

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

**IN RE: KENT COUNTY WATER SUPPLY AUTHORITY'S
APPLICATION TO CHANGE RATES**

DOCKET NO. 4611

REPORT AND ORDER

I. Introduction

On April 7, 2016, the Kent County Water Authority (KCWA or Authority) filed an application with the Public Utilities Commission (PUC or Commission) for a multi-year, three-step rate increase pursuant to R.I. Gen. Laws § 39-15.1-4.¹ The first increase, proposed for implementation on May 9, 2016, sought additional operating revenues of \$3,296,334 to satisfy a revenue requirement of \$23,023,351. The rate impact differed by customer class, but for a residential account with an average quarterly consumption of twenty HCF, the increase was 12.7%. The second increase of \$874,192, with a proposed effective date of July 1, 2017, was to support a total operating revenue requirement of \$23,574,422.² The third increase, with a proposed effective date of July 1, 2018, sought additional operating revenues of \$1,480,302 to support a total operating revenue requirement of \$25,054,724. The second and third increases of 3.85% and 6.28%, respectively, were intended for uniform application to all customer classes.³

In addition to the step increases, KCWA sought a separate demand surcharge based on meter size.⁴ As required by R.I. Gen. Laws § 39-15-1-3 (d), KCWA also submitted an alternate seasonal rate, but did not seek to implement it because the utility only bills quarterly and not

¹ All filings in this docket are available at the PUC offices located at 89 Jefferson Boulevard, Warwick, Rhode Island or at <http://www.ripuc.org/eventsactions/docket/4611page.html>.

² <http://www.ripuc.org/eventsactions/docket/4611-notice.pdf>.

³ *Id.*

⁴ *Id.*

monthly. KCWA also requested approval for an optional public fire service charge, based on meter size, to be added to the metered sales service charge. The proposed rate increase on the metered sales service charge with the assumption of the public fire service charge would result in a service charge increase of \$29.11 per quarter or 25.2% for an average customer using 2,000 cubic feet of water (166 gallons per day).⁵ The impact of the proposed rate increase on other customer classes ranged between -0.7% and 30.9%.⁶ Private fire service rates would increase between 72.2% and 74.9%.⁷ KCWA also proposed three additional tariff changes: (1) an increase in the cost of meter testing from \$50 to \$100; (2) a billable lost water charge; and (3) a change in billing to the requesting party for installation of fire hydrants.⁸

On April 29, 2016, the PUC exercised its statutory right to suspend the effective date of KCWA's application for eight months, in order to conduct a full hearing.⁹ By virtue of the suspension, the PUC delayed the effective date of the first step increase to January 1, 2017. The City of Warwick, Town of Coventry, the Coventry Fire District, and Central Coventry Fire District all intervened in the case. Thereafter, all parties engaged in extensive discovery and negotiations which ultimately resulted in a Settlement Agreement (Settlement) between KCWA and the Division of Public Utilities and Carriers (Division or DPUC), filed with the PUC on December 6, 2016.¹⁰ The Settlement significantly reduced the rate and step increases originally proposed by KCWA.¹¹ According to the Settlement, KCWA would adjust rates as of January 1, 2017 to obtain additional revenues not to exceed \$2,780,976, which is 14.34% over normalized test year

⁵ *Id.*

⁶ *Id.*

⁷ *Id.*

⁸ *Id.*

⁹ R.I. Gen. Laws §39-3-11.

¹⁰ Settlement Agreement (Dec 6, 2016); http://www.ripuc.org/eventsactions/docket/4611-SettlementAgreement_12-6-16.pdf.

¹¹ The City of Warwick, the Central Coventry Fire District and the Coventry Fire District all declined to execute the Settlement Agreement.

revenue.¹² The parties further agreed to consolidate the second and third steps of the proposed multi-year rate plan into a single second step, with an effective date of January 1, 2018. The second step revenue increase was limited to \$1,057,660 or 4.77%. KCWA agreed to update its water production numbers as part of its filing at the second step increase. On December 9, 2016, KCWA filed revised tariffs based upon the Settlement.

On December 20, 2016, following an evidentiary hearing, the PUC approved the Settlement, finding it to be just and reasonable and consistent with the principle of gradualism.¹³ The PUC also ordered KCWA to conduct a compound meter study and to submit the results as a compliance filing.¹⁴ On February 7, 2017, KCWA filed its Compound Meter Fire Service Investigative Report¹⁵ and on May 15, 2017, KCWA filed its recommendations as to the results of the compound meter investigation.¹⁶

II. Kent County Water Authority's Filing

This rate filing is the first full rate case KCWA has filed since January 27, 2010 (Docket 4142).¹⁷ The test year used was KCWA's fiscal year ending June 30, 2015. The proposed rate year was Fiscal Year 2017 (July 1, 2016-June 30, 2017).¹⁸ KCWA's filing sought: (1) an increase to personnel of three; (2) funding for an infrastructure program of \$5,400,000; (3) approval of a new capital improvement program with cash capital funding; (4) establishment of an OPEB (other post-employment benefit) trust fund account with funding; (5) a new meter replacement program; (6) an optional public fire hydrant charge elimination and revised tariff for hydrant installation; (7)

¹² Settlement at Section III, par.22.

¹³ <http://www.ripuc.org/eventsactions/minutes/122016.pdf>.

¹⁴ *Id.*

¹⁵ [http://www.ripuc.org/eventsactions/docket/4611-KCWA-Compliance-CMFS\(2-8-17\).pdf](http://www.ripuc.org/eventsactions/docket/4611-KCWA-Compliance-CMFS(2-8-17).pdf).

¹⁶ [http://www.ripuc.org/eventsactions/docket/4611-KCWA-Compliance-CMFS\(5-15-17\).pdf](http://www.ripuc.org/eventsactions/docket/4611-KCWA-Compliance-CMFS(5-15-17).pdf).

¹⁷ Woodcock Direct Test. at 4 (Apr. 8, 2016); http://www.ripuc.org/eventsactions/docket/4611-KCWA-VolumeI_4-7-16.pdf.

¹⁸ *Id.* at. 3.

optional seasonal rate charge; (8) a demand surcharge rate, based on meter size, to balance fixed expenses with a fixed charge; (9) salary increases; (10) tariff additions for lost water charges and for hydrant installations; (11) an increase to the meter testing charge from \$50 to \$100; (12) cash capital to remain as previously approved at \$100,000; and (12) operating revenue allowance to remain at the previously approved 3%, with 1.5% percent restricted and 1.5% unrestricted.¹⁹

In support of its application, KCWA presented prefiled testimony from four witnesses: (1) Timothy J. Brown, P.E., its General Manager/Chief Engineer; (2) Christopher P.N. Woodcock, a rate consultant; (3) Jo-Ann Gerskoff, KCWA's Director of Administration & Finance; and, (4) Thomas B. Nicholson, P.E., an engineering consultant.

Mr. Brown provided data demonstrating a decline in water sales for the period of FY 2011-FY 2015, but testified that it appeared sales were leveling off to a new normal operating range. He attributed the decline in sales to several factors: KCWA's demand management; loss of large customers; wetter than normal years; use of low flow plumbing devices; lower water use, generally; and a continued stagnated economy.²⁰ KCWA disclosed a retail customer base of 26,626, adjusted for compound meters.²¹

Mr. Woodcock reported that five of KCWA's lowest five months of sales occurred between February 2014 and the present filing in April 2016, resulting in an inability to collect the full amount of revenues allowed.²² Mr. Woodcock testified that for the period February 2011 through June 2017, KCWA's operating costs were projected to increase by about eleven percent, or one and a half percent per year while water utility expenses had been rising nationally at nearly twice

¹⁹ Brown Direct Test. at 3-4 (Apr. 8, 2016); http://www.ripuc.org/eventsactions/docket/4611-KCWA-VolumeI_4-7-16.pdf.

²⁰ *Id.* at 2.

²¹ *Id.* at 3.

²² Woodcock Direct Test. at 5 (Apr. 8, 2016).

the rate of inflation. According to Mr. Woodcock, KCWA's commitment to cost controls has kept cost increases below the national average. Mr. Woodcock noted that KCWA has been able to reduce its annual debt service at a time when most utilities are seeking to increase debt service.²³ He asserted, however, KCWA has significant infrastructure and capital improvement needs and therefore, the Authority has proposed to finance its capital program through rate revenues, rather than with new debt, to save the costs of bond issues and financing interest.²⁴

III. Division of Public Utilities and Carriers Filings

The DPUC submitted direct and surrebuttal testimony from: (1) Lafayette K. Morgan, Jr., a Public Utilities Consultant, on the revenue requirement; (2) Jerome D. Mierzwa, Utilities Consultant, on rate design; and (3) Alberico Mancini, Rate Analyst with the DPUC, review of capital and infrastructure replacement projects. The Coventry Fire District submitted testimony from David P. Krekorian, CPA. Mr. Morgan challenged the rate year revenue requirement and proposed a reduction of \$1,115,440 in requested funding, from \$3,293,666 to \$2,178,226. Similarly, he proposed revenue reductions in each of the requested step years: \$615,363 in FY 2018 and \$1,247,493 in FY 2019.²⁵

Mr. Mierzwa found KCWA's cost of service study to be reasonable and appropriate for determining cost responsibility and establishing rates, but rejected KCWA's rate design elements of a demand surcharge, a seasonal rate, and a proposed public fire protection charge.²⁶ In an effort to normalize revenues for the rate year, Mr. Morgan adjusted other operating revenues to reflect the three most recent years, which led to a downward adjustment of \$373,588.

²³ *Id.* at 7.

²⁴ *Id.*

²⁵ Morgan Direct Test. at 5 (Sept. 1, 2016); [http://www.ripuc.org/eventsactions/docket/4611-DPU-Morgan\(9-1-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-DPU-Morgan(9-1-16).pdf).

²⁶ Mierzwa Direct Test. at 3 (Sept. 1, 2016); [http://www.ripuc.org/eventsactions/docket/4611-DPU-Mierzwa\(9-1-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-DPU-Mierzwa(9-1-16).pdf).

The Division conducted an extensive review of the application, utilizing the assistance of both DPUC staff and outside consultants, and issued eight sets of data requests to KCWA. Following the submission of all prefiled testimony and data requests, the Division and the KCWA engaged in extensive settlement discussions and negotiations. The revenue requirement issues in contention were: (1) infrastructure replacement expenses; (2) reduced capital improvement program expenses; (3) employee benefits; (4) property and liability insurance; (5) rate case expense; (6) operational studies; and (7) inflation. The contested rate design issues were: (1) the adoption of a proposed demand surcharge and (2) the adoption of a new, direct public fire protection charge.

IV. Settlement Agreement and Hearing

On December 6, 2016, KCWA filed a multi-step rate Settlement Agreement, resolving all issues between KCWA and the Division. The parties agreed to a rate year increase in revenues not to exceed \$2,780,976, or 14.34% of normalized test year revenues, with an effective date of January 1, 2017. The parties further agreed to consolidate the second and third steps of the multi-year rate plan into a single second step, effective January 1, 2018, with an increase in revenues by an amount not to exceed \$1,057,660 or 4.77 %.

KCWA agreed to update its water production numbers as a part of this step filing. Additionally, KCWA agreed to withdraw its proposed demand surcharge, the proposed seasonal rate, the proposed public fire protection charge, and its request to codify in the tariff the proposed practice of charging for hydrant installation. KCWA agreed as well to conduct a compound meter study. The Settlement Agreement also set funding levels for the Company's restricted accounts and required KCWA to continue with all current reporting requirements.²⁷ At an evidentiary

²⁷ Settlement Agreement at Section III (Dec 6, 2016).

hearing conducted on December 7, 2016, the PUC reviewed the Settlement Agreement executed between KCWA and DPUC.

The following represents a summary of the contested issues and their resolution as part of the Settlement Agreement, including additional explanation provided at the hearing.

A. Infrastructure Replacement Program

KCWA requested \$5.4 million for its infrastructure replacement program, to be placed in a restricted account. The Infrastructure Replacement program, as approved, contains a comprehensive review of all KCWA owned infrastructure, to prepare a program for design and construction.²⁸ KCWA's infrastructure replacement program focus has been on areas with more than normal ruptures, public safety concerns, and older, undersized mains. KCWA designs multiple projects at one time to take advantage of design volume for costs savings.²⁹ Because there is no shortage of projects, the infrastructure replacement program is an ongoing program and will continue indefinitely.³⁰

DPUC witness Morgan understood KCWA's position to be a request for annual increases of \$533,333 in each of the two proposed step years and maintained that the request was inconsistent with KCWA's claim that it was not seeking to fund infrastructure replacement above the \$5.4 million level. He found the infrastructure replacement request, coupled with the \$2 million annually sought for meter replacement, was burdensome and suggested that any infrastructure replacement ramp-ups be put on hold until after the meter replacement program was completed.³¹

In rebuttal testimony, KCWA witness Woodcock claimed that his direct testimony was clear that although KCWA was not seeking additional infrastructure replacement funding in the

²⁸ Brown Direct Test. at 8-9 (Apr. 8, 2016).

²⁹ *Id.* at 9.

³⁰ *Id.*

³¹ Morgan Direct Test. at 21 (Sept. 1, 2016).

rate year, it was seeking the additional funds in the two step years. Mr. Woodcock explained that KCWA has an approved annual infrastructure replacement cost of \$7 million. and funding of those expenses is required under the statute that established the infrastructure replacement program. While the PUC may modify the amounts allowed in revenues, there should be a sound basis for modifications or exclusions. Mr. Woodcock claimed that Mr. Morgan did not identify what elements of the infrastructure replacement program he found burdensome. Additionally, Mr. Woodcock noted that the DPUC's expert engineering witness, Mr. Mancini, made no recommendations to cut any of the infrastructure replacement programs. Therefore, Mr. Woodcock found Mr. Morgan's engineering-based recommendations to be unqualified.

In settlement, the parties agreed to consolidate the two step increases into one step increase, effective January 1, 2018, with total annual funding in infrastructure replacement of \$6,000,000, increasing the revenue requirement by \$600,000 instead of two increases of \$533,000 each.³² The settlement intent was to moderate the impact of the rate increase on customers and was a product of negotiations.³³

B. Meter Replacement Program:

KCWA sought approval for a meter replacement program with an overall projected cost of \$6.6 million, at \$2 million dollar increments over two years with the balance in the third year.³⁴ KCWA witness Brown testified KCWA was at the point of needing to engage in annual meter testing or replacement, based on DPUC rules and the Authority's last meter change-out program.³⁵ However, Mr. Brown opined that testing was not truly a viable option due to the number of meters and the time associated with each test. Moreover, if KCWA decided to go with the testing option,

³² Hr'g. Tr. at 11-12 (December 7, 2016).

³³ *Id.*

³⁴ Woodcock Direct Test.at 18 (Apr. 8, 2016).

³⁵ Brown Direct Test. at 10 (Apr.8, 2016)

the meters would still be twenty years old.³⁶ Mr. Brown argued the current meters were outdated because they are hard wired and do not support radio-read technology. Finally, he noted that the current meter reading devices are no longer manufactured and there is no support for their maintenance.³⁷

DPUC witness Morgan did not oppose meter replacement, but argued that customers should receive credit for the salvage value of the old meters since they would be required to purchase the new meters. He, therefore, decreased the proposed second step by \$600,000.³⁸

While KCWA witness Brown agreed there is salvage value of the meters upon disposal, he also noted there are labor and storage costs associated with the breakdown of the meters to recycle components prior to disposal, as well as a fluctuating scrap metal market.³⁹ Therefore, he maintained, the net value of the meters is unknown. He stated that KCWA would structure its request for bids from contractors for the meter installation program to be inclusive of installation, materials, transportation, removal and disposal, and any salvage value of the old meter.⁴⁰ Mr. Brown urged Division witness Morgan to revise his position on this issue.⁴¹ In rebuttal testimony, KCWA witness Woodcock argued Mr. Morgan misunderstood KCWA's responses to data requests and clarified that program costs for the meter replacement program would be reduced by scrap sales, not that the entire cost would be offset.⁴²

The Settlement Agreement permitted KCWA to draw from its cash capital account in advance to fund the meter replacement program with the full understanding that the cash capital

³⁶ *Id.* at 10.

³⁷ *Id.*

³⁸ Morgan Direct Test. at 21 (Sept. 1, 2016).

³⁹ Brown Rebuttal Test. at 1 (Oct. 26, 2016); [http://www.ripuc.org/eventsactions/docket/4611-KCWA-Brown\(10-26-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-KCWA-Brown(10-26-16).pdf).

⁴⁰ *Id.*

⁴¹ *Id.*

⁴² Woodcock Rebuttal Test. at 22 (Oct. 26, 2016); [http://www.ripuc.org/eventsactions/docket/4611-KCWA-Woodcock\(10-26-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-KCWA-Woodcock(10-26-16).pdf).

account would be reimbursed from collections restricted to the meter replacement program, prior to that program's completion.⁴³ The settling parties additionally agreed that KCWA would file a request with the Commission, no later than October 1, 2019, to terminate funding related to the meter replacement program, effective January 2020 or on whatever date the program is completed. That filing will also include the most recent information related to the actual cost of the program, as well as the salvage value of old meters.⁴⁴

C. Compound Meters

Compound meters are meters that have two measuring registers and a check valve to regulate flow between the two registers. These meters service customers that have varying flow rates. At high flow rates, water is diverted to the high flow register. At low flow rates, however, the high flow register cannot accurately measure usage and the check valve diverts the water to a low flow register so it can be accurately measured.⁴⁵ In direct testimony, DPUC witness Mierzwa explained that a high number of KCWA's 257 compound meters registered no or very low high usage in the previous year. This fact raised the potential that compound meters may be supporting private fire protection service. Private fire protection service is supposed to be charged at a higher rate than compound meters.

In discovery, Mr. Mierzwa asked whether any of the 257 compound meter customers had a compound meter supporting fire flows. When KCWA replied that the information was not available and would require a site visit to each of the 257 locations, Mr. Mierzwa recommended KCWA undertake such an investigation and report the results in rebuttal testimony.⁴⁶ He further

⁴³ Settlement Agreement at para. 24 (g) (Dec. 6, 2016).

⁴⁴ Settlement Agreement at para. 24 (a).

⁴⁵ Mierzwa Direct Test. at 11 (Sept. 1, 2016).

⁴⁶ *Id.* at 12.

recommended that KCWA identify potential cost consequences to the customer for private fire protection services.⁴⁷

KCWA agreed in the Settlement to conduct the study and report its findings by April 1, 2017.⁴⁸ At the hearing, it became apparent that the parties had not agreed on the purpose of the study once filed. In response to cross-examination, Mr. Brown suggested that the PUC should review these rate issues in the next rate case.⁴⁹

D. Capital Improvement Program (CIP)

The capital improvement program is a program of capital improvement projects for replacement of existing infrastructure and installation of new infrastructure necessary to improve the water system's function, operation, and maintenance. Its purpose is to ensure that all water service customers are provided with a safe, reliable and adequate supply of water.⁵⁰ Projects are categorized as either essential, necessary or discretionary.⁵¹ The evaluation of the program looked at water system demands for the current maximum-day plus fire flow scenario and utilized hydraulic modeling to project water demands through 2025.⁵² The total cost of twelve projects for the next five-year period (2017-2022) was calculated at \$45,620,000.⁵³ KCWA requested funding for two projects: the Bald Hill water main loop and the Hope Furnace Road high service loop, as well as funding for an updated study for replacement of KCWA's headquarters and maintenance facility.⁵⁴ Funding for replacement headquarters was sought in and dropped from a prior filing.

⁴⁷ *Id.*

⁴⁸ Section III 24 (d) of the Settlement Agreement (Dec. 6, 2017).

⁴⁹ Hr'g. Tr. at 38-42.

⁵⁰ Nicholson Direct Test. at 2, 4 (Apr. 8, 2016); http://www.ripuc.org/eventsactions/docket/4611-KCWA-VolumeI_4-7-16.pdf.

⁵¹ *Id.* at 6.

⁵² *Id.* at 8.

⁵³ *Id.*; KCWA Initial Filing, Vol. II, Table 1; http://www.ripuc.org/eventsactions/docket/4611-KCWA-VolumeII_4-7-16.pdf.

⁵⁴ Hr'g Tr. at 65-68 (Dec. 7, 2016).

At this point, however, Mr. Brown described the facility as dangerous and in need of improvement.⁵⁵

The DPUC agreed with funding the projects and further agreed that KCWA should conduct an updated study for the replacement of its headquarters but also stated that the completed study should be submitted to DPUC for review.⁵⁶ The Settlement Agreement was silent on whether an additional review by the DPUC was necessary. Testimony at the hearing revealed that KCWA had requested funding to understand its options prior to its next rate case filing.⁵⁷ Division witness Mancini noted that there is no funding for a new facility at this point and continued to express interest in reviewing the results of the study when completed to understand the best path forward.⁵⁸ Mr. Brown stated that once a decision was made to move forward with a facility, “whether there’s money in rates or not will have to be looked at, but we’re not asking for those funds at this point, and whether we will need those funds in the future” will depend on the balances in the Cash Capital Account. He reiterated, however, that KCWA will “still need to come before the Commission for authorization to proceed further with the capital program and with that particular item for purchase and/or construction of a facility.”⁵⁹

E. Employee Benefits

KCWA calculated projected employee benefits for the rate year by reviewing the prior two years of expenses and applying an inflation factor of 3.08%.⁶⁰ Additionally, the Authority

⁵⁵ Brown Direct Test. at 8 (Apr.8, 2016).

⁵⁶ Hr’g. Tr. at 72 (Dec. 7, 2016). At the hearing Mr. Morgan explained that part of the dispute between KCWA and the Division over capital funding related to an error in one of the spreadsheets. This was resolved. *Id.* at 13-14.

⁵⁷ Hr’g. Tr. at 69-70.

⁵⁸ *Id.* at 72.

⁵⁹ *Id.* at 73.

⁶⁰ Woodcock Direct Test. at 15 (Apr.8, 2016); Sch. 1D at 3 (Apr. 8, 2016).

proposed to implement annual funding for the Other Post Employment Benefits trust account at the rate of \$80,000 per year, to reduce long-term exposure for these expenses.⁶¹

DPUC witness Morgan utilized FY 2016 year-to-date figures to calculate each of the categories of current employee benefits (medical insurances, education benefits, and pension), as well as the results of a FY 2016 pension study.⁶² In calculating retiree costs for the rate and step years, Mr. Morgan disagreed with Mr. Woodcock's approach of applying an inflation factor because the costs are actuarially determined and already include an inflation rate. Instead, Mr. Morgan kept the retiree expenses constant for the rate and step years which resulted in a downward adjustment of \$70,438.⁶³

In rebuttal testimony, Mr. Woodcock agreed to keep retiree benefit costs at the FY 2016 levels through the step increases in 2019. He also adjusted estimated benefits for FY 2016, based upon updated data. He continued to propose that future (non-retiree) benefits be based on a percentage of pro forma salaries.⁶⁴ In surrebuttal testimony, Mr. Morgan agreed with Mr. Woodcock's calculation method, with the exception that Mr. Morgan favored basing the benefits on FY 2016 costs, whereas Mr. Woodcock favored utilizing a three-year average as a base for calculating benefits.⁶⁵ A review of the Settlement schedules suggests that resolution of this issue was the result of Settlement negotiations, somewhat favoring the Division's position.⁶⁶

F. Property and Liability Insurance

⁶¹ Brown Direct Test. at 15 (Apr.8, 2016).

⁶² Morgan Direct Test. at 8 (Sept. 1, 2016).

⁶³ *Id.* at 8-9.

⁶⁴ Woodcock Rebuttal Test. at 11 (Oct. 26, 2016).

⁶⁵ Morgan Surrebuttal Test. at 10 (Nov. 18, 2016); [http://www.ripuc.org/eventsactions/docket/4611-DPU-Morgan\(11-18-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-DPU-Morgan(11-18-16).pdf).

⁶⁶ *Compare* Settlement Sch. 1D, page 3 of 5 with LKM Sch. 3S.

DPUC witness Morgan recommended reducing the KCWA's proposed rate year expense for property and liability insurance by \$25,878 to a level equal to the most recent year's expenses.⁶⁷ In rebuttal, Mr. Woodcock rejected the DPUC's approach and argued that the cost of insurance was simply not static, as demonstrated by the historical data itemized in response to DPUC's Data Request No. 3-13.⁶⁸ Mr. Woodcock updated his analysis with FY 2016 values and used the average annual increase over the last five years to project rate year costs, decreasing KCWA's request from \$276,051 to \$269,341.⁶⁹

In surrebuttal, Mr. Morgan reconsidered his position and found it reasonable to permit historical cost increases to be reflected in the derivation of the pro forma level of insurance expense. However, Mr. Morgan used the most recent three years of data, concluding that older data would not be representative of current cost trends.⁷⁰ The parties ultimately settled the issue and agreed to utilize a five-year average.⁷¹

G. Rate Case Expense

KCWA sought rate case expense of \$130,000 for its legal fees, consultants, and DPUC fees for this rate case, as well as \$50,000 for additional regulatory costs associated with a Providence Water rate case and a wholesale pass-through proceeding.⁷² KCWA proposed amortizing these costs over a three-year period. With a projected DPUC assessment of \$92,698, KCWA totaled its rate year regulatory expense at \$152,698.⁷³ DPUC witness Morgan challenged the inclusion of the \$50,000, claiming that responses to data requests did not yield adequate evidence to establish

⁶⁷ Mierzwa Direct Test. at 9 (Sept. 1, 2016); LKM Sch.4.

⁶⁸ Woodcock Rebuttal Test. at 12 (Oct. 26, 2016).

⁶⁹ *Id.*

⁷⁰ Morgan Surrebuttal Test.

⁷¹ Hr'g. Tr.at 18 (Dec. 7, 2016).

⁷² Woodcock Sch. 1E (Apr. 8, 2016)

⁷³ *Id.*

reasonableness.⁷⁴ Consequently, he adjusted his projection of rate case expenses on his schedules and decreased operating expenses by \$16,667.⁷⁵

KCWA criticized Morgan's rebuttal testimony and DPUC's approach to the issue, claiming that the Division was well aware of KCWA's involvement in both the Providence Water rate case and the subsequent pass-through proceeding, as well as KCWA's participation costs, as detailed in annual reports to the Division.⁷⁶ Mr. Woodcock complained that the Division's position on this issue was an example of how the Division was deviating from past practices and precedent, with little apparent reason. Mr. Woodcock argued that KCWA's rate case expenses were quite reasonable, and compared favorably to Providence Water (Docket No. 4618), Newport Water (Docket No. 4595) and Pawtucket Water (Docket No. 4550).⁷⁷

In surrebuttal testimony, Mr. Morgan claimed that Mr. Woodcock failed to provide adequate back up for rate case expenses and opined that because the costs may have been for prior periods, the PUC should disallow the expenses.⁷⁸ The Settlement allowed KCWA's request based on documents produced during discovery which persuaded Mr. Morgan as to the reasonableness of KCWA's request to include rate cases expenses associated with its participation in Providence Water Supply Board's rate case and KCWA's subsequent pass-through proceeding.⁷⁹

H. Operational Studies

KCWA proposed an annual expenditure of \$40,000 to fund operation studies, including: Water Supply System Management Plan; Capital Improvement Program; Infrastructure Renewal & Replacement Plan; Revised Vulnerability Assessment; and Revised Conservation Program.⁸⁰

⁷⁴ Morgan Direct Test. at 10 (Sept. 1, 2016).

⁷⁵ *Id.*; Morgan Sch. LKM-5 (Sept. 1, 2016).

⁷⁶ Woodcock Rebuttal Test. at 13 (Oct. 26, 2016).

⁷⁷ *Id.* at 14.

⁷⁸ Morgan Surrebuttal at 12 (Nov. 18, 2016).

⁷⁹ Hr'g. Tr. at 20-21 (Dec. 7, 2016).

⁸⁰ Brown Direct Test. at 15 (Apr. 8, 2016).

Mr. Woodcock explained that these five studies are required by law to be performed periodically, generally about every five years. Therefore, he proposed normalizing the total cost over five years.⁸¹

DPUC witness Morgan disagreed with including study costs in the cost of service, arguing that with the exception of the capital improvement program study, all other studies appear to have been conducted before the test year and should be excluded as prior period costs without a Commission order authorizing deferred accounting.⁸² He further argued that lack of sufficient data from KCWA hampered his ability to identify the cost of the studies or make a determination as to the reasonableness of those costs.⁸³ Finally, he claimed KCWA's response to a data request on inquiries concerning the vulnerability and conservations studies was too vague. As a result, Mr. Morgan adjusted KCWA's proposed operating expenses downward by \$40,000.⁸⁴

In rebuttal testimony, Mr. Woodcock averred that these operations studies are required for all water utilities and that the PUC has always accepted funding for these studies in rate cases.⁸⁵ Mr. Woodcock described the DPUC's approach in urging rejection of these costs as "incomprehensible," particularly since one of DPUC's own witnesses recommended that the five-year CIP study be updated.⁸⁶ Mr. Woodcock complained that costs for studies were approved in prior KCWA dockets: (1) In Docket No. 3942 (2008), the PUC approved \$125,000 for studies, amortized over five years; (2) In Docket No. 3660 (2005), the PUC approved \$125,000 for studies, amortized over five years; and (3) In Docket No. 3311 (2001), the PUC approved \$66,055 for studies, amortized over two years.⁸⁷

⁸¹ Woodcock Direct Test. at 13 (Apr.16, 2016).

⁸² Morgan Direct Test. at 11 (Sept. 1, 2016).

⁸³ *Id.*

⁸⁴ *Id.* ; Sch. LKM-6. (Sept.1 2016).

⁸⁵ Woodcock Rebuttal Test. at 14 (Oct. 26, 2016).

⁸⁶ *Id.*

⁸⁷ *Id.*

By arguing against the inclusion of these costs in the cost of service, according to Mr. Woodcock, the Division was breaking new ground and attempting to establish new precedent. He claimed the Division was unable to identify any docket in the past five years where it recommended against funding for studies that are required by law.⁸⁸ Finally, Mr. Woodcock argued the PUC has allowed funding for these studies by other water utilities with no more backup or supporting documentation than what KCWA supplied. He urged approval of the funding for all studies because they are important to the safe production and delivery of water to the state's citizens.⁸⁹

KCWA witness Brown also urged approval of the costs for operational studies. He argued that the costs were not prior period costs and that past practice is that these costs have always been funded.⁹⁰ He justified the conservation program funding of \$25,000 to enable KCWA to comply with the findings and intent of the 2009 Water Efficiency Act. A vulnerability assessment, estimated to cost \$50,000 is not required by law, but Mr. Brown argued that public health necessitates it. This study is proposed to update the mandated assessment required by federal law after September 11, 2001, and will include a review of current infrastructure vulnerabilities for operations, nature related, security, and acts of terrorism.⁹¹

As part of the Settlement, the parties agreed to move the funding for the capital improvement program and infrastructure replacement studies to relevant restricted accounts rather than increasing operating expenses. The costs for the water supply study, vulnerability study, and the conservation program total \$92,600. The parties agreed to include these expense, amortized over five years at \$18,520 per year.⁹²

⁸⁸ *Id.*

⁸⁹ *Id.* at 16.

⁹⁰ Brown Rebuttal Test. at 3 (Oct. 26, 2016).

⁹¹ *Id.*

⁹² Hr'g Tr. at 23-24 (Dec. 7, 2016); Settlement Agreement, Sch. 1D. (Dec 6, 2016).

I. Inflation

The inflation rate was one of the most hotly contested issues in the proceeding. KCWA proposed an annual inflation rate of 3.08%, a rate Mr. Woodcock calculated with reference to the 2015 general CPI-U and a water/sewer multiplier.⁹³ Mr. Woodcock contended the PUC should not focus on “broader” measures of inflation but rather on the impacts of inflation on the water sector. He stated the U.S. Bureau of Labor Statistics includes the cost of water and sewer maintenance in its calculation of the CPI-U which is broadly used throughout the country as a measure of inflation.⁹⁴ He acknowledged the Division had been supporting the use of the GDP-PI index as a measure of inflation, but did not believe the PUC should adopt that measure because he contended that water and sewer costs have been rising considerably faster than the overall rate of inflation.⁹⁵

DPUC witness Morgan disagreed with Mr. Woodcock’s approach for four reasons: (1) Mr. Morgan believed that Woodcock’s approach was one of his own creation rather than a standard published measure of inflation; (2) although Mr. Woodcock appeared to reject a broad measure of inflation (by rejecting the Division’s use of the GDP-PI), Mr. Woodcock’s own approach was, in fact, a broad measure and he therefore appeared to contradict himself; (3) assuming Mr. Woodcock’s calculations were correct, the manner in which he applied his inflation rate was inappropriate because he applied his water and sewer maintenance inflation rate to expenses that were not maintenance related such as retiree benefits, customer account expenses, and general expenses; and (4) Mr. Woodcock’s approach was based on inflation rates from 2009-2015, which were not a good proxy for determining future inflation.⁹⁶

⁹³ Woodcock Direct Test. at 16 (April 8, 2016).

⁹⁴ *Id.*

⁹⁵ *Id.*

⁹⁶ Morgan Direct Test. at 12-13 (Sept. 1, 2016).

Instead, Mr. Morgan projected inflation with reference to the Federal Reserve Open Market Committee (FOMC) from June 2016, which projected inflation in the range of 1.6% to 2.0%. Mr. Morgan used the higher estimate of 2.0% to be conservative. He explained he did not recommend the use of the GDP-PI for inflation which he had used in a prior proceeding because the publication from which he referenced this measure of inflation is no longer available to him.⁹⁷ Mr. Morgan calculated a two-year compounded inflation rate of 4.04% as compared to KCWA's compounded inflation rate of 6.26%, and applied the inflation rate to non-labor expenses and expenses not specifically adjusted elsewhere. He then compared his results to KCWA's to derive a rate year adjustment decreasing non-labor expense by \$39,351.⁹⁸

In rebuttal testimony, Mr. Woodcock argued that his calculations relied upon the CPI, an index specifically referenced in Section 2.6 (c)(4) of the Commission's Rules of Practice, and the KCWA should, therefore, be permitted to utilize that index. Mr. Woodcock maintained that the FOMC utilized by the Division in this case had not previously been proposed by the Division in any recent water dockets and that the FOMC is not typically viewed as the body to provide inflationary estimates, but rather is a policy-setting body.⁹⁹ He challenged Mr. Morgan's claim that use of the CPI index for Water and Maintenance is appropriately limited to just maintenance expenses because the index is a subcategory of "fuels and utilities" under housing costs.¹⁰⁰ Mr. Woodcock argued that there should be reliable consistency with the Division's recommendations for an appropriate inflation index.¹⁰¹

⁹⁷ *Id.* at 14.

⁹⁸ *Id.* at 15.

⁹⁹ Woodcock Rebuttal Test. at 4-5 (Oct. 16, 2016).

¹⁰⁰ *Id.* at 5.

¹⁰¹ *Id.* at 8.

In surrebuttal testimony, Mr. Morgan asserted that while the overall CPI and the water and sewer maintenance CPI are standard measures of inflation when considered separately, as reported by the Bureau of Labor Statistics, when they are multiplied together as Mr. Woodcock has done, they are no longer standard measures of inflation.¹⁰² Morgan challenged Woodcock's combined use of these indices and described the result as Woodcock's own measure of inflation.¹⁰³ Mr. Morgan claimed that if the PUC used the CPI, the projected inflation rate would be 1.6%, less than the 2.0% recommended by Morgan.¹⁰⁴ He argued, however, that CPI reports past inflation rates and an average of past inflation is not a good indicator of future inflation. As a result, Mr. Morgan elected to use the FOMC because it is a forward-looking measure.¹⁰⁵

At the hearing, Mr. Woodcock and Mr. Morgan each testified that they could not reach agreement on the appropriate inflation index, so they negotiated a compromised rate of inflation of 2.25%. This settlement reflected the fact that since the filing, both came to believe inflation might rise more than they originally thought.¹⁰⁶

J. Demand surcharge

KCWA proposed funding \$500,000 via a new demand surcharge, with a fixed rate based on meter size, to provide more revenue to match fixed expenses.¹⁰⁷ KWCA proposed adding the surcharge to the customer service charge for billing purposes.¹⁰⁸ Mr. Woodcock explained that volatility in water sales caused revenues to fluctuate unexpectedly from year to year and that

¹⁰² Morgan Surrebuttal Test. at 4 (Nov. 18 2016).

¹⁰³ *Id.*

¹⁰⁴ *Id.* at 6.

¹⁰⁵ *Id.*

¹⁰⁶ Hr'g. Tr. at 25-26 (Dec. 7, 2016).

¹⁰⁷ Brown Direct Test. at 13 (April 8, 2016).

¹⁰⁸ *Id.* at 14.

adding a demand surcharge to the fixed customer service charges was intended to help stabilize revenues.¹⁰⁹

DPUC witness Mierzwa opposed the demand surcharge proposal for several reasons. First, the quarterly fixed charge was already proposed to rise by fifty percent, exclusive of the surcharge.¹¹⁰ Implementing the proposed increase, together with the surcharge would increase the fixed quarterly charge to most customers by nearly eighty percent, an increase that would violate the principle of gradualism and is not a sound rate design practice.¹¹¹ Second, KCWA currently collected approximately fourteen percent of its revenues through fixed charges. Exclusive of the demand charge, under the proposed rates, fixed charges would rise to twenty percent. Adding in the requested surcharge would cause this figure to rise to twenty-two percent. Third, both KCWA witnesses agreed that water sales appear to have stabilized, so revenue stability should be of less concern in the future, and fourth, if the surcharge were granted, volumetric usage rates of the Medium customer rate schedule would decline and there was a possibility that the Large customer rate schedule would also decline. Mr. Mierzwa did not agree that customers rates should decrease at a time when overall costs are increasing.¹¹²

In rebuttal testimony, Mr. Woodcock argued that recovery of a fixed cost with a fixed charge is in fact consistent with sound rate making principles. Further, he notes that the \$500,000 to be funded through this method was less than twenty-five percent of the KCWA's fixed annual debt service and that it would result in an approximate \$.03 per day charge for customers with a 5/8" meter.¹¹³

¹⁰⁹ Woodcock Direct Test. at 22 (April 8, 2016).

¹¹⁰ Mierzwa Direct Test. at 8 (Sept. 1, 2016); Mierzwa Surrebuttal Test. at 3 (Nov, 18, 2016).

¹¹¹ *Id.*

¹¹² *Id.* at 9.

¹¹³ Woodcock Rebuttal Test. at 2 (Oct. 26, 2016).

Mr. Mierzwa maintained his position in rebuttal testimony, arguing that the principle of gradualism would be violated by this proposal because it would cause most customers' quarterly service rates to rise by nearly eighty percent. He also asserted that the increase would have a disproportionate adverse impact on low-use customers.¹¹⁴ Eventually, as part of the overall Settlement, KCWA agreed to withdraw its request for the demand surcharge.¹¹⁵

K. Public Fire Protection Charge

KWCA proposed to either increase the current public fire protection billing or eliminate the public fire protection billing charge and assign the cost of public fire protection to the customer service charge. The second option, preferred by KCWA, was proposed because KCWA has had difficulty in collecting funds from the two fire districts within its service territory. Therefore, KCWA contended direct collection from retail customers was better than indirect billing through the fire districts.¹¹⁶

DPUC witness Mierzwa urged the PUC to reject KCWA's proposal to direct bill retail customers, noting that the KCWA has obtained judgments against the fire districts which should be diligently pursued in collections.¹¹⁷ Additionally, Mr. Mierzwa argued that KCWA failed to meet its burden that altering the status quo would be equitable.¹¹⁸ Finally, he asserted that altering the billing structure would likely cause a double charge to customers who pay assessed fire district charges.¹¹⁹

In rebuttal testimony, KCWA witness Woodcock contended that the PUC has authorized direct charges in other communities, including Pawtucket, Woonsocket, and Providence. Direct

¹¹⁴ Mierzwa Surrebuttal Test. at 3 (Nov. 17, 2016).

¹¹⁵ Settlement Agreement Section III 24 (b) (Dec. 6, 2016).

¹¹⁶ Brown Direct Test. at 5 (Apr. 8, 2016).

¹¹⁷ Mierzwa Direct Test. at 10 (Sept. 1, 2016).

¹¹⁸ *Id.*

¹¹⁹ *Id.* at 11.

billing allows equitable collection of fire protection costs from all customers, including tax-exempt properties which currently do not share in fire protection costs.¹²⁰ Mr. Woodcock challenged the notion of double billing and surmised that if the proposal were approved, the fire districts would be able to lower their budgets correspondingly and no double billing would occur.¹²¹

Coventry Fire District witness David Krekorian opposed this element of the proposed rate design and claimed that the fire districts are in compliance with repayment agreements on old balances.¹²² Mr. Krekorian also argued that there was no valid reason to transfer billing from the fire districts to individual fire district taxpayers.¹²³ Mr. Krekorian contended that the proposed change in rates for fire protection from \$139.33 per quarter to \$251.22 per quarter violated the principle of gradualism, was inconsistent with past proceedings, and was unreasonable.¹²⁴

In surrebuttal testimony, Mr. Mierzwa maintained his opposition to the direct public fire protection charge. He noted there was no way to insure customers would not be paying double. Under the terms of the Settlement, KWCA withdrew its request for a direct public fire protection charge.¹²⁵

VI. Decision

At an Open Meeting held on December 20, 2016, the PUC reviewed the Settlement Agreement and related tariffs and found that they were just, reasonable, and appropriately balanced the interests of KCWA and its ratepayers. It found the Settlement was consistent with the principle

¹²⁰ Woodcock Rebuttal Test. at 3 (Oct. 26, 2016).

¹²¹ *Id.*

¹²² Krekorian Test. at 19 (Nov. 18, 2016); [http://www.ripuc.org/eventsactions/docket/4611-CFD-Krekorian-Corrected\(11-21-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-CFD-Krekorian-Corrected(11-21-16).pdf).

¹²³ *Id.* at 23.

¹²⁴ *Id.* at 16-17. Coventry Fire District propounded several sets of discovery questions to KCWA to which KCWA objected. There were two such discovery disputes resolved by presiding Commissioner DeSimone. The decisions can be found at: [http://www.ripuc.org/eventsactions/docket/4611-PUC-Discovery_Dispute_Ruling\(7-22-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-PUC-Discovery_Dispute_Ruling(7-22-16).pdf) and [http://www.ripuc.org/eventsactions/docket/4611-PUC-Discovery_Dispute_Ruling\(7-22-16\).pdf](http://www.ripuc.org/eventsactions/docket/4611-PUC-Discovery_Dispute_Ruling(7-22-16).pdf).

¹²⁵ Section III 24 (b) Settlement Agreement at 5 (Dec. 7, 2016).

of gradualism and a fair resolution of the issues raised. The PUC further noted that due to the efforts by the fire districts, the Settlement Agreement appropriately limited the increases in the initial step to 30% to the public and private fire protection charges. The PUC also concluded that after the completion of compound meter testing study, KCWA should file a recommendation as to what the next steps should be taken in light of the study results.

Accordingly, it is hereby

(23343) ORDERED:

1. The Settlement Agreement executed by the Kent County Water Authority and the Division of Public Utilities and Carriers on December 6, 2016, is hereby approved, and the same shall be incorporated by reference as Appendix A and made a part of this Order.
2. The Revised Tariffs filed by the Kent County Water Authority on December 9, 2016, are hereby approved, and the same shall be incorporated by reference as Appendix B and made a part of this Order.
3. Kent County Water Authority shall restrict the following accounts in the following amounts: infrastructure replacement - \$6,000,000; Debt Service - \$2,183,500; Cash Capital - \$1,453,819; Renewal & Replacement - \$100,000.
4. Following completion of the compound meter testing study, Kent County Water Authority shall file the results and a recommendation as to its plan concerning compound meters.
5. Kent County Water Authority shall make a compliance filing with testimony and data in support of the second step at least sixty days prior to January 1, 2018.

6. Kent County Water Authority shall follow all other orders and instructions contained in this order.

EFFECTIVE AT WARWICK, RHODE ISLAND ON JANUARY 1, 2017 PURSUANT TO A BENCH DECISION PURSUANT TO OPEN MEETINGS HELD ON APRIL 29, 2016 AND DECEMBER 20, 2016. WRITTEN ORDER ISSUED NOVEMBER 27, 2018.

PUBLIC UTILITIES COMMISSION



Margaret E. Curran, Chairperson

*Herbert F. DeSimone, Jr., Commissioner



Marion Gold, Commissioner

*Commissioner DeSimone concurs with the decision but is unavailable for signature.

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 AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION**

**IN RE: KENT COUNTY WATER AUTHORITY)
 APPLICATION TO CHANGE RATE) DOCKET NO. 4611
 SCHEDULES)**

SETTLEMENT AGREEMENT

I. INTRODUCTION

The Kent County Water Authority (the “KCWA”), the Division of Public Utilities and Carriers (the “Division”), Town of Coventry, City of Warwick, Coventry Fire District and Central Coventry Fire District (collectively referred to as the “Parties”) have reached an agreement on KCWA’s rate filing and jointly request the approval of this Settlement Agreement by the Public Utilities Commission (the “Commission”).

II. RECITALS

1. On April 7, 2016, KCWA filed a rate application (hereinafter the “Application”) pursuant to R.I.G.L. § 39-3-11 and Part II of the Commission’s Rules of Practice and Procedure.
2. In the Application, KCWA sought to implement a multi-year rate plan through a three-step increase.
3. In the first step of the rate plan, KCWA sought approval of new rates designed to generate additional revenues in the amount of \$3,296,334 to support total operating revenue of \$23,023,351.
4. The impact of this request on a quarterly bill with an average consumption of 20 HCF would have been an increase of \$14.61 per quarter or 12.7%.

5. In the second step of the rate plan, KCWA sought approval to implement rates effective July 1, 2017 to collect additional operating revenues of \$874,192.

6. The impact of this request would have been an across-the board rate increase of 3.85% on all rate classes.

7. In the third step of the rate plan, KCWA proposed to implement rates effective July 1, 2018 designed to collect additional operating revenues of \$1,480,302. The impact of the third step would have been an across-the board rate increase of 6.28% on all rate classes.

8. In the Application, KCWA also proposed the following: 1) a demand surcharge that would be a fixed charge based on meter size to fund \$500,000 of KCWA's debt service, 2) an alternative seasonal rate to promote conservation pursuant to R.I.G.L. § 39-15.1-3(d), and 3) an optional Public Fire Service Charge based on size of meter.

9. In support of the Application, KCWA filed the direct testimony and schedules of Timothy J. Brown, P.E., General Manager Chief Engineer and Jo-Ann Gershkoff of KCWA; Christopher P.N. Woodcock of Woodcock & Associates, Inc.; and Thomas B. Nicholson, P.E., President/Chief Engineer, C & E Engineering Partners, Inc.

10. The City of Warwick, the Town of Coventry, the Central Coventry Fire District and the Coventry Fire District filed each a motion to intervene in this docket, which the Commission granted after receiving no objections.

11. In response to the Application, the Division conducted an investigation and review with the assistance of staff and two outside expert consultants.

12. In order to assist its investigation and review, the Division issued eight sets of data requests to KCWA to which KCWA responded.

13. Coventry Fire District also conducted discovery of the Application.

14. On September 1, 2016, the Division filed the Direct Testimony of Alberico Mancini, Jerome Mierzwa and Lafayette K. Morgan, Jr.

15. On or about October 20, 2016, KCWA filed Rebuttal Testimony of Mr. Woodcock and Mr. Brown.

16. On November 18, 2016, the Division filed Surrebuttal Testimony of Mr. Morgan and Mr. Mierzwa.

17. On November 18, 2016 Coventry Fire District filed Surrebuttal Testimony of David P. Krekorian, C.P.A., M.S.T.

18. Following the filing of the surrebuttal testimony, the Division and KCWA engaged in extensive settlement discussions and negotiations.

19. The principal differences that remained between the Division and KCWA at this stage of the proceedings were in the following expense categories:

- a) The Adoption of a proposed Demand Surcharge;
- b) The adoption of new, direct Public Fire Protection Charges;
- c) IFR expenses;
- d) Reduced CIP expenses;
- e) Employee Benefits;
- f) Property and Liability Insurance;
- g) Rate Case Expense;
- h) Operation Studies; and
- i) Inflation.

20. After due consideration of the testimony, exhibits and other documentation included in the filings of KCWA, of the Division and of the intervenors, the Parties have now

agreed to a comprehensive settlement which resolves all issues relating to KCWA's application. The Parties believe that this settlement, as a whole, constitutes a just and reasonable resolution of the issues in this proceeding, and jointly request its approval by the Commission.

III. TERMS OF SETTLEMENT

21. Incorporated herein and attached hereto as Exhibit 1 are Joint Settlement Schedules 1 - 15, (excluding Sch 14 and all Sch 14s¹) which memorialize the Parties' settlement.

22. As set forth in Exhibit 1, in the first step of KCWA's multi-year rate plan, KCWA is authorized to adjust rates as of January 1, 2017 to obtain an amount not to exceed an additional \$2,780,976 of revenues or 14.34% of normalized Test Year revenues.

23. The parties agreed to consolidate the second and third steps of the multi-year rate plan into a single second step to be effective January 1, 2018. As part of this second step increase, and as set forth in Exhibit 1, the parties agree to an increase of revenues by an amount not to exceed \$1,057,660 or 4.77%. KCWA agrees to update its production numbers as part of the filing for the second step increase.

24. In addition, the Parties agree to the following terms:

- a. KCWA agrees to file a request with the Commission, no later than October 1, 2019, to terminate the funding related to the meter replacement program effective January 1, 2020 or on whatever date the program funding is completed. The filing should include the most recent information related to the actual cost of the program as well as the salvage value of old meters.

¹ These dealt with seasonal rates and the Demand Surcharge which are no longer relevant under the proposed settlement.

- b. KCWA withdraws its proposed demand surcharge and seasonal rate alternatives;
- c. KCWA withdraws its proposal to recover costs associate with public fire service directly from individual retail customers; KCWA also withdraws its request to codify in its tariff the proposed practice of charging for hydrant installations;
- d. By April 1, 2017, KCWA agrees to complete an investigation as to whether compound meters are supporting private protection service, and report the findings of its investigation to the Division and the Commission; *fire (low) PWS*
- e. KCWA will not codify in any tariff filing its current practice of charging for lost water caused by the actions of third persons;
- f. The parties agree to the method used for derivation of public and private fire service costs as appropriate. However, because of the magnitude of the public and private fire charge increases, the parties agree to limit the increase in public and private fire charges in the initial step in this docket to a 30% increase. In KCWA's next rate filing, the parties agree to move the public and private fire service charges toward the full cost of service.
- g. Kent County Water Authority will be allowed to draw from the Cash Capital Account in advance to fund the Meter Replacement Program with the full understanding that the Cash Capital Fund will be

reimbursed from collections restricted to the Meter Replacement Program, prior to the Meter Replacement Program completion;

- h. The parties agree that KCWA will continue with all current reporting requirements; and
- i. The parties agree that KCWA will fund its Commission restricted accounts at the following levels.

Account	Rate Year	Step Increase Effective Jan 1, 2018
Infrastructure Replacement	\$5,400,000	\$6,000,000
Debt Service	\$2,178,500	\$2,183,500
Cash Capital	\$1,753,819	\$1,453,819
Renewal & Repl – Equip.	\$100,000	\$100,000

IV. EFFECT OF SETTLEMENT

25. This Settlement Agreement is the result of a negotiated settlement. The discussions which have produced this Settlement Agreement have been conducted with the explicit understanding that all offers of settlement and discussion relating thereto are and shall be privileged, shall be without prejudice to the position of any party or participant presenting such offer or participating in any such discussion, and are not to be used in any manner in connection with these or other proceedings.

26. The agreement by any party to the terms of this Settlement Agreement shall not be construed as an agreement as to any matter of fact or law beyond the terms thereof. By entering into this Settlement Agreement, matters or issues other than those explicitly identified in this agreement have not been settled upon or conceded by any party to this Settlement Agreement, and nothing in this agreement shall preclude any party from taking any position in any future proceeding regarding such unsettled matters.

27. In the event that the Commission rejects this Settlement Agreement, or modifies this agreement or any provision therein, then this agreement shall be deemed withdrawn and shall be null and void in all respects.

IN WITNESS WHEREOF, the Parties agree that this Settlement Agreement is reasonable, in the public interest and in accordance with law and regulatory policy, and have caused this agreement to be executed by their respective representatives, each being authorized to do so.

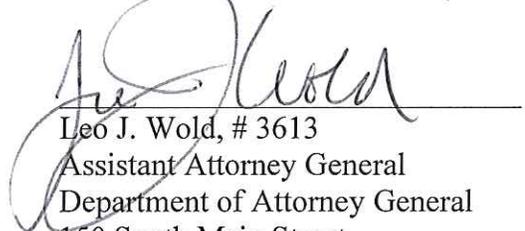
Dated at Warwick this 6th day of December, 2016.

KENT COUNTY WATER
AUTHORITY
By its attorney,



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AND CARRIERS
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TOWN OF COVENTRY and CENTRAL
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By its attorney,

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CERTIFICATE OF SERVICE

I certify that a copy of the document was forwarded by e-mail to the Service List in the above docket on the ___ day of _____, 2016.

PRO FORMA EXPENSES

Expense Item	Test Year June 30, 2015	Summary of Adjustments	Rate Year 7/1/16-6/30/17	Adjustments Detail						
				Labor Increase (Sch 1B/1D)	One Time Costs	Other Adjustments	Supporting Schedule	Non-Labor Inflation		
SOURCE OF SUPPLY										
maint of wells/supply study	\$0	\$18,520	\$18,520	\$0		\$18,520 nt Settl. Sch. 1D				
purchased water	\$4,999,638	-\$702,057	\$4,297,581	\$0		-\$702,057 nt Settl. Sch. 1C				
Subtotal	\$4,999,638	-\$683,537	\$4,316,101	\$0	\$0	-\$683,537			\$0	
PUMPING OPERATIONS										
fuel for pumping	\$22,662	\$1,031	\$23,693	\$0					\$1,031	
power	\$606,405	\$163,277	\$769,682	\$0		\$163,277 nt Settl. Sch. 1E				
labor-pumping	\$82,493	\$3,355	\$85,848	\$3,160					\$195	
pumping expense	\$0	\$0	\$0	\$0					\$0	
maint. - structures & improv	\$63,789	\$22,621	\$86,410	\$22,228					\$393	
diesel oil	\$0	\$0	\$0	\$0					\$0	
maint. - equip	\$36,986	\$21,591	\$58,577	\$20,728					\$863	
Subtotal	\$812,335	\$211,875	\$1,024,210	\$46,116	\$0	\$163,277			\$2,482	
WATER TREATMENT										
chemicals	\$40,519	\$122,393	\$162,912	\$0		\$122,393 nt Settl. Sch. 1E				
labor	\$186,426	\$7,575	\$194,001	\$7,189					\$386	
operating / Mishnock	\$65,420	\$2,977	\$68,397	\$0					\$2,977	
maint. - water treat equip	\$17,556	\$799	\$18,355	\$0					\$799	
maint. - structure	\$651	\$30	\$681	\$0					\$30	
Subtotal	\$310,572	\$133,773	\$444,345	\$7,189	\$0	\$122,393			\$4,192	
TRANS & DISTR. EXPENSE										
storage facilities exp.	\$0	\$0	\$0	\$0					\$0	
labor	\$23,745	\$1,081	\$24,826	\$0					\$1,081	
supplies	\$106,875	\$4,863	\$111,738	\$0					\$4,863	
labor-meter	\$52,568	\$2,141	\$54,709	\$1,988					\$152	
meter - supp & exp	\$12	\$1	\$13	\$0					\$1	
cust. install.	\$0	\$0	\$0	\$0					\$0	
misc.	\$13,258	\$603	\$13,861	\$0					\$603	
maint - struct. & improv.	\$57,000	\$2,594	\$59,594	\$0					\$2,594	
maint.- res & stdp	\$20,465	\$841	\$21,306	\$717					\$124	
maint. - mains	\$565,681	\$63,871	\$629,552	\$54,800					\$9,071	
maint. - service	\$105,892	\$44,458	\$150,350	\$42,852					\$1,606	
maint. - meters	\$139,823	\$6,123	\$145,946	\$1,901					\$4,221	
maint. - hydrants	\$79,531	\$3,439	\$82,970	\$1,426					\$2,013	
construction labor	-\$68	\$0	-\$68	\$0					\$0	
Subtotal	\$1,164,782	\$130,014	\$1,294,796	\$103,685	\$0	\$0	\$0	\$0	\$26,330	

PRO FORMA EXPENSES

Expense Item	Test Year June 30, 2015	Summary of Adjustments	Rate Year 7/1/16-6/30/17	Adjustments Detail				
				Labor Increase (Sch 1B)	One Time Costs	Other Adjustments	Supporting Schedule	Non-Labor Inflation
CUSTOMER ACCOUNT								
labor- meter read	\$110,533	\$4,496	\$115,029	\$4,226				\$269
cust record labor	\$204,210	\$8,301	\$212,511	\$7,848				\$453
cust records sup	\$95,811	\$4,360	\$100,171	\$0				\$4,360
meter read supplies	\$2,505	\$114	\$2,619	\$0				\$114
uncollectible	\$57,397	\$2,612	\$60,009	\$0				\$2,612
Subtotal	\$470,456	\$19,883	\$490,339	\$12,074	\$0	\$0		\$7,808
ADMIN. & GENERAL								
salaries	\$428,341	\$36,783	\$465,124	\$17,291				\$19,492
office supplies & expenses	\$257,632	\$11,724	\$269,356	\$0				\$11,724
insurance (property/liability/wc)	\$249,166	\$20,175	\$269,341	\$0		\$20,175 nt Settl. Sch. 1D		
OPEB Trust Contrib.	\$0	\$80,000	\$80,000	\$0		\$80,000 nt Settl. Sch. 1D		
employee benefits	\$927,939	\$37,918	\$965,857	\$0		\$37,918 nt Settl. Sch. 1D		
maint. - plant	\$146,750	\$6,084	\$152,834	\$4,703				\$1,381
maint. - vehicles	\$60,303	\$2,726	\$63,029	\$142				\$2,584
miscellaneous	\$15,840	\$721	\$16,561	\$0				\$721
vacation, holiday, sick	\$299,762	\$12,829	\$312,591	\$12,829				\$0
regul. exp.	\$136,920	\$15,778	\$152,698	\$0		\$15,778 nt Settl. Sch. 1E		
outside service	\$89,877	\$4,090	\$93,967	\$0				\$4,090
Subtotal	\$2,612,530	\$228,828	\$2,841,358	\$34,965	\$0	\$153,871		\$39,992
TOTAL O&M	\$10,370,313	\$40,836	\$10,411,149	\$204,029	\$0	-\$243,996		\$80,803

PRO FORMA EXPENSES

<u>Expense Item</u>	<u>Test Year June 30, 2015</u>	<u>Summary of Adjustments</u>	<u>Rate Year 7/1/16-6/30/17</u>	<u>Adjustments Detail</u>				
				<u>Labor Increase (Sch 1B/1D)</u>	<u>One Time Costs</u>	<u>Other Adjustments</u>	<u>Supporting Schedule</u>	<u>Non-Labor Inflation</u>
FIXED CHARGES								
Debt Service								
Existing	\$2,179,500	(\$1,000)	\$2,178,500			-\$1,000	nt Settl. Sch. 1D	
New	\$0	\$0	\$0			\$0	nt Settl. Sch. 1D	
Reserves and Coverage								
O&M Reserve	\$0	\$14,185	\$14,185			\$14,185	nt Settl. Sch. 1D	
R&R Reserve	\$77,607	\$54,729	\$132,336			\$54,729	nt Settl. Sch. 1D	
Renewal & Replacement - Equip	\$100,000	\$0	\$100,000					
Infrastructure Replacement	\$5,400,000	\$0	\$5,400,000				\$0	nt Settl. Sch. 1D
Meter Replacement	\$0	\$2,000,000	\$2,000,000			\$2,000,000	nt Settl. Sch. 1D	
CIP	\$0	\$1,753,819	\$1,753,819			\$1,753,819	nt Settl. Sch. 1D	
Payroll Taxes	\$154,417	\$21,204	\$175,621			\$21,204	nt Settl. Sch. 1D	
PILOT	\$23,123	\$0	\$23,123			\$0		
SUBTOTAL FIXED	\$7,934,647	\$3,842,937	\$11,777,584	\$0	\$0	\$3,842,937		\$0
OPERATING REVENUE	\$583,313	-\$250,449	\$332,864			-\$250,449		
TOTAL EXPENSES	\$18,888,273	\$3,633,324	\$22,521,597	103.32%	\$204,029	\$0	\$3,348,492	\$80,803
Less:								
Miscellaneous Income	(\$235,485)	-\$9,310	(\$244,795)			-\$9,310	nt Settl. Sch. 1A	
Interest Income	(\$25,826)	\$4,362	(\$21,464)			\$4,362	nt Settl. Sch. 1A	
Merchand & Jobbing	(\$16,230)	-\$2,581	(\$18,811)			-\$2,581	nt Settl. Sch. 1A	
6.9% of Water Prot Fee	(\$46,107)	\$526	(\$45,581)			\$526	nt Settl. Sch. 1A	
NET REQUIRED FROM RATES	\$18,564,625	\$3,626,322	\$22,190,946					\$80,803

TEST YEAR & PRO FORMA REVENUES

<u>Revenues</u>	Test Year <u>Revenues</u>	<u>Adjustments</u>	Rate Year <u>7/1/16-6/30/17</u>	
Miscellaneous				
Less:				
Miscellaneous Income	\$42,131	-\$9,310	\$32,821	Joint Settl. Sch. 1D
Interest Income	\$25,826	\$4,362	\$30,188	Joint Settl. Sch. 1D
Merchand & Jobbing	\$16,230	-\$2,581	\$13,649	Joint Settl. Sch. 1D
6.9% of Water Prot Fee	<u>\$46,107</u>	<u>\$526</u>	<u>\$46,633</u>	(2)
Total Misc.	\$130,294		\$123,291	
Metered Rates	\$17,780,588	\$155,891	\$17,936,479	(1)
Public Fire	\$1,309,184	\$4,615	\$1,313,799	(1)
Private Fire	\$167,510	-\$7,819	\$159,691	(1)
Total Revenue	\$19,387,576	\$152,688	\$19,533,261	
 <u>Required Revenue</u>			\$22,521,597	
<u>Required Revenue from Rates</u>			\$22,398,306	
 <u>Rate Increase Needed</u>			\$2,988,336	

NOTES:

(1) Normalized Test Year Revenues at Current Rates based on Joint Settl. Sch. 11 - current rates for full year.

(2) WP revenue based on rate of \$0.01511 with 95% non-exempt customers.

Non-exempt Use RY =	3,086,260 ccf
Rate (\$/ccf)	\$0.01511
RY Revenue	\$46,633

TEST YEAR & RATE YEAR LABOR COSTS

EXPENSE ITEM	Test Year <u>June 30, 2015</u>	<u>Adjustments (1)</u>	Rate Year <u>7/1/16-6/30/17</u>
SOURCE OF SUPPLY			
PUMPING OPERATIONS			
624A labor-pumping	\$78,206	\$3,160	\$81,365
631 maint. - structures & improv	\$55,160	\$22,228	\$77,388
633 maint. - equip	\$18,027	\$20,728	\$38,755
WATER TREATMENT			
642A labor	\$177,937	\$7,189	\$185,126
TRANS & DISTR. EXPENSE			
663A labor-meter	\$49,219	\$1,988	\$51,207
672 maint.- res & stdp	\$17,751	\$717	\$18,468
673 maint. - mains	\$366,344	\$54,800	\$421,144
675 maint. - service	\$70,596	\$42,852	\$113,448
676 maint. - meters	\$47,062	\$1,901	\$48,963
677 maint. - hydrants	\$35,288	\$1,426	\$36,713
CUSTOMER ACCOUNT			
902 labor- meter read	\$104,614	\$4,226	\$108,840
903 cust record labor	\$194,254	\$7,848	\$202,101
ADMIN. & GENERAL			
920 salaries	\$435,569	\$17,291	\$452,860
932A maint. - plant	\$116,408	\$4,703	\$121,111
932B maint. - vehicles	\$3,516	\$142	\$3,658
679 miscellaneous	\$0	\$0	\$0
933 vacation, holiday, sick	<u>\$317,555</u>	<u>\$12,829</u>	<u>\$330,384</u>
0 SUBTOTAL LABOR	\$2,087,504	\$204,029	\$2,291,533
Capitalized Labor	<u>\$4,000</u>	<u>\$162</u>	<u>\$4,162</u>
TOTAL LABOR COSTS	\$2,091,505	\$204,191	\$2,295,695

(1) See Schedule 1D

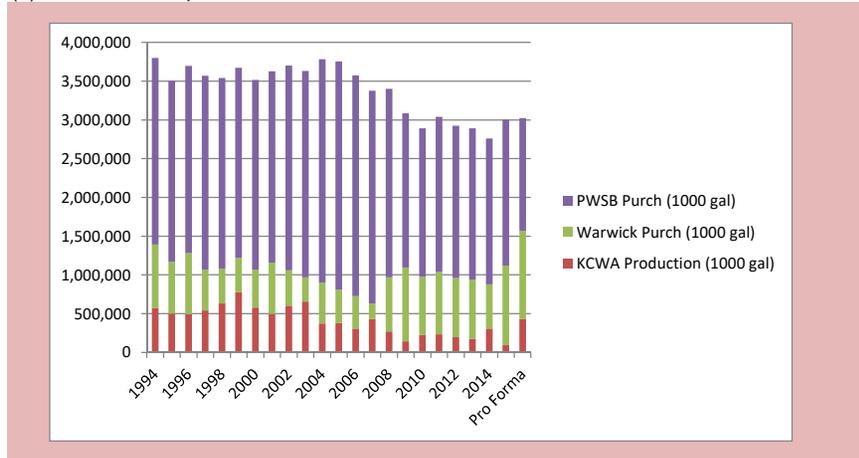
WHOLESALE WATER COSTS

Wholesale Water Purchases (updated per Div. DR 3-9)

	<u>Rate (\$/mg)</u>	<u>Purchases (mg)</u>	<u>Cost</u>
PWSB Rate (/mg)	\$1,731.16	2,482.49	\$4,297,581
Net Wholesale Purchases (gallons) - Rate Year			
Warwick Purchases		1,135,328,000	
PWSB Purchases		<u>1,456,357,231</u>	
Total Purchases		2,591,685,231	
Sales To Warwick		<u>-109,199,000</u>	
Net Purchases		2,482,486,231	
Rate Year Sales		2,482,486,231	

Fiscal Yr -- >	<u>2011</u>	<u>2012</u>	<u>2013</u>	<u>2014</u>	<u>2015</u>	<u>2016</u>	<u>Pro Forma</u>
KCWA Production (1000 gal)	231,080	195,110	175,420	304,651	92,176	96,175	430,800 (1)
Warwick Purch (1000 gal)	808,282	766,301	763,513	572,651	1,028,956	1,135,328	1,135,328 (2)
PWSB Purch (1000 gal)	<u>1,999,838</u>	<u>1,962,717</u>	<u>1,952,095</u>	<u>1,883,039</u>	<u>1,882,339</u>	<u>1,781,270</u>	<u>1,456,357 (4)</u>
Total	3,039,200	2,924,128	2,891,028	2,760,341	3,003,471	3,012,773	3,022,485 (3)
Total Purched	2,808,120	2,729,018	2,715,608	2,455,690	2,911,295	2,916,598	2,591,685
Sales To Warwick (1000 gal)	<u>73,595</u>	<u>92,976</u>	<u>91,487</u>	<u>92,039</u>	<u>102,354</u>	<u>109,199</u>	<u>109,199 (2)</u>
Net Purchases	2,734,525	2,636,042	2,624,121	2,363,651	2,808,941	2,807,399	2,482,486

- (1) KCWA rate year (FY 2017) production based on E. Greenwich start-up 11/16 and projections based on past monthly use, Mishnock on line 2/17
- (2) No change projected in purchases from or sales to Warwick from 2015 values
- (3) Overall amount changed from 2015 in same proportion as sales.
- (4) Calculated to equal the total volume minus KCWA Production and minus Warwick Purchase.



EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

<u>Adjustment to:</u>	<u>Explanation</u>	
Fixed Charges Associated with Debt Service:		
O&M Reserve	Set to achieve reserve level equal to 25% of operating costs.	
	"O&M" Costs (Joint Settl. Sch. 1) =	\$10,411,149
	Payroll Taxes	\$175,621
	PILOT	<u>\$23,123</u>
	Total Operating	\$10,609,893
	Required O&M Reserve (25%)	\$2,652,473
	Balance 6/30/15	\$2,382,240
	Additions October 2015	<u>\$256,048</u>
	Estim. Balance Start of Rate Year	\$2,638,288
	Required deposit =	\$14,185
R&R Reserve	Set to equal 1% of Net Utility Plant (NUP)	
	NUP Value (6/30/16)	<u>\$145,130,806</u>
	Estimated Additions	<u>\$5,700,000</u>
	Pro Forma NUP	\$150,830,806
	Required Balance (1%)	\$1,508,308
	Balance 6/30/15	\$1,350,565
	Additions October 2015	<u>\$25,407</u>
	Estim. Balance Start of Rate Year	\$1,375,972
	Addition to Reserve Required	\$132,336

Source of Supply Operations (studies)

Cost of Water Supply, CIP, & IFR Plans =	<u>\$17,600</u>
Cost of Conservation Program =	<u>\$25,000</u>
New Vulnerability Study =	<u>\$50,000</u>
Total	<u>\$92,600</u>
Normalize over 5 yrs	\$18,520
Change over Test Year	\$18,520

Admin - Fees

Based on the May 2015 notice from the Dept. of Health, the annual PWS Renewal Fee is \$32,500

EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

Debt Service	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>
<u>2012 Series A Bonds</u>						
Principal	\$1,485,000	\$1,540,000	\$1,605,000	1,690,000	\$1,775,000	\$1,870,000
Interest	\$694,500	\$635,100	\$573,500	493,250	\$408,750	\$320,000
Total	\$2,179,500	\$2,175,100	\$2,178,500	\$2,183,250	\$2,183,750	\$2,190,000
<u>New Debt</u>						
Principal	\$0	\$0	\$0	\$0	\$0	\$0
Interest	\$0	\$0	\$0	\$0	\$0	\$0
Total	\$0	\$0	\$0	\$0	\$0	\$0
Total Debt	\$2,179,500	\$2,175,100	\$2,178,500	\$2,183,250	\$2,183,750	\$2,190,000

Note that payments on bonds are due in January and July. Although the July payment is due the fiscal year following the due date, the funds must be accumulated the prior months to have sufficient amounts to make the payments.

Infrastructure Replacement

Based on most recently approved IFR Report for KCWA the annual IFR requirement is **\$7,000,000**
 However, to minimize the current requested adjustment, the Authority is requesting the increase through the step adjustments proposed.
 Increase over test year = **\$0**

PILOT

based on following payments in lieu of taxes:

<u>City & Towns</u>	<u>Totals</u>
W. Warwick	\$8,264.82
Warwick	\$58.00
Coventry	\$12,813.37
Scituate	\$260.05
W. Greenwich	\$364.43
<u>Fire Districts</u>	
Cent. Cov.-Cov.	\$302.50
Cent.Cov.-Harris	\$50.00
Cent.Cov-Tiogoe	\$121.00
Cent Coventry	\$349.00
Hopkins Hills	\$540.00
	\$23,123.17

Insurance - Liability/Property/Worker's Comp

	<u>FY 12</u>	<u>FY 13</u>	<u>FY 14</u>	<u>FY 15</u>	<u>FY 2016</u>	<u>Rate Year</u>	<u>Avg Increase</u>
Liability/Property Insurance	130,590	146,686	156,105	166,811	166,015	176,281	6.2%
Worker's Comp. Insurance	62,127	65,154	80,541	85,521	84,158	90,792	7.9%
Total	\$192,717	\$211,840	\$236,646	\$252,332	250,173	\$269,341	6.74%

Estimated Rate Year amounts based on average annual increases over past four years.

EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

Benefits	<u>FY 2014</u>	<u>Test Yr. (FY15)</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>
Medical - Blue Cross	\$510,912	\$528,254	\$513,573				
Delta Dental	\$41,303	\$46,702	\$46,279				
Group P-65 Retirees	\$74,314	\$73,682	\$68,554				
Life Insurance	\$5,826	\$6,487	\$6,331				
Disability Insurance	\$7,768	\$8,867	\$9,162				
Coastline Employee Assist	\$1,200	\$1,500	\$1,500				
Education	\$8,835	\$29,218	\$9,026				
Pension Contribution	\$311,745	\$228,129	\$243,161				
Xmas Bonus	\$5,100	\$5,100	\$5,100				
Total	\$927,003	\$927,686	\$902,686				
Less Retiree Costs (*)	-\$72,808	-\$46,337	-\$74,305				
Net for Current Employees	\$894,195	\$881,602	\$828,381	\$891,551	\$936,644	\$74,305	\$974,484
Labor Costs	\$1,956,599	\$2,091,505	\$2,133,035	\$2,295,695	\$2,341,609	\$2,388,441	\$2,436,210
Benefits as % of Current Labor	45.70%	42.15%	38.84%	40.00%	40.00%	40.00%	40.00%
Retiree Costs (**)				\$74,305	\$74,305	\$74,305	\$74,305
Plus Benefits (above)				\$891,551	\$936,644	\$955,377	\$974,484
Total Benefits				\$965,857	\$1,010,949	\$1,029,682	\$1,048,790
Change in Benefits for RY				\$37,918			
Annual Increase After Rate Year					83,010	\$18,733	\$19,108

* includes payments to retired employees for Delta-Dental, Group 65 Retirees and Life Insurance

** based on Division testimony, kept at FY2106 values

New OPEB Contribution to Trust

	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>
Miscellaneous Revenues	<u>\$60,000</u>	<u>\$60,000</u>	<u>\$80,000</u>	<u>\$60,000</u>
Misc. Income				
FY15				
FY14				
FY13				
Average				
Interest Inc	\$25,826	\$26,152	\$38,586	\$30,188
Merch & Jobbing	\$16,320	\$20,277	\$4,350	\$13,649

EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

Labor Adjustments

Test year (FY 2015) labor increased to FY 2016 based on 2% increase and actual 2015 OT
For Rate Year, the FY 2016 labor costs were increased 2% for existing positions, with OT at FY 2015/2016 levels plus:
Two operators to replace transfers to Treatment Plant @ \$40,000 each (split between maint of mains and services)
One additional Maintenance Mechanic @ \$40,000 (split between pumping structures and equipment)
FY 2018 increased at 2%

	<u>Test Yr (FY15)</u>	<u>FY 2016</u>	<u>Rate Yr (FY 17)</u>	<u>FY 2018</u>
<i>Pumping Expense</i>				
Pumping Labor	\$78,206	\$79,770	\$81,365	\$82,993
Maint. Structure	\$55,160	\$56,263	\$77,388	\$78,936
Maint. Equip.	\$18,027	\$18,387	\$38,755	\$39,530
<i>Water Treatment Expense</i>				
Operator Labor	\$177,937	\$181,496	\$185,126	\$188,829
<i>Transmission & Distribution</i>				
Meter Labor	\$49,219	\$50,203	\$51,207	\$52,231
Maint. Reser. & Standpipes	\$17,751	\$18,106	\$18,468	\$18,837
Maint. Mains	\$366,344	\$373,671	\$421,144	\$429,567
Maint. Services	\$70,596	\$72,007	\$113,448	\$115,717
Maint. Meters	\$47,062	\$48,003	\$48,963	\$49,942
Maint. Hydrants	\$35,288	\$35,993	\$36,713	\$37,448
<i>Customer Accounts</i>				
Meter Reading	\$104,614	\$106,706	\$108,840	\$111,017
Customer Records	\$194,254	\$198,139	\$202,101	\$206,143
<i>Admin. & General</i>				
Salaries (Admin & Board)	\$435,569	\$443,980	\$452,860	\$461,917
Genrl Plant Maint.	\$116,408	\$118,737	\$121,111	\$123,533
Vehicle Maint.	\$3,516	\$3,586	\$3,658	\$3,731
Vac., Holiday, Sick	\$317,555	\$323,906	\$330,384	\$336,992
Capitalized Labor	<u>\$4,000</u>	<u>\$4,080</u>	<u>\$4,162</u>	<u>\$4,245</u>
Totals	\$2,091,505	\$2,133,035	\$2,295,695	\$2,341,609

Payroll Taxes

FICA set at 7.65% of salary 175,621

Non-Labor Inflation

Non-labor items increased from test year using an average annual increase of 2.25% per year or 4.55% over 2 years to account for inflation.

Power

See Schedule 1E

Operating Revenue

See testimony-operating revenue based on total rate revenues (total less misc. revenues) at 1.50% ~~1.5% restricted~~ 1.5% non-restricted

EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

Capital Spending

Meter Replacement

The authority is planning to replace all the customer owned water meters. The total estimated cost is \$6.6 million. For the rate year, initial funding of **\$2,000,000** is requested. In FY 2018 funding of \$2,000,000 is requested. For FY 2019, the balance is included.

Capital Improvement Program

The Authority has developed a capital improvement program (CIP) that it is looking to finance from rates. With the refinancing of its debt, available funds in the Restricted Debt Account, and available balances in the Restricted Operating Revenue Account, the Authority proposes to use these savings to help phase-in the program. The Authority is looking for authorization equal to the reduction in the debt service that had been authorized by the PUC.

Authorized Debt Doc. 4142 = \$3,932,319 Difference from rate year debt = \$1,753,819

Restricted Funds Activity for Rate Year

	<u>R&R Reserve</u>	<u>O&M Reserve</u>	<u>Debt</u>	<u>IFR</u>	<u>R&R Equip</u>	<u>Res. Oper. Rev.*</u>
Beginning Balance (7/1/14)	1,272,826	2,493,284	2,026,555	6,277,494	262,937	1,507,265
Funding	77,607	0	2,179,500	5,400,000	100,000	291,656
Interest	132	242	98	676	20	133
Expenditures (actual) *	0	111,286	2,373,650	4,391,122	303,930	0
Ending Balance (6/30/15)	1,350,565	2,382,240	1,832,503	7,287,048	59,027	1,799,054

	<u>2012 Refunding</u>	<u>2004 Series A</u>	<u>Total Debt</u>
Beginning Balance (7/1/14)	1,800,909	225,646	2,026,555
Funding (TY)	2,179,500	0	2,179,500
Interest	92	6	98
Expenditures (actual)	2,148,000	225,650	2,373,650
Ending Balance (6/30/15)	1,832,501	2	1,832,503

* Note -\$607,077 was withdrawn from the Restricted Operating Revenue Account after June 30, 2015 reducing this account

SUPPLEMENTAL DATA**Regulatory Expenses**

<u>Fiscal Year</u>	<u>Annual Assmnt</u>	<u>Legal</u>	<u>Consultants</u>	<u>DPUC Fees</u>	<u>Total</u>
2011	45,874	0	600	3,769	50,243
2012	53,179	0	1,800	698	55,677
2013	64,890	22,920	17,000	2,960	107,770
2014	97,253	30,289	53,328	908	181,778
2015	84,080	12,507	39,876	457	136,921
Estimated Rate Case Expense - this docket		50,000	60,000	20,000	130,000
			Other Rate Case (Prov Water, Pass Thru)		50,000
			Amortized over 3 yrs		60,000
			DPUC Assessment (Estim RY) *		92,698
			Rate Year Regulatory Expense =		152,698

Note: Estimated costs for current docket do NOT include KCWA regulatory costs for intervention in filings by Providence Water nor do they include costs for pass through rate filings to pass on wholesale rate increases.

* PUC Assessments

FY 2011	\$45,874	
FY 2012	\$53,179	15.92%
FY 2013	\$64,890	22.02%
FY 2014	\$97,253	49.87%
FY 2015	\$84,080	-13.55%
Average increase =	18.57%	
Estimated Annual Change =	5.00%	
Estim FY 2016 (RY)	\$88,284	
Estim FY 2017 (RY)	\$92,698	

SUPPLEMENTAL DATA

<u>Chemical Costs</u>									
<u>East Greenwich</u>									
	Production (1000 gal/yr)	Chlorine Gallons	Tetrapotassium Pyrophosphate Gallons	Potassium Hydroxide Gallons	Chem Delivery and Freight PyroPhos	Chem Delivery and Freight POT HYD			
FY 2011	232,130	533	271	26,025	\$427	\$1,305			
FY 2012	190,990	439	223	19,904	\$496	\$2,025			
FY 2013	175,282	403	205	19,560	\$525	\$2,120			
FY 2014	223,338	513	261	25,576	\$555	\$2,835			
FY 2015	off line								
FY 2016	off line								
FY 2017 Proj	138,819	319	162	15,384	\$556	\$1,400			
COST/GAL (12/15)		\$2.43	\$10.46	\$6.70					
FY 2016 COST		\$775	\$1,695	\$103,073	\$556	\$1,400			
Total FY 2017 chemical costs (E. Greenwich)						\$107,498			
	Production (1000 gal/yr)	Potassium Permanganate Gallons	Chlorine Gallons	Potassium Hydroxide Gallons	Citric Acid Gallons	Sodium Bisulfite Gallons	Sulfuric Acid Gallons	Chemical Deliver Fees	Lab Chems \$/FY
<u>Mishnock</u>									
FY 2013	0	0	0	0	0	0	0	\$0	\$0
FY 2014	50,000	3,481	376	399	125	188	4	\$575	\$3,600
FY 2105	100,000	7,080	780	820	250	375	8	\$1,236	\$3,600
FY 2016	96,175	7,080	780	820	250	375	8	\$1,418	\$3,600
FY 2017 PROJ USE	292,000	20,674	2,278	2,394	250	375	8	\$14,818	\$4,000
COST/GAL		\$1.08	\$2.43	\$6.70	\$11.06	\$4.69	\$3.54		
FY 2017 COST		\$22,328	\$5,536	\$16,040	\$2,765	\$1,759	\$28		
Total FY 2017 chemical costs (Mishnock)							\$48,455	\$3,358	\$3,600
<u>FY 2017 Chemical Costs</u>		\$7,646	\$1,895	\$5,494	\$2,765	\$1,759	\$28	1,236	3,600
E. Greenwich	\$107,498								
Mishnock	\$48,455								
Mishnock Delivery	\$3,358								
Lab Chemicals	\$3,600								
Total - Rate Year	\$162,912								
Increase over Test Year	\$122,393								

	<u>East Greenwich</u>		<u>Mishnock</u>		<u>Both</u>
	Power KWH USED	AVG Power \$/KWH	Power KWH USED	AVG Power \$/KWH	
FY 2011	454,207	\$0.122			\$55,413
FY 2012	465,600	\$0.124			\$57,734
FY 2013	387,360	\$0.130			\$50,357
FY 2014	547,920	\$0.135	188,547	\$0.166	\$105,268
FY 2015			346,320	\$0.185	\$64,069
FY 2016			346,320	\$0.186	\$64,416
FY 2017 Proj	313,385	\$0.186	908,907	\$0.186	\$227,346
Increase over test year					\$163,277

UNITS OF SERVICE

	Test Year <u>Actual</u>	<u>Adjustments</u>	Rate Year <u>Projected</u>
<u>Metered Water Sales (100 cubic feet)</u>			
Small (5/8-2" meters)	2,921,091	18,493	2,939,584
Medium (3&4" meters)	66,302	420	66,721
Large (6" & up meters)	<u>240,864</u>	1,525	<u>242,389</u>
	3,228,257		3,248,694

Meters By Size

	<u>Quarterly</u>	<u>June 2015</u>		
5/8 & 3/4	22,099	-19		22,080
1	3,636	14		3,650
1 1/2	322	2		324
2	503	-1		502
3	13	-2		11
4	84	5		89
6	85	4		89
8 & up	65	2		67
<u>Monthly</u>				
5/8 & 3/4	5	0		5
1	1	0		1
1 1/2	9	0		9
2	9	-1		8
3	1	0		1
4	4	-1		3
6	7	0		7
8 & up	5	0		5

Public Fire Service (Sept 2015)

Public Fire Hydrants	2,352	5	2,357
Bills	32		32

Private Fire Service

<u>Size (in)</u>			
4	16	0	16
6	97	-2	95
8	19	-3	16
10	1	0	1
12	1	0	1
Hydrants	128	-6	122

**ALLOCATION OF RATE YEAR EXPENSES TO
GENERAL WATER, FIRE, AND CUSTOMER SERVICE**

EXPENSE ITEM	RATE YEAR	ALLOC. SYMBOL (1)	GENERAL WATER		FIRE SERVICE		CUST. SERVICE	
	EXPENSE		%	AMOUNT	%	AMOUNT	%	AMOUNT
SOURCE OF SUPPLY								
maint of wells/supply study	\$18,520	A	99.5%	\$18,427	0.5%	\$93	0.0%	0
purchased water	\$4,297,581	A	99.5%	\$4,276,093	0.5%	\$21,488	0.0%	0
PUMPING OPERATIONS								
fuel for pumping	\$23,693	A	99.5%	\$23,575	0.5%	\$118	0.0%	0
power	\$769,682	A	99.5%	\$765,834	0.5%	\$3,848	0.0%	0
labor-pumping	\$85,848	P	79.7%	\$68,455	20.3%	\$17,393	0.0%	0
pumping expense	\$0	P	79.7%	\$0	20.3%	\$0	0.0%	0
maint. - structures & improv	\$86,410	P	79.7%	\$68,903	20.3%	\$17,507	0.0%	0
diesel oil	\$0	P	79.7%	\$0	20.3%	\$0	0.0%	0
maint. - equip	\$58,577	P	79.7%	\$46,709	20.3%	\$11,868	0.0%	0
WATER TREATMENT								
chemicals	\$162,912	A	99.5%	\$162,097	0.5%	\$815	0.0%	0
labor	\$194,001	A	99.5%	\$193,031	0.5%	\$970	0.0%	0
operating / Mishnock	\$68,397	A	99.5%	\$68,055	0.5%	\$342	0.0%	0
maint. - water treat equip	\$18,355	A	99.5%	\$18,263	0.5%	\$92	0.0%	0
maint. - structure	\$681	A	99.5%	\$677	0.5%	\$3	0.0%	0
TRANS & DISTR. EXPENSE								
storage facilities exp.	\$0	D	75.0%	\$0	25.0%	\$0	0.0%	0
labor	\$24,826	B	74.8%	\$18,570	25.2%	\$6,256	0.0%	0
supplies	\$111,738	B	74.8%	\$83,580	25.2%	\$28,158	0.0%	0
labor-meter	\$54,709	C	0.0%	\$0	0.0%	\$0	100.0%	54,709
meter - supp & exp	\$13	C	0.0%	\$0	0.0%	\$0	100.0%	13
cust. install.	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	0
misc.	\$13,861	F	48.3%	\$6,689	23.0%	\$3,188	28.7%	3,984
maint - struct. & improv.	\$59,594	F	48.3%	\$28,760	23.0%	\$13,708	28.7%	17,127
maint.- res & stdp	\$21,306	D	75.0%	\$15,979	25.0%	\$5,326	0.0%	0
maint. - mains	\$629,552	B	74.8%	\$470,905	25.2%	\$158,647	0.0%	0
maint. - service	\$150,350	C	0.0%	\$0	0.0%	\$0	100.0%	150,350
maint. - meters	\$145,946	C	0.0%	\$0	0.0%	\$0	100.0%	145,946
maint. - hydrants	\$82,970	E	0.5%	\$415	99.5%	\$82,555	0.0%	0
construction labor	(\$68)	F	48.3%	(\$33)	23.0%	(\$16)	28.7%	(20)
CUSTOMER ACCOUNT								
labor- meter read	\$115,029	C	0.0%	\$0	0.0%	\$0	100.0%	115,029
cust record labor	\$212,511	C	0.0%	\$0	0.0%	\$0	100.0%	212,511
cust records sup	\$100,171	C	0.0%	\$0	0.0%	\$0	100.0%	100,171
meter read supplies	\$2,619	C	0.0%	\$0	0.0%	\$0	100.0%	2,619
uncollectible	\$60,009	C	0.0%	\$0	0.0%	\$0	100.0%	60,009
ADMIN. & GENERAL								
salaries	\$465,124	G	73.3%	\$340,899	7.7%	\$35,627	19.0%	88,598
office supplies & expenses	\$269,356	G	73.3%	\$197,417	7.7%	\$20,632	19.0%	51,307
insurance (property/liability/wc)	\$269,341	G	73.3%	\$197,406	7.7%	\$20,631	19.0%	51,305
OPEB Trust Contrib.	\$80,000	H	55.8%	\$44,631	11.9%	\$9,483	32.4%	25,886
employee benefits	\$965,857	H	55.8%	\$538,840	11.9%	\$114,486	32.4%	312,531
maint. - plant	\$152,834	G	73.3%	\$112,015	7.7%	\$11,706	19.0%	29,112
maint. - vehicles	\$63,029	G	73.3%	\$46,195	7.7%	\$4,828	19.0%	12,006
miscellaneous	\$16,561	G	73.3%	\$12,138	7.7%	\$1,268	19.0%	3,155
vacation, holiday, sick	\$312,591	H	55.8%	\$174,391	11.9%	\$37,052	32.4%	101,148
regul. exp.	\$152,698	G	73.3%	\$111,916	7.7%	\$11,696	19.0%	29,086
outside service	<u>\$93,967</u>	G	73.3%	<u>\$68,870</u>	7.7%	<u>\$7,198</u>	19.0%	<u>17,899</u>
SUBTOTAL O&M	\$10,411,149	G	78.6%	\$8,179,704	6.2%	\$646,965	15.2%	1,584,480

**ALLOCATION OF RATE YEAR EXPENSES TO
GENERAL WATER, FIRE, AND CUSTOMER SERVICE**

EXPENSE ITEM	RATE YEAR EXPENSE	ALLOC. SYMBOL (1)	GENERAL WATER		FIRE SERVICE		CUST. SERVICE	
			%	AMOUNT	%	AMOUNT	%	AMOUNT
FIXED CHARGES								
Debt Service	\$2,178,500	J	78.2%	\$1,703,232	19.8%	\$430,431	2.1%	\$44,837
O&M Reserve	\$14,185	G	73.3%	\$10,397	7.7%	\$1,087	19.0%	\$2,702
R&R Reserve	\$132,336	J	78.2%	\$103,465	19.8%	\$26,147	2.1%	\$2,724
Renewal & Replacement - Equip	\$100,000	J	78.2%	\$78,184	19.8%	\$19,758	2.1%	\$2,058
Infrastructure Replacement	\$5,400,000	I	78.2%	\$4,221,920	19.8%	\$1,066,940	2.1%	\$111,140
Meter Replacement	\$2,000,000	M	100.0%	\$2,000,000	0.0%	\$0	0.0%	0
CIP	\$1,753,819	I	78.2%	\$1,371,200	19.8%	\$346,522	2.1%	\$36,096
Payroll Taxes	\$175,621	H	55.8%	\$97,977	11.9%	\$20,817	32.4%	\$56,827
PILOT	<u>\$23,123</u>	L	77.9%	<u>\$18,010</u>	21.0%	<u>\$4,864</u>	1.1%	<u>\$250</u>
SUBTOTAL FIXED	\$11,777,584		81.5%	\$9,604,384	16.3%	\$1,916,566	2.2%	\$256,634
OPERATING REVENUE	\$332,864	K	80.1%	\$266,788	11.6%	\$38,457	8.3%	\$27,619
TOTAL EXPENSES	\$22,521,597	K	80.1%	\$18,050,875	11.6%	\$2,601,988	8.3%	\$1,868,734
Less:								
Miscellaneous Income	(\$244,795)	K	80.1%	(\$196,201)	11.6%	(\$28,282)	8.3%	(\$20,312)
Interest Income	(\$21,464)	K	80.1%	(\$17,203)	11.6%	(\$2,480)	8.3%	(\$1,781)
Merchand & Jobbing	(\$18,811)	K	80.1%	(\$15,077)	11.6%	(\$2,173)	8.3%	(\$1,561)
6.9% of Water Prot Fee	(\$45,581)	K	80.1%	(\$36,532)	11.6%	(\$5,266)	8.3%	(\$3,782)
Total Revenue Requirement	\$22,190,946	K	80.1%	\$17,785,861	11.6%	\$2,563,787	8.3%	\$1,841,298

(1) See Joint Settl. Sch. 3B

**ALLOCATION OF RATE YEAR LABOR EXPENSES TO
GENERAL WATER, FIRE, AND CUSTOMER SERVICE**

EXPENSE ITEM	RATE YEAR	ALLOC.	GENERAL WATER		FIRE SERVICE		CUST. SERVICE	
	LABOR	SYMBOL (1)	%	AMOUNT	%	AMOUNT	%	AMOUNT
SOURCE OF SUPPLY								
maint of wells/supply study	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
purchased water	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
PUMPING OPERATIONS								
fuel for pumping	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
power	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
labor-pumping	\$81,365	P	79.7%	\$64,881	20.3%	\$16,485	0.0%	\$0
pumping expense	\$0	P	79.7%	\$0	20.3%	\$0	0.0%	\$0
maint. - structures & improv	\$77,388	P	79.7%	\$61,710	20.3%	\$15,679	0.0%	\$0
diesel oil	\$0	P	79.7%	\$0	20.3%	\$0	0.0%	\$0
maint. - equip	\$38,755	P	79.7%	\$30,903	20.3%	\$7,852	0.0%	\$0
WATER TREATMENT								
chemicals	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
labor	\$185,126	A	99.5%	\$184,200	0.5%	\$926	0.0%	\$0
operating / Mishnock	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
maint. - water treat equip	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
maint. - structure	\$0	A	99.5%	\$0	0.5%	\$0	0.0%	\$0
TRANS & DISTR. EXPENSE								
storage facilities exp.	\$0	D	75.0%	\$0	25.0%	\$0	0.0%	\$0
labor	\$0	B	74.8%	\$0	25.2%	\$0	0.0%	\$0
supplies	\$0	B	74.8%	\$0	25.2%	\$0	0.0%	\$0
labor-meter	\$51,207	C	0.0%	\$0	0.0%	\$0	100.0%	\$51,207
meter - supp & exp	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	\$0
cust. install.	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	\$0
misc.	\$0	F	48.3%	\$0	23.0%	\$0	28.7%	\$0
maint - struct. & improv.	\$0	F	48.3%	\$0	23.0%	\$0	28.7%	\$0
maint.- res & stdp	\$18,468	D	75.0%	\$13,851	25.0%	\$4,617	0.0%	\$0
maint. - mains	\$421,144	B	74.8%	\$315,016	25.2%	\$106,128	0.0%	\$0
maint. - service	\$113,448	C	0.0%	\$0	0.0%	\$0	100.0%	\$113,448
maint. - meters	\$48,963	C	0.0%	\$0	0.0%	\$0	100.0%	\$48,963
maint. - hydrants	\$36,713	E	0.5%	\$184	99.5%	\$36,530	0.0%	\$0
construction labor	\$0	F	48.3%	\$0	23.0%	\$0	28.7%	\$0
CUSTOMER ACCOUNT								
labor- meter read	\$108,840	C	0.0%	\$0	0.0%	\$0	100.0%	\$108,840
cust record labor	\$202,101	C	0.0%	\$0	0.0%	\$0	100.0%	\$202,101
cust records sup	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	\$0
meter read supplies	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	\$0
uncollectible	\$0	C	0.0%	\$0	0.0%	\$0	100.0%	\$0
ADMIN. & GENERAL								
salaries	\$452,860	G	73.3%	\$331,911	7.7%	\$34,687	19.0%	\$86,262
office supplies & expenses	\$0	G	73.3%	\$0	7.7%	\$0	19.0%	\$0
insurance (property/liability/wc)	\$0	G	73.3%	\$0	7.7%	\$0	19.0%	\$0
OPEB Trust Contrib.	\$0	H	55.8%	\$0	11.9%	\$0	32.4%	0
employee benefits	\$0	H	55.8%	\$0	11.9%	\$0	32.4%	0
maint. - plant	\$121,111	G	73.3%	\$88,765	7.7%	\$9,277	19.0%	\$23,070
maint. - vehicles	\$3,658	G	73.3%	\$2,681	7.7%	\$280	19.0%	\$697
miscellaneous	\$0	G	73.3%	\$0	7.7%	\$0	19.0%	\$0
vacation, holiday, sick	\$330,384	H	55.8%	\$184,317	11.9%	\$39,161	32.4%	106,906
regul. exp.	\$0	G	73.3%	\$0	7.7%	\$0	19.0%	\$0
outside service	\$0	G	73.3%	\$0	7.7%	\$0	19.0%	\$0
TOTAL LABOR	\$2,291,533	H	55.8%	\$1,278,419	11.9%	\$271,622	32.4%	\$741,493

(1) See Joint Settl. Sch. 3B

ALLOCATION SYMBOLS

ALLOCATION SYMBOL	GEN'L WATER	FIRE SERVICE	CUST SERVICE	
A	99.50%	0.50%	0.00%	Supply & Treatment
B	74.80%	25.20%	0.00%	T&D Mains
C	0.00%	0.00%	100.00%	Meters
D	75.00%	25.00%	0.00%	Storage
E	0.50%	99.50%	0.00%	Hydrants
F	48.26%	23.00%	28.74%	Misc T&D
G	73.29%	7.66%	19.05%	Direct O&M (50% of Purch Water) Benefits & Vacation
H	55.79%	11.85%	32.36%	Labor
I	78.18%	19.76%	2.06%	IFR Costs (same as Debt/Capital)
J	78.18%	19.76%	2.06%	Debt/Capital
K	80.15%	11.55%	8.30%	Total Expense
L	77.89%	21.03%	1.08%	PILOT
M	100.00%	0.00%	0.00%	Meter Replacement Program - all costs to small meter rate
P	79.74%	20.26%	0.00%	Pumping Facilities

Symbol B	Gal/Min	%
Model Max. Day	10,410	74.84%
Fire Demand	3,500	25.16%
Max. Day Plus Fire	13,910	100.00%

Symbol J - Debt Service/CIP	Plant In Service	Symbol	Gen Water	Fire	Cust A	Cust B
Plant Value 6/30/2015						
Source of Supply	\$1,841,541	A	\$1,832,333	\$9,208	\$0	\$0
Pumping Plant	\$8,413,011	A	\$8,370,946	\$42,065	\$0	\$0
Water Treat. Plant	\$22,057,416	A	\$21,947,129	\$110,287	\$0	\$0
T&D Storage	\$9,696,568	D	\$7,272,426	\$2,424,142	\$0	\$0
T&D Mains	\$95,652,793	B	\$71,548,289	\$24,104,504	\$0	\$0
T&D Hydrants	\$1,362,339	E	\$6,812	\$1,355,527	\$0	\$0
T&D Services	\$2,919,253	C	\$0	\$0	\$2,919,253	\$0
T&D Meters	\$2,193	C	\$0	\$0	\$2,193	\$0
General Plant	\$3,103,245	J	\$2,426,232	\$613,144	\$63,869	\$0
General Structures	\$727,760	J	\$568,990	\$143,792	\$14,978	\$0
Total	\$145,776,119		\$113,973,156	\$28,802,669	\$3,000,294	\$0
Percent			78.18%	19.76%	2.06%	0.00%

Symbol L - PILOT	Total	Symbol	Gen Water	Fire	Cust A	Cust B
Storage	\$7,258	D	\$5,443	\$1,814	\$0	\$0
Office	\$1,311	G	\$961	\$100	\$125	\$125
PS/Wells/Treatment	\$14,554	P	\$11,605	\$2,949	\$0	\$0
Total	\$23,123		\$18,010	\$4,864	\$125	\$125
Percent			77.89%	21.03%	0.54%	0.54%

Symbol M - Meter Replacement Program

The Authority is proposing to replace all residential meters that are 2" and less. Accordingly, we propose to assign all the meter replacement costs to the small meter rate (for meters 2" and less).

Symbol P - Pumping Facilities (per Decision in Dockets 2098, 2555, 3660, 4067)

	Percent	Symbol	Gen Water	Fire	Cust A	Cust B
Supply Well Pumps	20.00%	A	19.90%	0.10%	0.00%	0.00%
Distribution Pumps	80.00%	B	59.84%	20.16%	0.00%	0.00%
Total	100.00%	P	79.74%	20.26%	0.00%	0.00%

PROPOSED FIRE SERVICE CHARGES

PUBLIC FIRE SERVICE

Quarterly Charge/Hydrant =	\$181.13
Plus Billing Charge =	\$8.72

PRIVATE FIRE SERVICE

<u>SERVICE SIZE</u> <u>(inches)</u>	<u>QUARTERLY</u> <u>CHARGE</u>
4	\$72.90
6	\$195.16
8	\$406.04
10	\$723.24
12	\$1,162.88
HYDRANT	\$195.16

**ALLOCATION OF FIRE SERVICE EXPENSES
TO PUBLIC AND PRIVATE FIRE SERVICE**

	<u>NUMBER</u>	<u>DEMAND FACTOR (1)</u>	<u>NO. OF EQUIVS.</u>	<u>PERCENT OF DEMAND</u>	<u>NON-HYDR. REQUIRED</u>	<u>DIRECT HYDRANT</u>	<u>TOTAL</u>
PUBLIC FIRE SERVICE							
Hydrants	2,357	111.31	262,360	89.84%	\$2,210,877	\$102,812	\$2,313,689
PRIVATE FIRE SERVICE							
SIZE (IN)							
4	16	38.32	613				
6	95	111.31	10,575				
8	16	237.21	3,795				
10	1	426.58	427				
12	1	689.04	689				
HYDRANTS	<u>122</u>	<u>111.31</u>	<u>13,580</u>				
TOTAL-PRIV.	<u>251</u>		<u>29,679</u>	10.16%	\$250,097	\$0	\$250,097
GRAND TOTALS	2,608		292,038	100.00%	\$2,460,975	\$102,812	\$2,563,787
Total Fire Allocation							\$2,563,787
Less Direct Hydrant Related							
O&M							(\$82,555)
Debt							(\$20,257)
Net Non-Hydrant							\$2,460,975

(1) Based on size to the 2.63 power.

DETERMINATION OF FIRE SERVICE CHARGES

<u>PUBLIC FIRE PROTECTION</u>		<u>CALCULATED CHARGE</u>
PUBLIC FIRE ALLOCATION (1)	\$1,707,648	
----- =	----- =	\$724.50
NUMBER OF PUBLIC HYDRANTS	2,357	
	TOTAL QUARTERLY + BILLING	\$181.13
		\$8.72

PRIVATE FIRE PROTECTION

PRIVATE FIRE ALLOCATION (1,2)	\$198,848	
----- =	----- =	\$6.70 /EQUIV.
NO. OF EQUIV. UNITS	29,679	

<u>SIZE (IN)</u>	<u>DEMAND FACTOR</u>	<u>ANNUAL CHARGE</u>	<u>QUARTERLY CHARGE</u>	<u>BILLING CHARGE</u>	<u>CALCULATED CHARGE</u>
4	38.32	\$256.74	\$64.19	\$8.72	\$72.90
6	111.31	\$745.79	\$186.45	\$8.72	\$195.16
8	237.21	\$1,589.30	\$397.32	\$8.72	\$406.04
10	426.58	\$2,858.11	\$714.53	\$8.72	\$723.24
12	689.04	\$4,616.64	\$1,154.16	\$8.72	\$1,162.88
HYDRANTS	111.31	\$745.79	\$186.45	\$8.72	\$195.16

(1) Allocation from Sch 4A. Less subsidy

(2) Private Fire includes allocated service maintenance costs as detailed below less subsidy:

Service Line Maintenance Cost =	\$150,350	
Addtnl Allocation to Fire Service =	\$12,726	(8.46%)

Service Line Equivalents

<u>Meter Size (in)</u>	<u>Service Size (in)</u>	<u>Equivalents *</u>	<u>Metered Water Service</u>		<u>Private Fire Service</u>	
			<u>Number</u>	<u>Equivalents</u>	<u>Number</u>	<u>Equivalents</u>
5/8 & 3/4	1	1.00	22,085	22,085		
1	1.5	1.80	3,651	6,572		
1 1/2	2	3.30	333	1,099		
2	3	4.60	510	2,346		
3	4	6.30	12	76	16	101
4	6	9.60	92	883	95	912
6	8	16.90	96	1,622	138	2,332
>8	10	29.60	72	<u>2,131</u>	2	<u>59</u>
Total				36,814		3,404
				91.54%		8.46%

* See Sch 5D

Fire Protection Subsidy Calculation

	<u>Existing</u>	<u>Initial</u>	<u>Proposed</u>	<u>Difference</u>
Public Fire	\$1,313,603	\$2,313,725	\$1,707,684	\$606,041
Private Fire	<u>\$159,691</u>	<u>\$271,574</u>	<u>\$207,599</u>	<u>\$63,976</u>
Total	\$1,473,295	\$2,585,300	\$1,915,283	\$670,017

PROPOSED SERVICE CHARGES & DEMAND SURCHARGES

METER SIZE (inches)	<u>SERVICE CHARGE</u>		<u>DEMAND SURCHARGE</u>	
	<u>QUARTERLY</u> <u>ACCOUNTS</u>	<u>MONTHLY</u> <u>ACCOUNTS</u>	<u>QUARTERLY</u> <u>ACCOUNTS</u>	<u>MONTHLY</u> <u>ACCOUNTS</u>
5/8 &				
3/4	\$14.71	\$10.71	\$0.00	\$0.00
1	\$19.50	\$12.31	\$0.00	\$0.00
1 1/2	\$28.49	\$15.31	\$0.00	\$0.00
2	\$36.28	\$17.90	\$0.00	\$0.00
3	\$46.47	\$21.30	\$0.00	\$0.00
4	\$66.24	\$27.89	\$0.00	\$0.00
6	\$109.99	\$42.47	\$0.00	\$0.00
>8	\$186.09	\$67.84	\$0.00	\$0.00

ALLOCATION OF CUSTOMER SERVICE EXPENSES

<u>EXPENSE ITEM</u>	<u>TOTAL</u>	<u>ALLOC.</u>	<u><-CUST. METER-></u>		<u><--CUST. BILL--></u>	
	<u>CUST. SERV.</u>	<u>SYMBOL (1)</u>	<u>%</u>	<u>AMOUNT</u>	<u>%</u>	<u>AMOUNT</u>
TRANS & DISTR. EXPENSE						
labor	\$0	AA	100.00%	\$0	0.00%	0.00
supplies	\$0	AA	100.00%	\$0	0.00%	0.00
labor-meter	\$54,709	AA	100.00%	\$54,709	0.00%	0.00
meter - supp & exp	\$13	AA	100.00%	\$13	0.00%	0.00
cust. install.	\$0	AA	100.00%	\$0	0.00%	0.00
misc.	\$3,984	AA	100.00%	\$3,984	0.00%	0.00
maint - struct. & improv.	\$17,127	AA	100.00%	\$17,127	0.00%	0.00
maint.- res & stdp	\$0	AA	100.00%	\$0	0.00%	0.00
maint. - mains	\$0	AA	100.00%	\$0	0.00%	0.00
maint. - service	\$150,350	AA	100.00%	\$150,350	0.00%	0.00
maint. - meters	\$145,946	AA	100.00%	\$145,946	0.00%	0.00
maint. - hydrants	\$0	AA	100.00%	\$0	0.00%	0.00
construction labor	(\$20)	AA	100.00%	(\$20)	0.00%	0.00
CUSTOMER ACCOUNT						
labor- meter read	\$115,029	BB	0.00%	\$0	100.00%	115,028.76
cust record labor	\$212,511	BB	0.00%	\$0	100.00%	212,510.92
cust records sup	\$100,171	BB	0.00%	\$0	100.00%	100,171.00
meter read supplies	\$2,619	BB	0.00%	\$0	100.00%	2,618.99
uncollectible	\$60,009	BB	0.00%	\$0	100.00%	60,008.92
ADMIN. & GENERAL						
salaries	\$88,598	CC	42.46%	\$37,617	57.54%	50,981.12
office supplies & expenses	\$51,307	CC	42.46%	\$21,784	57.54%	29,523.44
insurance (property/liability/w	\$51,305	CC	42.46%	\$21,783	57.54%	29,521.80
OPEB Trust Contrib.	\$25,886	CC	42.46%	\$10,991	57.54%	14,895.56
employee benefits	\$312,531	DD	41.02%	\$128,213	58.98%	184,318.43
maint. - plant	\$29,112	CC	42.46%	\$12,360	57.54%	16,751.72
maint. - vehicles	\$12,006	CC	42.46%	\$5,097	57.54%	6,908.48
miscellaneous	\$3,155	CC	42.46%	\$1,339	57.54%	1,815.19
vacation, holiday, sick	\$101,148	DD	41.02%	\$41,495	58.98%	59,653.09
regul. exp.	\$29,086	CC	42.46%	\$12,349	57.54%	16,736.87
outside service	<u>\$17,899</u>	CC	42.46%	<u>\$7,600</u>	57.54%	<u>10,299.49</u>
SUBTOTAL O&M	\$1,584,480	CC	42.46%	\$672,736	57.54%	911,743.79
FIXED CHARGES						
Debt Service	\$44,837	JJ	100.00%	\$44,837	0.00%	0.00
O&M Reserve	\$2,702	CC	42.46%	\$1,147	57.54%	1,554.83
R&R Reserve	\$2,724	JJ	100.00%	\$2,724	0.00%	0.00
O&M Reserve	\$2,058	JJ	100.00%	\$2,058	0.00%	0.00
Infrastructure Replacement	\$111,140	JJ	100.00%	\$111,140	0.00%	0.00
Meter Replacement	\$0	JJ	100.00%	\$0	0.00%	0.00
CIP	\$36,096	JJ	100.00%	\$36,096	0.00%	0.00
Payroll Taxes	\$56,827	DD	41.02%	\$23,313	58.98%	33,514.43
PILOT	<u>\$250</u>	EE	48.57%	<u>\$121</u>	51.43%	<u>128.48</u>
SUBTOTAL FIXED	\$256,634			\$221,436		35,197.74
OPERATING REVENUE						
OPERATING REVENUE	\$27,619	EE	48.57%	\$13,414	51.43%	14,205.54
TOTAL EXPENSES						
TOTAL EXPENSES	\$1,868,734	EE	48.57%	\$907,587	51.43%	961,147.07
Less:						
Miscellaneous Income	(\$20,312)	EE	48.57%	(\$9,865)	51.43%	(10,447.05)
Merchand & Jobbing	(\$1,561)	EE	48.57%	(\$758)	51.43%	(802.78)
6.9% of Water Prot Fee	(\$3,782)	EE	48.57%	(\$1,837)	51.43%	(1,945.23)
	=====			=====		=====
Total Revenue Requirement	\$1,843,079	EE	48.57%	\$895,127	51.43%	947,952.01

(1) See Joint Settl. Sch. 5C

ALLOCATION OF CUSTOMER SERVICE LABOR EXPENSES

<u>EXPENSE ITEM</u>	<u>TOTAL</u>	<u>ALLOC.</u>	<u><-CUST. METER-></u>		<u><--CUST. BILL--></u>	
	<u>CUST. SERV.</u>	<u>SYMBOL (1)</u>	<u>%</u>	<u>AMOUNT</u>	<u>%</u>	<u>AMOUNT</u>
TRANS & DISTR. EXPENSE			-	-----	-	-----
labor	0.00	AA	100.00%	\$0	0.00%	0.00
supplies	0.00	AA	100.00%	\$0	0.00%	0.00
labor-meter	51,207.23	AA	100.00%	\$51,207	0.00%	0.00
meter - supp & exp	0.00	AA	100.00%	\$0	0.00%	0.00
cust. install.	0.00	AA	100.00%	\$0	0.00%	0.00
misc.	0.00	AA	100.00%	\$0	0.00%	0.00
maint.- res & stdp	0.00	AA	100.00%	\$0	0.00%	0.00
maint. - mains	0.00	AA	100.00%	\$0	0.00%	0.00
maint. - service	113,447.63	AA	100.00%	\$113,448	0.00%	0.00
maint. - meters	48,962.86	AA	100.00%	\$48,963	0.00%	0.00
maint. - hydrants	0.00	AA	100.00%	\$0	0.00%	0.00
construction labor	0.00	AA	100.00%	\$0	0.00%	0.00
CUSTOMER ACCOUNT						
labor- meter read	108,840.28	BB	0.00%	\$0	100.00%	108,840.28
cust record labor	202,101.46	BB	0.00%	\$0	100.00%	202,101.46
cust records sup	0.00	BB	0.00%	\$0	100.00%	0.00
meter read supplies	0.00	BB	0.00%	\$0	100.00%	0.00
uncollectible	0.00	BB	0.00%	\$0	100.00%	0.00
ADMIN. & GENERAL						
salaries	86,261.78	CC	42.46%	\$36,625	57.54%	49,636.88
office supplies & expenses	0.00	CC	42.46%	\$0	57.54%	0.00
insurance (property/liability/w	0.00	CC	42.46%	\$0	57.54%	0.00
OPEB Trust Contrib.	0.00	DD	41.02%	\$0	58.98%	0.00
employee benefits	0.00	DD	41.02%	\$0	58.98%	0.00
maint. - plant	23,069.54	CC	42.46%	\$9,795	57.54%	13,274.71
maint. - vehicles	696.77	CC	42.46%	\$296	57.54%	400.94
miscellaneous	0.00	CC	42.46%	\$0	57.54%	0.00
vacation, holiday, sick	106,905.57	DD	41.02%	\$43,857	58.98%	63,048.62
regul. exp.	0.00	CC	42.46%	\$0	57.54%	0.00
outside service	<u>0.00</u>	CC	42.46%	<u>\$0</u>	57.54%	<u>0.00</u>
TOTAL LABOR	741,493.12	DD	41.02%	\$304,190	58.98%	437,302.88

(1) See Joint Settl. Sch. 5C

ALLOCATION SYMBOLS - CUSTOMER SERVICE

<u>ALLOCATION</u> <u>SYMBOL</u>	<u>CUSTOM</u> <u>METER</u>	<u>CUSTOM</u> <u>BILL</u>	<u>TOTAL</u>
AA	100.00%	0.00%	100.00% Meters
BB	0.00%	100.00%	100.00% Billing
CC	42.46%	57.54%	100.00% O&M
DD	41.02%	58.98%	100.00% Labor
EE	48.57%	51.43%	100.00% All Expenses
JJ	100.00%	0.00%	100.00% Capital/Debt

DETERMINATION OF EQUIVALENT METERS

<u>METER SIZE (IN)</u>	<u>NUMBER</u>	<u>EQUIVALENCY FACTOR (1)</u>	<u>EQUIV. 5/8 IN. METERS</u>	<u>DEMAND FACTOR (2)</u>	<u>DEMAND EQUIVLNTS</u>
5/8 & 3/4	22,085	1.00	22,085	1.00	22,085
1	3,651	1.80	6,572	1.67	6,085
1 1/2	333	3.30	1,099	3.33	1,110
2	510	4.60	2,346	5.33	2,720
3	12	6.30	76	10.67	128
4	92	9.60	883	16.67	1,533
6	96	16.90	1,622	33.33	3,200
>8	<u>72</u>	29.60	<u>2,131</u>	53.33	<u>3,840</u>
TOTALS	26,851		36,814		40,701

(1) Based on prior KCWA docket

(2) Based on rated capacity of meter sizes

DETERMINATION OF PROPOSED SERVICE & DEMAND CHARGES

SERVICE CHARGES

BILLING CHARGE

CUST. BILLING ALLOC. (1)	=	\$947,952	=	
-----		-----		\$8.72 PER BILLING
NUMBER OF BILLINGS		108,752		

METER CHARGE

CUST. METER ALLOC. (1,3)	=	\$882,401	=	
-----		-----		\$23.97 / EQ. METER/YR
NO. EQUIV. METERS (2)		36,814		

TOTAL SERVICE CHARGES

METER SIZE (IN)	<u>QUARTERLY ACCOUNTS</u>			<u>MONTHLY ACCOUNTS</u>		
	METER CHARGE	BILLING CHARGE	TOTAL CHARGE	METER CHARGE	BILLING CHARGE	TOTAL CHARGE
5/8 & 3/4	\$5.99	\$8.72	\$14.71	\$2.00	\$8.72	\$10.71
1	\$10.79	\$8.72	\$19.50	\$3.60	\$8.72	\$12.31
1 1/2	\$19.77	\$8.72	\$28.49	\$6.59	\$8.72	\$15.31
2	\$27.56	\$8.72	\$36.28	\$9.19	\$8.72	\$17.90
3	\$37.75	\$8.72	\$46.47	\$12.58	\$8.72	\$21.30
4	\$57.53	\$8.72	\$66.24	\$19.18	\$8.72	\$27.89
6	\$101.27	\$8.72	\$109.99	\$33.76	\$8.72	\$42.47
>8	\$177.37	\$8.72	\$186.09	\$59.12	\$8.72	\$67.84

(1) See Joint Settl. Sch. 5A

(2) See Joint Settl. Sch. 5D

(3) Less allocation of Service Maintenance Costs to Private Fire Service - see Joint Settl. Sch. 4B and less

DEMAND SURCHARGE

DEMAND COSTS (4)	=	\$0	=	
-----		-----		\$0.00 / DEMAND EQ./YR
NO. DEMAND EQUIVS (2)		40,701		

TOTAL DEMAND SURCHARGES

METER SIZE (IN)	QUARTERLY CHARGE	MONTHLY CHARGE
5/8 & 3/4	\$0.00	\$0.00
1	\$0.00	\$0.00
1 1/2	\$0.00	\$0.00
2	\$0.00	\$0.00
3	\$0.00	\$0.00
4	\$0.00	\$0.00
6	\$0.00	\$0.00
>8	\$0.00	\$0.00

(4) Share of fixed costs allocated based on meter capacity ratios

Costs to be recovered \$0

**ALLOCATION OF GENERAL WATER EXPENSES TO
BASE AND EXTRA CAPACITY**

EXPENSE ITEM	TOTAL	ALLOC. SYMBOL (1)	BASE	EXTRA CAP.-MAX DAY	EXTRA CAP.-PEAK HR			
	GEN'L WATER		%					AMOUNT
SOURCE OF SUPPLY								
maint of wells/supply study	\$18,427	aa	100.00%	\$18,427	0.00%	\$0	0.00%	\$0
purchased water	\$4,276,093	aa	100.00%	\$4,276,093	0.00%	\$0	0.00%	\$0
PUMPING OPERATIONS								
fuel for pumping	\$23,575	aa	100.00%	\$23,575	0.00%	\$0	0.00%	\$0
power	\$765,834	aa	100.00%	\$765,834	0.00%	\$0	0.00%	\$0
labor-pumping	\$68,455	pp	62.64%	\$42,880	37.36%	\$25,575	0.00%	\$0
pumping expense	\$0	pp	62.64%	\$0	37.36%	\$0	0.00%	\$0
maint. - structures & improv	\$68,903	pp	62.64%	\$43,161	37.36%	\$25,742	0.00%	\$0
diesel oil	\$0	pp	62.64%	\$0	37.36%	\$0	0.00%	\$0
maint. - equip	\$46,709	pp	62.64%	\$29,259	37.36%	\$17,451	0.00%	\$0
WATER TREATMENT								
chemicals	\$162,097	aa	100.00%	\$162,097	0.00%	\$0	0.00%	\$0
labor	\$193,031	aa	100.00%	\$193,031	0.00%	\$0	0.00%	\$0
operating / Mishnock	\$68,055	aa	100.00%	\$68,055	0.00%	\$0	0.00%	\$0
maint. - water treat equip	\$18,263	aa	100.00%	\$18,263	0.00%	\$0	0.00%	\$0
maint. - structure	\$677	aa	100.00%	\$677	0.00%	\$0	0.00%	\$0
TRANS & DISTR. EXPENSE								
storage facilities exp.	\$0	dd	0.00%	\$0	0.00%	\$0	100.00%	\$0
labor	\$18,570	bb	53.30%	\$9,898	46.70%	\$8,672	0.00%	\$0
supplies	\$83,580	bb	53.30%	\$44,548	46.70%	\$39,032	0.00%	\$0
labor-meter	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
meter - supp & exp	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
cust. install.	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
misc.	\$6,689	ff	51.89%	\$3,471	45.40%	\$3,037	2.71%	\$181
maint - struct. & improv.	\$28,760	ff	51.89%	\$14,923	45.40%	\$13,057	2.71%	\$780
maint.- res & stdp	\$15,979	dd	0.00%	\$0	0.00%	\$0	100.00%	\$15,979
maint. - mains	\$470,905	bb	53.30%	\$250,992	46.70%	\$219,913	0.00%	\$0
maint. - service	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
maint. - meters	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
maint. - hydrants	\$415	aa	100.00%	\$415	0.00%	\$0	0.00%	\$0
construction labor	(\$33)	ff	51.89%	(\$17)	45.40%	(\$15)	2.71%	(\$1)
CUSTOMER ACCOUNT								
labor- meter read	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
cust record labor	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
cust records sup	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
meter read supplies	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
W/P Reimbursement	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
ADMIN. & GENERAL								
salaries	\$340,899	gg	88.84%	\$302,840	10.60%	\$36,132	0.57%	\$1,928
office supplies & expenses	\$197,417	gg	88.84%	\$175,376	10.60%	\$20,924	0.57%	\$1,116
insurance (property/liability/wc)	\$197,406	gg	88.84%	\$175,367	10.60%	\$20,923	0.57%	\$1,116
OPEB Trust Contrib.	\$44,631	hh	75.59%	\$33,737	22.93%	\$10,232	1.48%	\$663
employee benefits	\$538,840	hh	75.59%	\$407,310	22.93%	\$123,529	1.48%	\$8,001
maint. - plant	\$112,015	gg	88.84%	\$99,509	10.60%	\$11,872	0.57%	\$633
maint. - vehicles	\$46,195	gg	88.84%	\$41,038	10.60%	\$4,896	0.57%	\$261
miscellaneous	\$12,138	gg	88.84%	\$10,783	10.60%	\$1,286	0.57%	\$69
vacation, holiday, sick	\$174,391	hh	75.59%	\$131,822	22.93%	\$39,979	1.48%	\$2,589
regul. exp.	\$111,916	gg	88.84%	\$99,421	10.60%	\$11,862	0.57%	\$633
outside service	<u>\$68,870</u>	gg	88.84%	<u>\$61,181</u>	10.60%	<u>\$7,300</u>	0.57%	<u>\$389</u>
SUBTOTAL O&M	\$8,179,704		91.74%	\$7,503,967	7.84%	\$641,399	0.42%	\$34,338

**ALLOCATION OF GENERAL WATER EXPENSES TO
BASE AND EXTRA CAPACITY**

EXPENSE ITEM	TOTAL	ALLOC. SYMBOL (1)	BASE		EXTRA CAP.-MAX DAY		EXTRA CAP.-PEAK HR	
	GEN'L WATER		%	AMOUNT	%	AMOUNT	%	AMOUNT
FIXED CHARGES								
Debt Service	\$1,703,232	jj	60.52%	\$1,030,815	32.93%	\$560,804	6.55%	\$111,613
O&M Reserve	\$10,397	gg	88.84%	\$9,236	10.60%	\$1,102	0.57%	\$59
R&R Reserve	\$103,465	jj	60.52%	\$62,618	32.93%	\$34,067	6.55%	\$6,780
Renewal & Replacement - Equip	\$78,184	jj	60.52%	\$47,318	32.93%	\$25,743	6.55%	\$5,123
Infrastructure Replacement	\$4,221,920	ii	60.52%	\$2,555,152	32.93%	\$1,390,103	6.55%	\$276,664
Meter Replacement	\$2,000,000	mm	100.00%	\$2,000,000	0.00%	\$0	0.00%	\$0
CIP	\$1,371,200	ii	60.52%	\$829,866	32.93%	\$451,479	6.55%	\$89,855
Payroll Taxes	\$97,977	hh	75.59%	\$74,061	22.93%	\$22,461	1.48%	\$1,455
PILOT	<u>\$18,010</u>	ll	44.60%	<u>\$8,033</u>	25.01%	<u>\$4,505</u>	30.38%	<u>\$5,472</u>
SUBTOTAL FIXED	\$9,604,384			\$6,617,098	25.93%	\$2,490,264	5.17%	\$497,022
OPERATING REVENUE	\$266,788	kk	79.40%	\$211,837	17.61%	\$46,980	2.99%	\$7,971
TOTAL EXPENSES	\$18,050,875	kk	79.40%	\$14,332,902	17.61%	\$3,178,642	2.99%	\$539,331
Less:								
Miscellaneous Income	(\$196,201)	kk	79.40%	(\$155,789)	17.61%	(\$34,550)	2.99%	(\$5,862)
Interest Income	(\$17,203)	kk	79.40%	(\$13,660)	17.61%	(\$3,029)	2.99%	(\$514)
Merchand & Jobbing	(\$15,077)	kk	79.40%	(\$11,971)	17.61%	(\$2,655)	2.99%	(\$450)
6.9% of Water Prot Fee	(\$36,532)	kk	79.40%	(\$29,008)	17.61%	(\$6,433)	2.99%	(\$1,092)
	=====			=====		=====		=====
Total Revenue Requirement	\$17,785,861	kk	79.40%	\$14,122,473	17.61%	\$3,131,975	2.99%	\$531,413
Less: Demand Surcharge Rev	<u>\$0</u>	jj	60.52%	\$0	32.93%	\$0	6.55%	\$0
Required From Metered Rates	\$17,785,861			\$14,122,473		\$3,131,975		\$531,413
Less: Meter replace. costs	(\$2,000,000)	mm	100.00%	(\$2,000,000)	0.00%	\$0	0.00%	\$0
Plus Fire Subsidy	\$670,017			\$670,017				
Net After Meter Replacement	\$16,455,878			\$12,792,490		\$3,131,975		\$531,413
(1) See Joint Settl. Sch. 6B				77.74%		19.03%		3.23%

**ALLOCATION OF GENERAL WATER LABOR EXPENSE TO
BASE AND EXTRA CAPACITY**

EXPENSE ITEM	TOTAL	ALLOC. SYMBOL (1)	BASE		EXTRA CAP.-MAX DAY		EXTRA CAP.-PEAK HR	
	GEN'L WATER		%	AMOUNT	%	AMOUNT	%	AMOUNT
PUMPING OPERATIONS								
labor-pumping	\$64,881	pp	62.64%	\$40,641	37.36%	\$24,239	0.00%	\$0
maint. - structures & improv	\$61,710	pp	62.64%	\$38,655	37.36%	\$23,055	0.00%	\$0
maint. - equip	\$30,903	pp	62.64%	\$19,358	37.36%	\$11,545	0.00%	\$0
WATER TREATMENT								
labor	\$184,200	aa	100.00%	\$184,200	0.00%	\$0	0.00%	\$0
TRANS & DISTR. EXPENSE								
labor	\$0	bb	53.30%	\$0	46.70%	\$0	0.00%	\$0
maint.- res & stdp	\$13,851	dd	0.00%	\$0	0.00%	\$0	100.00%	\$13,851
maint. - mains	\$315,016	bb	53.30%	\$167,903	46.70%	\$147,112	0.00%	\$0
maint. - hydrants	\$184	aa	100.00%	\$184	0.00%	\$0	0.00%	\$0
CUSTOMER ACCOUNT								
labor- meter read	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
cust record labor	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
cust records sup	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
meter read supplies	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
uncollectible	\$0	cc	0.00%	\$0	0.00%	\$0	0.00%	\$0
ADMIN. & GENERAL								
salaries	\$331,911	gg	88.84%	\$294,855	10.60%	\$35,179	0.57%	\$1,877
maint. - plant	\$88,765	gg	88.84%	\$78,855	10.60%	\$9,408	0.57%	\$502
maint. - vehicles	\$2,681	gg	88.84%	\$2,382	10.60%	\$284	0.57%	\$15
miscellaneous	\$0	gg	88.84%	\$0	10.60%	\$0	0.57%	\$0
vacation, holiday, sick	\$184,317	hh	75.59%	\$139,326	22.93%	\$42,255	1.48%	\$2,737
regul. exp.	\$0	gg	88.84%	\$0	10.60%	\$0	0.57%	\$0
outside service	\$0	gg	88.84%	\$0	10.60%	\$0	0.57%	\$0
TOTAL LABOR	\$1,278,419	hh	75.59%	\$966,359	22.93%	\$293,078	1.48%	\$18,982

(1) See Joint Settl. Sch. 6B

ALLOCATION SYMBOLS - GENERAL WATER

ALLOCATION SYMBOL	BASE %	EXTRA CAPACITY		TOTAL	
		MAX DAY %	PEAK HOUR %		
aa	100.00%	0.00%	0.00%	100.00%	Supply & Treatment
bb	53.30%	46.70%	0.00%	100.00%	T&D Mains
cc	0.00%	0.00%	0.00%	0.00%	Meters
dd	0.00%	0.00%	100.00%	100.00%	Storage
ee	0.00%	0.00%	0.00%	0.00%	Not Used
ff	51.89%	45.40%	2.71%	100.00%	Misc. T&D
gg	88.84%	10.60%	0.57%	100.00%	Direct O&M plus 50% Purch Water
hh	75.59%	22.93%	1.48%	100.00%	Labor
ii	60.52%	32.93%	6.55%	100.00%	IFR - same as capital
jj	60.52%	32.93%	6.55%	100.00%	Debt/Capital
kk	79.40%	17.61%	2.99%	100.00%	All Expenses
ll	44.60%	25.01%	30.38%	100.00%	PILOT
pp	62.64%	37.36%	0.00%	100.00%	Pumping Facilities
mm	100.00%	0.00%	0.00%	100.00%	Meter costs just to small meter class base

Symbol bb

	Gal/Min	%
Average Day	5,552	53.33%
Max Day Increment	4,858	46.67%
Maximum Day	10,410	100.00%

Symbol jj

Item	Amount (1)	Symbol	BASE	EXTRA CAPACITY	
				MAX DAY	PEAK HOUR
Source of Supply	\$1,832,333	aa	\$1,832,333	\$0	\$0
Pumping Plant	\$8,370,946	pp	\$5,243,561	\$3,127,386	\$0
Water Treat. Plant	\$21,947,129	aa	\$21,947,129	\$0	\$0
T&D Storage	\$7,272,426	dd	\$0	\$0	\$7,272,426
T&D Mains	\$71,548,289	bb	\$38,135,238	\$33,413,051	\$0
T&D Hydrants	\$6,812	aa	\$6,812	\$0	\$0
T&D Meters	\$0	cc	\$0	\$0	\$0
General Plant	\$2,426,232	jj	\$1,468,382	\$798,858	\$158,992
General Structures	\$568,990	jj	\$344,359	\$187,345	\$37,286
Total	\$113,973,156		\$68,977,813	\$37,526,639	\$7,468,704
Percent			60.52%	32.93%	6.55%

(1) See Joint Settl. Sch. 3B

Symbol ll

Item	Amount (1)	Symbol	BASE	EXTRA CAPACITY	
				MAX DAY	PEAK HOUR
Storage	\$5,443	dd	\$0	\$0	\$5,443
Office	\$961	kk	\$763	\$169	\$29
PS/Wells	\$11,605	pp	\$7,270	\$4,336	\$0
Total	\$18,010		\$8,033	\$4,505	\$5,472
Percent			44.60%	25.01%	30.38%

(1) See Joint Settl. Sch. 3B

Symbol pp

Item	%	Symbol	BASE	EXTRA CAPACITY	
				MAX DAY	PEAK HOUR
Supply Wells	20.00%	aa	20.00%	0.00%	0.00%
Distribution	80.00%	bb	42.64%	37.36%	0.00%
Total	1	pp	62.64%	37.36%	0.00%

**ALLOCATION OF GENERAL WATER EXPENSES
TO CUSTOMER CLASSES**

Class Demands

CUSTOMER CLASS	AVERAGE DEMANDS		MAX DAY EXTRA CAPACITY			
	(GALS/DAY)	PERCENT	FACTOR [1]	OTAL GAL/DAY	XTRA GAL/DAY	PERCENT
Small	6,024,134	90.49%	2.7	16,265,161	10,241,027	96.83%
Medium	136,733	2.05%	2	273,466	136,733	1.29%
Large	<u>496,732</u>	<u>7.46%</u>	1.4	<u>695,425</u>	<u>198,693</u>	<u>1.88%</u>
Total	6,657,599	100.00%		17,234,052	10,576,453	100.00%

CUSTOMER CLASS	AVERAGE DEMANDS		PEAK HOUR EXTRA CAPACITY			
	(GALS/DAY)	PERCENT	FACTOR	OTAL GAL/DAY	XTRA GAL/DAY	PERCENT
Small	6,024,134	90.49%	3.4	20,482,055	4,216,894	96.48%
Medium	136,733	2.05%	2.4	328,159	54,693	1.25%
Large	<u>496,732</u>	<u>7.46%</u>	1.6	<u>794,771</u>	<u>99,346</u>	<u>2.27%</u>
Total	6,657,599	100.00%		21,604,985	4,370,933	100.00%

[1] - Described in the April, 1992 Cost of Service Study and as used in the Dockets # 2098 through 4067

Allocation of Costs to Classes

CUSTOMER CLASS	BASE COSTS		MAX. DAY EXTRA CAPACITY		PEAK HR. EXTRA CAPACITY		TOTAL AMOUNT
	PERCENT	AMOUNT	PERCENT	AMOUNT	PERCENT	AMOUNT	
Small *	90.49%	\$13,575,296	96.83%	\$3,032,646	96.48%	\$512,685	\$17,120,627
Medium	2.05%	\$262,730	1.29%	\$40,490	1.25%	\$6,650	\$309,870
Large	<u>7.46%</u>	<u>\$954,464</u>	<u>1.88%</u>	<u>\$58,838</u>	<u>2.27%</u>	<u>\$12,078</u>	<u>\$1,025,381</u>
Total	100.00%	\$14,792,490	100.00%	\$3,131,975	100.00%	\$531,413	\$18,455,878

* Adjusted to include all meter replacement costs in small class rate.

METERED WATER RATES

Small (5/8-2" meters)

Total Expense (2)	\$17,120,627	=		=	
-----	-----				
Metered Sales (HCF) (1)	2,939,584	=		=	\$5.8240

Medium (3&4" meters)

Total Expense (2)	\$309,870	=		=	
-----	-----				
Metered Sales (HCF) (1)	66,721	=		=	\$4.6440

Large (6" & up meters)

Total Expense (2)	\$1,025,381	=		=	
-----	-----				
Metered Sales (HCF) (1)	242,389	=		=	\$4.2300

(1) See Sch 2

(2) See Sch 7

COMPARISON TO CURRENT RATES

		<u>Current</u>	<u>Proposed</u>	<u>\$ Change</u>	<u>% Change</u>
<u>METERED RATES</u>					
	Small (5/8-2" meters)	\$5.254	\$5.824	\$0.570	10.85%
	Medium (3&4" meters)	\$4.476	\$4.644	\$0.168	3.75%
	Large (6" & up meters)	\$3.816	\$4.230	\$0.414	10.85%
<u>SERVICE CHARGES</u>					
Quarterly	5/8 & 3/4	\$10.26	\$14.71	\$4.450	43.37%
	1	\$13.57	\$19.50	\$5.930	43.70%
	1 1/2	\$19.78	\$28.49	\$8.710	44.03%
	2	\$25.17	\$36.28	\$11.110	44.14%
	3	\$32.20	\$46.47	\$14.270	44.32%
	4	\$45.86	\$66.24	\$20.380	44.44%
	6	\$76.08	\$109.99	\$33.910	44.57%
	8 & up	\$126.66	\$186.09	\$59.430	46.92%
Monthly	5/8 & 3/4	\$7.51	\$10.71	\$3.200	42.61%
	1	\$8.61	\$12.31	\$3.700	42.97%
	1 1/2	\$10.67	\$15.31	\$4.640	43.49%
	2	\$12.47	\$17.90	\$5.430	43.54%
	3	\$14.82	\$21.30	\$6.480	43.72%
	4	\$19.37	\$27.89	\$8.520	43.99%
	6	\$29.44	\$42.47	\$13.030	44.26%
	8 & up	\$46.97	\$67.84	\$20.870	44.43%

COMPARISON TO CURRENT RATES**FIRE CHARGES**Fire Service (per quarter)

		<u>Current</u>	<u>Proposed</u>	<u>\$ Change</u>	<u>% Change</u>
Public	/hydrant	\$139.33	\$181.13	\$41.800	30.00%
	/bill	\$6.12	\$8.72	\$2.600	42.48%
Private (per quarter)					
	4 in	\$55.69	\$72.90	\$17.210	30.90%
	6 in	\$150.09	\$195.16	\$45.070	30.03%
	8 in	\$312.94	\$406.04	\$93.100	29.75%
	10 in	\$557.88	\$723.24	\$165.360	29.64%
	12 in	\$897.35	\$1,162.88	\$265.530	29.59%
	hydrant	\$150.09	\$195.16	\$45.070	30.03%

IMPACT OF PROPOSED RATES

METER SIZE	QUARTERLY USE - CU FT	CURRENT RATES	←----- PROPOSED ----->		
			NEW BILL	\$ INCREASE	% INCREASE
Small					
5/8	1,500	\$89.07	\$102.07	\$13.00	14.6%
5/8	2,000	\$115.34	\$131.19	\$15.85	13.7%
5/8	2,500	\$141.61	\$160.31	\$18.70	13.2%
5/8	3,500	\$194.15	\$218.55	\$24.40	12.6%
5/8	4,000	\$220.42	\$247.67	\$27.25	12.4%
5/8	5,000	\$272.96	\$305.91	\$32.95	12.1%
5/8	6,000	\$325.50	\$364.15	\$38.65	11.9%
5/8	6,666	\$360.49	\$402.94	\$42.45	11.8%
5/8	8,000	\$430.58	\$480.63	\$50.05	11.6%
5/8	10,000	\$535.66	\$597.11	\$61.45	11.5%
5/8	12,000	\$640.74	\$713.59	\$72.85	11.4%
5/8	14,000	\$745.82	\$830.07	\$84.25	11.3%
5/8	15,000	\$798.36	\$888.31	\$89.95	11.3%
5/8	20,000	\$1,061.06	\$1,179.51	\$118.45	11.2%
5/8	25,000	\$1,323.76	\$1,470.71	\$146.95	11.1%
1	30,000	\$1,589.77	\$1,766.70	\$176.93	11.1%
1	40,000	\$2,115.17	\$2,349.10	\$233.93	11.1%
1	46,666	\$2,465.40	\$2,737.33	\$271.93	11.0%
1	75,000	\$3,954.07	\$4,387.50	\$433.43	11.0%
2	100,000	\$5,279.17	\$5,860.28	\$581.11	11.0%
2	200,000	\$10,533.17	\$11,684.28	\$1,151.11	10.9%
2	300,000	\$15,787.17	\$17,508.28	\$1,721.11	10.9%
2	400,000	\$21,041.17	\$23,332.28	\$2,291.11	10.9%
2	600,000	\$31,549.17	\$34,980.28	\$3,431.11	10.9%
Medium					
3	200,000	\$8,984.20	\$9,334.47	\$350.27	3.9%
3	400,000	\$17,936.20	\$18,622.47	\$686.27	3.8%
3	600,000	\$26,888.20	\$27,910.47	\$1,022.27	3.8%
4	800,000	\$35,853.86	\$37,218.24	\$1,364.38	3.8%
4	1,000,000	\$44,805.86	\$46,506.24	\$1,700.38	3.8%
4	1,200,000	\$53,757.86	\$55,794.24	\$2,036.38	3.8%
Large					
6	400,000	\$15,340.08	\$17,029.99	\$1,689.91	11.0%
6	600,000	\$22,972.08	\$25,489.99	\$2,517.91	11.0%
6	800,000	\$30,604.08	\$33,949.99	\$3,345.91	10.9%
6	1,200,000	\$45,868.08	\$50,869.99	\$5,001.91	10.9%
6	1,333,333	\$50,956.07	\$56,509.98	\$5,553.91	10.9%
8	2,000,000	\$76,446.66	\$84,786.09	\$8,339.43	10.9%
8	5,000,000	\$190,926.66	\$211,686.09	\$20,759.43	10.9%
8	10,000,000	\$381,726.66	\$423,186.09	\$41,459.43	10.9%
Municipal Fire Service	400 hydrants	\$55,738.12	\$72,460.72	\$16,722.60	30.0%
Private Fire Service	3 Inch Service	\$150.09	\$195.16	\$45.07	30.0%

REVENUE RECONCILIATION

Service Charge:	<----- Current ----->			<----- Proposed ----->	
<u>Quarterly</u>	<u>Number</u>	<u>Rate</u>	<u>Revenue</u>	<u>Rate</u>	<u>Revenue</u>
5/8 & 3/4	88,320	\$10.26	\$906,163	\$14.71	\$1,299,187
1	14,600	\$13.57	\$198,122	\$19.50	\$284,700
1 1/2	1,296	\$19.78	\$25,635	\$28.49	\$36,923
2	2,008	\$25.17	\$50,541	\$36.28	\$72,850
3	44	\$32.20	\$1,417	\$46.47	\$2,045
4	356	\$45.86	\$16,326	\$66.24	\$23,581
6	356	\$76.08	\$27,084	\$109.99	\$39,156
8 & up	268	\$126.66	\$33,945	\$186.09	\$49,872
<u>Monthly</u>					
5/8 & 3/4	60	\$7.51	\$451	\$10.71	\$643
1	12	\$8.61	\$103	\$12.31	\$148
1 1/2	108	\$10.67	\$1,152	\$15.31	\$1,653
2	96	\$12.47	\$1,197	\$17.90	\$1,718
3	12	\$14.82	\$178	\$21.30	\$256
4	36	\$19.37	\$697	\$27.89	\$1,004
6	84	\$29.44	\$2,473	\$42.47	\$3,567
8 & up	60	\$46.97	\$2,818	\$67.84	\$4,070

REVENUE RECONCILIATION

		<u><----- Current -----></u>		<u><----- Proposed -----></u>	
	<u>Number</u>	<u>Rate</u>	<u>Revenue</u>	<u>Rate</u>	<u>Revenue</u>
Consumption Charge:	100/cu.ft.				
Proposed					
Small (5/8-2" meters)	2,939,584	\$5.25	\$15,444,574	\$5.82	\$17,120,137
Medium (3&4" meters)	66,721	\$4.48	\$298,644	\$4.64	\$309,853
Large (6" & up meters)	242,389	\$3.82	\$924,957	\$4.23	\$1,025,307
Fire Protection:					
Public Hydrants	2,357	\$557.32	\$1,313,603	\$724.52	\$1,707,694
# bills	32	\$6.12	\$196	\$8.72	\$279
Private Fire Protection					
4 in	16	\$222.76	\$3,564	\$291.60	\$4,666
6 in	95	\$600.36	\$57,034	\$780.64	\$74,161
8 in	16	\$1,251.76	\$20,028	\$1,624.16	\$25,987
10 in	1	\$2,231.52	\$2,232	\$2,892.96	\$2,893
12 in	1	\$3,589.40	\$3,589	\$4,651.52	\$4,652
hydrant	122	\$600.36	\$73,244	\$780.64	\$95,238
			=====		=====
Total			\$19,409,970		\$22,192,240
Plus: Misc Revenues			\$330,651		\$330,651
			=====		=====
Pro Forma Revenue			\$19,740,621		\$22,522,891
Required Revenue			\$22,521,597		\$22,521,597
Difference			-2,780,976		\$1,294
					0.01%
Increase in Revenues					\$2,782,270
Increase in Rate Revenues					\$2,782,270
Percent Increase in Total Revenues					14.09%
Percent increase in Rate Revenues					14.33%

SUMMARY OF COST OF SERVICE

	<u>Test Year</u>	<u>Adjustments</u>	<u>Rate Year</u>
Revenues			
Service Charges	\$1,268,303	\$553,071	\$1,821,375
Demand Surcharge:	\$0	\$0	\$0
Metered Rates	\$16,668,176	\$1,787,121	\$18,455,297
Fire Protection	\$1,473,490	\$442,078	\$1,915,568
Miscellaneous	<u>\$330,651</u>	<u>\$0</u>	<u>\$330,651</u>
<i>Total Revenue</i>	\$19,740,621	\$2,782,270	\$22,522,891
Expenses			
<u>O&M</u>			
Supply	\$4,999,638	(\$683,537)	\$4,316,101
Pumping	\$812,335	\$211,875	\$1,024,210
Treatment	\$310,572	\$133,773	\$444,345
T&D	\$1,164,782	\$130,014	\$1,294,796
Customer	\$470,456	\$19,883	\$490,339
Admin	<u>\$2,612,530</u>	<u>\$228,828</u>	<u>\$2,841,358</u>
Total O&M	\$10,370,313	\$40,836	\$10,411,149
<u>Fixed Charges</u>			
Debt Service	\$2,179,500	(\$1,000)	\$2,178,500
Reserves and Coverage	\$77,607	\$68,914	\$146,521
Renewal & Replacement	\$100,000	\$0	\$100,000
Infrastructure Replacement	\$5,400,000	\$0	\$5,400,000
Meter Replacement	\$0	\$2,000,000	\$2,000,000
CIP	\$0	\$1,753,819	\$1,753,819
Payroll Taxes	\$154,417	\$21,204	\$175,621
PILOT	<u>\$23,123</u>	<u>\$0</u>	<u>\$23,123</u>
Total Fixed	\$7,934,647	\$3,842,937	\$11,777,584
<u>Operating Revenue</u>	<u>\$583,313</u>	<u>(\$250,449)</u>	<u>\$332,864</u>
<i>Total Expenses</i>	\$18,888,273	\$3,633,324	\$22,521,597

PROPOSED STEP INCREASES

<i>YEAR 1 - CY 2018</i>		
Rate Year (FY 2017) Revenue Requirements =		\$22,190,946
Step Increases for 2018		
New Debt (see Joint Settl. Sch. 1D)	\$ 4,750	
Salaries (full yr) (See Joint Settl. Sch. 1D)	\$ 69,330	
Inflation (non-labor O&M)	\$ 275,573	
Additional Benefits	\$ 92,377	
Additional Meter Program Costs	\$ 300,000	
Additional CIP Costs	\$ (300,000)	
IFR Increase	\$ 600,000	
Rev. Stabiliz @ 1.5%	\$ 15,630	
	\$ 1,057,660	
FY 2018 Revenue Requirement =		\$23,248,606
Proposed Step Increase for FY 2018		4.77%

PROPOSED STEP RATES

	<u>Current</u>	<u>Proposed</u> <u>(FY2017)</u>	<u>Step Increase (CY</u> <u>2018)</u>
<u>Metered Rates</u>			
Small (5/8-2" meters)	\$5.254	\$5.824	\$6.102
Medium (3&4" meters)	\$4.476	\$4.644	\$4.865
Large (6" & up meters)	\$3.816	\$4.230	\$4.432
<u>Service Charges</u>			
<u>Quarterly</u>			
5/8 & 3/4	\$10.26	\$14.71	\$15.41
1	\$13.57	\$19.50	\$20.43
1 1/2	\$19.78	\$28.49	\$29.85
2	\$25.17	\$36.28	\$38.01
3	\$32.20	\$46.47	\$48.68
4	\$45.86	\$66.24	\$69.40
6	\$76.08	\$109.99	\$115.23
8 & up	\$126.66	\$186.09	\$194.96
<u>Monthly</u>			
5/8 & 3/4	\$7.51	\$10.71	\$11.22
1	\$8.61	\$12.31	\$12.90
1 1/2	\$10.67	\$15.31	\$16.04
2	\$12.47	\$17.90	\$18.75
3	\$14.82	\$21.30	\$22.32
4	\$19.37	\$27.89	\$29.22
6	\$29.44	\$42.47	\$44.49
8 & up	\$46.97	\$67.84	\$71.07
<u>Fire Service</u>			
Public \$/hydrant/quarter	\$139.33	\$181.13	\$189.76
\$/bill	\$6.12	\$8.72	\$9.14
Private (\$/quarter)			
4 in	\$55.69	\$72.90	\$76.37
6 in	\$150.09	\$195.16	\$204.46
8 in	\$312.94	\$406.04	\$425.39
10 in	\$557.88	\$723.24	\$757.71
12 in	\$897.35	\$1,162.88	\$1,218.30
hydrant	\$150.09	\$195.16	\$204.46

APPENDIX B

KENT COUNTY WATER AUTHORITY RATE SCHEDULE

Page 1
KCWA PUC DOCKET# 4611
EFFECTIVE: 1/1/2017

METER SALES VOLUME:

Applicable to all metered water in the Kent County system for residential, commercial and industrial consumption.

<u>Rates:</u>	<u>Rate Per 100 cu. ft.</u>
Small (5/8" to 2" meters)	\$5.824
Medium (3" to 4" meters)	\$4.644
Large (6" meters and up)	\$4.230

Terms of payment:

All metered sales bills are rendered quarterly or monthly and are due and payable in full when rendered.

METERED SALES SERVICE CHARGE:

Applicable to all metered sales of customers of Kent County Water Authority exclusive of fire service connections.

<u>Rates:</u>	<u>Meter Size (in)</u>	<u>Quarterly Accounts</u>	<u>Monthly Accounts</u>
	5/8 & 3/4	\$ 14.71	\$10.71
	1	\$ 19.50	\$12.31
	1 ½	\$ 28.49	\$15.31
	2	\$ 36.28	\$17.90
	3	\$ 46.47	\$21.30
	4	\$ 66.24	\$27.89
	6	\$ 109.99	\$42.47
	8 & up	\$ 186.09	\$67.84

Terms of Payment:

All customer service charges are billed quarterly or monthly in advance, and are due and payable in full when rendered.

PUBLIC FIRE SERVICE:

Applicable for service to public fire hydrants in the Kent County service area.

<u>Rates:</u>	<u>Quarterly</u>
Hydrant	\$181.13 hydrant
Plus	\$ 8.72/billing

Terms of Payment:

All bills for public fire service are rendered quarterly in advance and are due payable in full when rendered.

PRIVATE FIRE SERVICE:

Applicable for service to private fire protection systems and private hydrants in the Kent County service area.

<u>Rates:</u>	<u>Service Size (in.)</u>	<u>Quarterly Accounts</u>
	4	\$ 72.90
	6	\$195.16
	8	\$406.04
	10	\$723.24
	12	\$1162.88
	hydrant	\$195.16

Terms of Payment:

All bills for private fire services are rendered quarterly in advance and are due and payable in full when rendered.

OTHER CHARGES

WHOLESALE RATE WARWICK WATER DEPARTMENT: Same rate as charged by Providence Water Supply Board. Rate will change upon changes to Providence Water Supply Board wholesale rate charge.

INTEREST ON DELINQUENT ACCOUNTS: Applicable to all water account balances over 30 days from billing date. Interest charges are payable as incurred.

CHARGE: 1.5% per month on unpaid balances.

TURN OFF CHARGE: Applicable to all services turned off due to a specific violation which resulted in the requirement to terminate service and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to subsequent turn-on.

CHARGE: \$55.00 per occurrence

TURN ON CHARGE: Applicable to all services turned on after the interruption of a service due to a specific violation which resulted in the service shut off and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to turn-on.

CHARGE: \$45.00 per occurrence

INSTALLATION AND REPAIR WORK: Applicable to all installation and repair work.

CHARGE: Cost of all material, labor and equipment plus applicable overhead, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

CHLORINATION CHARGE: Applicable to all main extensions to existing systems.

CHARGE: Cost of laboratory and labor to collect, transport to lab, flush and test sample, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

MATERIAL PURCHASE: Applicable to all material sales.

CHARGE: Cost of material plus handling and applicable overhead, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

INSUFFICIENT FUND RETURNED CHECKS: Applicable to all payment checks returned to Kent County Water Authority by our bank due to insufficient funds available or account problems will bear a charge for our handling and bank charges.

CHARGE: \$20.00 Per occurrence.

METER TESTING: Applicable to all meter testing services.

CHARGE: \$100.00 Per occurrence.

INSPECTION FEE'S: Applicable to all developer installation work, public or private, in regards to all main or service extensions.

CHARGE: \$5.00/ft of installed main or for service pipe from main to curb stop.

LEGAL FEE'S: Applicable to all services requiring legal assistance by the Kent County Water Authority's legal counsel including but not limited to easement description preparation or review, deed restriction preparation or review, involvement with actions necessary for review or approvals of any water service request to the Authority.

CHARGE: Cost as billed to Kent County Water Authority by legal counsel on a monthly basis.

Terms Of Payment For All Other Charges: All bills rendered quarterly or monthly are due and payable in full when rendered.

**KENT COUNTY WATER AUTHORITY
RATE SCHEDULE
(RED LINE)**

Page 1
KCWA PUC DOCKET# 4611
EFFECTIVE: 1/1/2017

METER SALES VOLUME:

Applicable to all metered water in the Kent County system for residential, commercial and industrial consumption.

Rates:

		<u>Rate Per 100 cu. ft.</u>
Small (5/8" to 2" meters)	\$5.254	\$5.824
Medium (3" to 4" meters)	\$4.476	\$4.644
Large (6" meters and up)	\$3.816	\$4.230

Terms of payment:

All metered sales bills are rendered quarterly or monthly and are due and payable in full when rendered.

METERED SALES SERVICE CHARGE:

Applicable to all metered sales of customers of Kent County Water Authority exclusive of fire service connections.

<u>Rates:</u>	<u>Meter Size (in)</u>	<u>Quarterly Accounts</u>		<u>Monthly Accounts</u>	
	5/8 & 3/4	\$10.26	\$ 14.71	\$7.51	\$10.71
	1	\$13.57	\$ 19.50	\$8.61	\$12.31
	1 ½	\$19.78	\$ 28.49	\$10.67	\$15.31
	2	\$25.17	\$ 36.28	\$12.47	\$17.90
	3	\$32.20	\$ 46.47	\$14.82	\$21.30
	4	\$45.86	\$ 66.24	\$19.37	\$27.89
	6	\$76.08	\$ 109.99	\$29.44	\$42.47
	8 & up	\$128.66	\$ 186.09	\$46.97	\$67.84

Terms of Payment:

All customer service charges are billed quarterly or monthly in advance, and are due and payable in full when rendered.

PUBLIC FIRE SERVICE:

Applicable for service to public fire hydrants in the Kent County service area.

Rates:

	<u>Quarterly</u>	
Hydrant	\$139.33	\$181.13 hydrant
Plus	\$6.12/billing	\$ 8.72/billing

Terms of Payment:

All bills for public fire service are rendered quarterly in advance and are due payable in full when rendered.

PRIVATE FIRE SERVICE:

Applicable for service to private fire protection systems and private hydrants in the Kent County service area.

<u>Rates:</u>	<u>Service Size (in.)</u>	<u>Quarterly Accounts</u>	
	4	\$55.69	\$ 72.90
	6	\$150.09	\$195.16
	8	\$312.94	\$406.04
	10	\$557.88	\$723.24
	12	\$897.35	\$1,162.88
	hydrant	\$150.09	\$195.16

Terms of Payment:

All bills for private fire services are rendered quarterly in advance and are due and payable in full when rendered.

OTHER CHARGES

WHOLESALE RATE WARWICK WATER DEPARTMENT: Same rate as charged by Providence Water Supply Board. Rate will change upon changes to Providence Water Supply Board wholesale rate charge.

INTEREST ON DELINQUENT ACCOUNTS: Applicable to all water account balances over 30 days from billing date. Interest charges are payable as incurred.

CHARGE: 1.5% per month on unpaid balances.

TURN OFF CHARGE: Applicable to all services turned off due to a specific violation which resulted in the requirement to terminate service and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to subsequent turn-on.

CHARGE: \$55.00 per occurrence

TURN ON CHARGE: Applicable to all services turned on after the interruption of a service due to a specific violation which resulted in the service shut off and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to turn-on.

CHARGE: \$45.00 per occurrence

INSTALLATION AND REPAIR WORK: Applicable to all installation and repair work.

CHARGE: Cost of all material, labor and equipment plus applicable overhead, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

CHLORINATION CHARGE: Applicable to all main extensions to existing systems.

CHARGE: Cost of laboratory and labor to collect, transport to lab, flush and test sample, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

MATERIAL PURCHASE: Applicable to all material sales.

CHARGE: Cost of material plus handling and applicable overhead, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

INSUFFICIENT FUND RETURNED CHECKS: Applicable to all payment checks returned to Kent County Water Authority by our bank due to insufficient funds available or account problems will bear a charge for our handling and bank charges.

CHARGE: \$20.00 Per occurrence.

METER TESTING: Applicable to all meter testing services.

CHARGE: ~~\$50.00~~ \$100.00 Per occurrence.

INSPECTION FEE'S: Applicable to all developer installation work, public or private, in regards to all main or service extensions.

CHARGE: \$5.00/ft of installed main or for service pipe from main to curb stop.

LEGAL FEE'S: Applicable to all services requiring legal assistance by the Kent County Water Authority's legal counsel including but not limited to easement description preparation or review, deed restriction preparation or review, involvement with actions necessary for review or approvals of any water service request to the Authority.

CHARGE: Cost as billed to Kent County Water Authority by legal counsel on a monthly basis.

Terms Of Payment For All Other Charges: All bills rendered quarterly or monthly are due and payable in full when rendered.

**KENT COUNTY WATER AUTHORITY
RATE SCHEDULE**

STEP INCREASE 1/1/2018
WITH PUBLIC HYDRANT RATES
Page 1
KCWA PUC DOCKET# 4611
EFFECTIVE: 1/1/2018

METER SALES VOLUME:

Applicable to all metered water in the Kent County system for residential, commercial and industrial consumption.

<u>Rates:</u>	<u>Rate Per 100 cu. ft.</u>
Small (5/8" to 2" meters)	\$6.102
Medium (3" to 4" meters)	\$4.865
Large (6" meters and up)	\$4.432

Terms of payment:

All metered sales bills are rendered quarterly or monthly and are due and payable in full when rendered.

METERED SALES SERVICE CHARGE:

Applicable to all metered sales of customers of Kent County Water Authority exclusive of fire service connections.

<u>Rates:</u>	<u>Meter Size (in)</u>	<u>Quarterly Accounts</u>	<u>Monthly Accounts</u>
	5/8 & 3/4	\$ 15.41	\$11.22
	1	\$ 20.43	\$12.90
	1 ½	\$ 29.85	\$16.04
	2	\$ 38.01	\$18.75
	3	\$ 48.68	\$22.32
	4	\$ 69.40	\$29.22
	6	\$ 115.23	\$44.49
	8 & up	\$ 194.96	\$71.07

Terms of Payment:

All customer service charges are billed quarterly or monthly in advance, and are due and payable in full when rendered.

PUBLIC FIRE SERVICE:

Applicable for service to public fire hydrants in the Kent County service area.

<u>Rates:</u>	<u>Quarterly</u>
Hydrant	\$189.76/ hydrant
Plus	\$ 9.14/billing

Terms of Payment:

All bills for public fire service are rendered quarterly in advance and are due payable in full when rendered.

PRIVATE FIRE SERVICE:

Applicable for service to private fire protection systems and private hydrants in the Kent County service area.

<u>Rates:</u>	<u>Service Size (in.)</u>	<u>Quarterly Accounts</u>
	4	\$ 76.37
	6	\$204.46
	8	\$425.39
	10	\$757.71
	12	\$1,218.30
	hydrant	\$204.46

Terms of Payment:

All bills for private fire services are rendered quarterly in advance and are due and payable in full when rendered.

OTHER CHARGES

WHOLESALE RATE WARWICK WATER DEPARTMENT: Same rate as charged by Providence Water Supply Board. Rate will change upon changes to Providence Water Supply Board wholesale rate charge.

INTEREST ON DELINQUENT ACCOUNTS: Applicable to all water account balances over 30 days from billing date. Interest charges are payable as incurred.

CHARGE: 1.5% per month on unpaid balances.

TURN OFF CHARGE: Applicable to all services turned off due to a specific violation which resulted in the requirement to terminate service and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to subsequent turn-on.

CHARGE: \$55.00 per occurrence

TURN ON CHARGE: Applicable to all services turned on after the interruption of a service due to a specific violation which resulted in the service shut off and requests prior to 8:00 a.m. and after 3:00 p.m., Monday thru Friday and all day Saturday, Sunday, and any Holiday. Charges payable in full prior to turn-on.

CHARGE: \$45.00 per occurrence

INSTALLATION AND REPAIR WORK: Applicable to all installation and repair work.

CHARGE: Cost of all material, labor and equipment plus applicable overhead, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

CHLORINATION CHARGE: Applicable to all main extensions to existing systems.

CHARGE: Cost of laboratory and labor to collect, transport to lab, flush and test sample, as determined by the Kent County Water Authority on a yearly basis, usually on July 1.

MATERIAL PURCHASE: Applicable to all material sales.

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INSUFFICIENT FUND RETURNED CHECKS: Applicable to all payment checks returned to Kent County Water Authority by our bank due to insufficient funds available or account problems will bear a charge for our handling and bank charges.

CHARGE: \$20.00 Per occurrence.

METER TESTING: Applicable to all meter testing services.

CHARGE: \$100.00 Per occurrence.

INSPECTION FEE'S: Applicable to all developer installation work, public or private, in regards to all main or service extensions.

CHARGE: \$5.00/ft of installed main or for service pipe from main to curb stop.

LEGAL FEE'S: Applicable to all services requiring legal assistance by the Kent County Water Authority's legal counsel including but not limited to easement description preparation or review, deed restriction preparation or review, involvement with actions necessary for review or approvals of any water service request to the Authority.

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**KENT COUNTY WATER AUTHORITY
RATE SCHEDULE
(RED LINE)**

STEP INCREASE 1/1/2018
Page 1
KCWA PUC DOCKET# 4611
EFFECTIVE: 1/1/2018

METER SALES VOLUME:

Applicable to all metered water in the Kent County system for residential, commercial and industrial consumption.

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Small (5/8" to 2" meters)	\$5.824
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METERED SALES SERVICE CHARGE:

Applicable to all metered sales of customers of Kent County Water Authority exclusive of fire service connections.

<u>Rates:</u>	<u>Meter Size (in)</u>	<u>Quarterly Accounts</u>	<u>Monthly Accounts</u>		
	5/8 & 3/4	\$14.71	\$ 15.41	\$10.71	\$11.22
	1	\$19.50	\$ 20.43	\$12.31	\$12.90
	1 ½	\$28.49	\$ 29.85	\$15.31	\$16.04
	2	\$36.28	\$ 38.01	\$17.90	\$18.75
	3	\$46.47	\$ 48.68	\$21.30	\$22.32
	4	\$66.24	\$ 69.40	\$27.89	\$29.22
	6	\$109.99	\$ 115.23	\$42.47	\$44.49
	8 & up	\$186.09	\$ 194.96	\$66.84	\$71.07

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PUBLIC FIRE SERVICE:

Applicable for service to public fire hydrants in the Kent County service area.

<u>Rates:</u>	<u>Quarterly</u>	
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	4	\$72.90	\$ 76.37
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	12	\$1,162.88	\$1,218.30
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