	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 362	\$ 278	\$ 457	\$ 547	\$ 420	\$ 690	\$ 246	\$ -	\$ -
Police Details	2019	\$ 150,299	39.84%	60.16%	\$ 59,885	\$ 90,414	3	6	\$ 19,773	\$ 15,182	\$ 24,930	\$ 29,853	\$ 22,922	\$ 37,639	\$ -	\$ -	\$ -
T&D Contractor	2019	\$ 120,574	39.84%	60.16%	\$ 48,041	\$ 72,533	3	6	\$ 15,862	\$ 12,180	\$ 19,999	\$ 23,949	\$ 18,389	\$ 30,195	\$ -	\$ -	\$ -
Repair Leak on Service	2019	\$ 47,278	0.00%	100.00%	\$ -	\$ 47,278	n/a	7	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 47,278	\$ -	\$ -
Road Restoration - Contractor	2019	\$ 620,956	39.84%	60.16%	\$ 247,412	\$ 373,543	3	6	\$ 81,691	\$ 62,725	\$ 102,997	\$ 123,337	\$ 94,702	\$ 155,504	\$ -	\$ -	\$ -
Misc. Expenses	2019	\$ 9,767	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	\$ 1,180	\$ 906	\$ 1,487	\$ 1,781	\$ 1,367	\$ 2,245	\$ 801	\$ -	\$ -
3-Year Total (Direct Allocations)									\$2,839,230	\$342,893	\$263,284	\$432,323	\$517,701	\$397,506	\$652,722	\$232,800	\$0
Indirect Allocation %									100.00%	12.08%	9.27%	15.23%	18.23%	14.00%	22.99%	8.20%	0.00%
3-Year Total									\$2,910,479	\$ 351,498	\$ 269,891	\$ 443,172	\$ 530,692	\$ 407,482	\$ 669,102	\$ 238,642	\$ -
Factor 14 - As T&D Contract Services									100.00%	12.08%	9.27%	15.23%	18.23%	14.00%	22.99%	8.20%	0.00%

Schedule HJS Amended Settlement-13f: Net Plant In Service (Factors 19, 20 and 21)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

					Common To All			Retail Only						
	Allocation Factor	Plant in Service	Accumulated Depreciation	Net Book Value	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire	
Source of Supply & Pumping														
Land and Land Rights	1	\$ 38,927,814	\$ -	\$ 38,927,814	\$ 38,733,175	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 194,639	
Structures and Improvements	1	22,401,415	16,642,333	5,759,082	5,730,287	-	-	-	-	-	-	-	28,795	
Collecting & Impounding Reservoirs	1	13,373,233	8,994,270	4,378,962	4,357,068	-	-	-	-	-	-	-	21,895	
Land & Impounding Reservoirs	1	4,306,409	0	4,306,409	4,284,877	-	-	-	-	-	-	-	21,532	
Supply Mains	1	22,350,197	6,939,341	15,410,856	15,333,801	-	-	-	-	-	-	-	77,054	
Other Power Production Equipment	1	459,318	408,911	50,407	50,154	-	-	-	-	-	-	-	252	
Electric Pumping Equipment	18	1,709,401	1,395,416	313,985	219,620	25,790	42,349	8,351	6,412	10,528	-	-	935	
Hydraulic Pumping Equipment	18	107,721	62,678	45,043	31,505	3,700	6,075	1,198	920	1,510	-	-	134	
Other Plant & Miscellaneous Equipm	18	1,150,739	1,150,739	-	-	-	-	-	-	-	-	-	-	
Total Source of Supply & Pumping Plant		\$ 104,786,247	\$ 35,593,689	\$ 69,192,558	\$ 68,740,488	\$ 29,490	\$ 48,424	\$ 9,549	\$ 7,332	\$ 12,039	\$ -	\$ -	\$ 345,237	
Water Treatment Plant														
Land and Land Rights	2	\$ 29,994	\$ -	\$ 29,994	\$ 16,967	\$ 13,027	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Structures and Improvements	2	64,787,943	54,483,966	10,303,977	5,828,601	4,475,376	-	-	-	-	-	-	-	
Water Treatment Equipment	2	13,736,209	13,116,332	619,878	350,643	269,234	-	-	-	-	-	-	-	
Other Plant & Miscellaneous Equipm	2	27,674,487	20,360,815	7,313,672	4,137,089	3,176,583	-	-	-	-	-	-	-	
Total Water Treatment Plant		\$ 106,228,633	\$ 87,961,113	\$ 18,267,521	\$ 10,333,300	\$ 7,934,221	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	
Transmission & Distribution Plant														
Land and Land Rights	19	\$ 614,902	\$ -	\$ 614,902	\$ 135,864	\$ 104,320	\$ 9,027	\$ 113,424	\$ 87,091	\$ 143,007	\$ -	\$ -	\$ 22,169	
Structures and Improvements	19	204,660	204,660	-	-	-	-	-	-	-	-	-	-	
Distribution Reservoirs & Standpipes	3	18,722,912	12,104,381	6,618,531	2,185,315	1,677,951	2,755,265	-	-	-	-	-	-	
Transmission Mains ⁽¹⁾	2	82,274,598	12,825,029	69,449,569	39,285,201	30,164,368	-	-	-	-	-	-	-	
Distribution Mains ⁽¹⁾	6	124,218,289	19,363,244	104,855,046	-	-	-	34,621,168	26,583,182	43,650,695	-	-	-	
T&D Services	7	73,240,742	19,756,961	53,483,781	-	-	-	-	-	-	53,483,781	-	-	
Meters & Meter Installation	7	31,296,939	24,361,180	6,935,760	-	-	-	-	-	-	6,935,760	-	-	
Hydrants	10	11,546,412	4,779,609	6,766,803	-	-	-	-	-	-	-	-	6,766,803	
Other Plant & Miscellaneous Equipm	2	7,834,658	7,834,658	-	-	-	-	-	-	-	-	-	-	
Total Transmission & Distribution Plant		\$ 349,954,113	\$ 101,229,721	\$ 248,724,392	\$ 41,606,380	\$ 31,946,639	\$ 2,764,292	\$ 34,734,593	\$ 26,670,273	\$ 43,793,702	\$ 60,419,541	\$ -	\$ 6,788,972	
General Plant														
Land and Land Rights	20	\$ 23,380	\$ -	\$ 23,380	\$ 8,393	\$ 2,776	\$ 196	\$ 2,416	\$ 1,855	\$ 3,046	\$ 4,202	\$ -	\$ 496	
Structures and Improvements ⁽²⁾	20	5,690,927	5,648,798	42,129	15,123	5,001	352	4,354	3,343	5,490	7,571	-	894	
Central Operations Facility	22	29,637,233	995,351	28,641,882	5,209,693	1,975,467	1,351,236	3,438,079	1,971,717	3,237,641	7,787,180	2,049,251	1,621,618	
Office Furniture & Equipment	20	620,787	595,641	25,146	9,027	2,985	210	2,599	1,995	3,277	4,519	-	534	
Transportation Equipment	20	8,897,148	7,866,240	1,030,909	370,065	122,385	8,625	106,543	81,807	134,330	185,276	-	21,877	
Computer Equipment	20	11,690,744	4,739,235	6,951,508	2,495,384	825,253	58,160	718,428	551,630	905,800	1,249,335	-	147,519	
Tools, Shop & Garage Equipment	20	846,649	657,232	189,417	67,995	22,487	1,585	19,576	15,031	24,681	34,042	-	4,020	
Laboratory Equipment	1	198,137	196,548	1,589	1,581	-	-	-	-	-	-	-	8	
Power Operated Equipment	20	497,025	384,436	112,589	40,416	13,366	942	11,636	8,934	14,671	20,235	-	2,389	
Communication Equipment	20	1,138,195	1,133,547	4,648	1,668	552	39	480	369	606	835	-	99	
Miscellaneous Equipment	20	697,209	696,132	1,077	386	128	9	111	85	140	193	-	23	
Other Tangible Plant	20	117,627	80,638	36,989	13,278	4,391	309	3,823	2,935	4,820	6,648	-	785	
Total General Plant		\$ 60,055,059	\$ 22,993,797	\$ 37,061,262	\$ 8,233,009	\$ 2,974,791	\$ 1,421,665	\$ 4,308,045	\$ 2,639,703	\$ 4,334,502	\$ 9,300,037	\$ 2,049,251	\$ 1,800,261	
Total Plant		\$ 621,024,052	\$ 247,778,320	\$ 373,245,732	\$ 128,913,177	\$ 42,885,141	\$ 4,234,381	\$ 39,052,186	\$ 29,317,307	\$ 48,140,242	\$ 69,719,578	\$ 2,049,251	\$ 8,934,470	
Construction Work in Progress	20			\$ 53,315,917	\$ 19,138,819	\$ 6,329,433	\$ 446,072	\$ 5,510,117	\$ 4,230,835	\$ 6,947,207	\$ 9,582,011	\$ -	\$ 1,131,423	
Total Plant Investment		\$ 621,024,052.23	\$ 247,778,320.11	\$ 426,561,649	\$ 148,051,996	\$ 49,214,573	\$ 4,680,453	\$ 44,562,303	\$ 33,548,142	\$ 55,087,449	\$ 79,301,589	\$ 2,049,251	#####	
(1) Split based on Inch-Miles				T&D Plant Excl. M&S, Land, Structures	\$ 187,689,949.04	\$ 41,470,516	\$ 31,842,319	\$ 2,755,265	\$ 34,621,168	\$ 26,583,182	\$ 43,650,695	\$ -	\$ -	\$ 6,766,803
* 39.84%				Factor 19 - As T&D Plant Excl. M&S, Land, Structures	100.00%	22.10%	16.97%	1.47%	18.45%	14.16%	23.26%	0.00%	0.00%	3.61%
I 60.16%				Total Plant Excl. General Plant	\$ 336,184,470	\$ 120,680,168	\$ 39,910,350	\$ 2,812,716	\$ 34,744,141	\$ 26,677,604	\$ 43,805,740	\$ 60,419,541	\$ -	\$ 7,134,209
(2) Net of Central Operations Facility				Factor 20 - As Total Plant Excl. General Plant	100.00%	35.90%	11.87%	0.84%	10.33%	7.94%	13.03%	17.97%	0.00%	2.12%
				Total Plant Excl. Land, COF	\$ 305,007,760	\$ 84,809,086	\$ 40,789,550	\$ 2,873,922	\$ 35,498,266	\$ 27,256,644	\$ 44,756,548	\$ 61,928,196	\$ -	\$ 7,095,547
				Factor 21 - As Total Plant Excl. Land, COF	100.00%	27.81%	13.37%	0.94%	11.64%	8.94%	14.67%	20.30%	0.00%	2.33%
				Total Plant Excl. Land	\$ 333,649,642	\$ 90,018,779	\$ 42,765,017	\$ 4,225,158	\$ 38,936,345	\$ 29,228,361	\$ 47,994,189	\$ 69,715,376	\$ 2,049,251	\$ 8,717,165
				Factor 27 - As Total Plant Excl. Land		26.98%	12.82%	1.27%	11.67%	8.76%	14.38%	20.89%	0.61%	2.61%

(1) Split based on Inch-Miles
39.84%
160.16%

(2) Net of Central Operations Facility

Schedule HJS Amended Settlement-13g: Central Operations Facility Square Footage for Allocation of COF Net Plant In Service (Factor 22)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Total Square Feet	Common to All Share	Retail Only Share	Common to All Sq. Feet	Retail Only Sq. Feet	Common to All Factor	Retail Only Factor	Common To All			Retail Only						
								Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire	
1ST FLOOR / COMMON SPACE / Area 516 SF	516	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	94	36	24	62	36	58	140	37	29	
1ST FLOOR / COMMON SPACE / Area 731 SF	731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	133	50	34	88	50	83	199	52	41	
1ST FLOOR / COMMON SPACE / Area 1637 SF	1,637	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	298	113	77	197	113	185	445	117	93	
1ST FLOOR / COMMON SPACE / Area 10280 SF	10,280	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,870	709	485	1,234	708	1,162	2,795	736	582	
1ST FLOOR / MUSEUM / Area 1632 SF	1,632	0.00%	100.00%	0	1,632	N/A	4	-	-	-	1,624	-	-	-	-	8	
1ST FLOOR / AUTOMOTIVE / Area 7680 SF	7,680	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,397	530	362	922	529	868	2,088	549	435	
1ST FLOOR / BOARD ROOM / Area 1041 SF	1,041	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	189	72	49	125	72	118	283	74	59	
1ST FLOOR / COMMERCIAL SERVICES / Area 9989 SF	9,989	0.00%	100.00%	0	9,989	N/A	9	2,342	-	-	-	-	-	3,823	3,823	-	
1ST FLOOR / ENGINEERING / Area 16804 SF	16,804	100.00%	100.00%	16,804	16,804	21	21	4,672	2,247	158	1,956	1,502	2,466	3,412	-	391	
1ST FLOOR / FINANCE / Area 7232 SF	7,232	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,315	499	341	868	498	817	1,966	517	409	
1ST FLOOR / IT/ Area 6771 SF	6,771	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,232	467	319	813	466	765	1,841	484	383	
1ST FLOOR / SECURITY / Area 5731 SF	5,731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,042	395	270	688	395	648	1,558	410	324	
1ST FLOOR / T&D / Area 14683 SF	14,683	100.00%	100.00%	14,683	14,683	13	13	624	479	787	949	728	1,196	7,297	1	2,623	
1ST FLOOR / CENTRAL RECORDS / Area 5731 SF	5,731	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	1,042	395	270	688	395	648	1,558	410	324	
1ST FLOOR / PARKING GARAGE / Area 43924 SF	43,924	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	7,989	3,029	2,072	5,272	3,024	4,965	11,942	3,143	2,487	
1ST FLOOR / WAREHOUSE & STORAGE/ Area 1177 SF	1,177	39.84%	60.16%	469	708	3	6	155	119	195	234	180	295	-	-	-	
1ST FLOOR / WAREHOUSE & STORAGE / Area 2777 SF	2,777	39.84%	60.16%	1,106	1,671	3	6	365	281	461	552	424	695	-	-	-	
1ST FLOOR / WAREHOUSE & STORAGE / Area 5550 SF	5,550	39.84%	60.16%	2,211	3,339	3	6	730	561	921	1,102	846	1,390	-	-	-	
2ND FLOOR - AREA 'H' COMMON SPACE / Area 772 SF	772	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	140	53	36	93	53	87	210	55	44	
2ND FLOOR - AREA 'H' COMMON SPACE / Area 3019 SF	3,019	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	549	208	142	362	208	341	821	216	171	
2ND FLOOR - AREA 'H' COMMON SPACE / Area 3946 SF	3,946	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	718	272	186	474	272	446	1,073	282	223	
2ND FLOOR - AREA 'H' DINING/CAFETERIA / Area 4575 Sf	4,575	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	832	316	216	549	315	517	1,244	327	259	
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 237 SF	237	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	43	16	11	28	16	27	64	17	13	
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 540 SF	540	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	98	37	25	65	37	61	147	39	31	
2ND FLOOR - AREA 'H' FUTURE SPACE / Area 981 SF	981	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	178	68	46	118	68	111	267	70	56	
2ND FLOOR - GM/EXUCTIVE MANAGEMENT / Area 2491 Sf	2,491	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	453	172	118	299	171	282	677	178	141	
2ND FLOOR – HUMAN RESOURCES (1)/ Area 1169 SF	1,169	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	213	81	55	140	80	132	318	84	66	
2ND FLOOR – HUMAN RESOURCES (2) / Area 2632 SF	2,632	Indirect	Indirect	Indirect	Indirect	Indirect	Indirect	479	182	124	316	181	298	716	188	149	
2ND FLOOR – LABORATORY /Area 837 SF	837	100.00%	100.00%	837	837	1	1	833	-	-	-	-	-	-	-	4	
Total (Direct Allocations)								53,449	9,722	3,686	2,522	6,416	3,679	6,042	14,532	3,824	3,026
Indirect Allocation %								100.00%	18.19%	6.90%	4.72%	12.00%	6.88%	11.30%	27.19%	7.15%	5.66%
Total (Direct Allocations)								165,085	30,027	11,386	7,788	19,816	11,365	18,661	44,883	11,811	9,347
Factor 22 - As Central Operations Facility Square Footage								100.00%	18.19%	6.90%	4.72%	12.00%	6.88%	11.30%	27.19%	7.15%	5.66%

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

				Common To All			Retail Only					
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Operation and Maintenance												
Source of Supply												
60110	Salary + Wages -SOSO	1	\$ 849,865	\$ 845,616	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,249
60120	Salary + Wages -SOSM	1	\$ 569,690	\$ 566,842	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,848
60210	Payroll Clearing -SOSO	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60220	Payroll Clearing -SOSM	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60410	Employee Pension +Ben -SOSO	1	\$ 536,920	\$ 534,236	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,685
60420	Employee Pension + Ben -SOSM	1	\$ 335,108	\$ 333,432	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,676
60560	Overhead Rate Applied -SOSM	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61010	Purchased Power	1	\$ 794	\$ 790	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4
62010	Material and Supplies -SOSO	1	\$ 5,866	\$ 5,837	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 29
62020	Material and Supplies - SOSM	1	\$ 18,893	\$ 18,798	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 94
63110	Contractual Service -Eng-SOSO	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63120	Contractual Service-Eng-SOSM	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63610	Contractual Service Other-SOSO	1	\$ 13,827	\$ 13,758	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 69
63620	Contractual Service Other-SOSM	1	\$ 12,278	\$ 12,217	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 61
64210	Rental of Equipment-SOSO	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64220	Rental of Equipment-SOSM	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65010	Transportation Expense-SOSO	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65020	Transportation Expense-SOSM	1	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Source of Supply Expense			\$ 2,343,243	\$ 2,331,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,716
Check			\$ -									
Pumping Expenses												
61523	Fuel or Power Purchase -PPO	12	\$ 465,460	\$ 130,545	\$ 100,236	\$ 164,592	\$ 23,141	\$ 17,769	\$ 29,177	\$ -	\$ -	\$ -
63523	Contractual Service Other-PPO	12	\$ 13,816	\$ 3,875	\$ 2,975	\$ 4,885	\$ 687	\$ 527	\$ 866	\$ -	\$ -	\$ -
Total Pumping Expenses			\$ 479,276	\$ 134,419	\$ 103,211	\$ 169,477	\$ 23,828	\$ 18,296	\$ 30,043	\$ -	\$ -	\$ -

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

				Common To All			Retail Only					
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Water Treatment Expenses												
60130	Salary + Wages -WTO	1	\$ 2,565,589	\$ 2,552,761	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,828
60140	Salary + Wages - WTM	1	\$ 294,123	\$ 292,653	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,471
60430	Employee Pension+Benefit-WTO	1	\$ 1,501,816	\$ 1,494,307	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 7,509
60440	Employee Pension+Benefit-WTM	1	\$ 248,927	\$ 247,683	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,245
61530	Purchased Power-WTO	2	\$ 135,715	\$ 76,769	\$ 58,946	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61540	Power Purchased -WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61630	Fuel for Purchased Power-WTO	2	\$ 200,347	\$ 113,330	\$ 87,018	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62030	Material and Supplies -WTO	2	\$ 217,299	\$ 122,919	\$ 94,381	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62040	Material and Supplies -WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63130	Contractual Service Eng-WTO	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63140	Contractual Service Eng-WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63630	Contractual Service Other-WTO	2	\$ 341,400	\$ 193,118	\$ 148,282	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63640	Contractual Service Other-WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64230	Rental of Equipment -WTO	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
64240	Rental of Equipment -WTM	2	\$ 3,799	\$ 2,149	\$ 1,650	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65030	Transportation Expense-WTO	2	\$ 1,333	\$ 754	\$ 579	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67530	Miscellaneous Expenses-WTO	2	\$ 204,372	\$ 115,606	\$ 88,766	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67540	Miscellaneous Expenses - WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Treatment Expense			\$ 5,714,720	\$ 5,212,047	\$ 479,621	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23,052
Check			\$ -									
Transmission + Dist. Expense:												
60150	Salary + Wages -T&DO	13	\$ 569,858	\$ 24,220	\$ 18,597	\$ 30,537	\$ 36,814	\$ 28,267	\$ 46,415	\$ 283,184	\$ 29	\$ 101,795
60160	Salary + Wages -T&DM	13	\$ 3,074,530	\$ 130,674	\$ 100,335	\$ 164,755	\$ 198,620	\$ 152,507	\$ 250,422	\$ 1,527,849	\$ 159	\$ 549,210
60250	Payroll Clearing-T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60260	Payroll Clearing -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60450	Employee Pension+Benefit-T&DO	13	\$ 404,349	\$ 17,186	\$ 13,196	\$ 21,668	\$ 26,122	\$ 20,057	\$ 32,934	\$ 200,936	\$ 21	\$ 72,230
60460	Employee Pension+Benefit-T&DM	13	\$ 2,034,721	\$ 86,480	\$ 66,402	\$ 109,034	\$ 131,447	\$ 100,929	\$ 165,729	\$ 1,011,129	\$ 105	\$ 363,467
60550	Overhead Rate Applied-T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60560	Overhead Rate Applied -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61550	Power Purchased-T&DO	13	\$ 10,534	\$ 448	\$ 344	\$ 564	\$ 681	\$ 523	\$ 858	\$ 5,235	\$ 1	\$ 1,882
62050	Material and Supplies -T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62060	Material and Supplies-T&DM	13	\$ 427,364	\$ 18,164	\$ 13,947	\$ 22,901	\$ 27,608	\$ 21,199	\$ 34,809	\$ 212,373	\$ 22	\$ 76,341
63150	Contractual Services Eng-T&DO	14	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63160	Contractual Services Eng-T&DM	14	\$ 47,278	\$ 5,710	\$ 4,384	\$ 7,199	\$ 8,621	\$ 6,619	\$ 10,869	\$ 3,876	\$ -	\$ -
63650	Contractual Service Other-T&DO	14	\$ 22,598	\$ 2,729	\$ 2,096	\$ 3,441	\$ 4,120	\$ 3,164	\$ 5,195	\$ 1,853	\$ -	\$ -
63660	Contractual Service Other-T&DM	14	\$ 998,139	\$ 120,545	\$ 92,558	\$ 151,984	\$ 181,999	\$ 139,744	\$ 229,466	\$ 81,842	\$ -	\$ -
65060	Transportation Expense -T&DM	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67550	Miscellaneous Exp -T&DO	13	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67560	Miscellaneous Exp-T&DM	13	\$ 44,079	\$ 1,873	\$ 1,438	\$ 2,362	\$ 2,848	\$ 2,186	\$ 3,590	\$ 21,904	\$ 2	\$ 7,874
Total Transmission & Distribution			\$ 7,633,449	\$ 408,028	\$ 313,296	\$ 514,445	\$ 618,879	\$ 475,194	\$ 780,288	\$ 3,350,181	\$ 339	\$ 1,172,799

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

				Common To All			Retail Only					
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Customer Accounts Expense:												
60170	Salary+Wages-CAO	8	\$ 2,140,553	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,140,553	\$ -
60270	Payroll Clearing -CAO	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60470	Employee Pension+Benefit-CAO	8	\$ 1,568,588	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,568,588	\$ -
60570	Overhead Rate Applied-CAO	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62070	Material and Supplies-CAO	8	\$ 4,043	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 4,043	\$ -
63670	Contratual Services Other -CAO	8	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65070	Transportation Expenses -CAO	8	\$ 3,002	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 3,002	\$ -
67070	Bad Debt Expense	26	\$ 207,146	\$ -	\$ -	\$ -	\$ 25,353	\$ 19,445	\$ 31,930	\$ 68,797	\$ 46,519	\$ 15,102
67570	Miscellaneous Expenses-CAO	8	\$ 640,886	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 640,886	\$ -
	Total Customer Accounts		\$ 4,564,217	\$ -	\$ -	\$ -	\$ 25,353	\$ 19,445	\$ 31,930	\$ 68,797	\$ 4,403,591	\$ 15,102
	Check		\$ -									
Administrative and General												
60180	Salary+Wages -A&GO	15	\$ 6,186,714	\$ 2,640,792	\$ 73,571	\$ 120,807	\$ 145,639	\$ 111,826	\$ 183,623	\$ 1,120,302	\$ 1,374,653	\$ 415,500
60280	Payroll Clearing -A&GO	15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
60480	Employee Pension+Ben-A&GO	15	\$ 4,541,580	\$ 1,938,568	\$ 54,008	\$ 88,683	\$ 106,912	\$ 82,090	\$ 134,795	\$ 822,398	\$ 1,009,114	\$ 305,013
60580	Overhead Rate Applied-A&GO	15	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
61580	Purchased Power-A&GO	16	\$ 197,272	\$ 46,870	\$ 34,061	\$ 17,476	\$ 13,430	\$ 10,311	\$ 16,931	\$ 19,329	\$ 33,909	\$ 4,954
61680	Fuel Or Power Purchased-A&GO	16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
62080	Material and Supplies -A&GO	16	\$ 716,310	\$ 170,189	\$ 123,679	\$ 63,458	\$ 48,766	\$ 37,440	\$ 61,478	\$ 70,187	\$ 123,125	\$ 17,988
63180	Contractual Service Eng-A&GO	16	\$ 135,951	\$ 32,301	\$ 23,474	\$ 12,044	\$ 9,255	\$ 7,106	\$ 11,668	\$ 13,321	\$ 23,368	\$ 3,414
63280	Contractual Service Acctg-A&GO	16	\$ 51,615	\$ 12,263	\$ 8,912	\$ 4,573	\$ 3,514	\$ 2,698	\$ 4,430	\$ 5,057	\$ 8,872	\$ 1,296
63380	Contractual Service Legal-A&GO	16	\$ 73,963	\$ 17,573	\$ 12,771	\$ 6,552	\$ 5,035	\$ 3,866	\$ 6,348	\$ 7,247	\$ 12,713	\$ 1,857
63480	Contractual Service Mgmt fees-A&GO	16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63680	Contractual Service Other-A&GO	16	\$ 2,196,510	\$ 521,872	\$ 379,253	\$ 194,590	\$ 149,537	\$ 114,807	\$ 188,518	\$ 215,222	\$ 377,554	\$ 55,157
64280	Rental of Equipment-A&GO	16	\$ 2,686	\$ 638	\$ 464	\$ 238	\$ 183	\$ 140	\$ 231	\$ 263	\$ 462	\$ 67
65080	Transportation Expenses-A&GO	16	\$ 10,944	\$ 2,600	\$ 1,890	\$ 970	\$ 745	\$ 572	\$ 939	\$ 1,072	\$ 1,881	\$ 275
66780	Regulatory Commission Expense	16	\$ 575,550	\$ 136,746	\$ 99,375	\$ 50,988	\$ 39,183	\$ 30,083	\$ 49,397	\$ 56,394	\$ 98,930	\$ 14,453
67580	Miscellaneous Expenses- A&GO	16	\$ 595,362	\$ 141,453	\$ 102,796	\$ 52,743	\$ 40,532	\$ 31,118	\$ 51,098	\$ 58,336	\$ 102,336	\$ 14,950
	Total Administration + General		\$ 15,284,458	\$ 5,661,867	\$ 914,253	\$ 613,122	\$ 562,731	\$ 432,057	\$ 709,456	\$ 2,389,130	\$ 3,166,918	\$ 834,924

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

				Common To All			Retail Only					
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Insurance Fund (857)												
62080	Material and Supplies -A&GO	16	\$ 16,500	\$ 3,920	\$ 2,849	\$ 1,462	\$ 1,123	\$ 862	\$ 1,416	\$ 1,617	\$ 2,836	\$ 414
62080	Injuries and Damages	15	\$ 224,654	\$ 95,893	\$ 2,672	\$ 4,387	\$ 5,288	\$ 4,061	\$ 6,668	\$ 40,681	\$ 49,917	\$ 15,088
63680	Contract Services - Other A&GO	16	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
65780	Ins. Gen. Liability	16	\$ 1,151,934	\$ 273,690	\$ 198,895	\$ 102,050	\$ 78,423	\$ 60,209	\$ 98,866	\$ 112,871	\$ 198,004	\$ 28,927
65880	Insurance - W/C	15	\$ 785,125	\$ 335,130	\$ 9,337	\$ 15,331	\$ 18,482	\$ 14,191	\$ 23,303	\$ 142,172	\$ 174,450	\$ 52,729
67580	Misc. Expense	16	\$ 205,000	\$ 48,706	\$ 35,396	\$ 18,161	\$ 13,956	\$ 10,715	\$ 17,594	\$ 20,087	\$ 35,237	\$ 5,148
	Funding Adjustment	23	\$ (332,156)	\$ (105,553)	\$ (34,725)	\$ (19,706)	\$ (16,345)	\$ (12,549)	\$ (20,606)	\$ (44,241)	\$ (64,174)	\$ (14,259)
	Total Insurance Fund		\$ 2,051,057	\$ 651,786	\$ 214,423	\$ 121,685	\$ 100,928	\$ 77,489	\$ 127,241	\$ 273,186	\$ 396,271	\$ 88,047
	Check		\$ -									
Chemical and Sludge Maintenance Fund (878)												
61830	Chemicals - WTO	1	\$ 2,217,123	\$ 2,206,037	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,086
63130	Contract Services - Eng WTM	2	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
63640	Contract Services - Other WTM	2	\$ 1,608,918	\$ 910,109	\$ 698,809	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
67540	Miscellaneous Expenses - WTM	2	\$ 80,000	\$ 45,253	\$ 34,747	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	Funding Adjustment	24	\$ (306,041)	\$ (247,698)	\$ (57,475)	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ (869)
	Total Chemical and Sludge Maintenance Fund		\$3,600,000	\$ 2,913,702	\$ 676,081	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 10,217
	Check		\$ -									
TOTAL O&M			\$ 41,670,419	\$ 17,313,376	\$ 2,700,886	\$ 1,418,730	\$ 1,331,719	\$ 1,022,481	\$ 1,678,957	\$ 6,081,293	\$ 7,967,119	\$ 2,155,857

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

				Common To All			Retail Only					
Account	Description	Allocation Factor	Pro-Forma Rate Year	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Other Expenditures												
Property Taxes- Other Local Govern.												
40820	Town of North Providence	1	\$ 303,569	\$ 302,051	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,518
40821	Town of Glocester	1	\$ 79,292	\$ 78,895	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 396
40822	Town of West. Glocester	1	\$ 4,585	\$ 4,562	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 23
40823	Town Harmony	1	\$ 208	\$ 207	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1
40824	Town Chepachet	1	\$ 134	\$ 133	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1
40825	Town Scituate	1	\$ 6,760,676	\$ 6,726,873	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 33,803
40827	Town of Johnston	1	\$ 100,258	\$ 99,757	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 501
40828	Town of Foster	1	\$ 312,360	\$ 310,799	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,562
40829	City of Cranston	1	\$ 61,065	\$ 60,759	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 305
40830	City of West. Warwick	1	\$ 6,998	\$ 6,963	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 35
Total Property Taxes			\$ 7,629,145	\$ 7,591,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,146
Check			\$ -									
Restricted Funds												
	Capital Fund	27	\$ 2,127,000	\$ 573,865	\$ 272,625	\$ 26,935	\$ 248,217	\$ 186,329	\$ 305,961	\$ 444,432	\$ 13,064	\$ 55,571
	Western Cranston Fund	6	\$ 40,000	\$ -	\$ -	\$ -	\$ 13,207	\$ 10,141	\$ 16,652	\$ -	\$ -	\$ -
	IFR Fund	21	\$ 29,300,000	\$ 8,147,026	\$ 3,918,372	\$ 276,078	\$ 3,410,075	\$ 2,618,359	\$ 4,299,454	\$ 5,949,016	\$ -	\$ 681,620
	Meter Replacement Fund	7	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -	\$ -
	Vehicle/Equipment Fund	21	\$ 1,550,000	\$ 430,986	\$ 207,286	\$ 14,605	\$ 180,396	\$ 138,514	\$ 227,446	\$ 314,709	\$ -	\$ 36,058
	Lead Service Replacement Fund	8	\$ 1,000,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,000,000	\$ -
	Revenue Reserve Fund	25	\$ 408,618	\$ 167,251	\$ 34,404	\$ 8,723	\$ 24,595	\$ 18,863	\$ 30,974	\$ 65,088	\$ 44,089	\$ 14,631
Total Restricted Expenditures			\$ 35,425,618	\$ 9,319,128	\$ 4,432,687	\$ 326,341	\$ 3,876,490	\$ 2,972,206	\$ 4,880,486	\$ 7,773,246	\$ 1,057,153	\$ 787,881
Check			\$ -									
	City Services Expense	17	\$ 839,167	\$ 327,251	\$ 36,267	\$ 27,679	\$ 27,037	\$ 20,759	\$ 34,087	\$ 138,370	\$ 178,232	\$ 49,483
	Capital Reimbursement	21	\$ (1,888,937)	\$ (525,229)	\$ (252,613)	\$ (17,798)	\$ (219,844)	\$ (168,803)	\$ (277,181)	\$ (383,526)	\$ -	\$ (43,943)
TOTAL OTHER EXPENDITURES			\$ 42,004,993	\$ 16,712,150	\$ 4,216,341	\$ 336,222	\$ 3,683,684	\$ 2,824,162	\$ 4,637,393	\$ 7,528,090	\$ 1,235,385	\$ 831,567
Gross Revenue Requirements			\$ 83,675,412	\$34,025,525	\$6,917,227	\$1,754,952	\$5,015,403	\$3,846,644	\$6,316,350	\$13,609,383	\$9,202,504	\$2,987,424

Schedule HJS Amended Settlement-14a: Allocation of Rate Year FY 2021 Revenue Requirement

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Account	Description	Allocation Factor	Pro-Forma Rate Year	Common To All			Retail Only					
				Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Non-Rate Revenues												
Interest on Delinquent Accounts		26	\$ 403,127	\$ -	\$ -	\$ -	\$ 49,340	\$ 37,842	\$ 62,138	\$ 133,885	\$ 90,532	\$ 29,389
Interest Earned		17	\$ 25,636	\$ 9,997	\$ 1,108	\$ 846	\$ 826	\$ 634	\$ 1,041	\$ 4,227	\$ 5,445	\$ 1,512
Miscellaneous State revenue		9	\$ 180,288	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 90,144	\$ 90,144	\$ -
Rents from Water Properties		17	\$ 20,969	\$ 8,177	\$ 906	\$ 692	\$ 676	\$ 519	\$ 852	\$ 3,458	\$ 4,454	\$ 1,236
Flow Tests		26	\$ 7,184	\$ -	\$ -	\$ -	\$ 879	\$ 674	\$ 1,107	\$ 2,386	\$ 1,613	\$ 524
New Meters		7	\$ 108,527	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 108,527	\$ -	\$ -
Lost/Stolen Meters		7	\$ 17,862	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 17,862	\$ -	\$ -
Admin Fee NBC		9	\$ 25,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 12,500	\$ 12,500	\$ -
Shut Off/On Service Charge		9	\$ 197,810	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 98,905	\$ 98,905	\$ -
Other Miscellaneous		26	\$ 164,852	\$ -	\$ -	\$ -	\$ 20,177	\$ 15,475	\$ 25,410	\$ 54,750	\$ 37,021	\$ 12,018
Bad Checks		1	\$ 21,183	\$ 21,077	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 106
Forest Product Sales		1	\$ 98,642	\$ 98,149	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 493
Water Liens		1	\$ 47,083	\$ 46,848	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 235
Foster Property Tax Refund		1	\$ 225,000	\$ 223,875	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 1,125
TOTAL NON-RATE REVENUES			\$ 1,543,163	\$ 408,124	\$ 2,014	\$ 1,537	\$ 71,898	\$ 55,144	\$ 90,549	\$ 526,644	\$ 340,614	\$ 46,639
TOTAL NET REVENUE REQUIREMENT			\$ 82,132,249	\$ 33,617,402	\$ 6,915,213	\$ 1,753,415	\$ 4,943,506	\$ 3,791,500	\$ 6,225,801	\$ 13,082,739	\$ 8,861,891	\$ 2,940,784
Labor Related O&M Excl. A&G			\$ 16,694,638	\$ 7,126,088	\$ 198,529	\$ 325,994	\$ 393,002	\$ 301,759	\$ 495,501	\$ 3,023,098	\$ 3,709,455	\$ 1,121,212
Factor 15 - As Labor O&M Excl. A&G			100.00%	42.68%	1.19%	1.95%	2.35%	1.81%	2.97%	18.11%	22.22%	6.72%
Non-Labor Related O&M Excl. A&G			\$ 4,040,267	\$ 959,933	\$ 697,599	\$ 357,929	\$ 275,058	\$ 211,176	\$ 346,760	\$ 395,880	\$ 694,475	\$ 101,457
Factor 16 - As Non-Labor O&M Excl. A&G			100.00%	23.76%	17.27%	8.86%	6.81%	5.23%	8.58%	9.80%	17.19%	2.51%
Total O&M Excl. A&G			\$ 20,734,904	\$ 8,086,021	\$ 896,128	\$ 683,923	\$ 668,060	\$ 512,935	\$ 842,261	\$ 3,418,978	\$ 4,403,930	\$ 1,222,669
Factor 17 - As Total O&M Excl. A&G			100.00%	39.00%	4.32%	3.30%	3.22%	2.47%	4.06%	16.49%	21.24%	5.90%
Total Insurance Excluding Funding Adjustment			\$ 2,383,213	\$ 757,339	\$ 249,147	\$ 141,391	\$ 117,273	\$ 90,038	\$ 147,847	\$ 317,427	\$ 460,444	\$ 102,306
Factor 23 - As Total Ins. Excl Adj.			100.00%	31.78%	10.45%	5.93%	4.92%	3.78%	6.20%	13.32%	19.32%	4.29%
Total Chemicals Excluding Funding Adjustment			\$ 3,906,041	\$ 3,161,399	\$ 733,556	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 11,086
Factor 24 - As Total Chemicals Excl Adj.			100.00%	80.94%	18.78%	0.00%	0.00%	0.00%	0.00%	0.00%	0.00%	0.28%
Total Net Revenue Requirement (Excl. Reserves)			\$ 81,723,631	\$ 33,450,151	\$ 6,880,809	\$ 1,744,691	\$ 4,918,911	\$ 3,772,636	\$ 6,194,827	\$ 13,017,651	\$ 8,817,802	\$ 2,926,154
Factor 25 - As Net Revenue Requirement			100.00%	40.93%	8.42%	2.13%	6.02%	4.62%	7.58%	15.93%	10.79%	3.58%
Retail Revenue Requirement (Excl. Bad Debt)			\$ 40,770,562				\$ 4,990,050	\$ 3,827,199	\$ 6,284,420	\$ 13,540,587	\$ 9,155,985	\$ 2,972,322
Factor 26 - As Retail Req. Excl. Bad Debt			100.00%	0.00%	0.00%	0.00%	12.24%	9.39%	15.41%	33.21%	22.46%	7.29%

Schedule HJS-14b: Allocation of Rate Year Revenue Requirement (Summary)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	Pro-Forma Rate Year	Common To All			Retail Only					
		Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Public Fire
Net Operations and Maintenance Expense	\$ 39,781,482	\$ 16,788,146	\$ 2,448,273	\$ 1,400,931	\$ 1,111,876	\$ 853,679	\$ 1,401,776	\$ 5,697,767	\$ 7,967,119	\$ 2,111,914
Restricted Funds (Excluding Revenue Reserve)	\$ 35,017,000	\$ 9,151,877	\$ 4,398,283	\$ 317,618	\$ 3,851,896	\$ 2,953,343	\$ 4,849,512	\$ 7,708,157	\$ 1,013,064	\$ 773,250
City Services Expense	\$ 839,167	\$ 327,251	\$ 36,267	\$ 27,679	\$ 27,037	\$ 20,759	\$ 34,087	\$ 138,370	\$ 178,232	\$ 49,483
Property Taxes Expense	\$ 7,629,145	\$ 7,591,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,146
Total Expenses Allocated	\$ 83,266,794	\$ 33,858,275	\$ 6,882,823	\$ 1,746,228	\$ 4,990,809	\$ 3,827,781	\$ 6,285,376	\$ 13,544,295	\$ 9,158,415	\$ 2,972,793
Less: Miscellaneous Revenues	\$ (1,543,163)	\$ (408,124)	\$ (2,014)	\$ (1,537)	\$ (71,898)	\$ (55,144)	\$ (90,549)	\$ (526,644)	\$ (340,614)	\$ (46,639)
Plus: Net Operating Revenue Allowance	\$ 1,634,473	\$ 669,003	\$ 137,616	\$ 34,894	\$ 98,378	\$ 75,453	\$ 123,897	\$ 260,353	\$ 176,356	\$ 58,523
Net Revenue Requirement	\$ 83,358,104	\$ 34,119,154	\$ 7,018,425	\$ 1,779,585	\$ 5,017,289	\$ 3,848,089	\$ 6,318,723	\$ 13,278,004	\$ 8,994,158	\$ 2,984,677

Schedule HJS Amended Settlement-15a: Pro-Forma Water Sales

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Customer Class	FY 2014	FY 2015	FY 2016	FY 2017 (1)	FY 2018	FY 2019	Adjustment (2)	Pro Forma Rate Year
Retail								
Residential	8,627,628	8,347,957	8,269,834	8,269,270	8,030,974	8,103,732	292,444	8,396,176
Commercial	3,903,139	4,230,647	4,251,054	3,927,540	4,043,827	4,031,169	10,496	4,041,665
Industrial	185,888	171,644	164,367	182,199	189,997	164,973	22,213	187,186
Sub-total Retail	12,716,655 49.17%	12,750,248 48.22%	12,685,256 49.25%	12,379,009 49.12%	12,264,797 50.62%	12,299,874 51.15%	325,153	12,625,027 52.63%
Wholesale								
Bristol County	1,608,984	1,663,045	1,579,991	1,637,658	1,602,670	1,494,845	-	1,494,845
East Providence	2,201,598	2,010,940	1,869,775	1,904,517	1,776,786	1,822,773	-	1,822,773
East Smithfield	278,534	318,959	280,994	-	-	-	-	-
Greenville	431,647	443,841	477,556	443,680	417,847	421,521	-	421,521
Johnston	337,577	433,844	421,362	392,953	386,849	385,925	(385,925)	-
Kent County	2,561,361	2,561,821	2,381,066	2,500,971	2,470,436	2,727,147	-	2,727,147
Lincoln	1,025,337	1,119,193	1,082,008	1,155,628	1,057,830	1,038,229	-	1,038,229
Smithfield	497,433	477,254	427,370	435,321	435,955	391,600	-	391,600
Warwick	4,202,875	4,665,329	4,553,730	4,349,674	3,817,571	3,466,644	-	3,466,644
Sub-total Wholesale	13,145,345 50.83%	13,694,224 51.78%	13,073,851 50.75%	12,820,403 50.88%	11,965,943 49.38%	11,748,684 48.85%	(385,925)	11,362,760 47.37%
Grand Total	25,862,000	26,444,473	25,759,107	25,199,412	24,230,740	24,048,558	(60,772)	23,987,787
(1) East Smithfield Retail								
Residential	228,489	219,570	210,360	79,063	214,949	183,987	-	214,949
Commercial	3,409	5,763	11,446	3,562	7,362	5,418	-	7,362
Industrial	8,049	12,469	26,012	6,503	13,265	7,592	-	13,265
Total East Smithfield Retail	239,948	237,802	247,818	89,128	235,576	196,997	-	235,576
(2) Johnston Retail								
Residential	276,924	298,656	315,444	310,607	293,145	292,444	-	292,444
Commercial	4,132	7,839	17,163	13,993	10,521	10,496	-	10,496
Industrial	9,756	16,961	39,006	25,548	22,266	22,213	-	22,213
Total Johnston Retail	290,811	323,456	371,613	350,148	325,932	325,153		325,153

Schedule HJS Amended Settlement-15b: Assignment of Non-Revenue Water (NRW)

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Line	Description	Allocation (HCF)
1	Start: Annual Water Production	28,042,451
2	Less: Annual Sales	23,987,787
3	Equals: Non-Revenue Water	4,054,664
4	Less: Non-Billed Water Use	
5	Unauthorized Consumption ⁽¹⁾	70,106
6	Customer Metering Inaccuracy ⁽²⁾	741,890
7	Firefighting Allowance ⁽³⁾	133,690
8	Water Quality and Other Testing ⁽³⁾	1,178,162
9	Main Flushing/System Maintenance ⁽³⁾	66,845
10	Other Authorized Unbilled ⁽³⁾	13,501
	Total Non-Billed Use	2,204,194
11	Equals: Real Losses (Leakage)	1,850,470
12	Leakage on Distribution Mains and Services ⁽⁴⁾	89.2% 1,650,295
13	Leakage on Transmission Mains ⁽⁴⁾	10.8% 200,175
14	Retail Transmission Leakage ⁽⁵⁾	52.6% 105,354
15	Wholesale Transmission Leakage ⁽⁵⁾	47.4% 94,821
16	Flushing on Distribution Mains and Services ⁽⁴⁾	89.2% 59,614
17	Flushing on Transmission Mains ⁽⁴⁾	10.8% 7,231
18	Retail Transmission Flushing	52.6% 3,806
19	Wholesale Transmission Flushing	47.4% 3,425
20	Retail Non-Revenue Water	
21	100% of Unauthorized Consumption	70,106
22	100% of Customer Metering Inaccuracy	741,890
23	100% of Firefighting Allowance	133,690
24	52.6% of Water Quality and Testing	620,079
25	100% of Flushing on Distribution Mains	59,614
26	52.6% of Flushing on Transmission Mains	3,806
27	100% of Leakage on Distribution Mains	1,650,295
28	52.6% of Leakage on Transmission Mains	105,354
29	100% of Other Authorized Unbilled	13,501
30	Total Retail NRW	3,398,335
31	%	83.81%
32	Wholesale Non-Revenue Water	
33	0% of Unauthorized Consumption	-
34	0% of Customer Metering Inaccuracy	-
35	0% of Firefighting Allowance	-
36	47.4% of Water Quality and Testing	558,083
37	0% of Flushing on Distribution Mains	-
38	47.4% of Flushing on Transmission Mains	3,425
39	0% of Leakage on Distribution Mains	-
40	47.4% of Leakage on Transmission Mains	94,821
41	0% of Other Authorized Unbilled	-
42	Total Wholesale NRW	656,329
43	%	16.19%

(1) Estimated at 0.25% of Production

(2) Estimated at 3%. Calculated as: (Sales / 0.97) - Sales

(3) Per Providence Water FY 2019

(4) Based on Length of Pipe

(5) Based on Pro-Forma Sales

Schedule HJS Amended Settlement-16a: Customer Class Units of Service

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Customer Class	Base Demand			Maximum Day Extra Capacity				Maximum Hour Extra Capacity				Billing		Direct Fire
	Rate Year Sales	Plus NRW	Base	Average Day	Peaking Factor	Maximum Day	Maximum Day Extra	Average Day	Peaking Factor	Maximum Hour	Maximum Hour Extra	Meters & Services	Monthly Bills	
	HCF	HCF	HCF	HCF/d		HCF/d	HCF/d	HCF/d		HCF/d	HCF/d	5/8" Eq.		6" Eq.
Retail														
Residential	8,396,176	2,260,036	10,656,212	23,003	1.56	35,958	12,954	23,003	3.13	71,915	35,958			
Commercial	4,041,665	1,087,913	5,129,578	11,073	1.68	18,644	7,571	11,073	3.37	37,289	18,644			
Industrial	187,186	50,386	237,572	513	1.44	741	228	513	2.89	1,481	741			
Sub-total Retail	12,625,027	3,398,335	16,023,362	34,589	1.60	55,343	20,753	34,589	3.20	110,685	55,343	88,313	931,056	
Fire Protection														
Private						690	690			2,759	2,070	40,187	23,940	
Public (Providence)			69,188			1,085	1,085			4,338	3,254			3,232
Public (All Other)			71,029			1,113	1,113			4,453	3,340			3,318
Subtotal Fire Protection			140,217			2,888	2,888			11,551	8,663	40,187	23,940	6,550
Wholesale														
Bristol County	1,494,845	86,344	1,581,189	4,095	1.51	6,191	2,096	4,095	1.81	7,429	1,238			
East Providence	1,822,773	105,286	1,928,059	4,994	1.67	8,317	3,323	4,994	2.76	13,797	5,480			
Greenville	421,521	24,348	445,869	1,155	2.01	2,323	1,168	1,155	3.05	3,525	1,202			
Johnston	0	-	-	-	0.00	-	-	-	0.00	-	-			
Kent County	2,727,147	157,524	2,884,671	7,472	1.42	10,638	3,166	7,472	2.18	16,260	5,622			
Lincoln	1,038,229	59,970	1,098,198	2,844	1.90	5,402	2,557	2,844	2.23	6,354	952			
Smithfield	391,600	22,619	414,220	1,073	2.17	2,328	1,255	1,073	2.56	2,747	419			
Warwick	3,466,644	200,238	3,666,883	9,498	2.40	22,752	13,254	9,498	2.81	26,693	3,941			
Wholesale	11,362,760	656,329	12,019,088	31,131	1.86	57,951	26,821	31,131	2.47	76,806	18,855	-	-	-
Grand Total	23,987,787	4,054,664	28,182,668	65,720	1.77	116,182	50,462	65,720	3.03	199,042	82,860	128,499	954,996	6,550

Intraclass Distribution of Retail Max Day Based on Monthly Analysis

	Max Day	%
Residential	36,616	64.97%
Commercial	18,986	33.69%
Industrial	754	1.34%
	56,357	100.00%

Schedule HJS-16b: Customer Class Units of Service

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

6" Equivalent Connections

Fire Connection Size	Accounts	Demand Factor	6" Eq. Factor	6" Eq. Conn.
5/8"	-	0.0	0.000	0.00
3/4"	2	0.5	0.004	0.01
1"	9	1.0	0.009	0.08
1-1/2"	2	2.9	0.026	0.05
2"	68	6.2	0.056	3.78
3"	-	18.0	0.162	0.00
4"	391	38.3	0.344	134.60
6"	1,245	111.3	1.000	1,245.00
8"	256	237.2	2.131	545.54
10"	4	426.6	3.832	15.33
12"	18	689.0	6.190	111.42
16"	-	1,468.4	13.192	0.00
Subtotal Private	1,995			2,056

Public Fire Hydrants (Providence Only) 3232

Public Fire Hydrants (All Other) 3318

Total Hydrants 6550

Equivalent 6" Connections	#	%
Private Firelines	2,056	23.89%
Providence Hydrants	3,232	37.56%
All Other Hydrants	3,318	38.56%
	<u>8,606</u>	100.00%

5/8" Equivalent Connections

Meter Size	Providence Accounts	All Accounts	Fire Accounts	5/8" Eq. M&S Factor	5/8" Eq. Prov FP
5/8"	25,954	57,812	-	1	1
3/4"	4,580	11,326	2	1.1	1.5
1"	2,091	5,335	9	1.4	3.75
1-1/2"	902	1,547	2	1.8	10
2"	792	1,357	68	2.9	24
3"	55	73	-	11	65
4"	20	35	391	14	110
6"	28	57	1,245	21	225
8"	15	42	256	29	340
10"	2	4	4	36.25	520
12"	-	-	18	43.5	860
16"	-	-	-	58	
	34,439	77,588	1,995		

	5/8" M&S	5/8" FP	Bills
Providence	39,820	86,908	413,268
All	88,313	n/a	931,056
Fire	40,187	n/a	23,940

Schedule HJS Amended Settlement-16c: Customer Class Units of Service

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Customer Class	Base	Extra Capacity		Billing		Direct Fire
		Maximum Day Extra	Maximum Hour Extra	Meters & Services	Monthly Bills	
	HCF	HCF/d	HCF/d	5/8" Eq.	Bills	6" Eq.
Retail						
Residential	10,656,212	12,954	35,958			
Commercial	5,129,578	7,571	18,644			
Industrial	237,572	228	741			
Sub-total Retail	16,023,362	20,753	55,343	88,313	931,056	
Fire Protection						
Private		690	2,070	40,187	23,940	
Public (Providence)	69,188	1,085	3,254			3,232
Public (All Other)	71,029	1,113	3,340			3,318
Subtotal Fire Protection	140,217	2,888	8,663	40,187	23,940	6,550
Wholesale						
Bristol County	1,581,189	2,096	1,238			
East Providence	1,928,059	3,323	5,480			
East Smithfield	-	-	-			
Greenville	445,869	1,168	1,202			
Johnston	-	-	-			
Kent County	2,884,671	3,166	5,622			
Lincoln	1,098,198	2,557	952			
Smithfield	414,220	1,255	419			
Warwick	3,666,883	13,254	3,941			
Wholesale	12,019,088	26,821	18,855			
Grand Total	28,182,668	50,462	82,860	128,499	954,996	6,550

Schedule HJS Amended Settlement-17: Unit Cost of Service

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	Total	Common To All			Retail Only					
		Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
		HCF	HCF/d	HCF/d	HCF	HCF/d	HCF/d	Eq. 5/8" Mtrs.	Bills	Eq. 6" Conn.
Total Units of Service										
Retail		16,023,362	20,753	55,343	16,023,362	20,753	55,343	88,313	931,056	-
Fire Protection		140,217	2,888	8,663	140,217	2,888	8,663	40,187	23,940	6,550
E. Smithfield		-	-	-	-	-	-	-	-	-
Bristol County		1,581,189	2,096	1,238						
East Providence		1,928,059	3,323	5,480						
East Smithfield		-	-	-						
Greenville		445,869	1,168	1,202						
Johnston		-	-	-						
Kent County		2,884,671	3,166	5,622						
Lincoln		1,098,198	2,557	952						
Smithfield		414,220	1,255	419						
Warwick		3,666,883	13,254	3,941						
Total		28,182,668	50,462	82,860	16,163,579	23,641	64,006	128,499	954,996	6,550
Unit Cost of Service										
O&M Expense	\$ 38,238,319	\$ 16,380,023	\$ 2,446,259	\$ 1,399,394	\$ 1,039,978	\$ 798,535	\$ 1,311,227	\$ 5,171,123	\$ 7,626,505	\$ 2,065,275
Unit Cost (\$/Unit)	\$ 0.58	\$ 48.48	\$ 16.89	\$ 0.06	\$ 33.78	\$ 20.49	\$ 40.24	\$ 7.99	\$ 315.31	
Capital Expense	\$ 35,017,000	\$ 9,151,877	\$ 4,398,283	\$ 317,618	\$ 3,851,896	\$ 2,953,343	\$ 4,849,512	\$ 7,708,157	\$ 1,013,064	\$ 773,250
Unit Cost (\$/Unit)	\$ 0.32	\$ 87.16	\$ 3.83	\$ 0.24	\$ 124.92	\$ 75.77	\$ 59.99	\$ 1.06	\$ 118.05	
City Services Expense	\$ 839,167	\$ 327,251	\$ 36,267	\$ 27,679	\$ 27,037	\$ 20,759	\$ 34,087	\$ 138,370	\$ 178,232	\$ 49,483
Unit Cost (\$/Unit)	\$ 0.01	\$ 0.72	\$ 0.33	\$ 0.00	\$ 0.88	\$ 0.53	\$ 1.08	\$ 0.19	\$ 7.55	
Property Tax Expense	\$ 7,629,145	\$ 7,591,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 38,146
Unit Cost (\$/Unit)	\$ 0.27	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5.82
Net Operating Revenue Allowance	\$ 1,634,473	\$ 669,003	\$ 137,616	\$ 34,894	\$ 98,378	\$ 75,453	\$ 123,897	\$ 260,353	\$ 176,356	\$ 58,523
Unit Cost (\$/Unit)	\$ 0.02	\$ 2.73	\$ 0.42	\$ 0.01	\$ 3.19	\$ 1.94	\$ 2.03	\$ 0.18	\$ 8.93	
Total Cost of Service	\$ 83,358,104	\$ 34,119,154	\$ 7,018,425	\$ 1,779,585	\$ 5,017,289	\$ 3,848,089	\$ 6,318,723	\$ 13,278,004	\$ 8,994,158	\$ 2,984,677
Unit Cost (\$/Unit)	\$ 1.21	\$ 139.08	\$ 21.48	\$ 0.31	\$ 162.77	\$ 98.72	\$ 103.33	\$ 9.42	\$ 455.68	

Schedule HJS Amended Settlement-18: Customer Class Cost of Service

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

		Common To All			Retail Only					
	Total	Base	Max Day	Max Hour	Base	Max Day	Max Hour	Meters & Services	Billing & Collection	Direct Fire
Unit Cost of Service (\$/Unit)		\$1.21	\$139.08	\$21.48	\$0.31	\$162.77	\$98.72	\$103.33	\$9.42	\$455.68
Retail Service:										
Residential Volume										
Units of Service		10,656,212	12,954	35,958	10,656,212	12,954	35,958	-	-	-
Cost of Service	\$ 24,440,997	\$ 12,900,871	\$ 1,801,741	\$ 772,258	\$ 3,307,764	\$ 2,108,587	\$ 3,549,777	\$ -	\$ -	\$ -
Commercial Volume										
Units of Service		5,129,578	7,571	18,644	5,129,578	7,571	18,644	-	-	-
Cost of Service	\$ 12,328,802	\$ 6,210,089	\$ 1,053,049	\$ 400,424	\$ 1,592,257	\$ 1,232,388	\$ 1,840,596	\$ -	\$ -	\$ -
Industrial Volume Charge										
Units of Service		237,572	228	741	237,572	228	741	-	-	-
Cost of Service	\$ 519,150	\$ 287,615	\$ 31,685	\$ 15,907	\$ 73,744	\$ 37,081	\$ 73,118	\$ -	\$ -	\$ -
Meter Service Charge										
Units of Service		-	-	-	-	-	-	88,313	931,056	-
Cost of Service	\$ 17,894,153	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 9,125,462	\$ 8,768,691	\$ -
Fire Protection:										
Private Fire Lines										
Units of Service		-	690	2,070	-	690	2,070	40,187	23,940	-
Cost of Service	\$ 4,834,989	\$ -	\$ 95,945	\$ 44,447	\$ -	\$ 112,285	\$ 204,304	\$ 4,152,541	\$ 225,467	\$ -
Public Fire (Providence)										
Units of Service		69,188	1,085	3,254	69,188	1,085	3,254	-	-	3,232
Cost of Service	\$ 2,296,411	\$ 83,762	\$ 150,837	\$ 69,875	\$ 21,476	\$ 176,525	\$ 321,191	\$ -	\$ -	\$ 1,472,744
Public Fire (All Other)										
Units of Service		71,029	1,113	3,340	71,029	1,113	3,340	-	-	3,318
Cost of Service	\$ 2,357,516	\$ 85,991	\$ 154,851	\$ 71,735	\$ 22,048	\$ 181,223	\$ 329,737	\$ -	\$ -	\$ 1,511,932
East Smithfield Surcharge										
Units of Service		-	-	-	-	-	-	-	-	-
Cost of Service	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Wholesale Service:										
Units of Service		12,019,088	26,821	18,855	-	-	-	-	-	-
Bristol County		1,581,189	2,096	1,238						
East Providence		1,928,059	3,323	5,480						
East Smithfield		-	-	-						
Greenville		445,869	1,168	1,202						
Johnston		-	-	-						
Kent County		2,884,671	3,166	5,622						
Lincoln		1,098,198	2,557	952						
Smithfield		414,220	1,255	419						
Warwick		3,666,883	13,254	3,941						
		12,019,088	26,821	18,855	-	-	-	-	-	-
Cost of Service										
Bristol County	\$ 2,232,341	\$ 1,914,256	\$ 291,503	\$ 26,582	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
East Providence	\$ 2,914,102	\$ 2,334,191	\$ 462,226	\$ 117,685	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
East Smithfield	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Greenville	\$ 728,081	\$ 539,788	\$ 162,472	\$ 25,820	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Johnston	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Kent County	\$ 4,053,440	\$ 3,492,308	\$ 440,381	\$ 120,751	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Lincoln	\$ 1,705,672	\$ 1,329,526	\$ 355,694	\$ 20,452	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Smithfield	\$ 685,045	\$ 501,472	\$ 174,572	\$ 9,000	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Warwick	\$ 6,367,404	\$ 4,439,286	\$ 1,843,468	\$ 84,650	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
	\$ 18,686,084	\$ 14,550,827	\$ 3,730,317	\$ 404,940	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Allocated Cost of Service	\$ 83,358,104	\$ 34,119,154	\$ 7,018,425	\$ 1,779,585	\$ 5,017,289	\$ 3,848,089	\$ 6,318,723	\$ 13,278,004	\$ 8,994,158	\$ 2,984,677

Schedule HJS Amended Settlement-19: Development of Volumetric Rates

Providence Water Supply Board

Docket # 4994

Request for General Rate Relief

Amended Settlement Proposal

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	Units	Residential	Commercial	Industrial	Bristol County	East Providence	East Smithfield	Greenville	Johnston	Kent County	Lincoln	Smithfield	Warwick
Unit Cost													
CTA Base	\$/HCF	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21	1.21
CTA Maximum Day	\$/HCF/d	139.08	139.08	139.08	139.08	139.08	139.08	139.08	139.08	139.08	139.08	139.08	139.08
CTA Maximum Hour	\$/HCF/d	21.48	21.48	21.48	21.48	21.48	21.48	21.48	21.48	21.48	21.48	21.48	21.48
Retail Only Base	\$/HCF	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31	0.31
Retail Only Maximum Day	\$/HCF/d	162.77	162.77	162.77	162.77	162.77	162.77	162.77	162.77	162.77	162.77	162.77	162.77
Retail Only Maximum Hour	\$/HCF/d	98.72	98.72	98.72	98.72	98.72	98.72	98.72	98.72	98.72	98.72	98.72	98.72
Units													
Base	HCF	10,656,212	5,129,578	237,572	1,581,189	1,928,059	0	445,869	0	2,884,671	1,098,198	414,220	3,666,883
Maximum Day	HCF/d	12,954	7,571	228	2,096	3,323	0	1,168	0	3,166	2,557	1,255	13,254
Maximum Hour	HCF/d	35,958	18,644	741	1,238	5,480	0	1,202	0	5,622	952	419	3,941
Total Cost													
CTA Base		\$ 12,900,871	\$ 6,210,089	\$ 287,615	\$ 1,914,256	\$ 2,334,191	\$ -	\$ 539,788	\$ -	\$ 3,492,308	\$ 1,329,526	\$ 501,472	\$ 4,439,286
CTA Maximum Day		\$ 1,801,741	\$ 1,053,049	\$ 31,685	\$ 291,503	\$ 462,226	\$ -	\$ 162,472	\$ -	\$ 440,381	\$ 355,694	\$ 174,572	\$ 1,843,468
CTA Maximum Hour		\$ 772,258	\$ 400,424	\$ 15,907	\$ 26,582	\$ 117,685	\$ -	\$ 25,820	\$ -	\$ 120,751	\$ 20,452	\$ 9,000	\$ 84,650
Retail Only Base		\$ 3,307,764	\$ 1,592,257	\$ 73,744	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retail Only Maximum Day		\$ 2,108,587	\$ 1,232,388	\$ 37,081	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retail Only Maximum Hour		\$ 3,549,777	\$ 1,840,596	\$ 73,118	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
PLUS:													
Retail Service Charge Costs		\$ 5,138,917	\$ 2,592,230	\$ 109,156	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retail Fire Protection Costs		\$ 271,224	\$ 136,814	\$ 5,761	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Private Fire Line Costs		\$ 565,013	\$ 285,010	\$ 12,001	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Fire Costs		\$ 249,759	\$ 125,986	\$ 5,305	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total Rate Year Revenue Requirement		\$ 30,665,910	\$ 15,468,842	\$ 651,374	\$ 2,232,341	\$ 2,914,102	\$ -	\$ 728,081	\$ -	\$ 4,053,440	\$ 1,705,672	\$ 685,045	\$ 6,367,404
Rate Year Sales	HCF	8,396,176	4,041,665	187,186	1,494,845	1,822,773	0	421,521	0	2,727,147	1,038,229	391,600	3,466,644
Volumetric Rate Build-Up													
Base	\$/HCF	\$ 1.930478	\$ 1.930478	\$ 1.930478	\$ 1.280572	\$ 1.280572	\$ -	\$ 1.280572	\$ -	\$ 1.280572	\$ 1.280572	\$ 1.280572	\$ 1.280572
Maximum Day	\$/HCF	\$ 0.465727	\$ 0.565469	\$ 0.367372	\$ 0.195005	\$ 0.253584	\$ -	\$ 0.385442	\$ -	\$ 0.161480	\$ 0.342597	\$ 0.445793	\$ 0.531773
Maximum Hour	\$/HCF	\$ 0.514762	\$ 0.554479	\$ 0.475597	\$ 0.017783	\$ 0.064563	\$ -	\$ 0.061255	\$ -	\$ 0.044278	\$ 0.019699	\$ 0.022983	\$ 0.024418
Service Charge	\$/HCF	\$ 0.612055	\$ 0.641377	\$ 0.583140	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Retail Fire	\$/HCF	\$ 0.032303	\$ 0.033851	\$ 0.030777	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Private Fire	\$/HCF	\$ 0.067294	\$ 0.070518	\$ 0.064115	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Public Fire	\$/HCF	\$ 0.029747	\$ 0.031172	\$ 0.028341	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -	\$ -
Total	\$/HCF	\$ 3.652366	\$ 3.827344	\$ 3.479820	\$ 1.493360	\$ 1.598719	\$ -	\$ 1.727269	\$ -	\$ 1.486330	\$ 1.642868	\$ 1.749347	\$ 1.836763
Rounded	\$/HCF	\$ 3.653000	\$ 3.828000	\$ 3.480000	\$ 1.493360	\$ 1.598720	\$ -	\$ 1.727270	\$ -	\$ 1.486330	\$ 1.642868	\$ 1.749347	\$ 1.836764
Revenues		\$ 30,671,231	\$ 15,471,494	\$ 651,407	\$ 2,232,342	\$ 2,914,103	\$ -	\$ 728,081	\$ -	\$ 4,053,441	\$ 1,705,673	\$ 685,045	\$ 6,367,407
COS		\$ 30,665,910	\$ 15,468,842	\$ 651,374	\$ 2,232,341	\$ 2,914,102	\$ -	\$ 728,081	\$ -	\$ 4,053,440	\$ 1,705,672	\$ 685,045	\$ 6,367,404
Variance due to Rounding		\$ 5,321	\$ 2,651	\$ 34	\$ 1	\$ 1	\$ -	\$ 0	\$ -	\$ 1	\$ 0	\$ 0	\$ 3

Schedule HJS Amended Settlement-20a: Development of Meter Service Charge

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Meter Size	Meter Equivalency	M&S Cost Per Month	Billing Cost Per Bill	Total Cost Per Month	Existing Charge	Proposed Charge	Rounded Charge	Accounts	Revenues
5/8"	1	\$ 8.61	\$ 9.42	\$ 18.03	\$ 7.56	\$ 9.92	\$ 9.92	57,812	\$ 6,881,940
3/4"	1.1	\$ 9.47	\$ 9.42	\$ 18.89	\$ 8.05	\$ 10.56	\$ 10.57	11,326	\$ 1,436,590
1"	1.4	\$ 12.06	\$ 9.42	\$ 21.47	\$ 9.50	\$ 12.46	\$ 12.47	5,335	\$ 798,329
1.5"	1.8	\$ 15.50	\$ 9.42	\$ 24.92	\$ 11.43	\$ 15.00	\$ 15.00	1,547	\$ 278,460
2"	2.9	\$ 24.97	\$ 9.42	\$ 34.39	\$ 16.76	\$ 21.99	\$ 21.99	1,357	\$ 358,085
3"	11	\$ 94.72	\$ 9.42	\$ 104.14	\$ 56.01	\$ 73.49	\$ 73.49	73	\$ 64,377
4"	14	\$ 120.55	\$ 9.42	\$ 129.97	\$ 70.55	\$ 92.56	\$ 92.57	35	\$ 38,879
6"	21	\$ 180.83	\$ 9.42	\$ 190.25	\$ 104.47	\$ 137.06	\$ 137.07	57	\$ 93,756
8"	29	\$ 249.72	\$ 9.42	\$ 259.14	\$ 143.23	\$ 187.92	\$ 187.92	42	\$ 94,712
10"	36.25	\$ 312.15	\$ 9.42	\$ 321.57	\$ 178.36	\$ 234.01	\$ 234.01	4	\$ 11,232
12"	43.5	\$ 374.58	\$ 9.42	\$ 383.99	\$ 213.49	\$ 280.10	\$ 280.10	0	\$ -

Total Revenue Generated	77,588	\$ 10,056,362
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Costs Allocated to Customer Service

Meters & Services	\$ 9,125,462
Billing & Collection	\$ 8,768,691
LESS Shift to Retail Volume Charge	\$ (7,840,304)
Total Customer Service Costs	\$ 10,053,849

Variance Due to Rounding \$ 2,512

Schedule HJS Amended Settlement-20b: Development of Providence Retail Fire Protection Service Charge

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Meter Size	Meter Equivalency	Accounts	5/8" Equivalents	Fire Cost Per Month	Existing Charge	Proposed Charge	Rounded Charge	Revenues
5/8"	1	25,954	25,954	\$ 2.20	\$ 1.38	\$ 1.81	\$ 1.82	\$ 566,835
3/4"	1.5	4,580	6,870	\$ 3.30	\$ 2.07	\$ 2.72	\$ 2.72	\$ 149,491
1"	3.75	2,091	7,841	\$ 8.26	\$ 5.15	\$ 6.76	\$ 6.76	\$ 169,622
1.5"	10	902	9,020	\$ 22.02	\$ 13.74	\$ 18.03	\$ 18.03	\$ 195,157
2"	24	792	19,008	\$ 52.85	\$ 32.96	\$ 43.24	\$ 43.25	\$ 411,048
3"	65	55	3,575	\$ 143.13	\$ 89.26	\$ 117.11	\$ 117.11	\$ 77,293
4"	110	20	2,200	\$ 242.21	\$ 151.05	\$ 198.18	\$ 198.18	\$ 47,563
6"	225	28	6,300	\$ 495.44	\$ 308.97	\$ 405.37	\$ 405.37	\$ 136,204
8"	340	15	5,100	\$ 748.66	\$ 466.89	\$ 612.56	\$ 612.56	\$ 110,261
10"	520	2	1,040	\$ 1,145.01	\$ 714.07	\$ 936.86	\$ 936.86	\$ 22,485
12"	860	-	-	\$ 1,893.68	\$ 1,180.95	\$ 1,549.40	\$ 1,549.41	\$ -

Total Revenue Generated	\$1,885,959
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Total FPSC Costs	\$ 2,296,411
LESS Shift to Retail Volume Charge	\$ (413,799)
Adjusted FPSC Costs	\$ 1,882,613

Variance Due to Rounding	\$3,346
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Schedule HJS Amended Settlement-21a: Development of Private Fireline Charges

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Fire Connection Size	Accounts	Demand Factor	6" Eq. Factor	6" Eq. Conn.	5/8" Eq. Factor	M&S Cost Per Month	Cost Per Bill	Demand Cost Per Month	Total Cost Per Month	Existing Charge	Proposed Charge	Rounded Charge	Revenues
3/4"	2	0.5	0.004	0.01	1.10	\$9.47	\$ 9.42	\$ 0.08	\$ 18.97	\$ 8.64	\$ 11.34	\$ 11.34	\$ 272
1"	9	1.0	0.009	0.08	1.40	\$12.06	\$ 9.42	\$ 0.17	\$ 21.64	\$ 10.21	\$ 13.40	\$ 13.40	\$ 1,447
1-1/2"	2	2.9	0.026	0.05	1.80	\$15.50	\$ 9.42	\$ 0.48	\$ 25.40	\$ 12.57	\$ 16.50	\$ 16.50	\$ 396
2"	68	6.2	0.056	3.78	2.90	\$24.97	\$ 9.42	\$ 1.03	\$ 35.42	\$ 18.64	\$ 24.46	\$ 24.46	\$ 19,959
4"	391	38.3	0.344	134.60	14.00	\$120.55	\$ 9.42	\$ 6.38	\$ 136.35	\$ 79.67	\$ 104.53	\$ 104.53	\$ 490,455
6"	1,245	111.3	1.000	1,245.00	21.00	\$180.83	\$ 9.42	\$ 18.52	\$ 208.77	\$ 129.89	\$ 170.42	\$ 170.42	\$ 2,546,075
8"	256	237.2	2.131	545.54	29.00	\$249.72	\$ 9.42	\$ 39.47	\$ 298.61	\$ 196.73	\$ 258.11	\$ 258.11	\$ 792,914
10"	4	426.6	3.832	15.33	36.25	\$312.15	\$ 9.42	\$ 70.99	\$ 392.55	\$ 274.06	\$ 359.57	\$ 359.57	\$ 17,259
12"	18	689.0	6.190	111.42	43.50	\$374.58	\$ 9.42	\$ 114.67	\$ 498.66	\$ 367.64	\$ 482.35	\$ 482.35	\$ 104,188
16"	-	1,468.4	13.192	0.00	58.00	\$499.44	\$ 9.42	\$ 244.36	\$ 753.21	\$ 611.43	\$ 753.22	\$ 753.22	\$ -
	1,995			2,055.82									\$ 3,972,965

Costs Allocated to Private Fire Service

Meters & Services	\$ 4,152,541
Billing & Collection	\$ 225,467
Demand Costs	\$ 456,981
Less Costs Recovered from Retail Volume Charge	\$ (862,024)
Total Private Fire Protection Costs	\$ 3,972,965

Schedule HJS Amended Settlement-21b: Development of Hydrant Charges

Providence Water Supply Board

Docket # 4994

Request for General Rate Relief

Amended Settlement Proposal

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

Demand Costs (Hydrants Excluding Providence)	\$	845,584
Hydrants (Excluding Providence)		3,318
Annual Demand Costs per Hydrant	\$	254.85
Annual Direct Fire Cost per Hydrant	\$	455.68
Existing Annual Cost per Hydrant	\$	454.02
Total Annual Cost per Hydrant	\$	710.52
Proposed Annual Charge per Hydrant	\$	595.68
Rounded Annual Charge per Hydrant	\$	595.68
Hydrant Revenues	\$	1,976,466
Costs Allocated to Hydrant Charge		
Demand	\$	845,584
Direct Fire	\$	1,511,932
LESS Shift to Retail Volume Charge	\$	(381,050)
Total Public Fire Costs (Excluding Providence)	\$	1,976,466

Schedule HJS Amended Settlement-22: Proposed Rates

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Existing Rates			Proposed FY 2021 (Peaking Factors)			Proposed FY 2021 (Gradualism)						Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Jul 3 Rates	Differential	Adjustment	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Service Charges																		
5/8"	57,812	\$ 7.56	\$ 5,244,705	31.22%	\$ 9.92	\$ 6,881,940	31.22%	\$ 9.92	\$ -	\$ -	\$ 9.92	\$ 6,881,940	5.50%	\$ 10.47	\$ 7,260,244	4.22%	\$ 10.91	\$ 7,566,778
3/4"	11,326	\$ 8.05	\$ 1,094,092	31.30%	\$ 10.57	\$ 1,436,590	31.30%	\$ 10.57	\$ -	\$ -	\$ 10.57	\$ 1,436,590	5.50%	\$ 11.15	\$ 1,515,560	4.22%	\$ 11.62	\$ 1,579,548
1"	5,335	\$ 9.50	\$ 608,190	31.26%	\$ 12.47	\$ 798,329	31.26%	\$ 12.47	\$ -	\$ -	\$ 12.47	\$ 798,329	5.50%	\$ 13.16	\$ 842,214	4.22%	\$ 13.71	\$ 877,773
1.5"	1,547	\$ 11.43	\$ 212,187	31.23%	\$ 15.00	\$ 278,460	31.23%	\$ 15.00	\$ -	\$ -	\$ 15.00	\$ 278,460	5.50%	\$ 15.82	\$ 293,767	4.22%	\$ 16.49	\$ 306,170
2"	1,357	\$ 16.76	\$ 272,920	31.21%	\$ 21.99	\$ 358,085	31.21%	\$ 21.99	\$ -	\$ -	\$ 21.99	\$ 358,085	5.50%	\$ 23.20	\$ 377,769	4.22%	\$ 24.18	\$ 393,719
3"	73	\$ 56.01	\$ 49,065	31.21%	\$ 73.49	\$ 64,377	31.21%	\$ 73.49	\$ -	\$ -	\$ 73.49	\$ 64,377	5.50%	\$ 77.53	\$ 67,916	4.22%	\$ 80.80	\$ 70,784
4"	35	\$ 70.55	\$ 29,631	31.21%	\$ 92.57	\$ 38,879	31.21%	\$ 92.57	\$ -	\$ -	\$ 92.57	\$ 38,879	5.50%	\$ 97.66	\$ 41,017	4.22%	\$ 101.78	\$ 42,748
6"	57	\$ 104.47	\$ 71,457	31.21%	\$ 137.07	\$ 93,756	31.21%	\$ 137.07	\$ -	\$ -	\$ 137.07	\$ 93,756	5.50%	\$ 144.60	\$ 98,910	4.22%	\$ 150.71	\$ 103,086
8"	42	\$ 143.23	\$ 72,188	31.20%	\$ 187.92	\$ 94,712	31.20%	\$ 187.92	\$ -	\$ -	\$ 187.92	\$ 94,712	5.50%	\$ 198.25	\$ 99,918	4.22%	\$ 206.62	\$ 104,137
10"	4	\$ 178.36	\$ 8,561	31.20%	\$ 234.01	\$ 11,232	31.20%	\$ 234.01	\$ -	\$ -	\$ 234.01	\$ 11,232	5.50%	\$ 246.87	\$ 11,850	4.22%	\$ 257.30	\$ 12,350
12"	-	\$ 213.49	\$ -	31.20%	\$ 280.10	\$ -	31.20%	\$ 280.10	\$ -	\$ -	\$ 280.10	\$ -	5.50%	\$ 295.50	\$ -	4.22%	\$ 307.97	\$ -
Total Service Charge	77,588		\$ 7,662,995	31.23%		\$ 10,056,362	31.23%					\$ 10,056,362	5.50%		\$ 10,609,165	4.22%		\$ 11,057,093
Retail Fire Protection Service Charges (Providence Only)																		
5/8"	25,954	\$ 1.38	\$ 429,798	31.88%	\$ 1.82	\$ 566,835	31.88%	\$ 1.82	\$ -	\$ -	\$ 1.82	\$ 566,835	5.50%	\$ 1.92	\$ 597,995	4.22%	\$ 2.00	\$ 623,242
3/4"	4,580	\$ 2.07	\$ 113,767	31.40%	\$ 2.72	\$ 149,491	31.40%	\$ 2.72	\$ -	\$ -	\$ 2.72	\$ 149,491	5.50%	\$ 2.87	\$ 157,709	4.22%	\$ 2.99	\$ 164,367
1"	2,091	\$ 5.15	\$ 129,224	31.26%	\$ 6.76	\$ 169,622	31.26%	\$ 6.76	\$ -	\$ -	\$ 6.76	\$ 169,622	5.50%	\$ 7.13	\$ 178,946	4.22%	\$ 7.43	\$ 186,501
1.5"	902	\$ 13.74	\$ 148,722	31.22%	\$ 18.03	\$ 195,157	31.22%	\$ 18.03	\$ -	\$ -	\$ 18.03	\$ 195,157	5.50%	\$ 19.02	\$ 205,885	4.22%	\$ 19.82	\$ 214,577
2"	792	\$ 32.96	\$ 313,252	31.22%	\$ 43.25	\$ 411,048	31.22%	\$ 43.25	\$ -	\$ -	\$ 43.25	\$ 411,048	5.50%	\$ 45.63	\$ 433,644	4.22%	\$ 47.55	\$ 451,952
3"	55	\$ 89.26	\$ 58,912	31.20%	\$ 117.11	\$ 77,293	31.20%	\$ 117.11	\$ -	\$ -	\$ 117.11	\$ 77,293	5.50%	\$ 123.55	\$ 81,541	4.22%	\$ 128.76	\$ 84,984
4"	20	\$ 151.05	\$ 36,252	31.20%	\$ 198.18	\$ 47,563	31.20%	\$ 198.18	\$ -	\$ -	\$ 198.18	\$ 47,563	5.50%	\$ 209.07	\$ 50,178	4.22%	\$ 217.90	\$ 52,296
6"	28	\$ 308.97	\$ 103,814	31.20%	\$ 405.37	\$ 136,204	31.20%	\$ 405.37	\$ -	\$ -	\$ 405.37	\$ 136,204	5.50%	\$ 427.65	\$ 143,692	4.22%	\$ 445.71	\$ 149,758
8"	15	\$ 466.89	\$ 84,040	31.20%	\$ 612.56	\$ 110,261	31.20%	\$ 612.56	\$ -	\$ -	\$ 612.56	\$ 110,261	5.50%	\$ 646.23	\$ 116,322	4.22%	\$ 673.52	\$ 121,233
10"	2	\$ 714.07	\$ 17,138	31.20%	\$ 936.86	\$ 22,485	31.20%	\$ 936.86	\$ -	\$ -	\$ 936.86	\$ 22,485	5.50%	\$ 988.36	\$ 23,721	4.22%	\$ 1,030.09	\$ 24,722
12"	-	\$ 1,180.95	\$ -	31.20%	\$ 1,549.41	\$ -	31.20%	\$ 1,549.41	\$ -	\$ -	\$ 1,549.41	\$ -	5.50%	\$ 1,634.58	\$ -	4.22%	\$ 1,703.60	\$ -
Total Retail FPSC (Providence Only)	34,439		\$ 1,434,918	31.43%		\$ 1,885,959	31.43%					\$ 1,885,959	5.50%		\$ 1,989,631	4.22%		\$ 2,073,635
Total Retail Service Charge Revenue			\$ 9,097,913			\$ 11,942,320	31.26%					\$ 11,942,320	5.50%		\$ 12,598,796	4.22%		\$ 13,130,728
Retail Consumption Charges																		
Description	Existing Rates			Proposed FY 2021 (Peaking Factors)			Proposed FY 2021 (Gradualism)						Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Jul 3 Rates	Differential	Adjustment ⁽¹⁾	Rates ⁽¹⁾	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Residential	8,396,176	\$ 3.403	\$ 28,572,187	7.35%	\$ 3.653	\$ 30,671,231	7.88%	\$ 3.684		(\$0.013)	\$ 3.671	\$ 30,822,362	5.50%	\$ 3.87	\$ 32,516,684	4.22%	\$ 4.04	\$ 33,889,566
Commercial	4,041,665	\$ 3.223	\$ 13,026,286	18.77%	\$ 3.828	\$ 15,471,494	19.36%	\$ 3.859		(\$0.012)	\$ 3.847	\$ 15,548,285	5.50%	\$ 4.06	\$ 16,402,983	4.22%	\$ 4.23	\$ 17,095,531
Industrial	187,186	\$ 3.169	\$ 593,192	9.81%	\$ 3.480	\$ 651,407	10.38%	\$ 3.512		(\$0.014)	\$ 3.498	\$ 654,777	5.50%	\$ 3.69	\$ 690,770	4.22%	\$ 3.85	\$ 719,935
Total Retail Consumption Charge	12,625,027		\$ 42,191,666	10.91%		\$ 46,794,132	11.46%					\$ 47,025,424	5.50%		\$ 49,610,436	4.22%		\$ 51,705,032
East Smithfield Debt Surcharge	235,576	\$ 0.35	\$ 82,451	0.00%	\$ 0.350	\$ 82,451	0.00%	\$ 0.350			\$ 0.350	\$ 82,451	0.00%	\$ 0.350	\$ 82,451	0.00%	\$ 0.350	\$ 82,451
Total Retail Volume Charge Revenue			\$ 42,274,117			\$ 46,876,583	11.43%					\$ 47,107,875	5.49%		\$ 49,692,888	4.22%		\$ 51,787,483
Total Retail Revenue			\$ 51,372,030			\$ 58,818,904	14.95%					\$ 59,050,196	5.49%		\$ 62,291,684	4.22%		\$ 64,918,212

Schedule HJS Amended Settlement-22: Proposed Rates

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Existing Rates			Proposed FY 2021 (Peaking Factors)			Proposed FY 2021 (Gradualism)						Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Jul 3 Rates	Differential	Adjustment ⁽²⁾	Rates ⁽³⁾	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Wholesale Charges																		
Bristol County	1,494,845	\$ 1.350858	\$ 2,019,323	10.55%	\$ 1.493360	\$ 2,232,342	16.51%	\$ 1.614196	\$(0.120836)	\$(0.0402787)	\$ 1.573918	\$ 2,352,763	4.02%	\$ 1.637161	\$ 2,447,301	2.84%	\$ 1.683733	\$ 2,516,919
East Providence	1,822,773	\$ 1.350858	\$ 2,462,307	18.35%	\$ 1.598720	\$ 2,914,103	19.11%	\$ 1.614196	\$(0.015476)	\$(0.0051587)	\$ 1.609038	\$ 2,932,911	4.02%	\$ 1.673692	\$ 3,050,760	2.84%	\$ 1.721303	\$ 3,137,544
Greenville	421,521	\$ 1.350858	\$ 569,415	27.86%	\$ 1.727270	\$ 728,081	22.28%	\$ 1.614196	\$ 0.113074	\$ 0.0376913	\$ 1.651888	\$ 696,306	4.02%	\$ 1.718264	\$ 724,285	2.84%	\$ 1.767143	\$ 744,888
Kent County	2,727,147	\$ 1.350858	\$ 3,683,989	10.03%	\$ 1.486330	\$ 4,053,441	16.34%	\$ 1.614196	\$(0.127866)	\$(0.0426220)	\$ 1.571574	\$ 4,285,914	4.02%	\$ 1.634723	\$ 4,458,129	2.84%	\$ 1.681225	\$ 4,584,948
Lincoln	1,038,229	\$ 1.350858	\$ 1,402,499	21.62%	\$ 1.642868	\$ 1,705,673	20.20%	\$ 1.614196	\$ 0.028672	\$ 0.0095573	\$ 1.623754	\$ 1,685,828	4.02%	\$ 1.688999	\$ 1,753,567	2.84%	\$ 1.737046	\$ 1,803,451
Smithfield	391,600	\$ 1.350858	\$ 528,996	29.50%	\$ 1.749347	\$ 685,045	22.83%	\$ 1.614196	\$ 0.135151	\$ 0.0450503	\$ 1.659247	\$ 649,762	4.02%	\$ 1.725918	\$ 675,870	2.84%	\$ 1.775015	\$ 695,096
Warwick	3,466,644	\$ 1.350858	\$ 4,682,944	35.97%	\$ 1.836764	\$ 6,367,407	24.99%	\$ 1.614196	\$ 0.222568	\$ 0.0741893	\$ 1.688386	\$ 5,853,034	4.02%	\$ 1.756228	\$ 6,088,219	2.84%	\$ 1.806187	\$ 6,261,408
Total Wholesale Revenue	11,362,760		15,349,475	21.74%		18,686,092	20.24%					18,456,517	4.02%		19,198,131	2.84%		19,744,255

Wholesale Charges																		
Bristol County	1,118	\$ 1.805.96	\$ 2,019,323	10.55%	\$ 1.996.47	\$ 2,232,342	16.51%	\$ 2,158.02	\$(161.55)	\$(53.85)	\$ 2,104.17	\$ 2,352,763	4.02%	\$ 2,188.72	\$ 2,447,301	2.84%	\$ 2,250.98	\$ 2,516,919
East Providence	1,363	\$ 1.805.96	\$ 2,462,307	18.35%	\$ 2,137.33	\$ 2,914,103	19.11%	\$ 2,158.02	\$(20.69)	\$(6.90)	\$ 2,151.12	\$ 2,932,911	4.02%	\$ 2,237.56	\$ 3,050,760	2.84%	\$ 2,301.21	\$ 3,137,544
Greenville	315	\$ 1.805.96	\$ 569,415	27.86%	\$ 2,309.18	\$ 728,081	22.28%	\$ 2,158.02	\$ 151.17	\$ 50.39	\$ 2,208.41	\$ 696,306	4.02%	\$ 2,297.14	\$ 724,285	2.84%	\$ 2,362.49	\$ 744,888
Kent County	2,040	\$ 1.805.96	\$ 3,683,989	10.03%	\$ 1,987.07	\$ 4,053,441	16.34%	\$ 2,158.02	\$(170.94)	\$(56.98)	\$ 2,101.03	\$ 4,285,914	4.02%	\$ 2,185.46	\$ 4,458,129	2.84%	\$ 2,247.63	\$ 4,584,948
Lincoln	777	\$ 1.805.96	\$ 1,402,499	21.62%	\$ 2,196.35	\$ 1,705,673	20.20%	\$ 2,158.02	\$ 38.33	\$ 12.78	\$ 2,170.79	\$ 1,685,828	4.02%	\$ 2,258.02	\$ 1,753,567	2.84%	\$ 2,322.25	\$ 1,803,451
Smithfield	293	\$ 1.805.96	\$ 528,996	29.50%	\$ 2,338.70	\$ 685,045	22.83%	\$ 2,158.02	\$ 180.68	\$ 60.23	\$ 2,218.24	\$ 649,762	4.02%	\$ 2,307.38	\$ 675,870	2.84%	\$ 2,373.01	\$ 695,096
Warwick	2,593	\$ 1.805.96	\$ 4,682,944	35.97%	\$ 2,455.57	\$ 6,367,407	24.99%	\$ 2,158.02	\$ 297.55	\$ 99.18	\$ 2,257.20	\$ 5,853,034	4.02%	\$ 2,347.90	\$ 6,088,219	2.84%	\$ 2,414.69	\$ 6,261,408
Wholesale (per million gallons)	8,499		15,349,475	21.74%		18,686,092	20.24%					18,456,517	4.19%		19,198,131	4.15%		19,744,255

Description	Existing Rates			Proposed FY 2021 (Peaking Factors)			Proposed FY 2021 (Gradualism)						Proposed FY 2022			Proposed FY 2023		
	Units	Rates	Revenue	% Change	Rates	Revenue	% Change	Jul 3 Rates	Differential	Adjustment	Rates	Revenue	% Change	Rates	Revenue	% Change	Rates	Revenue
Private Fire Service Charges																		
3/4"	2	\$ 8.64	\$ 207	31.25%	\$ 11.34	\$ 272	31.25%	\$ 11.34	\$ -	\$ -	\$ 11.34	\$ 272	5.50%	\$ 11.96	\$ 287	4.22%	\$ 12.47	\$ 299
1"	9	\$ 10.21	\$ 1,103	31.24%	\$ 13.40	\$ 1,447	31.24%	\$ 13.40	\$ -	\$ -	\$ 13.40	\$ 1,447	5.50%	\$ 14.14	\$ 1,527	4.22%	\$ 14.73	\$ 1,591
1-1/2"	2	\$ 12.57	\$ 302	31.26%	\$ 16.50	\$ 396	31.26%	\$ 16.50	\$ -	\$ -	\$ 16.50	\$ 396	5.50%	\$ 17.41	\$ 418	4.22%	\$ 18.14	\$ 435
2"	68	\$ 18.64	\$ 15,210	31.22%	\$ 24.46	\$ 19,959	31.22%	\$ 24.46	\$ -	\$ -	\$ 24.46	\$ 19,959	5.50%	\$ 25.80	\$ 21,057	4.22%	\$ 26.89	\$ 21,946
4"	391	\$ 79.67	\$ 373,812	31.20%	\$ 104.53	\$ 490,455	31.20%	\$ 104.53	\$ -	\$ -	\$ 104.53	\$ 490,455	5.50%	\$ 110.28	\$ 517,415	4.22%	\$ 114.93	\$ 539,261
6"	1,245	\$ 129.89	\$ 1,940,557	31.20%	\$ 170.42	\$ 2,546,075	31.20%	\$ 170.42	\$ -	\$ -	\$ 170.42	\$ 2,546,075	5.50%	\$ 179.79	\$ 2,686,034	4.22%	\$ 187.38	\$ 2,799,441
8"	256	\$ 196.73	\$ 604,355	31.20%	\$ 258.11	\$ 792,914	31.20%	\$ 258.11	\$ -	\$ -	\$ 258.11	\$ 792,914	5.50%	\$ 272.30	\$ 836,501	4.22%	\$ 283.80	\$ 871,819
10"	4	\$ 274.06	\$ 13,155	31.20%	\$ 359.57	\$ 17,259	31.20%	\$ 359.57	\$ -	\$ -	\$ 359.57	\$ 17,259	5.50%	\$ 379.34	\$ 18,208	4.22%	\$ 395.35	\$ 18,977
12"	18	\$ 367.64	\$ 79,410	31.20%	\$ 482.35	\$ 104,188	31.20%	\$ 482.35	\$ -	\$ -	\$ 482.35	\$ 104,188	5.50%	\$ 508.87	\$ 109,915	4.22%	\$ 530.35	\$ 114,556
16"	-	\$ 611.43	\$ -	23.19%	\$ 753.22	\$ -	23.19%	\$ 752.28	\$ -	\$ -	\$ 753.22	\$ -	5.50%	\$ 794.62	\$ -	4.22%	\$ 828.17	\$ -
Total		\$ 3,028,110	\$ 3,028,110	31.20%		\$ 3,972,965	31.20%					\$ 3,972,965	5.50%		\$ 4,191,361	4.22%		\$ 4,368,324
												\$ -						
Hydrants (Excluding Providence)	3,318	\$ 454.02	\$ 1,506,438	0.00%	\$ 595.68	\$ 1,976,466	31.20%	\$ 595.68	\$ -	\$ -	\$ 595.68	\$ 1,976,466	5.50%	\$ 628.42	\$ 2,085,114	4.22%	\$ 654.96	\$ 2,173,149
Total Fire Protection Charge Revenue			\$4,534,548.24			\$5,949,431.40						\$5,949,431.40			\$6,276,474.78			\$6,541,473.00

Total Rate Revenues	\$ 71,256,053	\$ 83,454,427	\$ 83,456,144	\$ 87,766,290	\$ 91,203,939
Miscellaneous Revenues	\$ 1,493,163	\$ 1,543,163	\$ 1,543,163	\$ 1,543,163	\$ 1,543,163
Total Revenues	\$ 72,749,216	\$ 84,997,590	\$ 84,999,307	\$ 89,309,453	\$ 92,747,102
					17,140

(1) FY 21 Retail volumetric rates adjusted to reflect Wholesale gradualism. Calculated as FY 2021 calculated rate, less increased revenues from wholesale spread proportionally to each retail volumetric class based on unadjusted FY 2021 cost of service, plus rounding.

(2) 1/3 of the difference between the FY 21 uniform Wholesale rates in Providence Water's July 3 settlement proposal and the FY 21 individual Wholesale rates calculated within these schedules

(3) FY 21 Wholesale rates adjusted by 1/3 of the difference between the FY 21 uniform Wholesale rates in Providence Water's July 3 settlement proposal and the FY 21 individual Wholesale rates calculated within these schedules for FY 21, plus rounding.

Schedule HJS Amended Settlement-23: Comparison of Revenues by Customer Class

Providence Water Supply Board

Docket # 4994

Request for General Rate Relief

Amended Settlement Proposal

Test Year Ending June 30, 2019

Rate Years Ending June 30, 2021 through 2023

	FY 2021			FY 2022			FY 2023		
	Existing Rates	Proposed Rates	% Change	Existing Rates	Proposed Rates	% Change	Existing Rates	Proposed Rates	% Change
Retail									
Monthly Service Charge	\$ 7,662,995	\$ 10,056,362	31.2%	\$ 10,056,362	\$ 10,609,165	5.5%	\$ 10,609,165	\$ 11,057,093	4.2%
East Smithfield Debt Surcharge	\$ 82,451	\$ 82,451	0.0%	\$ 82,451	\$ 82,451	0.0%	\$ 82,451	\$ 82,451	0.0%
Periodic FPSC	\$ 1,434,918	\$ 1,885,959	31.4%	\$ 1,885,959	\$ 1,989,631	5.5%	\$ 1,989,631	\$ 2,073,635	4.2%
Volume Charge									
Residential	\$ 28,572,187	\$ 30,822,362	7.9%	\$ 30,822,362	\$ 32,516,684	5.5%	\$ 32,516,684	\$ 33,889,566	4.2%
Commercial	\$ 13,026,286	\$ 15,548,285	19.4%	\$ 15,548,285	\$ 16,402,983	5.5%	\$ 16,402,983	\$ 17,095,531	4.2%
Industrial	\$ 593,192	\$ 654,777	10.4%	\$ 654,777	\$ 690,770	5.5%	\$ 690,770	\$ 719,935	4.2%
Total Retail	\$ 51,372,030	\$ 59,050,196	14.9%	\$ 59,050,196	\$ 62,291,684	5.5%	\$ 62,291,684	\$ 64,918,212	4.2%
Wholesale									
Bristol County	\$ 2,019,323	\$ 2,352,763	16.5%	\$ 2,352,763	\$ 2,447,301	4.0%	\$ 2,447,301	\$ 2,516,919	2.8%
East Providence	\$ 2,462,307	\$ 2,932,911	19.1%	\$ 2,932,911	\$ 3,050,760	4.0%	\$ 3,050,760	\$ 3,137,544	2.8%
Greenville	\$ 569,415	\$ 696,306	22.3%	\$ 696,306	\$ 724,285	4.0%	\$ 724,285	\$ 744,888	2.8%
Kent County	\$ 3,683,989	\$ 4,285,914	16.3%	\$ 4,285,914	\$ 4,458,129	4.0%	\$ 4,458,129	\$ 4,584,948	2.8%
Lincoln	\$ 1,402,499	\$ 1,685,828	20.2%	\$ 1,685,828	\$ 1,753,567	4.0%	\$ 1,753,567	\$ 1,803,451	2.8%
Smithfield	\$ 528,996	\$ 649,762	22.8%	\$ 649,762	\$ 675,870	4.0%	\$ 675,870	\$ 695,096	2.8%
Warwick	\$ 4,682,944	\$ 5,853,034	25.0%	\$ 5,853,034	\$ 6,088,219	4.0%	\$ 6,088,219	\$ 6,261,408	2.8%
Total Wholesale	\$ 15,349,475	\$ 18,456,517	20.2%	\$ 18,456,517	\$ 19,198,131	4.0%	\$ 19,198,131	\$ 19,744,255	2.8%
Fire Protection									
Private Fire Protection	\$ 3,028,110	\$ 3,972,965	31.2%	\$ 3,972,965	\$ 4,191,361	5.5%	\$ 4,191,361	\$ 4,368,324	4.2%
Public Fire Protection	\$ 1,506,438	\$ 1,976,466	31.2%	\$ 1,976,466	\$ 2,085,114	5.5%	\$ 2,085,114	\$ 2,173,149	4.2%
Total Fire Protection	\$ 4,534,548	\$ 5,949,431	31.2%	\$ 5,949,431	\$ 6,276,475	5.5%	\$ 6,276,475	\$ 6,541,473	4.2%
Total Rate Revenues	\$ 71,256,053	\$ 83,456,144	17.1%	\$ 83,456,144	\$ 87,766,290	5.2%	\$ 87,766,290	\$ 91,203,939	3.9%
Miscellaneous Revenues	\$ 1,493,163	\$ 1,543,163		\$ 1,543,163	\$ 1,543,163		\$ 1,543,163	\$ 1,543,163	
Total Revenues	\$ 72,749,216	\$ 84,999,307	16.8%	\$ 84,999,307	\$ 89,309,453	5.1%	\$ 89,309,453	\$ 92,747,102	3.8%

Schedule HJS Amended Settlement-24: Revenue Proof

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	FY 2021	FY 2022	FY 2023
Net Operations & Maintenance Expense	\$ 39,781,482	\$ 40,751,109	\$ 41,853,301
Capital Expense	\$ 35,017,000	\$ 37,967,000	\$ 39,917,000
City Services Expense	\$ 839,167	\$ 839,167	\$ 839,167
Property Taxes Expense	\$ 7,629,145	\$ 7,934,311	\$ 8,251,684
Total Expenses Allocated	\$ 83,266,794	\$ 87,491,587	\$ 90,861,151
plus: Net Operating Revenue	\$ 1,634,473	\$ 1,718,968	\$ 1,786,360
Net Revenue Requirement	\$ 84,901,267	\$ 89,210,556	\$ 92,647,511
Retail			
Monthly Service Charge	\$ 10,056,362	\$ 10,609,165	\$ 11,057,093
East Smithfield Debt Surcharge	\$ 82,451	\$ 82,451	\$ 82,451
Retail FPSC	\$ 1,885,959	\$ 1,989,631	\$ 2,073,635
Volume Charge			
Residential	\$ 30,822,362	\$ 32,516,684	\$ 33,889,566
Commercial	\$ 15,548,285	\$ 16,402,983	\$ 17,095,531
Industrial	\$ 654,777	\$ 690,770	\$ 719,935
Total Retail	\$ 59,050,196	\$ 62,291,684	\$ 64,918,212
Wholesale			
Bristol County	\$ 2,352,763	\$ 2,447,301	\$ 2,516,919
East Providence	\$ 2,932,911	\$ 3,050,760	\$ 3,137,544
Greenville	\$ 696,306	\$ 724,285	\$ 744,888
Kent County	\$ 4,285,914	\$ 4,458,129	\$ 4,584,948
Lincoln	\$ 1,685,828	\$ 1,753,567	\$ 1,803,451
Smithfield	\$ 649,762	\$ 675,870	\$ 695,096
Warwick	\$ 5,853,034	\$ 6,088,219	\$ 6,261,408
Total Wholesale	\$ 18,456,517	\$ 19,198,131	\$ 19,744,255
Fire Protection			
Private Fire Protection	\$ 3,972,965	\$ 4,191,361	\$ 4,368,324
Public Fire Protection	\$ 1,976,466	\$ 2,085,114	\$ 2,173,149
Total Fire Protection	\$ 5,949,431	\$ 6,276,475	\$ 6,541,473
Total Rate Revenues	\$ 83,456,144	\$ 87,766,290	\$ 91,203,939
Miscellaneous Revenues	\$ 1,543,163	\$ 1,543,163	\$ 1,543,163
Total Revenues	\$ 84,999,307	\$ 89,309,453	\$ 92,747,102
Variance Due to Rounding	\$ 15,589	\$ 16,446	\$ 17,140

Schedule HJS Amended Settlement-25: Comparison of Typical Bill Impacts

Providence Water Supply Board
Docket # 4994
Request for General Rate Relief
Amended Settlement Proposal
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

	FY 2021			FY 2022			FY 2023		
	Existing	Proposed	% Change	Existing	Proposed	% Change	Existing	Proposed	Change
Residential - (5/8" Meter, 100 HCF)									
Service Charge	\$ 90.72	\$ 119.04	31.2%	\$ 119.04	\$ 125.58	5.5%	\$ 125.58	\$ 130.89	4.2%
Volume Charge	\$ 340.30	\$ 367.10	7.9%	\$ 367.10	\$ 387.28	5.5%	\$ 387.28	\$ 403.63	4.2%
Total	\$ 431.02	\$ 486.14	12.8%	\$ 486.14	\$ 512.86	5.5%	\$ 512.86	\$ 534.52	4.2%
Commercial - (2" Meter, 2,000 HCF)									
Service Charge	\$ 201.12	\$ 263.88	31.2%	\$ 263.88	\$ 278.39	5.5%	\$ 278.39	\$ 290.14	4.2%
Volume Charge	\$ 6,446.00	7,694.00	19.4%	7,694.00	8,116.94	5.5%	8,116.94	8,459.65	4.2%
Total	\$ 6,647.12	\$ 7,957.88	19.7%	\$ 7,957.88	\$ 8,395.33	5.5%	\$ 8,395.33	\$ 8,749.79	4.2%
Industrial - (6" Meter, 10,000 HCF)									
Service Charge	\$ 1,253.64	\$ 1,644.84	31.2%	\$ 1,644.84	\$ 1,735.26	5.5%	\$ 1,735.26	\$ 1,808.52	4.2%
Volume Charge	\$ 31,690.00	\$ 34,980.00	10.4%	\$ 34,980.00	\$ 36,902.87	5.5%	\$ 36,902.87	\$ 38,460.94	4.2%
Total	\$ 32,943.64	\$ 36,624.84	11.2%	\$ 36,624.84	\$ 38,638.13	5.5%	\$ 38,638.13	\$ 40,269.46	4.2%