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July 6, 2016

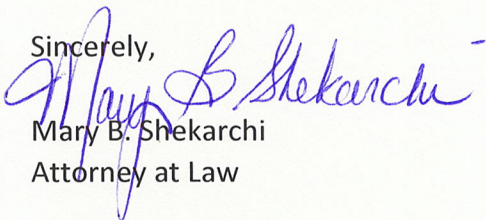
Ms. Luly Massaro, Clerk  
RI Public Utilities Commission  
89 Jefferson Blvd.  
Warwick, RI 02888

RE: Kent County Water Authority – Docket No. 4611

Dear Ms. Massaro:

Please find enclosed herewith an original and nine (9) copies of the Kent County Water Authority's Response to the Division of Public Utilities Commission's Data Request (Set 3). An electronic copy has been provided to the service list. Should you have any questions, please contact me. Thank you.

Sincerely,



Mary B. Shekarchi  
Attorney at Law

MBS/mdc  
Enclosure

Cc: Docket 4611 Service List (via electronic mail)

**KENT COUNTY WATER AUTHORITY**

**Docket No. 4611**

**Third Set of Data Requests**

**Division of Public Utilities and Carriers**

**June 15, 2016**

1. Reference page 2, lines 1 to 9 of Mr. Brown's testimony. Please provide the monthly water sales (expressed in cubic ft.) for FY 16 through the most recent month available.

Response:	<u>FY 2016</u>
July	29,751,128
August	25,776,625
September	58,995,972
October	32,823,207
November	24,546,056
December	32,188,350
January	19,849,709
February	16,601,476
March	23,953,945
April	18,888,549
May	18,538,677

Witness Responsible: T. Brown

2. Reference page 3, lines 4 to 6 of Mr. Brown's testimony. Please provide the monthly number of customers for FY 16 through the most recent month available.

Response: That is the most recent. We will not have FY2016 number of customers until after June 30, 2016, fiscal year end.

Witness Responsible: T. Brown

3. Please provide supporting documentation showing the projects that comprise the \$7,000,000 as presented on page 3, line 15 of Mr. Brown's testimony.

Response: Please refer to Volume II, Approved Clean Water Infrastructure Plan Update. The \$7,000,000 is based on the 5 Year Plan (\$35,000,000 divided by 5). All infrastructure in KCWA is the program and subject to replacement.

Witness Responsible: T. Brown



4. With regard to the meters to be replaced as discussed on page 11, lines 29 through 30 of Mr. Browns testimony, please provide the expected salvage or scrap value of the old meters, and show how those proceeds have been reflected in the cost of the meter replacement program. If the scrap value proceeds have not been reflected in the meter replacement costs, please explain why.

Response: The scrap value has not been calculated nor is it known at the present time. Scrap value fluctuates daily and will depend on whether the meters are broken down into the scrap accepted parts prior to disposal. The value will not be known until all meters or parts of them have been disposed. Please note FY 2019 step increase has \$600,000 of the meter program budgeted. We fully expect that will be offset by scrap value and hopefully bid program cost savings.

Witness Responsible: T. Brown

5. Reference page 14, lines 12 through 19 of Mr. Brown's testimony.
- a. Please provide a copy of the professionally prepared OPEB report for FY15, FY 16 and FY17.
  - b. With reference to the establishment of the adopted OPEB Standard, please provide the actuarial study supporting the KCWA's Test Year claim, if different than the professional report.
  - c. Please indicate when the Authority plans to establish a trust fund; when the initial deposit is planned; and the amount of the initial deposit.
  - d. Please provide the OPEB pay-as-you-go amount included in FY 15 and the rate year expenses. Also, please show where the pay-as-you-go amount is reflected in the expenses.

Response:

- a) August 2015 report provided. FY16 & FY17 will not be available until August of 2016 and August 2017.
- b) See (a) above. Test year claim was \$0, rate year is \$80,000.
- c) Prior to expected 1<sup>st</sup> deposit July of 2017. The amount would be based on collection beginning in January of 2017 to June 30, 2017. Prorated for the first three months of collection (5 actual months for full collection), \$33,333.33.
- d) Test year \$73,682 Plan 65 see attached ID page 3 of 5 in Mr. Woodcock's testimony plus Life Insurance and Delta Dental (see answer to question #14).

Witness Responsible: T. Brown

EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS

Benefits	FY 2014	Test Yr (FY15)	Estim. FY 2016	FY 2017	FY 2018	FY 2019	FY 2020
Medical - Blue Cross	\$510,912	\$528,254	\$575,151				
Delta Dental	\$41,303	\$46,702	\$47,779				
Group P-65 Retirees	\$74,314	\$73,682	\$73,682				
Life Insurance	\$5,826	\$6,487	\$6,445				
Disability Insurance	\$7,768	\$8,867	\$771				
Coastline Employee Assist	\$1,200	\$1,500	\$1,500				
Education	\$8,835	\$29,218	\$9,053				
Pension Contribution	\$311,745	\$228,129	\$246,738				
Xmas Bonus	\$5,100	\$5,100	\$5,100				
Total	\$967,003	\$927,939	\$966,219				
Less Retiree Costs (*)	-\$72,808	-\$46,337	-\$79,433				
Net for Current Employees	\$894,195	\$881,602	\$886,785	\$954,410	\$1,010,224	\$1,030,429	\$1,051,038
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%	41.57%	43.14%	43.14%	43.14%	43.14%
Retiree Costs (**)			\$81,880	\$84,403	\$87,003	\$89,683	\$89,683
Plus Benefits (above)			\$954,410	\$1,010,224	\$1,030,429	\$1,051,038	\$1,051,038
Total Benefits			\$1,036,290	\$1,094,627	\$1,117,432	\$1,140,721	\$1,140,721
Change in Benefits for FY			\$108,351				
Annual Increase After Rate Year				166,688	\$22,805	\$23,289	\$23,289

\* Includes payments to retired employees for Delta-Dental, Group 65 Retirees and Life Insurance  
 \*\* rate year and beyond costs for retirees increased from 2016 based on estimated inflation rate (see below), FY 16 based on first 7 months

New OPEB Contribution to Trust	FY 2017	FY 2018	FY 2019	FY 2020
	\$80,000	\$80,000	\$80,000	\$80,000

# **KENT COUNTY WATER AUTHORITY**

## **Kent County Water Authority Postemployment Medical Benefit Plan**

**Actuarial Valuation for Purposes of GASB Statement No. 45  
Fiscal Year Beginning July 1, 2014 and Ending June 30, 2015**

**August 2015**

## **TABLE OF CONTENTS**

<b>PURPOSE AND ACTUARIAL STATEMENT</b>	Page 1
<b>SUMMARY OF KEY RESULTS</b>	
Summary of Changes from Prior Valuation	Page 3
Participant Information	Page 4
Participant Information by Benefit	Page 5
<b>ACCOUNTING EXHIBITS</b>	
Summary and Comparison of Results	Page 7
Development of Annual Required Contribution	Page 8
Development of Net OPEB Obligation	Page 9
Schedule of OPEB Obligation History	Page 10
Schedule of Funding Progress	Page 10
Summary of Results by Benefit	Page 11
<b>APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS</b>	Page 13
<b>APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS</b>	Page 15



## PURPOSE AND ACTUARIAL STATEMENT

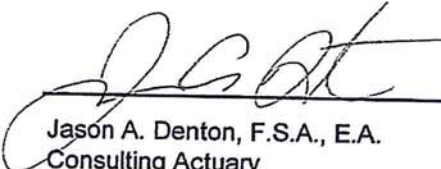
As requested by the Kent County Water Authority, this report documents the annual disclosure reporting requirements of the Kent County Water Authority Postemployment Medical Benefit Plan. The primary purpose of this report is determination of the annual required contribution in accordance with the Statement of Governmental Accounting Standard No. 45 (GASB 45) for the fiscal year beginning July 1, 2014 and presentation of disclosure exhibits as of June 30, 2015 and should not be relied on for other purposes.

Actuarial valuations for the Kent County Water Authority Postemployment Medical Benefit Plan are required on a triennial basis. Plan demographics, accrued liability and normal cost measurements are based on the Plan's most recent valuation on July 1, 2014.

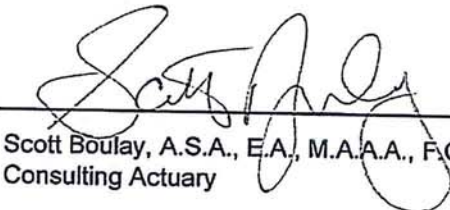
The Kent County Water Authority is responsible for the selection of all necessary assumptions as detailed on the enclosed exhibits. Where appropriate, demographic assumptions were held consistent with the most recent pension valuation report. We believe that the assumptions used in this report are both reasonable and appropriate.

To the best of our knowledge, the calculations contained herein have been completed in accordance with applicable accounting standards requirements and generally accepted actuarial principles and practices. The undersigned consultants possess the actuarial credentials required to meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained herein.

There is no relationship between the Kent County Water Authority and Summit Financial Corporation that would impair or appear to impair our objectivity.

  
\_\_\_\_\_  
Jason A. Denton, F.S.A., E.A.  
Consulting Actuary

8/12/2015  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Scott Boulay, A.S.A., E.A., M.A.A.A., F.C.A.  
Consulting Actuary



## PURPOSE AND ACTUARIAL STATEMENT

As requested by the Kent County Water Authority, this report documents the annual disclosure reporting requirements of the Kent County Water Authority Postemployment Medical Benefit Plan. The primary purpose of this report is determination of the annual required contribution in accordance with the Statement of Governmental Accounting Standard No. 45 (GASB 45) for the fiscal year beginning July 1, 2014 and presentation of disclosure exhibits as of June 30, 2015 and should not be relied on for other purposes.

Actuarial valuations for the Kent County Water Authority Postemployment Medical Benefit Plan are required on a triennial basis. Plan demographics, accrued liability and normal cost measurements are based on the Plan's most recent valuation on July 1, 2014.

The Kent County Water Authority is responsible for the selection of all necessary assumptions as detailed on the enclosed exhibits. Where appropriate, demographic assumptions were held consistent with the most recent pension valuation report. We believe that the assumptions used in this report are both reasonable and appropriate.

To the best of our knowledge, the calculations contained herein have been completed in accordance with applicable accounting standards requirements and generally accepted actuarial principles and practices. The undersigned consultants possess the actuarial credentials required to meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained herein.

There is no relationship between the Kent County Water Authority and Summit Financial Corporation that would impair or appear to impair our objectivity.

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Jason A. Denton, F.S.A., E.A.  
Consulting Actuary

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Date

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Scott Boulay, A.S.A., E.A., M.A.A.A., F.C.A.  
Consulting Actuary

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## **SUMMARY OF KEY RESULTS**

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# SUMMARY OF KEY RESULTS

## Summary of Changes from Prior Valuation

### Benefit Cost

Fiscal Year Beginning	<u>7/1/2014</u>	<u>7/1/2013</u>	<u>7/1/2012</u>
Annual Required Contribution	\$ 592,128	\$ 644,715	\$ 617,611
Expected Benefit Payments (pay-as-you-go cost)	80,747	107,252	107,252
Actual Payments	79,203	92,877	103,866

### Key Measurements

Measurement Date	<u>7/1/2014</u>	<u>7/1/2011</u>	<u>7/1/2011</u>
Actuarial Accrued Liability	\$ 4,278,597	\$ 5,077,569	\$ 5,077,569
Fair Value of Plan Assets	0	0	0

### Key Assumptions

Appendix A summarizes the actuarial assumptions and cost methods used to determine plan liabilities. We have provided a summary of key assumptions for both the current and prior valuation below:

Fiscal Year Beginning	<u>7/1/2014</u>	<u>7/1/2013</u>	<u>7/1/2012</u>
Discount rate	4.00%	4.00%	4.00%
Census Date	7/1/2014	7/1/2011	7/1/2011
Mortality	IRS-2014	IRS-2008	IRS-2008

Fiscal 2015 results are based on the most recent actuarial valuation on July 1, 2014. The next valuation will be on July 1, 2017. Assumptions will be reviewed at that time for any possible updates.

### Plan Provisions

Appendix B summarizes key provisions of each plan as of the valuation date. To our knowledge, there have been no changes in any key plan provisions since the last valuation and none are pending.

### Comments on Results

Net OPEB obligation continues to increase as benefit funding remains on a pay-as-you-go basis. Note that contributions made to a dedicated medical plan trust would not only reduce net OPEB obligation, but would allow for a higher assumed return on assets which decreases plan liability and the annual required contribution (ARC), while funding for future retiree medical premium payments.

OPEB accrued liability has decreased significantly since the last valuation. This reduction is due primarily to a decrease in Plan 65 premium rates. The actual premium rate in fiscal 2012, \$552.03, was expected to increase with medical trend for the last 3 years to a rate of \$695.38. The actual fiscal 2015 Plan 65 premium decreased to \$511.68 - a 26% reduction from the expected rate. The number of retirees receiving medical benefits from the Authority has also dropped 20%, from 15 to 12, since the last valuation.



# SUMMARY OF KEY RESULTS

## Participant Information

### Participant Information

Key figures with respect to the participant data used in this actuarial valuation are summarized below along with comparable information from prior years.

<b>Valuation Date</b>	<u>7/1/2014</u>	<u>7/1/2011</u>
<b>Participating Employees</b>		
Number	34	31
Number Eligible for Immediate Benefit Coverage	0	0
Average Attained Age	47.5	45.9
Average Years of Service	12.1	12.1
Average Salary	\$ 57,266	\$ 53,908
Total Active Payroll	\$ 1,993,673	\$ 1,671,141
<b>Participants Receiving Benefits</b>		
Number	15	20
Average Attained Age	77.9	77.2
Plan Enrollment:		
Healthmate Coast to Coast	0	0
Plan 65	12	15
Life Insurance Only	3	5
Expected Benefit Payments	\$ 80,747	\$ 107,252
<b>Pension Retirees with No Benefits</b>		
Number	6	5

# SUMMARY OF KEY RESULTS

## Participant Information by Benefit as of July 1, 2014

### Participant Information

Key figures with respect to the participant data used in the current actuarial valuation are summarized below.

<b>Group</b>	<b><u>Medical</u></b>	<b><u>Life</u></b>	<b><u>Total</u></b>
<b>Participating Employees</b>			
Number	34	34	34
Number Eligible for Immediate Benefit Coverage	0	0	0
Average Attained Age	47.5	47.5	47.5
Average Years of Service	12.1	12.1	12.1
Average Salary	\$ 57,266	\$ 57,266	\$ 57,266
Total Active Payroll	\$ 1,993,673	\$ 1,993,673	\$ 1,993,673
<b>Participants Receiving Benefits</b>			
Number	12	15	15
Average Attained Age	77.3	77.9	77.9
Plan Enrollment:			
Healthmate Coast to Coast	0	0	0
Plan 65	12	0	12
Life Insurance Only	0	3	3
Expected Benefit Payments	\$ 79,200	\$ 1,547	80,747
<b>Pension Retirees with No Benefits</b>			
Number	9	6	6

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## **ACCOUNTING EXHIBITS**

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## SUMMARY AND COMPARISON OF RESULTS

<u>Fiscal Year</u>		<u>07/01/2014</u>	<u>07/01/2013</u>
<u>Valuation Date</u>		<u>07/01/2014</u>	<u>07/01/2011</u>
<b>Participants</b>	Number of participating employees	34	31
	Number of retirees	15	20
<b>Liabilities</b>	Active liability	\$ 3,231,585	\$ 3,506,235
	<u>Inactive liability</u>	<u>1,047,012</u>	<u>1,571,334</u>
	Total plan liability	\$ 4,278,597	\$ 5,077,569
	Normal cost	\$ 187,544	\$ 221,373
<b>Assets and Funded Status</b>	Fair Value of Assets	\$ 0	\$ 0
	Excess of liability over assets	4,278,597	5,077,569
<b>ARC</b>	Normal cost with interest	\$ 195,046	\$ 230,228
	Amortization of unfunded liability	247,432	293,637
	<u>Amortization of net OPEB obligation</u>	<u>149,650</u>	<u>120,850</u>
	Annual Required Contribution	\$ 592,128	\$ 644,715
<b>Net OPEB Obligation</b>	OPEB obligation at beginning of year	\$ 2,691,260	\$ 2,173,338
	Annual OPEB cost	550,128	610,799
	Estimated benefit payments	80,747	107,252
<b>Assumptions &amp; Dates</b>	Discount rate	4.00%	4.00%
	Measurement Date	07/01/2014	07/01/2011
	Census Date	01/01/2015	01/01/2012

## DEVELOPMENT OF ANNUAL REQUIRED CONTRIBUTION

### Fiscal Year Ending June 30, 2015

#### ***Actuarial Accrued Liability***

Active participants	\$	3,231,585
<u>Retired participants</u>		<u>1,047,012</u>
<b>Total Plan Liability at Beginning of Fiscal Year</b>	<b>\$</b>	<b>4,278,597</b>

#### ***Normal Cost***

Plan's normal cost at beginning of fiscal year	\$	187,544
<u>Interest on normal cost at 4.00%</u>		<u>7,502</u>
<b>Normal Cost</b>	<b>\$</b>	<b>195,046</b>

#### ***Actuarial Value of Assets***

NA

#### ***Amortization of Unfunded Accrued Liability***

Unfunded liability	\$	4,278,597
Amortization factor *		17.9837
Amortization of unfunded liability		237,915
<u>Interest on amortization at 4.00%</u>		<u>9,517</u>
<b>Amortization Cost</b>	<b>\$</b>	<b>247,432</b>

#### ***Amortization of Net OPEB Obligation***

Net OPEB Obligation at beginning of year	\$	2,691,260
Amortization factor *		17.9837
<b>Amortization of Obligation</b>	<b>\$</b>	<b>149,650</b>

#### ***Annual Required Contribution (ARC)***

Normal cost with interest	\$	195,046
Amortization of unfunded liability with interest		247,432
<u>Amortization of net OPEB obligation</u>		<u>149,650</u>
<b>Total ARC for Fiscal Year</b>	<b>\$</b>	<b>592,128</b>

\* Unfunded accrued liability amortized on an open level dollar basis over 30 years at 4.00% interest.

\*\* Unadjusted ARC components shown above based on the actuarial valuation as of July 1, 2014.



## DEVELOPMENT OF NET OPEB OBLIGATION

### Fiscal Year Ending June 30, 2015

#### ***Net OPEB Obligation - Beginning of Year***

Net OPEB obligation at beginning of fiscal year	\$	2,691,260
Interest on OPEB obligation at 4.00%		107,650
Amortization of OPEB obligation *		149,650

#### ***Adjustments to Annual Required Contribution***

ARC for fiscal year	\$	592,128
Increase for interest on net OPEB obligation		107,650
<u>Decrease for amortization of OPEB obligation</u>		<u>(149,650)</u>
<b>Annual OPEB Cost</b>	<b>\$</b>	<b>550,128</b>

#### ***Net OPEB Obligation - End of Year***

Annual OPEB cost	\$	550,128
Actual contributions made during fiscal year		79,203
Change in net OPEB obligation during fiscal year		470,925
<u>Beginning of year net OPEB obligation</u>		<u>2,691,260</u>
<b>Net OPEB Obligation at End of Fiscal Year</b>	<b>\$</b>	<b>3,162,185</b>

\* Amortized on same basis as unfunded accrued liability (open level dollar basis over 30 years at 4.00% interest).

## SCHEDULE OF OPEB OBLIGATION HISTORY SCHEDULE OF FUNDING PROGRESS

### *OPEB Obligation History*

<u>Fiscal Year End</u>	<u>Annual Cost</u>	<u>Actual Plan Contributions</u>	<u>Percentage of Annual OPEB Cost Contributed</u>	<u>Net OPEB Obligation</u>
6/30/2009	485,431	94,635	19.50%	390,796
6/30/2010	501,063	87,753	17.51%	804,106
6/30/2011	517,595	98,195	18.97%	1,223,506
6/30/2012	572,805	110,408	19.27%	1,685,903
6/30/2013	591,301	103,866	17.57%	2,173,338
6/30/2014	610,799	92,877	15.21%	2,691,260
6/30/2015	550,128	79,203	14.40%	3,162,185

### *Schedule of Funding Progress*

<u>Actuarial Valuation Date</u>	<u>Value of Assets (a)</u>	<u>Accrued Liability (AAL) (b)</u>	<u>Unfunded AAL (UAAL) (b) - (a)</u>	<u>Funded Ratio (a / b)</u>	<u>Covered Payroll (c)</u>	<u>UAAL as a Percentage of Covered Payroll ((b - a) / c)</u>
7/1/2008	NA	5,094,885	5,094,885	NA	1,669,117	305.24%
7/1/2011	NA	5,077,569	5,077,569	NA	1,671,141	303.84%
7/1/2014	NA	4,278,597	4,278,597	NA	1,993,673	214.61%

## SUMMARY OF RESULTS BY BENEFIT

<i>Group</i>	<u>Medical</u>	<u>Life</u>	<u>Total</u>
<b><i>Participants</i></b>			
Actives	34	34	34
Retirees	12	15	15
Total Number of Participants	46	49	49
Total Payroll	\$ 1,993,673	\$ 1,993,673	\$ 1,993,673
<b><i>Liabilities</i></b>			
Active Liability	\$ 3,214,501	\$ 17,084	\$ 3,231,585
<u>Inactive Liability</u>	<u>1,026,941</u>	<u>20,071</u>	<u>1,047,012</u>
Total Liability	\$ 4,241,442	\$ 37,155	\$ 4,278,597
Normal Cost	\$ 187,544	\$ 0	\$ 187,544
<b><i>Annual Required Contribution</i></b>			
Normal Cost with Interest	\$ 195,046	\$ 0	\$ 195,046
Amortization of liability	245,283	2,149	247,432
<u>Amortization of obligation</u>	<u>149,496</u>	<u>154</u>	<u>149,650</u>
Annual Required Contribution	\$ 589,825	\$ 2,303	\$ 592,128
<b><i>Net OPEB Obligation</i></b>			
OPEB Obligation at 7/1/2014	\$ 2,688,499	\$ 2,761	\$ 2,691,260
Annual OPEB Cost	547,869	2,259	550,128
<u>Actual Benefit Payments</u>	<u>(79,203)</u>	<u>0</u>	<u>(79,203)</u>
OPEB Obligation at 7/1/2015	\$ 3,157,165	\$ 5,020	\$ 3,162,185

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## **APPENDICES**

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## APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

<b>Plan Sponsor</b>	Kent County Water Authority					
<b>Key Interest Rates</b>	Discount rate for liabilities	4.00%				
	Expected return on assets	NA				
<b>Compensation Increases</b>	Not applicable, benefits and amortizations are not based on salary.					
<b>Mortality</b>	Mortality rates are assumed in accordance with the Sex-Distinct IRS 2014 Combined Static Mortality Table.					
<b>Retirement</b>	All participants are assumed to retire at age 62 or current age, if older.					
<b>Representative Termination Rates</b>	Termination of employment is assumed according to Scale T-1 from the Pension Actuary's Handbook. Representative termination rates are listed below and are the same for both males and females.					
	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
	20	5.44%	35	2.35%	50+	0.00%
	25	4.89%	40	1.13%		
	30	3.70%	45	0.27%		
<b>Health Care Costs</b>	Monthly costs by plan are as follows: Healthmate Coast to Coast - \$698.40 Plan 65 - \$511.68 Dental - \$38.34 Monthly costs shown are gross rates and include administrative fees.					
<b>Disability</b>	None assumed.					
<b>Disabled Mortality</b>	Not applicable.					
<b>Marriage</b>	Not applicable, spousal benefits are not covered by the plan.					
<b>Utilization</b>	100% of eligible actives are assumed to elect continued retiree medical coverage.					
<b>Measurement Date</b>	The measurement date for valuing plan liabilities is July 1, 2014.					



## APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

<i>Plan Election</i>	All eligible retirees are assumed to elect Healthmate Coast to Coast coverage at age 62, switching coverage to Plan 65 at age 65, as applicable.
<i>Health Care Trend Rates</i>	Medical coverage costs are assumed to increase 7.0% in fiscal 2015 with trend rates decreasing 0.5% each year to an ultimate rate of 5.0% per year in fiscal 2019 and beyond.  Dental coverage costs are assumed to increase 4.5% in fiscal 2015 with trend rates decreasing 0.25% each year to an ultimate rate of 3.5% per year in fiscal 2019 and beyond.
<i>Cost Method</i>	Projected Unit Credit method. Benefits are accrued on service from date of hire to date of first eligibility.
<i>Employee Data</i>	Employee and medical program data was supplied by the Kent County Water Authority as of January 1, 2015. Data was adjusted, as needed, to the measurement date of July 1, 2014.
<i>Asset Method</i>	Not applicable - plan is unfunded.
<i>Amortization of Unfunded Liability</i>	Unfunded liability is amortized each year on an open 30-year level dollar basis.
<i>Changes since Prior Valuation</i>	The mortality assumption was updated from the IRS 2008 Table to the IRS 2014 Table.

## APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS

<b><i>Plan Description</i></b>	Governmental postretirement health and life insurance program.
<b><i>Groups Covered</i></b>	<p>All full-time employees are eligible to receive health and life insurance coverage after retirement. Retirement eligibility for continued health insurance coverage is age 62 with at least 20 years of service. Employees are eligible for life insurance coverage if they retiree on or after age 62.</p> <p>Spousal and / or family health coverage is not provided for under the postretirement program.</p>
<b><i>Medical Benefits</i></b>	<p>The Authority will provide eligible retirees continued individual health and dental insurance comparable to the active employee plans. Retirees age 65 and older are eligible for an individual Medicare Supplement Plan as well as continued dental coverage.</p> <p>The full cost of postretirement medical and dental coverage is provided by the Authority.</p>
<b><i>Life Insurance</i></b>	Eligible retirees receive term life insurance in the amount of \$2,000. The Authority provides the full cost of this insurance.
<b><i>Changes since Previous Valuation</i></b>	None.



6. Reference page 24, lines 22 to 25 of Mr. Brown's testimony.
  - a. Please fully explain the Authority's proposal to "slowly" offset the OPEB obligation over time. In your response, identify the amount that would offset the OPEB obligation for the rate year and each year of the step increase period.
  - b. Please identify the OPEB obligation as of the end of the FY 16 and the projected OPEB obligation as of the end of the rate year.

Response:

- a) \$80,000 each year including the step increase years.
- b) FY2016 not available, see 5a above.

Witness Responsible: T. Brown

7. With reference to page 7, lines 1 and 2, of Mr. Woodcock's testimony. Please provide supporting documentation for the claim that "water utility expenses have been increasing at nearly twice the rate of inflation".

Response: Please see the response to Div Set 2-7

Witness Responsible: C. Woodcock



8. Reference page 13, lines 15 through 20, of Mr. Woodcock's testimony. Please provide a breakdown of the \$11 million of new projects that would be added in each year.

Response:

Witness Responsible: J. Gershkoff

Testimony

15  
16 The R&R reserve must be funded at 1% of the value of the Authority's net utility plant in  
17 service from its prior audit. Like the O&M reserve, this reserve is typically funded in Octo-  
18 ber of each year after the audit becomes available. We have included additional funding  
19 for this reserve based on an assumption of an additional \$11 million of new projects that  
20 will be added to the plant in service through the rate year.  
21

Mr. Woodcock's testimony references \$11 million in new projects added to plant during FY 2017 *rate year (not each year)*. I believe Mr. Woodcock is referring to the following projects that will be added to plant at the end of *FY 2016*. Additions to plant in 2017 are unknown at this time.

**Projects to be Closed to Plant FYE 2016:**

Hydraulic Model	\$97,442
CIP Update	\$7,452
Miscellaneous IFR	\$1,870
Quaker Lane	\$3,481,608
IFR 2010B	\$8,031,891
David Drive	\$1,156
Total	\$11,621,419

1 **Q: Turning to Schedule 1D, please discuss the first item, the contribution to reserve ac-**  
2 **counts.**

3 **A:** These are accounts that are held by the (bond) Trustee to help secure the Authority's reve-  
4 nue bond issues. These reserves were established under the Authority's General Bond Res-  
5 olution that was adopted July 6, 1994. I believe this bond resolution was the first revenue  
6 bond resolution adopted by a regulated water utility in Rhode Island, and it formed the ba-  
7 sis for those that have followed the ensuing two plus decades. Under the bond resolution,  
8 various accounts are established including an operation and maintenance (O&M) reserve  
9 and a renewal and replacement (R&R) reserve. Under the Authority's bond resolution, the  
10 O&M reserve must be funded with an amount at least equal to 25% of the current operat-  
11 ing budget (including taxes). As the Authority's operating costs increase, incremental de-  
12 posits are typically required for these increases. While the resolution requires this reserve  
13 to be funded based on the approved budget, we have historically asked the Commission for  
14 sufficient funding based on the rate year request.

15  
16 The R&R reserve must be funded at 1% of the value of the Authority's net utility plant in  
17 service from its prior audit. Like the O&M reserve, this reserve is typically funded in Octo-  
18 ber of each year after the audit becomes available. We have included additional funding  
19 for this reserve based on an assumption of an additional \$11 million of new projects that  
20 will be added to the plant in service through the rate year.

21

22 **Q: What have you included for various engineering studies?**

23 **A:** KCWA must undertake various engineering studies that are required. These include water  
24 supply, infrastructure replacement, conservation and vulnerability studies. These studies  
25 are required to be performed periodically (generally every 5 years), so I have normalized  
26 the total cost over five years.

27

9. Please provide the year-to-date wholesale costs for FY 16 in the same format as presented in the chart in the middle of Sch. 1C.

Response: KCWA Production (1,000/gal.) is 95,455. Please see attached for Warwick Water and Providence Water Supply Board production.

Witness Responsible: C. Woodcock

**METERED WATER PURCHASED FROM OTHER WATER SUPPLIER(S) BY INTERCONNECTION  
ON A MONTHLY BASIS**

**FISCAL YEAR 2016**

Month	Clinton Avenue Gallons	Clinton Avenue Cubic Feet	Oaklawn Gallons	Oaklawn Cubic Feet	Quaker Lane Gallons	Quaker Lane Cubic Feet	Total Gallons	Total Cubic Feet
JULY	159,067,712	21,264,315	9,549,716	1,276,700	213,001,000	28,474,166	381,618,428	51,015,096
AUGUST	143,806,848	19,224,229	9,333,544	1,247,800	161,209,000	21,550,565	314,349,392	42,022,511
SEPTEMBER	169,745,344	22,691,711	10,707,994	1,431,550	98,711,000	13,195,776	279,164,338	37,318,941
OCTOBER	132,237,888	17,677,680	6,026,262	805,650	78,673,000	10,517,078	216,937,150	29,000,354
NOVEMBER	114,897,024	15,359,538	4,666,772	623,900	47,713,000	6,378,317	167,276,796	22,361,713
DECEMBER	157,506,528	21,055,615	6,024,766	805,450	47,036,000	6,287,815	210,567,294	28,148,826
JANUARY	132,811,840	17,754,407	5,012,722	670,150	48,901,000	6,537,130	186,725,562	24,961,642
FEBRUARY	141,607,232	18,930,183	5,436,838	726,850	32,412,000	4,332,865	179,456,070	23,989,850
MARCH	123,813,568	16,551,510	4,190,670	560,250	52,583,000	7,029,343	180,587,238	24,141,065
APRIL	126,482,496	16,908,294	5,832,904	779,800	48,536,000	6,488,336	180,851,400	24,176,379
MAY	142,064,320	18,991,287	6,374,082	852,150	92,912,000	12,420,560	241,350,402	32,263,940
JUNE		0	0	0		0	0	0
<b>TOTALS</b>	<b>1,544,040,800</b>	<b>206,408,769</b>	<b>73,156,270</b>	<b>9,779,596</b>	<b>921,687,000</b>	<b>123,211,951</b>	<b>2,538,884,070</b>	<b>339,400,317</b>

WE ARE UNABLE TO PROVIDE JUNE TOTALS AT THIS TIME AS THEY ARE NOT YET AVAILABLE



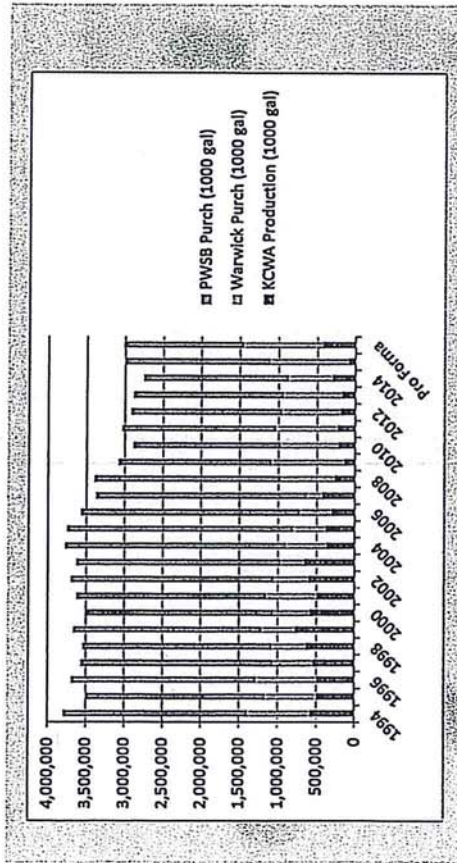
WHOLESALE WATER COSTS

Wholesale Water Purchases

	Rate (\$/mg)	Purchases (mg)	Cost
PWSB Rate (mg)	\$1,731.16	2,489.33	\$4,309,431
Net Wholesale Purchases (gallons) - Rate Year			
Warwick Purchases	1,028,956,000		
PWSB Purchases	1,562,729,231		
Total Purchases	2,591,685,231		
Sales To Warwick	-102,354,000		
Net Purchases	2,489,331,231		
Rate Year Sales	2,489,331,231		

Fiscal Yr -->	2011	2012	2013	2014	2015	Pro Forma
KCWA Production (1000 gal)	231,080	195,110	175,420	304,651	92,176	430,800 (1)
Warwick Purch (1000 gal)	808,282	766,301	763,513	572,651	1,028,956	1,028,956 (2)
PWSB Purch (1000 gal)	1,999,838	1,962,717	1,952,095	1,883,039	1,882,339	1,562,729
Total	3,039,200	2,924,128	2,891,028	2,760,341	3,003,471	3,022,485 (3)
Total Purchased	2,808,120	2,729,018	2,715,608	2,455,690	2,911,295	2,591,685
Sales To Warwick (1000 gal)	73,595	92,976	91,487	92,099	102,354	102,354 (2)
Net Purchases	2,734,525	2,636,042	2,624,121	2,363,651	2,808,941	2,489,331

(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.





10. Please explain why the pro forma sales for the rate year (FY 17) is the same as FY15.  
Why is no growth projected in the pro forma amount?

Response: The pro forma sales are not the same for the test year (2015) and the rate year (2017).  
Please see Woodcock Sch. 2

Witness Responsible: C. Woodcock

11. Reference page 13, lines 23 through 26, of Mr. Woodcock's testimony.
- a. Mr. Woodcock states that the studies are required. By whom are the studies required?
  - b. What is the basis of the amount related to conducting each of the studies? Please provide supporting documentation for the cost of each of these studies.
  - c. Please indicate the last time any of these studies were conducted on behalf of the Authority.

Response:

- a) – Water Supply System Management Plan – state law requires 5yr updates  
– Infrastructure Renewal & Replacement Plan – state law requires 5yr updates  
– Conservation – by Water Efficiency Act – but planning documents and devices by KCWA  
– Vulnerability Study – originally federal law after “911” – KCWA will be updating on our own accord.  
– CIP Program – KCWA updates on a 5yr interval.
- b) Please refer to Mr. Woodcock's Schedule ID page 1 of 5
- c) – WSSWP – 2012  
– CIP – 2016  
– IFR Update – 2014 (KCWA)

Witness Responsible: T. Brown

12. Reference page 14, lines 4 through 8, of Mr. Woodcock’s testimony.
- a. Please explain why the total debt service payment fluctuates from year to year. (As compared to the typical debt service payment, where the total payment is the same from year to year, even though the proportion of principal and interest may change over time).
  - b. Please explain the note to the debt service section of Sch. 1D, page 2 of Mr. Woodcock’s testimony. Does the note mean that more than the two annual payments are reflected for each year on Sch. 1D? If so, please provide the actual debt service payments, based upon the normal two required annual payments, for the FY 16 through FY 20.

Response:

- a. We are unsure of the question’s basis that “typical debt service payment ... (are) ... the same from year to year. Principal coupons are often in \$1,000 or \$5,000 amounts and as a result, the combined principal and interest payments (while similar) are not “the same from year to year.” Please see Woodcock Schedule ID, page 2 for the annual principal and interest payments.
- b. Payments on the bonds are due January 15, and July 15 of each year. The July 15 payment is due on the first day of each fiscal year. For example, the July 1, 2017 payment is due the first day of fiscal year 2018 (July 1, 2017 – June 30, 2018). Under the Authority’s Trust Indenture, they must make monthly deposits to the Trustee so the Trustee has sufficient funds on July 1 to make that payment. Because the Authority must make monthly deposits, the Authority’s actual cash costs or transfers to the Trustee must occur in the prior fiscal year.

The payments are as follows:

	<u>Principal</u>	<u>Interest</u>	<u>Total</u>
Jan 2013		\$396,431.00	\$396,431.00
Jul 2013	\$1,370,000.00	\$403,150.00	\$1,773,150.00
Jan 2014		\$375,750.00	\$375,750.00
Jul 2014	\$1,425,000.00	\$375,750.00	\$1,800,750.00
Jan 2015		\$347,250.00	\$347,250.00

Jul 2015	\$1,485,000.00	\$347,250.00	\$1,832,250.00
Jan 2016		\$317,550.00	\$317,550.00
Jul 2016	\$1,540,000.00	\$317,550.00	\$1,857,550.00
Jan 2017		\$286,750.00	\$286,750.00
Jul 2017	\$1,605,000.00	\$286,750.00	\$1,891,750.00
Jan 2018		\$246,625.00	\$246,625.00
Jul 2018	\$1,690,000.00	\$246,625.00	\$1,936,625.00
Jan 2019		\$204,375.00	\$204,375.00
Jul 2019	\$1,775,000.00	\$204,375.00	\$1,979,375.00
Jan 2020		\$160,000.00	\$160,000.00
Jul 2020	\$1,870,000.00	\$160,000.00	\$2,030,000.00
Jan 2021		\$113,250.00	\$113,250.00
Jul 2021	\$1,955,000.00	\$113,250.00	\$2,068,250.00
Jan 2022		\$64,375.00	\$64,375.00
Jul 2022	\$1,255,000.00	\$64,375.00	\$1,319,375.00
Jan 2023		\$33,000.00	\$33,000.00
Jul 2023	\$1,320,000.00	\$33,000.00	\$1,353,000.00

Witness Responsible: C. Woodcock

13. Reference the insurance expenses presented on Sch.1D, page 2 of Mr. Woodcock's testimony.
  - a. Please provide the supporting documents for the FY 15 liability/property insurance and workers' compensation.
  - b. Please provide the FY 16 year-to-date liability/property insurance and workers' compensation and the supporting documentation.

Response: See attached.

Witness Responsible: J. Gershkoff



13. Reference the insurance expenses presented on Sch.1D, page 2 of Mr. Woodcock's testimony.

a.) Please provide the supporting documents for the FY 15 liability/property insurance and workers' compensation.

b.) Please provide the FY 16 year-to-date liability/property insurance and workers' compensation and the supporting documentation

Witness Responsible: J.Gershkoff

The amounts on Mr. Woodcock's schedule from 2012 through test year 2015 (not rate year 2015) does not match the attached documentation by year. The reason being Workers' Compensation premium payments for one policy year span three fiscal years even though policy and fiscal years are the same (7/1-6/30). Payment for a policy beginning 7/1 must be paid in June (previous FY) and recorded as asset - (prepaid insurance). The following month, the asset is reversed and the insurance is expensed in the proper fiscal year. During the policy/fiscal year another adjustment payment is usually required for the current year policy. Additionally, after an audit of payroll records is performed by the carrier, a balance is usually due for the previous policy. This amount is paid and booked 6 months into the new fiscal/policy year. The RI Interlocal Trust bill timing is not consistent from year to year and also requires payments for adjustments at times.

**The following amounts are total cost per policy. Substantiation attached.**

a.)	2015 Policy Premiums		
	Liability/ Property	(120+156,105+12,037)=	\$ 168,262
	Workers' Compensation	(4,446+76,465+2,240)=	\$ 83,151
	Total		<u>\$ 251,413</u>
b.)	2016 Policy Premiums		
	Liability/ Property		\$ 166,811
	Workers' Compensation	(4,127+76,948)=	\$ 81,075
	Total		<u>\$ 247,886</u>
c.)	2016 Policy Quotes		
	Liability/ Property		\$ 166,015
	Workers' Compensation		\$ 84,158
	Total		<u>\$ 250,173</u>

**Schedule 1D figures are comprised of the following:**

**FY 2014**

Liability/ Property	2015 policy prepay FY 2014=	\$ 156,105
Workers' Compensation	2015 policy prepay FY 2014 76,465 + adj. due for 2015 2,240 + bal due for 2014 after audit 1,836=	\$ 80,541
Total		<u>\$ 236,646</u>

**FY 2015**

Liability/ Property	2016 policy total cost prepay FY2015=	\$ 166,811
Workers' Compensation	2016 policy prepay FY 2015 76,948 + adj 2016 policy 4,127 + policy + bal. due for 2015 after audit 4,446=	\$ 85,521
Total		<u>\$ 252,332</u>





RISK MANAGEMENT TRUST

501 WAMPANOAG TRAIL, SUITE 301, EAST PROVIDENCE, RI 02915  
 PHONE: (401) 438-6511 FAX: (401) 438-6990

All Inquiries: accountsreceivable@ritrust.com

**Bill To:**

Timothy B. Brown, P.E.  
 Kent County Water Authority  
 General Manager  
 P.O. Box 192  
 W. Warwick RI 02893

INVOICE *June*

Invoice	VEHAUDIT000051
Date	7/29/2015
Page	1

Purchase Order No.	Customer ID	Payment Terms	Due Date	Late Fees Assess As Of
	KENTWATP	Net 30	8/28/2015	8/28/2015
Quantity	Item Number	Description	Unit Price	Ext. Price
1.0	VEHAUDIT-2016	Vehicle Audit Adjustment PY 2014-2015	\$120.38	\$120.38

*3089*

Date Received 9/31/15  
 Purchase Order No. \_\_\_\_\_  
 Voucher No. \_\_\_\_\_  
 O.K. MB  
 Date Paid 7/31/15  
 Check No. 0051673  
 Ent'd Gen'l Books MB

ACCOUNT	AMOUNT
19240	120.38

VEHICLE AUDIT POLICY YEAR 2014-2015

Subtotal	\$120.38
Misc	\$0.00
Total	\$120.38



501 WAMPANOAG TRAIL, SUITE 301, EAST PROVIDENCE, RI 02915  
 PHONE: (401) 438-6511 FAX: (401) 438-6990

All Inquiries: accountsreceivable@ritrust.com

Bill To:

Timothy B. Brown, P.E.  
 Kent County Water Authority  
 General Manager  
 P.O. Box 192  
 W. Warwick RI 02893

FY 2015

INVOICE

*(Handwritten initials)*

Invoice	PANDC000628
Date	6/17/2014
Page	1

**50% due in 30 days,  
 remaining due by due date**

Purchase Order No.	Customer ID	Payment Terms	Due Date	Late Fees Assess As Of
	KENTWATP	Net 60 W15	8/16/2014	8/31/2014
Quantity	Item Number	Description	Unit Price	Ext. Price
1.0	P/L-2015	Property & Liability Coverage PY 2014-2015	\$130,263.00	\$130,263.00
1.0	EXCESS-2015	Excess Liability Coverage PY 2014-2015	\$25,842.00	\$25,842.00

3089

Date Received 6/18/14

Purchase Order No. \_\_\_\_\_

Voucher No. \_\_\_\_\_

O.K. TD

Date Paid 6/19/14

Check No. 6621

En'd Gen'l Books JMG

ACCOUNT	AMOUNT
19240	156105.00

Payment FY 2014 prepaid ins,  
 Policy FY 2015  
 Expensed FY 2015

PROPERTY & LIABILITY PREMIUM FY 2014-2015

Subtotal	\$156,105.00
Misc	\$0.00
Total	\$156,105.00



FY 2015

RHODE ISLAND INTERLOCAL  
  
**The Trust**  
 RISK MANAGEMENT TRUST

**INVOICE** *Inv.*

501 WAMPANOAG TRAIL, SUITE 301, EAST PROVIDENCE, RI 02915  
 PHONE: (401) 438-6511 FAX: (401) 438-6990

Invoice	PANDC000703
Date	7/11/2014
Page	1

All Inquiries: [accountsreceivable@ritrust.com](mailto:accountsreceivable@ritrust.com)  
**Bill To:**

Timothy B. Brown, P.E.  
 Kent County Water Authority  
 General Manager  
 P.O. Box 192  
 W. Warwick RI 02893

**50% due in 30 days,  
 remaining due by due date**

Purchase Order No.	Customer ID	Payment Terms	Due Date	Late Fees Assess As Of
	KENTWATP	Net 60 W15	9/9/2014	9/24/2014
Quantity	Item Number	Description	Unit Price	Ext. Price
1.0	P/L-2015	Property & Liability Coverage PY 2014-2015	\$12,037.00	\$12,037.00

*3089*

Date Received	<i>7/14/14</i>
Purchase Order No.	
Voucher No.	
O.K.	<i>77</i>
Date Paid	<i>7/21/14</i>
Check No.	<i>010769</i>
Ent'd Gen'l Books	<i>Jmg</i>
ACCOUNT	AMOUNT
<i>19240</i>	<i>12037.00</i>

PROPERTY & LIABILITY PREMIUM FY 2014-2015

<b>Subtotal</b>	\$12,037.00
<b>Misc</b>	\$0.00
<b>Total</b>	\$12,037.00

**Premium Notice**

0788

Workers' Comp.

695



**Agent:**  
 Starkweather & Shepley Insurance Brokerage Inc.  
 PO Box 549  
 Providence, RI 02901-0549  
 401-435-3600

**Account Holder:**  
 Kent County Water Authority  
 PO Box 192  
 West Warwick, RI 02893-0192

Date Received	10/22/15
Brokerage Inc.	
Voucher No.	
O.K.	TD
Date Paid	10/28/15
Check No.	0082093
Ent'd Gen'l Books	JMG
ACCOUNT	AMOUNT
19240	
	4446 00

Invoice ID: 949288  
 Bill Date: 10/19/2015  
 Account Number: 20459671  
 Account Balance (All Terms): \$4,446.00  
 Minimum Amount Due: \$4,446.00  
 Payment Due Date: 11/01/2015

Thank you for choosing The Beacon Mutual Insurance Company.

Policy Number	Policy Term	Trans. Date	Install. Due Date	Description of Transactions	Adjustments	Policy Balance	Minimum Due
0000017731	07/01/14 - 07/01/15	09/23/15		Previous Balance			\$0.00
				Audit report premium adjustment	\$4,446.00		\$4,446.00
				Policy Term Total:	\$4,446.00		
				Policy Balance:		\$4,446.00	
				FY 2015 Policy Balance due after Beacon payroll audit.			
				Payment FY 2016			
				Policy FY 2015			
				Expense FY 2016			

Payment Due Date: 11/01/2015

Account Balance: \$4,446.00

Minimum Due: \$4,446.00

Please detach here. Write account number on check - payable to The Beacon Mutual Insurance Company.



*lrs*

*The Beacon Mutual Workers' Comp*

4

**Quotation Classifications & Rates:** The premium for this policy will be determined by our manual of rules, classifications, rates, and rating plans. All information required below is subject to verification and change by audit and premium surcharge as allowed by law.

Premium Period	Class	Description	Class Type	Estimated Payroll	Rate	Estimated Premium
07/01/14 07/01/15	7520	Waterworks operation & drivers	Standard	\$1,392,637	6.93	\$96,510
	8810	Clerical office employees NOC	Standard	\$488,771	.26	\$1,271

**Premium Detail:**

Manual Premium		\$97,781.00
Waiver of Subrogation Charge		\$0.00
Employers' Liability Increased Limits: .008 effective 07/01/14 to 07/01/15		\$782.00
EL Increased Limits Balance to Minimum Premium		\$0.00
<b>Manual Premium Sub-Total</b>		<b>\$98,563.00</b>
Experience Modification: .88 effective 07/01/14 to 07/01/15		-\$11,828.00
<b>Modified Premium Sub-Total</b>		<b>\$86,735.00</b>
Adjustments to Manual Premium		
- Scheduled Credit/Debit of -5.00%		-\$4,337.00
- Loss Free Credit of 0%		\$0.00
- Miscellaneous Credit of 0%		\$0.00
- Balance to Minimum Premium		\$0.00
<b>Standard Premium Sub-Total</b>		<b>\$82,398.00</b>
Adjustments to Standard Premium		
- Premium Discount		-\$6,588.00
- Expense Constant		\$215.00
- Miscellaneous Premium Adjustment		\$0.00
- TRIEA/TRIPRA: 1% of payroll effective 07/01/14 to 07/01/15		\$220.00
- DTEC/Catastrophe (other than certified acts of terrorism): 1% of payroll effective 07/01/14 to 07/01/15		\$220.00
<b>Estimated Annual Premium</b>		<b>\$76,465.00</b>

**0788**

Date Received	6/9/14
Purchase Order No.	
Voucher No.	
O.K.	<i>MB</i>
Date Paid	6/19/14
Check No.	6611
Ent'd Gen'l Books	<i>MLB</i>
ACCOUNT	AMOUNT
19240	76465 00

Please Note: Payment of the deposit premium must be received prior to the effective date of this quote or complete enrollment in the Beacon Pay As You Go Program, within 7 days of the policy effective date.

Please allow sufficient mailing time.

*Payment - FY 2014 prepaid in \$*  
*Policy - FY 2015*  
*Expensed FY 2015*

**This is not an Invoice**

Agency



*The Beacon Mutual Workers' Comp*

4

**Classifications & Rates:** The premium for this policy will be determined by our manual of rules, classifications, rates and rating plans. All information required below is subject to verification and change by audit and premium surcharge as allowed by law. There might be additional codes associated with this policy than those listed here. An Extension of Information Page (BE\_00\_00\_14B), might be included if there are additional codes.

Premium Period	Class	Description	Class Type	Estimated Payroll	Rate	Estimated Premium
07/01/14 07/01/15	7520	Waterworks operation & drivers	Standard	\$1,433,951	6.93	\$99,373
	8810	Clerical office employees NOC	Standard	\$505,523	.26	\$1,314

**Premium Detail:**

0788

Manual Premium	\$100,687.00
Waiver of Subrogation Charge	\$ .00
Employers' Liability Increased Limits: .008 effective 07/01/14 to 07/01/15	\$805.00
EL Increased Limits Balance to Minimum Premium	\$ .00
<b>Manual Premium Sub-Total</b>	<b>\$101,492.00</b>
Experience Modification: .88 effective 07/01/14 to 07/01/15	-\$12,179.00
<b>Modified Premium Sub-Total</b>	<b>\$89,313.00</b>
Adjustments to Manual Premium	
- Scheduled Credit/Debit of -5.00%	
- Loss Free Credit of 0%	
- Miscellaneous Credit of 0%	
- Balance to Minimum Premium	
<b>Standard Premium Sub-Total</b>	<b>\$84,847.00</b>
Adjustments to Standard Premium	
- Premium Discount	
- Expense Constant	
- Miscellaneous Premium Adjustment	
- TRIEA/TRIPRA: 1% of payroll effective 07/01/14 to 07/01/15	\$227.00
- DTEC/Catastrophe (other than certified acts of terrorism): 1% of payroll effective 07/01/14 to 07/01/15	\$227.00
<b>Estimated Annual Premium</b>	<b>\$78,705.00</b>
<b>Additional Premium</b>	<b>\$2,240.00</b>

ACCOUNT	AMOUNT
Date Received <u>9/20/14</u>	\$805.00
Purchase Order No. _____	\$ .00
Voucher No. _____	\$101,492.00
O.K. _____	
Date Paid _____	-\$12,179.00
Check No. _____	\$89,313.00
Ent'd Gen'l Books _____	-\$4,466.00
	\$ .00
	\$ .00
	\$ .00
	\$84,847.00
	-\$6,811.00
	\$215.00
	\$ .00

Payment FY 2015  
 Policy FY 2015  
 Expensed FY 2015



RISK MANAGEMENT TRUST

501 WAMPANOAG TRAIL, SUITE 301, EAST PROVIDENCE, RI 02915  
 PHONE: (401) 438-6511 FAX: (401) 438-6990

All Inquiries: accountsreceivable@ritrust.com  
 Bill To:

Timothy B. Brown, P.E.  
 Kent County Water Authority  
 General Manager  
 P.O. Box 192  
 W. Warwick RI 02893

# INVOICE

*cls*

Invoice	PANDC000922
Date	6/19/2015
Page	1

**50% due in 30 days,  
 remaining due by due date**

Purchase Order No.	Customer ID	Payment Terms	Due Date	Late Fees Assess As Of
	KENTWATP	Net 60 W15	8/18/2015	9/2/2015

Quantity	Item Number	Description	Unit Price	Ext. Price																											
1.0	P/L-2016	Property & Liability Coverage PY 2015-2016	\$137,755.00	\$137,755.00																											
1.0	EXCESS-2016	Excess Liability Coverage PY 2015-2016	\$29,056.00	\$29,056.00																											
<p><i>Payment FY 2015 prepaid insurance</i></p> <p><i>Policy FY 2016</i></p> <p><i>Expensed FY 2016</i></p>																															
<p><i>2089</i></p> <table border="1" style="margin: auto;"> <tr> <td colspan="2">Date Received</td> <td><i>6/26/15</i></td> </tr> <tr> <td colspan="2">Purchase Order No.</td> <td></td> </tr> <tr> <td colspan="2">Voucher No.</td> <td></td> </tr> <tr> <td colspan="2">O.K.</td> <td><i>ms</i></td> </tr> <tr> <td colspan="2">Date Paid</td> <td><i>6/30/15</i></td> </tr> <tr> <td colspan="2">Check No.</td> <td><i>007779</i></td> </tr> <tr> <td colspan="2">Ext'd Gen'l Books</td> <td><i>ms</i></td> </tr> <tr> <th>ACCOUNT</th> <th colspan="2">AMOUNT</th> </tr> <tr> <td><i>1165A</i></td> <td><i>166811</i></td> <td><i>00</i></td> </tr> </table>					Date Received		<i>6/26/15</i>	Purchase Order No.			Voucher No.			O.K.		<i>ms</i>	Date Paid		<i>6/30/15</i>	Check No.		<i>007779</i>	Ext'd Gen'l Books		<i>ms</i>	ACCOUNT	AMOUNT		<i>1165A</i>	<i>166811</i>	<i>00</i>
Date Received		<i>6/26/15</i>																													
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O.K.		<i>ms</i>																													
Date Paid		<i>6/30/15</i>																													
Check No.		<i>007779</i>																													
Ext'd Gen'l Books		<i>ms</i>																													
ACCOUNT	AMOUNT																														
<i>1165A</i>	<i>166811</i>	<i>00</i>																													

PROPERTY & LIABILITY PREMIUM FY 2015-2016

<b>Subtotal</b>	\$166,811.00
<b>Misc</b>	\$0.00
<b>Total</b>	\$166,811.00



# Premium Notice

*Workers' Comp*



**Agent:**  
 Starkweather & Shepley Insurance Brokerage Inc  
 PO Box 549  
 Providence, RI 02901-0549  
 401-435-3600

Invoice ID:  
954533

Bill Date:  
11/17/2015

Account Number:  
20459671

Account Balance (All Terms):  
\$4,127.00

Minimum Amount Due:  
\$4,127.00

Payment Due Date:  
12/01/2015

**Account Holder:**  
 Kent County Water Authority  
 PO Box 192  
 West Warwick, RI 02893-0192

Thank you for choosing The Beacon Mutual Insurance Company.

Policy Number	Policy Term	Trans. Date	Install. Due Date	Description of Transactions	Adjustments	Policy Balance	Minimum Due
0000017731	07/01/14 - 07/01/15	11/02/15		Previous Balance			\$4,446.00
				Cash Receipt	\$4,446.00		-\$4,446.00
	07/01/15 - 07/01/16	11/16/15	12/01/15	Installment billed from schedule	\$4,127.00		\$4,127.00
				Policy Balance		\$4,127.00	

Handwritten notes and stamps:

- 0788
- Date Received: 11/25/15
- Purchase Order No.:
- Invoice No.:
- Date Paid: 11/25/15
- Check No. 008209
- Ent'd Gen'l Bkks
- ACCOUNT
- 19240 4127.00

Payment Due Date: 12/01/2015

Account Balance: \$4,127.00

Minimum Due: \$4,127.00

Please detach here. Write account number on check - payable to The Beacon Mutual Insurance Company.

*Payment FY 2016*  
*Policy FY 2016*  
*Expensed FY 2016*

*The Beacon Mutual Workers' Comp.*

4

**Classifications & Rates:** The premium for this policy will be determined by our manual of rules, classifications, rates and rating plans. All information required below is subject to verification and change by audit and premium surcharge as allowed by law. There might be additional codes associated with this policy than those listed here. An Extension of Information Page (BE\_00\_00\_14B), might be included if there are additional codes.

Premium Period	Class	Description	Class Type	Estimated Payroll	Rate	Estimated Premium
07/01/15 07/01/16	7520	Waterworks operation & drivers	Standard	\$1,437,880	8.27	\$118,913
	8810	Clerical office employees NOC	Standard	\$506,908	.25	\$1,267

*Payment FY 2015 prepaid ins  
 Policy FY 2016  
 Expense FY 2016*

**Premium Detail:**

Manual Premium	\$120,180.00
Waiver of Subrogation Charge	\$0.00
Employers' Liability Increased Limits: .008 effective 07/01/15 to 07/01/16	\$961.00
EL Increased Limits Balance to Minimum Premium	\$0.00
<b>Manual Premium Sub-Total</b>	<b>\$121,141.00</b>
Experience Modification: .72 effective 07/01/15 to 07/01/16	-\$33,919.00
<b>Modified Premium Sub-Total</b>	<b>\$87,222.00</b>
Adjustments to Manual Premium	
- Scheduled Credit/Debit of -5.00%	-\$4,361.00
- Loss Free Credit of 0%	\$0.00
- Miscellaneous Credit of 0%	\$0.00
- Balance to Minimum Premium	\$0.00
<b>Standard Premium Sub-Total</b>	<b>\$82,861.00</b>
Adjustments to Standard Premium	
- Premium Discount	-\$6,630.00
- Expense Constant	\$215.00
- Miscellaneous Premium Adjustment	\$0.00
- TRIEA/TRIPRA: 1% of payroll effective 07/01/15 to 07/01/16	\$231.00
- DTEC/Catastrophe (other than certified acts of terrorism): 1% of payroll effective 07/01/15 to 07/01/16	\$231.00
<b>Estimated Annual Premium</b>	<b>\$76,908.00</b>
<b>Additional Premium</b>	<b>\$0.00</b>

*76,948.00 pd.*

***This is not an Invoice***

**Insured**

## Jo-Ann Gershkoff

---

**From:** Tim Brown  
**Sent:** Friday, April 29, 2016 1:46 PM  
**To:** Jo-Ann Gershkoff  
**Subject:** FW: Kent County Water P/L Insurance Estimates for PY 16-17

---

**From:** Colleen Bodziony [mailto:cbodziony@ritrust.com]  
**Sent:** Friday, April 29, 2016 1:20 PM  
**To:** Tim Brown <tbrown@kentcountywater.org>  
**Subject:** Kent County Water P/L Insurance Estimates for PY 16-17

Tim,

With regard to the Policy Year 2016-2017, the following summarizes the estimated Property/Liability insurance premiums for the Kent County Water Authority. *Please note that these figures represent estimates only.* Actual premiums will be determined based on the Kent County Water Authority's renewal submission for Policy Year 2016-2017. We are in the process of inputting data associated with the renewal applications that have been received to calculate final premium amounts.

For Policy Year 2016-2017, your Property/Liability premium was developed on the following exposures and risk characteristics to include specific rating for:

- Law Enforcement Liability: Number of Full Time Officers
- Public Officials Liability: Number of Full Time Employees
- Sewer Liability: Miles of Sewer Line
- General Liability: NOE
- Property: TIV, Distance to Coast, Flood Zone, Construction Grade
- Auto: Value (Actual Cash Value), Gross Vehicle Weight (GVW), Vehicle Type
- Watercraft, if applicable: Hull, Length, Value and Horsepower
- Fine Arts, if applicable: Value

### Kent County Water Auth.

	<b>Actual PY 15-16</b>	<b>Projected PY 16-17</b>	<b>% Change +/-</b>
<b>Property/Liability</b>	<b>\$137,755</b>	<b>\$136,377</b>	<b>-1.0%</b>
<b>Excess Liability</b>	<b>\$29,056</b>	<b>\$29,637</b>	<b>2.0%</b>
<b>Special Property</b>	<b>\$0</b>	<b>\$0</b>	<b>0.0%</b>
<b>Skate parks</b>	<b>\$0</b>	<b>\$0</b>	<b>0.0%</b>
<b>Builders Risk</b>	<b>\$0</b>	<b>\$0</b>	<b>0.0%</b>
<b>Workers' Compensation</b>	<b>\$0</b>	<b>\$0</b>	<b>0.0%</b>
<b>Total Premium</b>	<b>\$166,811</b>	<b>\$166,015</b>	<b>-0.5%</b>



4

**Classifications & Rates:** The premium for this policy will be determined by our manual of rules, classifications, rates and rating plans. All information required below is subject to verification and change by audit and premium surcharge as allowed by law. There might be additional codes associated with this policy than those listed here. An Extension of Information Page (BE\_00\_00\_14B), might be included if there are additional codes.

Premium Period	Class	Description	Class Type	Estimated Payroll	Rate	Estimated Premium
07/01/16 07/01/17	7520	Waterworks operation & drivers	Standard	\$1,512,439	8.27	\$125,079
	8810	Clerical office employees NOC	Standard	\$521,522	.25	\$1,304

**Premium Detail:**

Manual Premium	\$126,383.00
Waiver of Subrogation Charge	\$.00
Employers' Liability Increased Limits: .008 effective 07/01/16 to 07/01/17	\$1,011.00
EL Increased Limits Balance to Minimum Premium	\$.00
<b>Manual Premium Sub-Total</b>	<b>\$127,394.00</b>
Experience Modification: .75 effective 07/01/16 to 07/01/17	-\$31,848.00
<b>Modified Premium Sub-Total</b>	<b>\$95,546.00</b>
Adjustments to Manual Premium	
- Scheduled Credit/Debit of -5.00%	-\$4,777.00
- Loss Free Credit of 0%	\$.00
- Miscellaneous Credit of 0%	\$.00
- Balance to Minimum Premium	\$.00
<b>Standard Premium Sub-Total</b>	<b>\$90,769.00</b>
Adjustments to Standard Premium	
- Premium Discount	-\$7,350.00
- Expense Constant	\$215.00
- Miscellaneous Premium Adjustment	\$.00
- TRIEA/TRIPRA: 1% of payroll effective 07/01/16 to 07/01/17	\$242.00
- DTEC/Catastrophe (other than certified acts of terrorism): 1% of payroll effective 07/01/16 to 07/01/17	\$242.00
<b>Estimated Annual Premium</b>	<b>\$84,118.00</b>
<b>Additional Premium</b>	<b>\$.00</b>

Other locations, endorsements, insureds, and/or classifications, if any, are shown on extension pages of this Information Page.

***This is not an Invoice***

Insured

**EXPLANATION OF ADJUSTMENTS TO TEST YEAR COSTS**

	<u>FY 2015</u>	<u>FY 2016</u>	<u>FY 2017</u>	<u>FY 2018</u>	<u>FY 2019</u>	<u>FY 2020</u>
<b>Debt Service</b>						
<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	<u>\$694,500</u>	<u>\$635,100</u>	<u>\$573,500</u>	<u>493,250</u>	<u>\$408,750</u>	<u>\$320,000</u>
Total	\$2,179,500	\$2,175,100	\$2,178,500	\$2,183,250	\$2,183,750	\$2,190,000
<b>New Debt</b>						
Principal	\$0	\$0	\$0	\$0	\$0	\$0
Interest	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
Total	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>	<u>\$0</u>
<b>Total Debt</b>	\$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 &amp; 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-Tiogue	\$121.00
Cent Coventry	\$349.00
Hopkins Hills	<u>\$540.00</u>
	\$23,123.17

*Handwritten notes:*  
 156105 + 120 + 12037 = 168262  
 2015 - Policy Expense  
 2016 Policy

**Insurance - Liability/Property/Worker's Comp**

	<u>FY 12</u>	<u>FY 13</u>	<u>FY 14</u>	<u>FY 15</u>	<u>Rate Year</u>	<u>Avg Increase</u>
Liability/Property Insurance	130,590	146,686	156,105	166,811	196,382	8.5%
Worker's Comp. Insurance	<u>62,127</u>	<u>65,154</u>	<u>80,541</u>	<u>85,521</u>	<u>105,828</u>	11.24%
Total	\$192,717	\$211,840	\$236,646	\$252,332	\$276,051	9.40%

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

14. Reference Sch. 1D, page 3 of Mr. Woodcock’s testimony.
- a. Please provide the FY 16 year to date amount for each of the employee benefits presented on that schedule.
  - b. Please explain what “Group P-65 Retirees” represents and provide copies of the supporting documentation for the FY 15 and FY 16 amounts.
  - c. Please provide documentation supporting the FY 15 and FY 16 pension contributions.
  - d. Please provide documentation supporting the retirees’ costs on the line labeled “Less Retiree Costs (\*)” for FY 14 through FY 16.

Response:

	FY2016 Amount Paid
a) Medical-Blue Cross	\$513,573
Delta Dental	\$46,279
Group P-65 Retirees	\$68,554
Life Insurance	\$6,331
Disability Insurance	\$9,162
Coastline EAP	\$1,500
Education/Dues	\$9,026
Pension	\$246,738
Xmas	<u>\$5,100</u>
Total	<u>\$905,264</u>
b) See attachments “B” and “C”	
c) See attachment “D”	
d) See attachments “B” (Retiree P-65 costs), “E” (Mutual Omaha Life Insurance), and “F” (Delta Dental)	

Witness Responsible: J. Gershkoff



B



500 Exchange Street, Providence, Rhode Island 02903-2699  
(401) 459-1000 www.BCBSRI.com

Plan 65

Group #000000269

Sales Representative Celina Krupski

Kent County Water Authority  
("Company")

Rep Telephone Number (401) 459-5736

YOUR RENEWAL RATES ARE EFFECTIVE 07/01/2015 THROUGH 06/30/2016. MONTHLY PREMIUM RATES PER SUBSCRIBER ARE BASED ON YOUR CURRENT ENROLLMENT.

Renewal Benefits

Employee

P65 Basic Benefits Including Skilled  
Nursing Facility Rider

\$ 476.07

Current Rate:

\$ 511.68

This Renewal Notice sets forth the Monthly Premiums for the Rating Period indicated above and shall constitute an amendment to the Sales Agreement between Blue Cross & Blue Shield of Rhode Island and Company. If you have any questions regarding your renewal, please contact your broker or Sales Representative at the telephone number provided above.

Melissa B. Cummings

Melissa B. Cummings  
Senior Vice President and Chief Marketing & Sales Officer



500 Exchange Street, Providence, RI 02903-2699  
(401) 459-1000 www.BCBSRI.com

**Plan 65**

**Group #000000269**

**Sales Representative** Heather Langlais

**Kent County Water Authority**  
("Company")

**Rep Telephone Number** 1-800-637-3718

YOUR RENEWAL RATES ARE EFFECTIVE 07/01/2016 THROUGH 06/30/2017. MONTHLY PREMIUM RATES PER SUBSCRIBER ARE BASED ON YOUR CURRENT ENROLLMENT.

Renewal Benefits	<u>Employee</u>
P65 Basic Benefits Including Skilled Nursing Facility Rider	\$ 542.51

This Renewal Notice sets forth the Monthly Premiums for the Rating Period indicated above and shall constitute an amendment to the Sales Agreement between Blue Cross & Blue Shield of Rhode Island and Company. If you have any questions regarding your renewal, please contact your broker or Sales Representative at the telephone number provided above.

A handwritten signature in cursive script that reads "Melissa B. Cummings".

Melissa B. Cummings  
Senior Vice President and Chief Marketing & Sales Officer



## SUMMARY OF KEY RESULTS

### Summary of Changes from Prior Fiscal Year

#### Contribution History

Plan Year Beginning	<u>1/1/2015</u>	<u>1/1/2014</u>	<u>1/1/2013</u>
Minimum Required Contribution	\$ 246,738	\$ 277,560	\$ 311,745
Actual Amount Contributed	TBD	\$ 277,560	\$ 311,745

#### Key Assumptions & Provisions

Appendix A summarizes the actuarial assumptions and cost methods used to determine plan liabilities. The mortality assumption has been revised from the 2008 IRS Combined Mortality to the 2015 IRS Combined Mortality table. The update in mortality added \$86,251, or 1.3%, to the present value of expected benefits.

Appendix B summarizes key provisions of the plan as of the valuation date. To our knowledge, there have been no changes in any key plan provisions since the last valuation and none are pending.

#### Comments on Results

The annual required contribution decreased from \$277,560 for 2014 to \$246,738 for 2015. This decrease in cost is due primarily to continued recognition of asset gains, the death of retiree during the past year and lower than expected average salary increases.

Similar to last year, the actuarial smoothing method is deferring mostly asset gains causing the actuarial value of assets to lag just over \$205,000 behind the market value adding approximately \$26,000 to the 2015 funding cost. On a market basis, the plan's funding ratio continues to increase, from a low of 58% as of 1/1/2009 to 86.8% as of the current valuation date.

E



Mutual of Omaha

# KENT COUNTY WATER AUTHORITY

## LIFE AND AD&D

Rate Guarantee Period - August 1, 2016 to August 1, 2018

Additional Value Added Services Included - Travel Assistance/Identity Theft Assistance

### Life

Current Monthly Premium	Renewal Monthly Premium	Renewal Monthly Premium Change
\$491.84	\$491.84	\$0.00

### Class Description

All eligible grandfather retirees

All eligible other retirees

Employee Rate Basis - per \$1,000

*Retirees*

Lives	Volume	Current Rate	Renewal Rate
15	\$30,000	\$0.320	\$0.320

### Class Description

All eligible employees

Employee Rate Basis - per \$1,000

Lives	Volume	Current Rate	Renewal Rate
32	\$1,507,000	\$0.320	\$0.320

### AD&D

Current Monthly Premium	Renewal Monthly Premium	Renewal Monthly Premium Change
\$45.21	\$45.21	\$0.00

### Class Description

All eligible employees

Employee Rate Basis - per \$1,000

Lives	Volume	Current Rate	Renewal Rate
32	\$1,507,000	\$0.03	\$0.03

F

Individual  
cost pd  
for Retirees

Kent County Water Authority Dental Plan Comparison Effective 07/01/2015 - 06/30/2016	Delta Dental of RI Delta Dental Premier Plan 1A Company Plan		
	Subs	Current	Renewal
Single Emp. & Sp.	20	\$38.34	\$39.30
Emp. & Ch.	6	\$76.68	\$78.60
Family	3	\$93.86	\$93.66
	15	\$145.54	\$146.02
Estimated Annual Premium		\$44,298.72	\$44,746.56
% Renewal Increase (Decrease)			1.0%
\$ Renewal Increase (Decrease)			\$447.84
<b>PREVENTIVE / DIAGNOSTIC:</b>			
• Cleanings			100% (two per calendar year)
• Oral Exams			100% (two per calendar year)
• Fluoride Treatments			100% (under age 19; twice per calendar year)
<b>X-RAYS:</b>			
• Single			100% (as needed)
• Bitewing			100% (one per calendar year)
• Full Mouth			100% (once per 60 months)
<b>MINOR RESTORATIVE SERVICES:</b>			
• Sealants			100%
• Fillings: amalgam (silver); composite (white) on front teeth			100%
• Simple Extractions			100%
• Denture Repairs			100%
• Emergency Treatment			100%
• Biopsies			100%
• Single (Anterior) Root Canals			100%
• Oral Surgery (when not covered by medical)			100%
• Anesthesia			100%
• Space Maintainers			100%
<b>MAJOR RESTORATIVE:</b>			
• Root Canals - Molars and Bicuspids			50%
• Crowns over natural teeth			100%
• Periodontic Maintenance after active therapy			50%
• Root planning / scaling			50%
• Osseous (bone) surgery			50%
• Gingivectomies			50%
• Soft Tissue Grafts			50%
• Crown Lengthening			50%
• Prosthodontics - bridges, partial and complete dentures			50%
<b>ORTHODONTIA:</b>			
• Braces for dependents to age 19			No Coverage
• Orthodontia lifetime maximum			No Coverage
<b>*CALENDAR YEAR DEDUCTIBLE</b>			
			N/A
<b>CALENDAR YEAR MAXIMUM</b>			
			\$1,200
<b>DEPENDANT COVERAGE</b>			
			Age 26

F

15. According to the response to Division 2-5, the \$80,000 contribution to the OPEB liability trust is “a portion of what is recommended for the Authority”. Please identify who is recommending the \$80,000 and provide the back-up calculations or supporting documentation showing the derivation of the \$80,000.

Response: KCWA is reconciling \$80,000.00/year to begin the trust fund. \$80,000/year was assumed at roughly the same amount as the current cost to retirees (pay as you go).

Witness Responsible: T. Brown

16. Please provide the supporting actuarial studies for FY 15 and FY 16 pension and OPEB costs.

Response: See response to question 5a for OPEB. Attached are the 15 & 16 actual reports on the pension.

Witness Responsible: T. Brown



**KENT COUNTY WATER AUTHORITY**

Kent County Water Authority  
Pension Plan

Actuarial Funding Valuation  
Plan Year Beginning January 1, 2015

April 2015

## **TABLE OF CONTENTS**

<b>PURPOSE AND ACTUARIAL STATEMENT</b>	Page 1
<b>SUMMARY OF KEY RESULTS</b>	
Summary of Changes from Prior Fiscal Year	Page 3
Participant Information	Page 4
Participant Data Reconciliation	Page 5
Participant Age & Service Chart	Page 6
Assets and Liabilities	Page 7
<b>ACTUARIAL EXHIBITS</b>	
Summary and Comparison of Results	Page 9
Reconciliation of Plan Assets	Page 10
Development of Actuarial Value of Assets	Page 11
Calculation of Minimum Required Contribution	Page 12
Actuarial Accrued Liability	Page 13
<b>APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS</b>	Page 15
<b>APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS</b>	Page 17

## PURPOSE AND ACTUARIAL STATEMENT

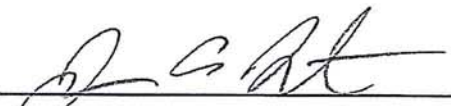
As requested by the Kent County Water Authority, this report documents the results of an actuarial valuation of the Kent County Water Authority Pension Plan. The primary purpose of this valuation is determination of the contribution requirements for the plan for the plan year beginning January 1, 2015 and ending December 31, 2015 and should not be relied on for other purposes.

The results of this valuation are based on data and other information provided by the Kent County Water Authority. We have examined the data for reasonability and consistency with prior results, but we have not performed a formal audit. We have relied on all of the information provided, including plan provisions and asset information, as complete and accurate.

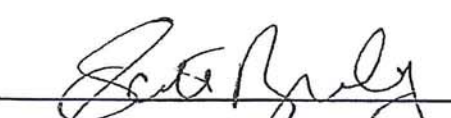
This valuation involves actuarial calculations that require assumptions regarding future events. We believe that the assumptions used are appropriate for the purposes for which they have been used.

To the best of our knowledge, the calculations contained herein, the procedures followed and presentation of results have been completed in accordance with generally accepted actuarial principles and practices. The undersigned consultants possess the actuarial credentials required to meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained herein.

There is no relationship between the Kent County Water Authority and Summit Financial Corporation that would impair or appear to impair our objectivity.

  
\_\_\_\_\_  
Jason A. Denton, F.S.A., E.A.  
Consulting Actuary

4/14/2015  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Scott Boulay, A.S.A., E.A., M.A.A.A., F.C.A.  
Consulting Actuary

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## **SUMMARY OF KEY RESULTS**

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# SUMMARY OF KEY RESULTS

## Summary of Changes from Prior Fiscal Year

### Contribution History

Plan Year Beginning	<u>1/1/2015</u>	<u>1/1/2014</u>	<u>1/1/2013</u>
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### Key Assumptions & Provisions

Appendix A summarizes the actuarial assumptions and cost methods used to determine plan liabilities. The mortality assumption has been revised from the 2008 IRS Combined Mortality to the 2015 IRS Combined Mortality table. The update in mortality added \$86,251, or 1.3%, to the present value of expected benefits.

Appendix B summarizes key provisions of the plan as of the valuation date. To our knowledge, there have been no changes in any key plan provisions since the last valuation and none are pending.

### Comments on Results

The annual required contribution decreased from \$277,560 for 2014 to \$246,738 for 2015. This decrease in cost is due primarily to continued recognition of asset gains, the death of retiree during the past year and lower than expected average salary increases.

Similar to last year, the actuarial smoothing method is deferring mostly asset gains causing the actuarial value of assets to lag just over \$205,000 behind the market value adding approximately \$26,000 to the 2015 funding cost. On a market basis, the plan's funding ratio continues to increase, from a low of 58% as of 1/1/2009 to 86.8% as of the current valuation date.

# SUMMARY OF KEY RESULTS

## Participant Information

### Participant Information

Key figures with respect to the participant data used in this actuarial valuation are summarized below along with comparable information from prior years.

Plan Year Beginning	<u>01/01/2015</u>	<u>01/01/2014</u>	<u>01/01/2013</u>
<b>Participating Employees</b>			
Number	28	30	31
Number with Vested Benefits	25	29	29
Number Fully Vested (7 years of service)	21	22	22
Average Attained Age	49.2	48.5	47.4
Average Credited Service	14.7	14.0	12.9
Average Annual Pay	\$ 64,231	\$ 63,872	\$ 59,362
Average Annual Benefit	\$ 13,469	\$ 12,121	\$ 10,813
<b>Participants with Deferred Benefits</b>			
Number	15	11	10
Average Attained Age	51.2	51.2	51.0
Average Annual Deferred Benefit	\$ 5,456	\$ 5,566	\$ 5,698
<b>Participants Receiving Benefits</b>			
Number	21	22	24
Average Attained Age	74.1	74.0	74.0
Average Annual Benefit	\$ 12,141	\$ 12,690	\$ 12,687

**Kent County Water Authority Pension Plan**  
**Reconciliation of Plan Data**

	<u>Active</u> <u>Participants</u>	<u>Vested Term</u> <u>Participants</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>TOTAL</u>
Participants as of January 1, 2014	30	11	16	6	63
+ New hires	2	0	0	0	2
+ Acquisitions	0	0	0	0	0
- Non-vested terminations	0	0	0	0	0
- Vested terminations	(4)	4	0	0	0
- Rehired employees	0	0	0	0	0
- Retirees	0	0	0	0	0
- Beneficiaries	0	0	0	0	0
- Deaths	0	0	(1)	0	(1)
- Disabled participants	0	0	0	0	0
- Lump Sum Distributions	0	0	0	0	0
- <u>Data adjustments</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
Participants as of January 1, 2015	<u>28</u>	<u>15</u>	<u>15</u>	<u>6</u>	<u>64</u>

**KENT COUNTY WATER AUTHORITY PENSION PLAN**  
**Age & Service Chart**

	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	0	1	0	0	0	0	0	0	0
30 to 34	0	1	1	1	0	0	0	0	0	0
35 to 39	0	0	0	0	0	0	0	0	0	0
40 to 44	0	2	0	1	0	0	0	0	0	0
45 to 49	0	0	1	1	1	0	2	0	0	0
50 to 54	0	1	1	1	3	1	1	0	0	0
55 to 59	0	0	1	0	3	0	1	0	1	0
60 to 64	0	0	1	0	0	0	1	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0
70 and up	0	0	0	0	0	0	0	0	0	0



# SUMMARY OF KEY RESULTS

## Assets and Liabilities

### Plan Assets

The market value of assets and actuarial (smoothed) value of assets are shown below for both current and prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2015</u>	<u>01/01/2014</u>	<u>01/01/2013</u>
<b>Value of Assets</b>			
Market Value of Assets (MVA)	\$ 5,209,254	\$ 4,867,501	\$ 4,188,518
Actuarial Value of Assets (AVA)	5,003,896	4,553,626	4,058,255
<b>Rate of Return on Assets</b>			
Market Value of Assets	6.68%	15.41%	11.88%
Actuarial Value of Assets	9.52%	11.40%	3.06%

### Plan Liabilities

We have provided a summary of key liability measures for the current plan year below along with comparable information from prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2015</u>	<u>01/01/2014</u>	<u>01/01/2013</u>
Present Value of Future Benefits	\$ 6,951,159	\$ 6,891,449	\$ 6,827,695
Normal Cost (plan funding)	230,059	258,797	290,671
EAN Actuarial Accrued Liability	5,999,545	5,813,927	5,723,004
EAN Normal Cost	103,236	129,701	124,834
Interest Rate	7.25%	7.25%	7.25%

### Funding Ratios

We have provided a summary of key funding ratios for the current plan year below along with comparable information from prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2015</u>	<u>01/01/2014</u>	<u>01/01/2013</u>
Actuarial Value of Assets to Present Value of Future Benefits	72.0%	66.1%	59.4%
Actuarial Value of Assets to Actuarial Accrued Liability	83.4%	78.3%	70.9%
Market Value of Assets to Actuarial Accrued Liability	86.8%	83.7%	73.2%

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## **ACTUARIAL EXHIBITS**

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# SUMMARY AND COMPARISON OF RESULTS

## Key Valuation Measurements

Plan Year Beginning	<u>1/1/2015</u>	<u>1/1/2014</u>
Present Value of Future Benefits		
- Active participants	\$ 4,299,561	\$ 4,303,591
- Vested terminated participants	425,806	297,177
- <u>Retirees, beneficiaries, and disabled participants</u>	<u>2,225,792</u>	<u>2,290,681</u>
- TOTAL	\$ 6,951,159	\$ 6,891,449
<u>Actuarial Value of Assets less Credit Balance</u>	<u>5,003,896</u>	<u>4,553,626</u>
Present Value of Future Normal Costs (PVFNC)	\$ 1,947,263	\$ 2,337,823
Present Value of Future Salaries	\$ 15,679,297	\$ 17,828,636
<u>Current Payroll</u>	<u>1,852,424</u>	<u>1,973,630</u>
Temporary Annuity Factor	8.464205	9.033424
Normal Cost (plan funding) = PVFNC / Temp Annuity Factor	\$ 230,059	\$ 258,797
Entry Age Normal Actuarial Accrued Liability		
- Active participants	\$ 3,347,947	\$ 3,226,069
- Vested terminated participants	425,806	297,177
- <u>Retirees, beneficiaries, and disabled participants</u>	<u>2,225,792</u>	<u>2,290,681</u>
- TOTAL	\$ 5,999,545	\$ 5,813,927
Normal Cost (EAN, includes assumed expenses)	\$ 103,236	\$ 129,701
Plan Assets		
- Market Value of Plan Assets (MVA)	\$ 5,209,254	\$ 4,867,501
- Actuarial Value of Plan Assets (AVA)	5,003,896	4,553,626
- Receivable contributions included in assets	0	0
Minimum required contribution	\$ 246,738	\$ 277,560
Actual Contribution History	TBD	\$ 277,560
Key Assumptions		
- Valuation interest rate	7.25%	7.25%
- Rate of compensation increase	3.00%	3.00%

# RECONCILIATION OF PLAN ASSETS

Results for Plan Year Ending December 31, 2015

	Market Value	Actuarial Value
<b><i>Reconciliation of Assets During Plan Year</i></b>		
Plan assets at the beginning of the prior plan year	\$ 4,867,501	\$ 4,553,626
Employer contributions		
- Deposited during the prior plan year	277,560	277,560
- Receivable at the beginning of the prior plan year	0	0
- SUBTOTAL	\$ 277,560	\$ 277,560
- Receivable at the beginning of the current plan year	0	0
- TOTAL	\$ 277,560	\$ 277,560
Participant benefit payments	(261,374)	(261,374)
Administrative expenses paid by the plan	0	0
Net transfers	0	0
<u>Investment return</u>	325,567	434,084
Plan assets at the beginning of the current plan year	\$ 5,209,254	\$ 5,003,896
 <b><i>Form 5500 (Schedule B) Rate of Return on Invested Assets</i></b>		
Plan assets at the beginning of the prior plan year (A)	\$ 4,867,501	\$ 4,553,626
Plan assets at the beginning of the current plan year (B)	5,209,254	5,003,896
Investment return (i)	325,567	434,084
 Rate of Return = $2i / (A + B - i)$	 6.68%	 9.52%



# DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

## Under the Adjusted Market Value Method

### *Expected Return on Market Value of Assets for Prior Year*

	<u>Amount</u>	<u>Time Weighting</u>	<u>Time Weighted Amount</u>
Market Value of Assets (MVA) at beginning of prior plan year	\$ 4,867,501	100.00%	\$ 4,867,501
Contributions for prior plan year	277,560	42.98%	119,283
Participant benefit payments	(261,374)	50.00%	(130,687)
Administrative expenses paid by the plan	0	50.00%	0
<u>Net transfers</u>	0	0.00%	0
Total weighted asset value			\$ 4,856,097
<u>Assumed rate of return on plan assets for the year</u>			<u>7.25%</u>
Expected plan asset return			\$ 352,068

### *Actual Return on Market Value of Assets for Prior Year*

Market Value of Assets (MVA) at beginning of prior plan year		\$ 4,867,501
Contributions for prior plan year		277,560
Participant benefit payments		(261,374)
Administrative expenses paid by the plan		0
Market Value of Assets (MVA) at end of prior plan year		\$ 5,209,254
Actual plan asset return		325,567

### *Investment Gain/(Loss) for Prior Plan Year*

\$ (26,501)

### *Development of Actuarial Value of Assets*

Market Value of Assets (MVA) as of beginning of current plan year		\$ 5,209,254
Deferred investment gains/(losses) for last five years:		

<u>Plan Year Ending</u>	<u>Gain/(Loss)</u>	<u>Percent Recognized</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>
December 31, 2014	\$ (26,501)	20%	80%	\$ (21,201)
December 31, 2013	346,293	40%	60%	207,776
December 31, 2012	175,762	60%	40%	70,305
<u>December 31, 2011</u>	<u>(257,609)</u>	80%	20%	<u>(51,522)</u>
TOTAL				\$ 205,358

Asset value adjusted for deferred gains and losses		\$ 5,003,896
Corridor for actuarial value:		
Minimum = 80% of market value of assets		4,167,403
Maximum = 120% of market value of assets		6,251,105
Actuarial value of assets		\$ 5,003,896

# CALCULATION OF MINIMUM REQUIRED CONTRIBUTION

## Minimum Funding Standard Account

### Prior Year Minimum Funding Standard Account

Interest Rate	7.25%
<b>Charges</b>	
Prior year funding deficiency	0
Normal Cost	258,797
Amortization	0
Interest	18,763
Additional funding charge	N/A
<u>Late quarterly interest</u>	<u>N/A</u>
<b>TOTAL</b>	<b>277,560</b>
<b>Credits</b>	
Prior year credit balance	N/A
Employer contribution	277,560
Amortization	0
<u>Interest</u>	<u>0</u>
<b>TOTAL</b>	<b>277,560</b>

### Current Year Minimum Funding Standard Account

Interest Rate	7.25%
<b>Charges</b>	
Prior year funding deficiency	0
Normal Cost	230,059
Amortization	0
Interest	16,679
Additional funding charge	N/A
<u>Late quarterly interest</u>	<u>N/A</u>
<b>TOTAL</b>	<b>246,738</b>
<b>Credits</b>	
Prior year credit balance	N/A
Employer contribution	N/A
Amortization	0
<u>Interest</u>	<u>0</u>
<b>TOTAL</b>	<b>0</b>
<b>Minimum Funding Requirement</b>	<b>246,738</b>

### *Reconciliation of Change in Minimum Required Contribution*

Prior year minimum funding requirement as of the end of the plan year (not limited to \$0 for illustration)	\$ 277,560
Net change in plan normal cost	(30,822)
Net change in amortization items	0
Change in credit balance	N/A
<u>Change in additional funding charge</u>	<u>N/A</u>
Net changes	(30,822)
Current year minimum funding requirement as of the end of the plan year (not less than zero)	\$ 246,738

# ACTUARIAL ACCRUED LIABILITY

## Reconciliation of Liability from Prior Year

	Plan Year Beginning	
	<u>1/1/2015</u>	<u>1/1/2014</u>
Accumulated Plan Benefits		
- Active participants <sup>1</sup>	\$ 3,296,382	\$ 3,163,729
- Vested terminated participants	425,806	297,177
- <u>Retirees, beneficiaries, and disabled participants</u>	<u>2,225,792</u>	<u>2,290,681</u>
- SUBTOTAL	\$ 5,947,980	\$ 5,751,587
- <u>Non-vested benefits</u>	<u>51,565</u>	<u>62,340</u>
- TOTAL	\$ 5,999,545	\$ 5,813,927
Reconciliation of Accumulated Plan Benefits		
- Present value of accumulated plan benefits at January 1, 2014		\$ 5,813,927
- Changes attributable to:		
- Benefits accumulated (incl. gains/losses from non-investment experience)		(37,807)
- Decrease in the discount period		412,035
- Actual benefits paid		(261,374)
- Plan amendment		0
- Change of assumptions		72,764
- Present value of accumulated plan benefits at January 1, 2015		\$ 5,999,545

1 - There are a total of 28 active participants. Of these, 21 are fully vested and 7 are partially vested.

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## **APPENDICES**

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**APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

<i>Plan Sponsor</i>	Kent County Water Authority					
<i>Key Interest Rates</i>	Valuation discount rate	7.25%				
<i>Compensation Increases</i>	Compensation is assumed to increase at the rate of 3.0% annually.					
<i>Social Security Wage Base</i>	The taxable wage base is assumed to increase 2.5% annually.					
<i>Administrative Expenses</i>	For purposes of this valuation, we have assumed that no administrative expenses will be paid from plan assets.					
<i>Mortality</i>	Mortality rates are assumed in accordance with the Sex-Distinct IRS 2015 Combined Static Mortality Table.					
<i>Retirement</i>	All participants are assumed to retire at age 62 or current age, if older.					
<i>Disability</i>	None assumed.					
<i>Disabled Mortality</i>	Not applicable.					
<i>Representative Termination Rates</i>	Termination of employment is assumed according to Scale T-1 from the Pension Actuary's Handbook. Representative termination rates are listed below and are the same for both males and females.					
	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
	20	5.44%	35	2.35%	50+	0.00%
	25	4.89%	40	1.13%		
	30	3.70%	45	0.27%		
<i>Form of Payment</i>	Participants are assumed to elect the normal form of annuity.					
<i>Marriage</i>	75% of participants are assumed to be married; husbands are assumed to be three years older than wives.					
<i>Employees</i>	No new or rehired employees are assumed for valuation purposes.					
<i>Employee Data</i>	Employee data was supplied by Kent County Water Authority as of January 1, 2015.					

## APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

***Cost Method***

Aggregate funding method.

***Asset Method***

Actuarial value of assets is based on a five-year smoothing method. The difference between actual and expected gains and losses are recognized at a rate of 20% per year. Smoothed value of assets is adjusted, as needed, to remain within 20% of market value.

***Nature of Actuarial Calculations***

The results documented in this report are estimates based on data that may be imperfect as well as on assumptions with respect to future events. Certain plan provisions may be approximated or deemed immaterial and therefore are not valued. Reasonable efforts were made to ensure that items significant to the context of the actuarial liabilities and costs are treated appropriately.

Future experience may differ from the assumptions used in these calculations. As differences arise, future expenses will be adjusted to reflect actual plan experience.

***Changes in Assumptions and Methods Since Most Recent Actuarial Valuation***

The mortality assumption has been updated from the 2008 table to the 2015 table.

## APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS

<b>Plan Sponsor</b>	Kent County Water Authority
<b>Effective Date</b>	January 1, 1976
<b>Eligibility</b>	<u>Employment Classification:</u> All employees of Kent County Water Authority <u>Minimum Age &amp; Service:</u> Attainment of age 21 and the completion of one year of service.
<b>Entry Date</b>	January 1 nearest the completion of eligibility requirements.
<b>Service</b>	<u>Credited Service:</u> 1,000 hours per plan year <u>Vesting Service:</u> 1,000 hours per plan year
<b>Accrued Benefit</b>	<p>The monthly benefit is equal to 1.25% of average compensation plus 0.4% of average compensation in excess of covered compensation. That result is multiplied by the number of years of credited service, up to a maximum of 35 years.</p> <p>The minimum monthly benefit for employees hired before January 1, 1996 is equal to 30% of average compensation plus 19.67% of average compensation in excess of \$550. The excess portion of the benefit is reduced 1/15th for years of participation below 15 years at retirement.</p> <p>The accrued benefit at any calculation date is the monthly benefit above times Years of Service as of the calculation date divided by estimated Years of Service at Normal Retirement.</p>
<b>Normal Retirement</b>	<u>Eligibility:</u> First of the month coincident with or next following the attainment of age 62. <u>Benefit Formula:</u> Benefit is the accrued benefit. <u>Commencement Date:</u> Payments will commence on the retired participant's Normal Retirement Date. <u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.
<b>Early Retirement</b>	<u>Eligibility:</u> First of the month coincident with or next following the attainment of age 52. <u>Benefit:</u> The accrued benefit reduced 6.66% for each of the first five years and 3.33% for each of the next five years that early retirement precedes age 62. <u>Commencement Date:</u> Payments will commence on the retired participant's Early Retirement Date. <u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.

## APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS

<b>Late Retirement</b>	<p><u>Eligibility:</u> Retirement after age 62.</p> <p><u>Benefit:</u> The benefit calculated as of the participant's Normal Retirement Date with actuarial increase for late retirement.</p> <p><u>Commencement Date:</u> Payments will commence on the retired participant's Deferred Retirement Date.</p> <p><u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.</p>
<b>Vested Deferred Retirement</b>	<p><u>Eligibility:</u> Termination other than by retirement, death, or disability after at least three years of vesting service.</p> <p><u>Benefit:</u> Accrued benefit to date of termination times a vesting percentage. Vesting percentage is equal to 20% at 3 years of service increasing 20% each year to 100% at year 7.</p> <p><u>Commencement Date:</u> Deferred until normal retirement date or a reduced amount at early retirement.</p> <p><u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.</p>
<b>Death Before Retirement</b>	<p><u>Eligibility:</u> Payable to surviving spouse.</p> <p><u>Benefit:</u> Lifetime benefit equal to 50% of the participant's deferred vested benefit (including a reduction to reflect an assumed election of a 50% joint &amp; survivor option).</p> <p><u>Commencement Date:</u> Payable at the earliest date that the participant would have become eligible for early retirement.</p> <p><u>Form of Payment:</u> Payable monthly for life.</p>
<b>Death After Retirement</b>	Death benefits payable after a participant has attained normal retirement date are paid according to the form of annuity elected by the participant at retirement.
<b>Disability Benefit</b>	The plan does not provide special disability benefits.
<b>Forms of Payment</b>	The normal form of payment for single participants is the life annuity with 10 years certain. The normal form for married participants is an actuarially equivalent 50% joint & survivor annuity.
<b>Benefits Not Valued</b>	None.
<b>Changes Since Prior Valuation</b>	None.



**KENT COUNTY WATER AUTHORITY**

Kent County Water Authority  
Pension Plan

Actuarial Funding Valuation  
Plan Year Beginning January 1, 2016

April 2016

## **TABLE OF CONTENTS**

<b>PURPOSE AND ACTUARIAL STATEMENT</b>	Page 1
<b>SUMMARY OF KEY RESULTS</b>	
Summary of Changes from Prior Fiscal Year	Page 3
Participant Information	Page 4
Participant Data Reconciliation	Page 5
Participant Age & Service Chart	Page 6
Assets and Liabilities	Page 7
<b>ACTUARIAL EXHIBITS</b>	
Summary and Comparison of Results	Page 9
Reconciliation of Plan Assets	Page 10
Development of Actuarial Value of Assets	Page 11
Calculation of Minimum Required Contribution	Page 12
Actuarial Accrued Liability	Page 13
<b>APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS</b>	Page 15
<b>APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS</b>	Page 17

## PURPOSE AND ACTUARIAL STATEMENT

As requested by the Kent County Water Authority, this report documents the results of an actuarial valuation of the Kent County Water Authority Pension Plan. The primary purpose of this valuation is determination of the contribution requirements for the plan for the plan year beginning January 1, 2016 and ending December 31, 2016 and should not be relied on for other purposes.

The results of this valuation are based on data and other information provided by the Kent County Water Authority. We have examined the data for reasonability and consistency with prior results, but we have not performed a formal audit. We have relied on all of the information provided, including plan provisions and asset information, as complete and accurate.


This valuation involves actuarial calculations that require assumptions regarding future events. We believe that the assumptions used are appropriate for the purposes for which they have been used.

To the best of our knowledge, the calculations contained herein, the procedures followed and presentation of results have been completed in accordance with generally accepted actuarial principles and practices. The undersigned consultants possess the actuarial credentials required to meet the Qualification Standards of the American Academy of Actuaries to render the opinions contained herein.

There is no relationship between the Kent County Water Authority and Summit Financial Corporation that would impair or appear to impair our objectivity.

  
\_\_\_\_\_  
Jason A. Denton, F.S.A., E.A.  
Consulting Actuary

4/13/2016  
\_\_\_\_\_  
Date

  
\_\_\_\_\_  
Scott Boulay, A.S.A., E.A., M.A.A.A., F.C.A.  
Consulting Actuary

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## **SUMMARY OF KEY RESULTS**

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# SUMMARY OF KEY RESULTS

## Summary of Changes from Prior Fiscal Year

### Contribution History

Plan Year Beginning	<u>1/1/2016</u>	<u>1/1/2015</u>	<u>1/1/2014</u>
Minimum Required Contribution	\$ 243,161	\$ 246,738	\$ 277,560
Actual Amount Contributed	TBD	\$ 277,560	\$ 311,745

### Key Assumptions & Provisions

Appendix A summarizes the actuarial assumptions and cost methods used to determine plan liabilities. The mortality assumption has been revised from the 2015 IRS Combined Mortality table to the 2016 IRS table.

Appendix B summarizes key provisions of the plan as of the valuation date. To our knowledge, there have been no changes in any key plan provisions since the last valuation and none are pending.

### Comments on Results

The annual required contribution remains in line with last year at \$243,161. Smoothing of asset losses in 2015 reduced the 2016 contribution amount by nearly \$30,000.

Plan assets returned -1.76% during 2015 vs. an assumed increase of 7.25%. The resulting asset loss is recognized over the next 5 years. On a market basis, the plan's funding ratio has declined slightly from 86.8% last year to 82.8% (compared with 58% as of 1/1/2009).

# SUMMARY OF KEY RESULTS

## Participant Information

### Participant Information

Key figures with respect to the participant data used in this actuarial valuation are summarized below along with comparable information from prior years.

Plan Year Beginning	<u>01/01/2016</u>	<u>01/01/2015</u>	<u>01/01/2014</u>
<b>Participating Employees</b>			
Number	31	28	30
Number with Vested Benefits	26	25	29
Number Fully Vested (7 years of service)	23	21	22
Average Attained Age	48.9	49.2	48.5
Average Credited Service	14.3	14.7	14.0
Average Annual Pay	\$ 63,337	\$ 64,231	\$ 63,872
Average Annual Benefit	\$ 13,404	\$ 13,469	\$ 12,121
<b>Participants with Deferred Benefits</b>			
Number	14	15	11
Average Attained Age	51.4	51.2	51.2
Average Annual Deferred Benefit	\$ 5,391	\$ 5,456	\$ 5,566
<b>Participants Receiving Benefits</b>			
Number	22	21	22
Average Attained Age	74.4	74.1	74.0
Average Annual Benefit	\$ 12,001	\$ 12,141	\$ 12,690

**Kent County Water Authority Pension Plan**  
**Reconciliation of Plan Data**

	<u>Active</u> <u>Participants</u>	<u>Vested Term</u> <u>Participants</u>	<u>Retirees</u>	<u>Beneficiaries</u>	<u>TOTAL</u>
Participants as of January 1, 2015	28	15	15	6	64
+ New hires	3	0	0	0	3
+ Acquisitions	0	0	0	0	0
- Non-vested terminations	0	0	0	0	0
- Vested terminations	0	0	0	0	0
- Rehired employees	0	0	0	0	0
- Retirees	0	(1)	1	0	0
- Beneficiaries	0	0	0	1	1
- Deaths	0	0	(1)	0	(1)
- Disabled participants	0	0	0	0	0
- Lump Sum Distributions	0	0	0	0	0
- Data adjustments	0	0	0	0	0
Participants as of January 1, 2016	31	14	15	7	67

**KENT COUNTY WATER AUTHORITY PENSION PLAN**  
**Age & Service Chart**

	Under 1	1 to 4	5 to 9	10 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 and up
Under 25	0	0	0	0	0	0	0	0	0	0
25 to 29	0	2	0	0	0	0	0	0	0	0
30 to 34	0	0	2	1	0	0	0	0	0	0
35 to 39	0	1	0	0	0	0	0	0	0	0
40 to 44	0	1	1	1	0	0	0	0	0	0
45 to 49	0	0	1	1	1	0	2	0	0	0
50 to 54	0	1	1	0	2	3	0	1	0	0
55 to 59	0	1	0	0	3	0	1	0	0	1
60 to 64	0	0	2	0	0	0	1	0	0	0
65 to 69	0	0	0	0	0	0	0	0	0	0
70 and up	0	0	0	0	0	0	0	0	0	0



# SUMMARY OF KEY RESULTS

## Assets and Liabilities

### Plan Assets

The market value of assets and actuarial (smoothed) value of assets are shown below for both current and prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2016</u>	<u>01/01/2015</u>	<u>01/01/2014</u>
<b>Value of Assets</b>			
Market Value of Assets (MVA)	\$ 5,101,443	\$ 5,209,254	\$ 4,867,501
Actuarial Value of Assets (AVA)	5,317,844	5,003,896	4,553,626
<b>Rate of Return on Assets</b>			
Market Value of Assets	-1.76%	6.68%	15.41%
Actuarial Value of Assets	6.61%	9.52%	11.40%

### Plan Liabilities

We have provided a summary of key liability measures for the current plan year below along with comparable information from prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2016</u>	<u>01/01/2015</u>	<u>01/01/2014</u>
Present Value of Future Benefits	\$ 7,139,580	\$ 6,951,159	\$ 6,891,449
Normal Cost (plan funding)	226,724	230,059	258,797
EAN Actuarial Accrued Liability	6,159,405	5,999,545	5,813,927
EAN Normal Cost	113,301	103,236	129,701
Interest Rate	7.25%	7.25%	7.25%

### Funding Ratios

We have provided a summary of key funding ratios for the current plan year below along with comparable information from prior plan years.

<b>Plan Year Beginning</b>	<u>01/01/2016</u>	<u>01/01/2015</u>	<u>01/01/2014</u>
Actuarial Value of Assets to Present Value of Future Benefits	74.5%	72.0%	66.1%
Actuarial Value of Assets to Actuarial Accrued Liability	86.3%	83.4%	78.3%
Market Value of Assets to Actuarial Accrued Liability	82.8%	86.8%	83.7%

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## **ACTUARIAL EXHIBITS**

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# SUMMARY AND COMPARISON OF RESULTS

## Key Valuation Measurements

Plan Year Beginning	<u>1/1/2016</u>	<u>1/1/2015</u>
Present Value of Future Benefits		
- Active participants	\$ 4,631,696	\$ 4,299,561
- Vested terminated participants	382,402	425,806
- Retirees, beneficiaries, and disabled participants	<u>2,125,482</u>	<u>2,225,792</u>
- TOTAL	\$ 7,139,580	\$ 6,951,159
<u>Actuarial Value of Assets less Credit Balance</u>	<u>5,317,844</u>	<u>5,003,896</u>
Present Value of Future Normal Costs (PVFNC)	\$ 1,821,736	\$ 1,947,263
Present Value of Future Salaries	\$ 16,249,732	\$ 15,679,297
<u>Current Payroll</u>	<u>2,022,363</u>	<u>1,852,424</u>
Temporary Annuity Factor	8.035022	8.464205
Normal Cost (plan funding) = PVFNC / Temp Annuity Factor	\$ 226,724	\$ 230,059
Entry Age Normal Actuarial Accrued Liability		
- Active participants	\$ 3,651,521	\$ 3,347,947
- Vested terminated participants	382,402	425,806
- Retirees, beneficiaries, and disabled participants	<u>2,125,482</u>	<u>2,225,792</u>
- TOTAL	\$ 6,159,405	\$ 5,999,545
Normal Cost (EAN, includes assumed expenses)	\$ 113,301	\$ 103,236
Plan Assets		
- Market Value of Plan Assets (MVA)	\$ 5,101,443	\$ 5,209,254
- Actuarial Value of Plan Assets (AVA)	5,317,844	5,003,896
- Receivable contributions included in assets	0	0
Minimum required contribution	\$ 243,161	\$ 246,738
Actual Contribution History	TBD	\$ 246,738
Key Assumptions		
- Valuation interest rate	7.25%	7.25%
- Rate of compensation increase	3.00%	3.00%

## RECONCILIATION OF PLAN ASSETS

Results for Plan Year Ending December 30, 2016

	Market Value	Actuarial Value
<b><i>Reconciliation of Assets During Plan Year</i></b>		
Plan assets at the beginning of the prior plan year	\$ 5,209,254	\$ 5,003,896
Employer contributions		
- Deposited during the prior plan year	246,738	246,738
<u>- Receivable at the beginning of the prior plan year</u>	<u>0</u>	<u>0</u>
- SUBTOTAL	\$ 246,738	\$ 246,738
<u>- Receivable at the beginning of the current plan year</u>	<u>0</u>	<u>0</u>
- TOTAL	\$ 246,738	\$ 246,738
Participant benefit payments	(263,052)	(263,052)
Administrative expenses paid by the plan	0	0
Net transfers	0	0
<u>Investment return</u>	<u>(91,497)</u>	<u>330,262</u>
Plan assets at the beginning of the current plan year	\$ 5,101,443	\$ 5,317,844
 <b><i>Form 5500 (Schedule B) Rate of Return on Invested Assets</i></b>		
Plan assets at the beginning of the prior plan year (A)	\$ 5,209,254	\$ 5,003,896
Plan assets at the beginning of the current plan year (B)	5,101,443	5,317,844
Investment return (i)	(91,497)	330,262
Rate of Return = $2i / (A + B - i)$	-1.76%	6.61%



# DEVELOPMENT OF ACTUARIAL VALUE OF ASSETS

## Under the Adjusted Market Value Method

### Expected Return on Market Value of Assets for Prior Year

	<u>Amount</u>	<u>Time Weighting</u>	<u>Time Weighted Amount</u>
Market Value of Assets (MVA) at beginning of prior plan year	\$ 5,209,254	100.00%	\$ 5,209,254
Contributions for prior plan year	246,738	45.16%	111,421
Participant benefit payments	(263,052)	50.00%	(131,526)
Administrative expenses paid by the plan	0	50.00%	0
<u>Net transfers</u>	0	0.00%	0
Total weighted asset value			\$ 5,189,149
<u>Assumed rate of return on plan assets for the year</u>			<u>7.25%</u>
Expected plan asset return			\$ 376,214

### Actual Return on Market Value of Assets for Prior Year

Market Value of Assets (MVA) at beginning of prior plan year			\$ 5,209,254
Contributions for prior plan year			246,738
Participant benefit payments			(263,052)
Administrative expenses paid by the plan			0
Market Value of Assets (MVA) at end of prior plan year			\$ 5,101,443
Actual plan asset return			(91,497)

### Investment Gain/(Loss) for Prior Plan Year

\$ (467,711)

### Development of Actuarial Value of Assets

Market Value of Assets (MVA) as of beginning of current plan year			\$ 5,101,443
Deferred investment gains/(losses) for last five years:			

<u>Plan Year Ending</u>	<u>Gain/(Loss)</u>	<u>Percent Recognized</u>	<u>Percent Deferred</u>	<u>Deferred Amount</u>
December 31, 2015	\$ (467,711)	20%	80%	\$ (374,169)
December 31, 2014	(26,501)	40%	60%	(15,901)
December 31, 2013	346,293	60%	40%	138,517
<u>December 31, 2012</u>	<u>175,762</u>	<u>80%</u>	<u>20%</u>	<u>35,152</u>
TOTAL				\$ (216,401)

Asset value adjusted for deferred gains and losses			\$ 5,317,844
Corridor for actuarial value:			
Minimum = 80% of market value of assets			4,081,154
Maximum = 120% of market value of assets			6,121,732
Actuarial value of assets			\$ 5,317,844

# CALCULATION OF MINIMUM REQUIRED CONTRIBUTION

## Minimum Funding Standard Account

### Prior Year Minimum Funding Standard Account

Interest Rate 7.25%

#### **Charges**

Prior year funding deficiency	0
Normal Cost	230,059
Amortization	0
Interest	16,679
Additional funding charge	N/A
<u>Late quarterly interest</u>	<u>N/A</u>
<b>TOTAL</b>	<b>246,738</b>

#### **Credits**

Prior year credit balance	N/A
Employer contribution	246,738
Amortization	0
<u>Interest</u>	<u>0</u>
<b>TOTAL</b>	<b>246,738</b>

### Current Year Minimum Funding Standard Account

Interest Rate 7.25%

#### **Charges**

Prior year funding deficiency	0
Normal Cost	226,724
Amortization	0
Interest	16,437
Additional funding charge	N/A
<u>Late quarterly interest</u>	<u>N/A</u>
<b>TOTAL</b>	<b>243,161</b>

#### **Credits**

Prior year credit balance	N/A
Employer contribution	N/A
Amortization	0
<u>Interest</u>	<u>0</u>
<b>TOTAL</b>	<b>0</b>

**Minimum Funding Requirement 243,161**

### ***Reconciliation of Change in Minimum Required Contribution***

Prior year minimum funding requirement as of the end of the plan year (not limited to \$0 for illustration)	\$ 246,738
Net change in plan normal cost	(3,577)
Net change in amortization items	0
Change in credit balance	N/A
<u>Change in additional funding charge</u>	<u>N/A</u>
Net changes	(3,577)
Current year minimum funding requirement as of the end of the plan year (not less than zero)	\$ 243,161

# ACTUARIAL ACCRUED LIABILITY

## Reconciliation of Liability from Prior Year

	Plan Year Beginning	
	<u>1/1/2016</u>	<u>1/1/2015</u>
Accumulated Plan Benefits		
- Active participants <sup>1</sup>	\$ 3,599,815	\$ 3,296,382
- Vested terminated participants	382,402	425,806
- <u>Retirees, beneficiaries, and disabled participants</u>	<u>2,125,482</u>	<u>2,225,792</u>
- SUBTOTAL	\$ 6,107,699	\$ 5,947,980
- <u>Non-vested benefits</u>	<u>51,706</u>	<u>51,565</u>
- TOTAL	\$ 6,159,405	\$ 5,999,545
Reconciliation of Accumulated Plan Benefits		
- Present value of accumulated plan benefits at January 1, 2015		\$ 5,999,545
- Changes attributable to:		
- Benefits accumulated (incl. gains/losses from non-investment experience)		(14,838)
- Decrease in the discount period		425,431
- Actual benefits paid		(263,052)
- Plan amendment		0
- Change of assumptions		12,319
- Present value of accumulated plan benefits at January 1, 2016		\$ 6,159,405

1 - There are a total of 31 active participants. Of these, 23 are fully vested and 3 are partially vested.

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## **APPENDICES**

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**APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS**

<b>Plan Sponsor</b>	Kent County Water Authority					
<b>Key Interest Rates</b>	Valuation discount rate		7.25%			
<b>Compensation Increases</b>	Compensation is assumed to increase at the rate of 3.0% annually.					
<b>Social Security Wage Base</b>	The taxable wage base is assumed to increase 2.5% annually.					
<b>Administrative Expenses</b>	For purposes of this valuation, we have assumed that no administrative expenses will be paid from plan assets.					
<b>Mortality</b>	Mortality rates are assumed in accordance with the Sex-Distinct IRS 2016 Combined Static Mortality Table.					
<b>Retirement</b>	All participants are assumed to retire at age 62 or current age, if older.					
<b>Disability</b>	None assumed.					
<b>Disabled Mortality</b>	Not applicable.					
<b>Representative Termination Rates</b>	Termination of employment is assumed according to Scale T-1 from the Pension Actuary's Handbook. Representative termination rates are listed below and are the same for both males and females.					
	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>	<u>Age</u>	<u>Rate</u>
	20	5.44%	35	2.35%	50+	0.00%
	25	4.89%	40	1.13%		
	30	3.70%	45	0.27%		
<b>Form of Payment</b>	Participants are assumed to elect the normal form of annuity.					
<b>Marriage</b>	75% of participants are assumed to be married; husbands are assumed to be three years older than wives.					
<b>Employees</b>	No new or rehired employees are assumed for valuation purposes.					
<b>Employee Data</b>	Employee data was supplied by Kent County Water Authority as of January 1, 2016.					

## APPENDIX A: STATEMENT OF ACTUARIAL ASSUMPTIONS AND METHODS

### ***Cost Method***

Aggregate funding method.

### ***Asset Method***

Actuarial value of assets is based on a five-year smoothing method. The difference between actual and expected gains and losses are recognized at a rate of 20% per year. Smoothed value of assets is adjusted, as needed, to remain within 20% of market value.

### ***Nature of Actuarial Calculations***

The results documented in this report are estimates based on data that may be imperfect as well as on assumptions with respect to future events. Certain plan provisions may be approximated or deemed immaterial and therefore are not valued. Reasonable efforts were made to ensure that items significant to the context of the actuarial liabilities and costs are treated appropriately.

Future experience may differ from the assumptions used in these calculations. As differences arise, future expenses will be adjusted to reflect actual plan experience.

### ***Changes in Assumptions and Methods Since Most Recent Actuarial Valuation***

The mortality assumption has been updated from the 2015 IRS static mortality table.

## APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS

<b>Plan Sponsor</b>	Kent County Water Authority
<b>Effective Date</b>	January 1, 1976
<b>Eligibility</b>	<u>Employment Classification:</u> All employees of Kent County Water Authority <u>Minimum Age &amp; Service:</u> Attainment of age 21 and the completion of one year of service.
<b>Entry Date</b>	January 1 nearest the completion of eligibility requirements.
<b>Service</b>	<u>Credited Service:</u> 1,000 hours per plan year <u>Vesting Service:</u> 1,000 hours per plan year
<b>Accrued Benefit</b>	<p>The monthly benefit is equal to 1.25% of average compensation plus 0.4% of average compensation in excess of covered compensation. That result is multiplied by the number of years of credited service, up to a maximum of 35 years.</p> <p>The minimum monthly benefit for employees hired before January 1, 1996 is equal to 30% of average compensation plus 19.67% of average compensation in excess of \$550. The excess portion of the benefit is reduced 1/15th for years of participation below 15 years at retirement.</p> <p>The accrued benefit at any calculation date is the monthly benefit above times Years of Service as of the calculation date divided by estimated Years of Service at Normal Retirement.</p>
<b>Normal Retirement</b>	<u>Eligibility:</u> First of the month coincident with or next following the attainment of age 62. <u>Benefit Formula:</u> Benefit is the accrued benefit. <u>Commencement Date:</u> Payments will commence on the retired participant's Normal Retirement Date. <u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.
<b>Early Retirement</b>	<u>Eligibility:</u> First of the month coincident with or next following the attainment of age 52. <u>Benefit:</u> The accrued benefit reduced 6.66% for each of the first five years and 3.33% for each of the next five years that early retirement precedes age 62. <u>Commencement Date:</u> Payments will commence on the retired participant's Early Retirement Date. <u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.

## APPENDIX B: SUMMARY OF PRINCIPAL PLAN PROVISIONS

<b>Late Retirement</b>	<p><u>Eligibility:</u> Retirement after age 62.</p> <p><u>Benefit:</u> The benefit calculated as of the participant's Normal Retirement Date with actuarial increase for late retirement.</p> <p><u>Commencement Date:</u> Payments will commence on the retired participant's Deferred Retirement Date.</p> <p><u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.</p>
<b>Vested Deferred Retirement</b>	<p><u>Eligibility:</u> Termination other than by retirement, death, or disability after at least three years of vesting service.</p> <p><u>Benefit:</u> Accrued benefit to date of termination times a vesting percentage. Vesting percentage is equal to 20% at 3 years of service increasing 20% each year to 100% at year 7.</p> <p><u>Commencement Date:</u> Deferred until normal retirement date or a reduced amount at early retirement.</p> <p><u>Form of Payment:</u> Payable monthly for life, but not less than 120 payments. Optional forms are available on an actuarially equivalent basis.</p>
<b>Death Before Retirement</b>	<p><u>Eligibility:</u> Payable to surviving spouse.</p> <p><u>Benefit:</u> Lifetime benefit equal to 50% of the participant's deferred vested benefit (including a reduction to reflect an assumed election of a 50% joint &amp; survivor option).</p> <p><u>Commencement Date:</u> Payable at the earliest date that the participant would have become eligible for early retirement.</p> <p><u>Form of Payment:</u> Payable monthly for life.</p>
<b>Death After Retirement</b>	Death benefits payable after a participant has attained normal retirement date are paid according to the form of annuity elected by the participant at retirement.
<b>Disability Benefit</b>	The plan does not provide special disability benefits.
<b>Forms of Payment</b>	The normal form of payment for single participants is the life annuity with 10 years certain. The normal form for married participants is an actuarially equivalent 50% joint & survivor annuity.
<b>Benefits Not Valued</b>	None.
<b>Changes Since Prior Valuation</b>	None.



17. Reference to Sch. 1D, page 4, of Mr. Woodcock's testimony.
- a. Please explain the rate increase in "Maint. Structure" from \$56,263 to \$77,388, and provide the supporting calculations showing the derivation of the FY 17 and FY 18 amounts.
  - b. Please explain the rate increase in "Maint. Equipment" from \$18,387 to \$38,755, and provide the supporting calculations showing the derivation of the FY 17 and FY 18 amounts.
  - c. Please explain the rate increase in "Maint. Mains" from \$373,671 to \$421,144, and provide the supporting calculations showing the derivation of the FY 17 and FY 18 amounts.
  - d. Please explain the rate increase in Maint. Services from \$72,007 to \$113,448, and provide the supporting calculations showing the derivation of the FY 17 and FY 18 amounts.

Response:

- a. The FY2017 value includes a 2% increase from FY2016 plus half the proposed \$40,000 annual Maintenance Mechanic Salary (\$20,000)
- b. The FY2017 value includes a 2% increase from FY2016 plus the other half of the proposed \$40,000 annual Maintenance Mechanic Salary (\$20,000)
- c. The FY2017 value includes a 2% increase from FY2016 plus One Operator at the proposed \$40,000 annual salary
- d. The FY2017 value includes a 2% increase from FY2016 plus One Operator at the proposed \$40,000 annual salary

Witness Responsible: C. Woodcock

18. Reference to Sch. 1E, page 1, of Mr. Woodcock's testimony.
  - a. Please explain the increase in Legal, consultants and DPUC fees for this docket as compared to the amounts for those categories of costs for the three previous years.
  - b. Please provide supporting documentation for Other Rate Case (Prov Water, Pass Thru) costs of \$50,000, and provide the dates on which those costs were incurred.
  - c. Please provide the actual PUC assessment for FY 16.

Response:

- a. These are estimated costs for the current filing. KCWA's last full rate filing before the Commission was in Docket 4142 (2010). The costs presented on Schedule 1E are for other regulatory proceedings including intervention in Providence Water Cases and Filings of pass through increases associated with Providence Water Filings. In FY2014 and FY2015 we had begun the preparation of a full rate filing, however, this was not filed as the Board did not authorize a filing at that time.
- b. Please refer to PUC Annual Report page 35 attached.
- c. There is no PUC assessment. We believe you are looking for the Division assessment. Copy attached.

Witness Responsible: T. Brown



**ANNUAL REPORT**

**OF**

**Kent County Water Authority**

**TO THE**

**PUBLIC UTILITIES COMMISSION**

**OF THE**

**STATE OF RHODE ISLAND**

**For the Fiscal Year Ended June 30, 2015**



Name of Respondent		This Report is:		Date of Report	Year of Report				
Kent County Water Auth		(1) _x_ An Original	(2) _A Resubmission	01/26/16	06/30/15				
<b>REGULATORY EXPENSE AND RATE CASE COSTS</b>									
1. Please provide detail for rate case and regulatory expense for prior 5 years.									
2. If there are any open cases before the Commission or Division, they should be noted as such and total costs estimated.									
3. Use explanation page to expand description or special circumstances.									
Effective Date FYE	Accounting Fees	Counsel Fees	Source of Cost Matrix Outside Consultant	Other	Total Cost	Allocation and Distribution Expensed To Cost Centers	Commission Allowed In Rates	Reserve Bal. If Any Col (j) - (k)	
2,010	49,643								
2,011	45,874		600	3,769	50,243			50,243	
2,012	53,179		1,800	698	55,677			55,677	
2,013	64,890	22,920	17,000	2,960	107,770			107,770	
2,014	Annual Assessment 97,253	Robert Watson, Esq Petrarca & McGair 44,511	Christopher Woodcock, Rate Consultant 53,328	DPUC Fees 908	196,000			196,000	
2,015	Annual Assessment 84,080	Robert Watson, Esq 16,110	Christopher Woodcock, Rate Consultant 36,273	DPUC Fees 457	136,920			136,920	
<b>Totals</b>						<b>394,919</b>	<b>109,001</b>	<b>8,792</b>	<b>546,609</b>

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
DIVISION OF PUBLIC UTILITIES AND CARRIERS**

89 Jefferson Boulevard Warwick, RI 02888  
Phone: (401) 941-4500 Fax: (401) 941-9248 Web: www.ripuc.ri.gov

Kent County Water  
1072 Main Street  
Warwick RI 02893  
Attention: Tim Brown

INVOICE NUMBER: 31 INVOICE DATE: December 1, 2015  
Total Amount Due by January 1, 2016  
*Interest at the rate of 6% per annum may be added if invoice is not paid by the due date. (R.I. GL - 39-1-24)*

## ASSESSMENT INVOICE

This invoice is in accordance with Section 39-1-23 of the  
General Laws of the State of Rhode Island.  
For FY2016 - July 1, 2015 to June 30, 2016

**Company Name:** Kent County Water      **Assessment Amount Due:** \$80,389.37

### Breakdown of Assessment Calculation

<u>Item 1</u>	<u>Item 2</u>	<u>Item 3</u>	<u>Item 4</u>	Amount Due By January 1, 2016
Utility Revenue Reported FY2014	Agency Assessment FY2016	Revenues Reported All Utilities	Amount Paid In Advance	
\$19,436,006	\$7,753,683	\$1,874,633,880	\$0	\$80,389.37

### Steps for calculating the assessment

(Item 1 / Item 3 \* Item 2) - Item 4 = Assessment Amount Due

**R.I. General Law 39-1-23. Administrative expenses - Assessment against utilities.**

0108 The administrator shall aggregate the expenses of the division, including expenses incurred by the attorney general pursuant to 39-1-19, and expenses incurred by the commission for each upcoming fiscal year and shall apportion and assess these expenses among the state's regulated utilities based upon approved budgets.

Date Received	12/10/15
Purchase Order No.	
Voucher No.	
O.K.	TD
Date Paid	12/14/15
Check No.	008250
Ent'd Gen'l Books	
ACCOUNT	AMOUNT
19280	80389.37

**Please Make Check Payable To:**

Rhode Island Division of Public Utilities  
Attn: Anthony Manni  
89 Jefferson Boulevard  
Warwick, Rhode Island 02888

*Req comm Expense*



19. Reference to Sch. 1E, page 2, of Mr. Woodcock's testimony.
- a. With regard to East Greenwich chemical costs, please provide the supporting documentation showing the derivation of the FY 2017 projected amounts for Production, Chlorine, Tetrapotassium Pyrophosphate, Potassium Hydroxide, "PyroPhos" and "POT HYD".
  - b. Please provide supporting documentation "COST/GAL" for each of the chemicals.

Response:

- a. Derivation of FY2017
  - Production (see exhibit "EG Well" subsection 1)
  - Chlorine (see exhibit "EG Well" subsection 2)
  - Pyro Phos (see exhibit "EG Well" subsection 3)
  - POT HYD (see exhibit "EG Well" subsection 4)
- b. Supporting Documentation Cost/Gal
  - Chlorine (see "EG Well" Appendix B)
  - Pyro Phos (see "EG Well" Appendix C)
  - POT HYD (see "EG Well" Appendix D)

Witness Responsible: J. Gershkoff, prepared by Dave Simmons

20. Reference to Sch. 1E, page 2, of Mr. Woodcock's testimony.
- a. With regard to Mishnock chemical costs, please provide the supporting documentation showing the derivation of the FY 2017 projected use for Production, Potassium Permanganate, Chlorine, Potassium Hydroxide, Citric Acid, Sodium Bisulfate, Sulfuric Acid, Chemical Deliver Fees, "Lab Chem".
  - b. Please provide supporting documentation "COST/GAL" for each of the chemicals.

Response:

- a. Derivation of FY2017:
  - Production (exhibit Mishnock 1)
  - Potassium Permanganate (exhibit Mishnock 2)
  - Chlorine (exhibit Mishnock 3)
  - Potassium Hydroxide (exhibit Mishnock 4)
  - Citric Acid (exhibit Mishnock 5)
  - Sodium Bisulfite (exhibit Mishnock 6)
  - Sulfuric Acid (exhibit Mishnock 7)
  - Chemical Delivery Fees (exhibit Mishnock 8)
  - Lab Chem (exhibit Mishnock 9)
- b. Cost/Gal: based on actual purchases in FY2015 see highlighted in " Exhibit Mishnock Appendix A" Please note the cost of citric acid increased from originally obtained pricing of \$11.06/gal to \$12.29/gal

Witness Responsible: J. Gershkoff, prepared by Dave Simmons

21. Reference to Sch. 1E, page 2, of Mr. Woodcock's testimony.
- a. Please provide the supporting documentation for the FY 2017 KWH used of 313,385 for East Greenwich.
  - b. Please provide the usage data for FY 2015, and explain why there is no usage data for East Greenwich for FY 2015 reflected on the schedule.
  - c. Please provide the supporting documentation for the FY 2017 \$/KWH of \$0.186 for East Greenwich.
  - d. Please provide the supporting documentation for the Mishnock FY 2016 and FY 2017 KWH usage of 346,320 and 908,907 respectively.
  - e. Please provide the supporting documentation for the FY 2017 \$/KWH of \$0.186 for Mishnock.

Response:

- a. See exhibit "EG Well" Appendix E #1
- b. See exhibit "EG Well" Appendix E #3
- c. See exhibit "EG Well" Appendix E #4
- d. See exhibit "Mishnock" Appendix B-1 & B-2

346320 derivation FY2016 KWH used is based on an 8 hour production time Monday – Friday at 800gpm. 908907 derivation FY2017 KWH is based on seven months, 800gpm, Monday – Friday, 8 hours a day=  $346,320/12\text{months} \times 7\text{months} = 202,020\text{KWH}$ . Five months 1,600gpm Monday-Sunday, 16hours/day =  $1,696,531/12\text{months} \times 5\text{months} = 706,888\text{KWH}$ . FY2017, 12months =  $202,020 + 706,888 = 908,907\text{KWH}$

- e. See exhibit "Mishnock" Appendix C

Witness Responsible: J. Gershkoff, prepared by Dave Simmons

## EXHIBIT EG WELL

### EAST GREENWICH WELL FACILITY PRODUCTION AND CHEMICAL INFORMATION

Fiscal Year	Production (1000 gal/yr) <sup>1</sup>	Chlorine Gallons <sup>2</sup>	Tetrapotassium	Potassium	Sodium	Tetrapotassium	Potassium	Chem Delivery and Freight PyroPhos	Chem Delivery and Freight POT HYD
			Pyrophosphate CARUS- 1205 Gallons <sup>3</sup>	Hydroxide POT HYD Gallons <sup>4</sup>	Hypochlorite Chlorine \$/gal <sup>5</sup>	Pyrophosphate CARUS- 1205 \$/gal <sup>6</sup>	Hydroxide POT HYD \$/gal <sup>7</sup>		
FY 2011	232130	533	271	26025	\$ 2.50	\$ 10.46	\$ 6.70	\$ 426.83	\$ 1,305.00
FY 2012	190990	439	223	19904	\$ 2.50	\$ 10.46	\$ 6.70	\$ 495.92	\$ 2,025.00
FY 2013	175282	403	205	19560	\$ 2.50	\$ 10.46	\$ 6.70	\$ 525.07	\$ 2,120.00
FY 2014	223338	513	261	25576	\$ 2.50	\$ 10.46	\$ 6.70	\$ 555.40	\$ 2,835.00
FY 2015 <sup>8</sup>	offline <sup>8</sup>								
FY 2016 <sup>8</sup>	offline <sup>8</sup>								
FY 2017PROJ <sup>1</sup>	138819	319	162	15384	\$ 2.43	\$ 10.46	\$ 6.70	\$ 556.00	\$ 1,400.00

- <sup>1</sup> FY2017 Production projections based on rehabilitated well facility startup Nov 1st 2016 through June 30, 2017 ( 8 months). The projected FY 2017 production amount based on the average volume flowed for each respective month during FY 2011 thru FY 2014 an applied to the 8 month period. The flow data were obtained from KCWA SCADA historical records as shown in Appendix A.
- <sup>2</sup> FY 2017 Sodium Hypochlorite (Chlorine) projection amount based on the average volume flowed for each respective month during FY 2011 thru FY 2014 multiplied by the average dosage application rate of (0.002296 gal Cl<sub>2</sub>/ 1000 gal Production).
- <sup>3</sup> FY 2017 Tetrapotassium Pyrophosphate (PyroPhos)projection amount based on the average volume flowed for each respective month during FY 2011 thru FY 2014 multiplied by the average dosage application rate of (0.001168 gal PyroPhos/ 1000 gal Production).
- <sup>4</sup> FY 2017 Potassium Hydroxide (POT HYD)projection amount based on the average volume flowed for each respective month during FY 2011 thru FY 2014 multiplied by the average dosage application rate of (0.1108 gal POT HYD/ 1000 gal Production).
- <sup>5</sup> COST/GAL Chlorine based on the purchased on avg chemical cost FY 2011 thru FY 2014 plus fees. Five gallon carboys purchased from Pool and Patio are noted in Appendix B. FY2017 Chlorine cost is estimated based on delivery of 55 gallon drums to an updated well facility.
- <sup>6</sup> COST/GAL PyroPhos based on the purchased chemical cost FY 2011 thru FY 2014 as sown in Appendix C.
- <sup>7</sup> COST/GAL POT HYD based on the purchased chemical cost FY 2011 thru FY 2014 as shown in Appendix D.
- <sup>8</sup> The well experienced a screen failure at the end of FY 2014 and the facility was taken offline for repairs and rehabilitation.



## Appendix A

### East Greenwich Well Production from SCADA records

	EG Flow	FY TOTALS
	x 1000 gals	x 1000 gals
Jul-10	27930	
Aug-10	23710	
Sep-10	19990	
Oct-10	16140	
Nov-10	14780	
Dec-10	17610	
Jan-11	18100	
Feb-11	18630	
Mar-11	14740	
Apr-11	15750	
May-11	22040	
Jun-11	22710	232130
Jul-11	28340	
Aug-11	16050	
Sep-11	0	
Oct-11	10700	
Nov-11	17530	
Dec-11	13780	
Jan-12	13090	
Feb-12	13380	
Mar-12	17180	
Apr-12	19940	
May-12	23160	
Jun-12	17840	190990
Jul-12	22200	
Aug-12	19440	
Sep-12	14660	
Oct-12	11980	
Nov-12	12970	
Dec-12	13182	
Jan-13	11130	
Feb-13	11870	
Mar-13	11410	
Apr-13	10930	
May-13	18090	
Jun-13	17420	175282
Jul-13	22893	
Aug-13	21370	
Sep-13	18030	
Oct-13	16160	
Nov-13	17270	
Dec-13	20865	
Jan-14	22700	
Feb-14	18970	
Mar-14	20050	
Apr-14	19610	
May-14	25420	
Jun-14	0	223338

	EG Flow	FY TOTALS
	x 1000 gals	x 1000 gals
Jul-14	0	OFFLINE FOR REPAIRS
Aug-14	0	OFFLINE FOR REPAIRS
Sep-14	0	OFFLINE FOR REPAIRS
Oct-14	0	OFFLINE FOR REPAIRS
Nov-14	0	OFFLINE FOR REPAIRS
Dec-14	0	OFFLINE FOR REPAIRS
Jan-15	0	OFFLINE FOR REPAIRS
Feb-15	0	OFFLINE FOR REPAIRS
Mar-15	0	OFFLINE FOR REPAIRS
Apr-15	0	OFFLINE FOR REPAIRS
May-15	0	OFFLINE FOR REPAIRS
Jun-15	0	OFFLINE FOR REPAIRS
Jul-15	0	OFFLINE FOR REPAIRS
Aug-15	0	OFFLINE FOR REPAIRS
Sep-15	0	OFFLINE FOR REPAIRS
Oct-15	0	OFFLINE FOR REPAIRS
Nov-15	0	OFFLINE FOR REPAIRS
Dec-15	0	OFFLINE FOR REPAIRS
Jan-16	0	OFFLINE FOR REPAIRS
Feb-16	0	OFFLINE FOR REPAIRS
Mar-16	0	OFFLINE FOR REPAIRS
Apr-16	0	OFFLINE FOR REPAIRS
May-16	0	OFFLINE FOR REPAIRS
Jun-16	0	OFFLINE FOR REPAIRS
Jul-16	0	OFFLINE FOR REPAIRS
Aug-16	0	OFFLINE FOR REPAIRS
Sep-16	0	OFFLINE FOR REPAIRS
Oct-16	0	OFFLINE FOR REPAIRS
Nov-16	15638	Projected flow
Dec-16	16359	Projected flow
Jan-17	16255	Projected flow
Feb-17	15713	Projected flow
Mar-17	15845	Projected flow
Apr-17	16558	Projected flow
May-17	22178	Projected flow
Jun-17	20275	Projected flow

## Appendix B

### East Greenwich Well Chlorine Purchases

Purchase Date	Amount	EG gallons Cl <sub>2</sub>	\$/Gallon w/out deposit
6/30/2010	\$ 80.00	40	\$ 2.00
7/1/2010	110.00	55	\$ 2.00
8/6/2010	\$ 80.00	40	\$ 2.00
8/27/2010	110.00	55	\$ 2.00
9/21/2010	110.00	55	\$ 2.00
11/19/2010	110.00	55	\$ 2.00
2/22/2011	\$ 130.00	65	\$ 2.00
3/8/2011	14.72	6	\$ 2.40
4/26/2011	120.00	50	\$ 2.40
6/9/2011	120.00	50	\$ 2.40
7/18/2011	120.00	50	\$ 2.40
8/16/2011	150.00	63	\$ 2.40
11/15/2011	120.00	50	\$ 2.40
12/30/2011	100.00	42	\$ 2.40
2/14/2012	110.00	46	\$ 2.40
3/30/2012	154.93	65	\$ 2.40
5/15/2012	130.00	54	\$ 2.40
6/15/2012	110.00	46	\$ 2.40
7/13/2012	90.00	38	\$ 2.40
7/31/2012	104.76	44	\$ 2.40
8/30/2012	90.00	38	\$ 2.40
9/27/2012	70.00	29	\$ 2.40
10/30/2012	100.00	42	\$ 2.40
12/14/2012	90.00	38	\$ 2.40
1/22/2013	123.27	51	\$ 2.40
2/15/2013	60.00	25	\$ 2.40
3/29/2013	60.00	25	\$ 2.40
4/30/2013	84.00	35	\$ 2.40
6/24/2013	94.50	45	\$ 2.10
6/28/2013	73.50	35	\$ 2.10
7/15/2013	42.00	20	\$ 2.10
8/2/2013	73.50	35	\$ 2.10
8/23/2013	115.50	55	\$ 2.10
9/24/2013	115.50	55	\$ 2.10
10/28/2013	364.00	55	\$ 2.10
11/21/2013	325.50	55	\$ 2.10
12/18/2013	199.50	55	\$ 2.10
1/17/2014	49.00	23	\$ 2.10
1/30/2014	73.50	35	\$ 2.10
2/18/2014	168.00	80	\$ 2.10
2/26/2014	73.50	35	\$ 2.10
3/19/2014	73.50	35	\$ 2.10
3/31/2014	94.50	45	\$ 2.10
4/24/2014	94.50	45	\$ 2.10
5/5/2014	94.50	45	\$ 2.10
5/21/2014	94.50	45	\$ 2.10
6/10/2014	10.50	5	\$ 2.10
9/18/2014	63.00	30	\$ 2.10
12/16/2014	84.00	40	\$ 2.10
1/16/2015	63.00	30	\$ 2.10

\$ 4,691.18

173 boil water order booster cl2

155 boil water order booster cl2

95 boil water order booster cl2

## Appendix C

### EAST GREENWICH WELL POLYPHOSPHATE CHEMICAL USE

#### Tetrapotassium Pyrophosphate (Carus 1205)

Purchased		Freight	Amount	pounds	gallons		\$/lb		\$/gal
1/1/2010	\$	1,255.68	\$ 246.84	\$ 1,502.52	1308	120	4	\$ 0.96	\$ 10.46
6/1/2010	\$	1,255.68	\$ 249.33	\$ 1,505.01	1308	120	4	\$ 0.96	\$ 10.46
11/8/2011	\$	1,255.68	\$ 194.15	\$ 1,449.83	1308	120	4	\$ 0.96	\$ 10.46
4/18/2011	\$	1,255.68	\$ 232.68	\$ 1,488.36	1308	120	4	\$ 0.96	\$ 10.46
8/17/2011	\$	1,255.68	\$ 245.68	\$ 1,501.36	1308	120	4	\$ 0.96	\$ 10.46
4/5/2012	\$	1,255.68	\$ 250.24	\$ 1,505.92	1308	120	4	\$ 0.96	\$ 10.46
8/8/2012	\$	1,255.68	\$ 260.60	\$ 1,516.28	1308	120	4	\$ 0.96	\$ 10.46
4/5/2013	\$	1,255.68	\$ 264.47	\$ 1,520.15	1308	120	4	\$ 0.96	\$ 10.46
11/8/2013	\$	1,255.68	\$ 277.70	\$ 1,533.38	1308	120	4	\$ 0.96	\$ 10.46
4/1/2014	\$	1,255.68	\$ 277.70	\$ 1,533.38	1308	120	4	\$ 0.96	\$ 10.46

would have purchased if well was staying online



# Appendix D

## East Greenwich Well Potassium Hydroxide Purchases

CNAME1	STAD1	STCITY	PNAME1	REFDATE	MONTH	UP	WGT	PSHIP	GSHIP	SALES	PRICE	ENV	FUEL	TOTAL CHARGES
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/23/2010	Jun-10	BULK	12.16	14,285	1,175	\$ 7,856.75	\$0.5500	\$ -	\$ 45.00	7,901.75
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/2/2010	Jul-10	BULK	12.16	14,549	1,196	\$ 8,001.95	\$0.5500	\$ -	\$ 45.00	8,046.95
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/13/2010	Jul-10	BULK	12.16	16,540	1,360	\$ 9,097.00	\$0.5500	\$ -	\$ 45.00	9,142.00
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/29/2010	Jul-10	BULK	12.16	14,515	1,194	\$ 7,983.25	\$0.5500	\$ -	\$ 45.00	8,028.25
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/13/2010	Aug-10	BULK	12.16	14,293	1,175	\$ 7,861.15	\$0.5500	\$ -	\$ 45.00	7,906.15
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/31/2010	Aug-10	BULK	12.16	14,553	1,197	\$ 8,004.10	\$0.5500	\$ -	\$ 45.00	8,049.10
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	9/16/2010	Sep-10	BULK	12.16	11,921	980	\$ 6,556.34	\$0.5500	\$ -	\$ 45.00	6,601.34
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	10/1/2010	Oct-10	BULK	12.16	19,648	1,616	\$ 10,806.65	\$0.5500	\$ -	\$ 45.00	10,851.65
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	10/27/2010	Oct-10	BULK	12.16	14,911	1,226	\$ 8,201.31	\$0.5500	\$ -	\$ 45.00	8,246.31
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/18/2010	Nov-10	BULK	12.16	14,488	1,191	\$ 7,968.49	\$0.5500	\$ -	\$ 45.00	8,013.49
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	12/10/2010	Dec-10	BULK	12.16	15,240	1,253	\$ 8,382.00	\$0.5500	\$ -	\$ 45.00	8,427.00
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/26/2011	Jan-11	BULK	12.16	14,466	1,190	\$ 7,956.56	\$0.5500	\$ -	\$ 45.00	8,001.56
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/4/2011	Jan-11	BULK	12.16	14,711	1,210	\$ 8,090.85	\$0.5500	\$ -	\$ 45.00	8,135.85
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/26/2011	Jan-11	BULK	12.16	14,466	1,190	\$ 7,956.56	\$0.5500	\$ -	\$ 45.00	8,001.56
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	2/11/2011	Feb-11	BULK	12.16	14,812	1,218	\$ 8,146.81	\$0.5500	\$ -	\$ 45.00	8,191.81
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/24/2011	Mar-11	BULK	12.16	15,297	1,258	\$ 8,413.37	\$0.5500	\$ -	\$ 75.00	8,488.37
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/2/2011	Mar-11	BULK	12.16	14,528	1,195	\$ 7,990.14	\$0.5500	\$ -	\$ 45.00	8,035.14
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/20/2011	Apr-11	BULK	12.16	14,590	1,200	\$ 8,024.37	\$0.5500	\$ -	\$ 75.00	8,099.37
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/10/2011	May-11	BULK	12.16	15,464	1,272	\$ 8,504.94	\$0.5500	\$ -	\$ 120.00	8,624.94
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/27/2011	May-11	BULK	12.16	14,969	1,231	\$ 8,233.11	\$0.5500	\$ -	\$ 120.00	8,353.11
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/27/2011	Jun-11	BULK	12.16	17,895	1,472	\$ 9,842.51	\$0.5500	\$ -	\$ 120.00	9,962.51
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/9/2011	Jun-11	BULK	12.16	14,604	1,201	\$ 8,032.03	\$0.5500	\$ -	\$ 120.00	8,152.03
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/26/2011	Jul-11	BULK	12.16	15,080	1,240	\$ 8,294.00	\$0.5500	\$ -	\$ 120.00	8,414.00
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/13/2011	Jul-11	BULK	12.16	15,241	1,253	\$ 8,382.29	\$0.5500	\$ -	\$ 120.00	8,502.29
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/11/2011	Aug-11	BULK	12.16	14,760	1,214	\$ 8,117.84	\$0.5500	\$ -	\$ 120.00	8,237.84
Kent County Water Auth.	P.O. Box 192	W.Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	10/17/2011	Oct-11	BULK	12.16	15,594	1,282	\$ 8,576.92	\$0.5500	\$ -	\$ 120.00	8,696.92
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/4/2011	Nov-11	BULK	12.16	15,958	1,312	\$ 8,776.90	\$0.5500	\$ -	\$ 120.00	8,896.90
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/28/2011	Nov-11	BULK	12.16	15,413	1,267	\$ 8,476.93	\$0.5500	\$ -	\$ 120.00	8,596.93



# Appendix D

## East Greenwich Well Potassium Hydroxide Purchases

Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	12/19/2011	Dec-11	BULK	12.16	13,615	1,120	\$ 7,488.14	\$0.5500	\$ -	\$ 120.00	7,608.14
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/18/2012	Jan-12	BULK	12.16	14,821	1,219	\$ 8,151.34	\$0.5500	\$ -	\$ 120.00	8,271.34
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	2/10/2012	Feb-12	BULK	12.16	14,842	1,221	\$ 8,163.10	\$0.5500	\$ -	\$ 120.00	8,283.10
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/21/2012	Mar-12	BULK	12.16	15,030	1,236	\$ 8,266.29	\$0.5500	\$ -	\$ 135.00	8,401.29
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/5/2012	Mar-12	BULK	12.16	13,903	1,143	\$ 7,646.55	\$0.5500	\$ -	\$ 135.00	7,781.55
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/26/2012	Apr-12	BULK	12.16	14,937	1,228	\$ 8,215.09	\$0.5500	\$ -	\$ 135.00	8,350.09
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/11/2012	Apr-12	BULK	12.16	14,551	1,197	\$ 8,003.23	\$0.5500	\$ -	\$ 135.00	8,138.23
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/16/2012	May-12	BULK	12.16	15,241	1,253	\$ 8,382.29	\$0.5500	\$ -	\$ 135.00	8,517.29
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/4/2012	Jun-12	BULK	12.16	18,144	1,492	\$ 9,979.35	\$0.5500	\$ -	\$ 135.00	10,114.35
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/22/2012	Jun-12	BULK	12.16	14,904	1,226	\$ 8,197.08	\$0.5500	\$ -	\$ 135.00	8,332.08
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/10/2012	Jul-12	BULK	12.16	14,616	1,202	\$ 8,038.92	\$0.5500	\$ -	\$ 120.00	8,158.92
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/23/2012	Jul-12	BULK	12.16	15,093	1,241	\$ 8,301.37	\$0.5500	\$ -	\$ 120.00	8,421.37
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/10/2012	Aug-12	BULK	12.16	14,519	1,194	\$ 7,985.64	\$0.5500	\$ -	\$ 120.00	8,105.64
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/29/2012	Aug-12	BULK	12.16	14,243	1,171	\$ 7,833.47	\$0.5500	\$ -	\$ 120.00	7,953.47
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	9/19/2012	Sep-12	BULK	12.16	14,302	1,176	\$ 7,866.18	\$0.5500	\$ -	\$ 135.00	8,001.18
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	10/15/2012	Oct-12	BULK	12.16	14,650	1,205	\$ 8,057.37	\$0.5500	\$ -	\$ 135.00	8,192.37
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/9/2012	Nov-12	BULK	12.16	15,102	1,242	\$ 8,306.09	\$0.5500	\$ -	\$ 135.00	8,441.09
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	12/10/2012	Dec-12	BULK	12.16	19,757	1,625	\$ 10,866.41	\$0.5500	\$ -	\$ 135.00	11,001.41
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/10/2013	Jan-13	BULK	12.16	15,063	1,239	\$ 8,284.41	\$0.5500	\$ -	\$ 135.00	8,419.41
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	2/11/2013	Feb-13	BULK	12.16	13,583	1,117	\$ 7,470.66	\$0.5500	\$ -	\$ 135.00	7,605.66
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/5/2013	Mar-13	BULK	12.16	14,416	1,186	\$ 7,928.80	\$0.5500	\$ -	\$ 145.00	8,073.80
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/4/2013	Apr-13	BULK	12.16	14,584	1,199	\$ 8,021.08	\$0.5500	\$ -	\$ 145.00	8,166.08
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/20/2013	May-13	BULK	12.16	14,331	1,179	\$ 7,881.83	\$0.5500	\$ -	\$ 135.00	8,016.83
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/1/2013	May-13	BULK	12.16	13,483	1,109	\$ 7,415.44	\$0.5500	\$ -	\$ 135.00	7,550.44
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/28/2013	Jun-13	BULK	12.16	15,389	1,266	\$ 8,464.00	\$0.5500	\$ -	\$ 135.00	8,599.00
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	6/7/2013	Jun-13	BULK	12.16	14,722	1,211	\$ 8,096.98	\$0.5500	\$ -	\$ 135.00	8,231.98
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/12/2013	Jul-13	BULK	12.16	14,232	1,170	\$ 7,827.52	\$0.5500	\$ -	\$ 135.00	7,962.52
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	7/24/2013	Jul-13	BULK	12.16	14,212	1,169	\$ 7,816.34	\$0.5500	\$ -	\$ 135.00	7,951.34
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/9/2013	Aug-13	BULK	12.16	14,364	1,181	\$ 7,900.21	\$0.5500	\$ -	\$ 135.00	8,035.21

## Appendix D

### East Greenwich Well Potassium Hydroxide Purchases

Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	8/26/2013	Aug-13	BULK	12.16	13,301	1,094	\$ 7,315.39	\$0.5500	\$ -	\$ 135.00	7,450.39
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	9/5/2013	Sep-13	BULK	12.16	14,475	1,190	\$ 7,961.52	\$0.5500	\$ -	\$ 135.00	8,096.52
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	9/25/2013	Sep-13	BULK	12.16	14,441	1,188	\$ 7,942.37	\$0.5500	\$ -	\$ 135.00	8,077.37
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	10/15/2013	Oct-13	BULK	12.16	14,371	1,182	\$ 7,904.11	\$0.5500	\$ -	\$ 135.00	8,039.11
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/1/2013	Nov-13	BULK	12.16	14,810	1,218	\$ 8,145.68	\$0.5500	\$ -	\$ 135.00	8,280.68
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	11/22/2013	Nov-13	BULK	12.16	14,798	1,217	\$ 8,138.85	\$0.5500	\$ -	\$ 135.00	8,273.85
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	12/23/2013	Dec-13	BULK	12.16	13,640	1,122	\$ 7,502.00	\$0.5500	\$ -	\$ 135.00	7,637.00
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	12/6/2013	Dec-13	BULK	12.16	14,839	1,220	\$ 8,161.30	\$0.5500	\$ -	\$ 135.00	8,296.30
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/7/2014	Jan-14	BULK	12.16	15,188	1,249	\$ 8,353.14	\$0.5500	\$ -	\$ 135.00	8,488.14
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	1/24/2014	Jan-14	BULK	12.16	17,608	1,448	\$ 9,684.28	\$0.5500	\$ -	\$ 135.00	9,819.28
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	2/7/2014	Feb-14	BULK	12.16	15,053	1,238	\$ 8,279.35	\$0.5500	\$ -	\$ 135.00	8,414.35
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	2/21/2014	Feb-14	BULK	12.16	15,424	1,268	\$ 8,483.44	\$0.5500	\$ -	\$ 135.00	8,618.44
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/10/2014	Mar-14	BULK	12.16	13,966	1,148	\$ 7,681.08	\$0.5500	\$ -	\$ 135.00	7,816.08
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	3/25/2014	Mar-14	BULK	12.16	14,876	1,223	\$ 8,182.02	\$0.5500	\$ -	\$ 135.00	8,317.02
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/7/2014	Apr-14	BULK	12.16	15,195	1,250	\$ 8,357.08	\$0.5500	\$ -	\$ 135.00	8,492.08
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	4/21/2014	Apr-14	BULK	12.16	15,922	1,309	\$ 8,757.32	\$0.5500	\$ -	\$ 135.00	8,892.32
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/6/2014	May-14	BULK	12.16	16,397	1,348	\$ 9,018.33	\$0.5500	\$ -	\$ 135.00	9,153.33
Kent County Water Auth.	(East Greenwich Well)	Warwick	POTASSIUM HYDROXIDE LIQ 45%-W#	5/16/2014	May-14	BULK	12.16	13,898	1,143	\$ 7,643.70	\$0.5500	\$ -	\$ 135.00	7,778.70



## APPENDIX E

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### EAST GREENWICH WELL FACILITY PRODUCTION AND POWER INFORMATION

	Production (1000 gal/yr)	Power KWH USED <sup>2</sup>	AVG Power \$/KWH <sup>2</sup>
FY 2011	232130	454207	0.122
FY 2012	190990	465600	0.124
FY 2013	175282	387360	0.13
FY 2014	223338	547920	0.135
FY 2015	offline <sup>3</sup>		
FY 2016	offline		
FY 2017PROJ	138819	313385 <sup>1</sup>	0.1864

1. FY2017 KWH Projections based on rehabilitated well facility startup Nov 1st 2016 through June 30, 2017 ( 8 months). The projection was based on average power used from FY 2011 to 2014 divided by the average production for the same period (2.2575 KWH/(1000 gal/yr)).
2. \*AVG KWH and \$/KWH were obtained and derived from National Grid bills for the East Greenwich well facility FY 2011-FY-2014
3. The reason there is no usage data available for FY2015 was because the well experienced a screen failure at the end of FY 2014 and the facility was taken offline for repairs and rehabilitation.
4. \$0.186/KWH was the average cost of power for Mishnock. The assumption was made that the same cost would be applied to the East Greenwich Well facility when the rehabilitation effort id completed

## EXHIBIT MISHNOCK

### MISHNOCK WATER TREATMENT FACILITY PRODUCTION AND CHEMICAL INFORMATION

Fiscal Year	Production (1000 gal/yr) <sup>1</sup>	Potassium Permanganate Gallons <sup>2</sup>	Chlorine Gallons <sup>3</sup>	Potassium Hydroxide Gallons <sup>4</sup>	Citric Acid Gallons <sup>5</sup>	Sodium Bisulfite Gallons <sup>6</sup>	Aluminum Sulfate Gallons	Sodium Fluoride Gallons	Sulfuric Acid Gallons <sup>7</sup>	Chemical Deliver Fees <sup>8</sup>	Lab Chems \$/FY <sup>9</sup>
FY 2013	0	0	0	0	0	0	Not Used	Not Used	0	0	0
FY 2014	50000	3481	376	399	125	188	Not Used	Not Used	4	\$ 575.00	\$ 3,600.00
FY 2015	100000	7080	780	820	250	375	Not Used	Not Used	8	\$ 1,236.00	\$ 3,600.00
FY 2016 proj	100000	7080	780	820	250	375	Not Used	Not Used	8	\$ 1,418.00	\$ 3,600.00
FY 2017proj <sup>1</sup>	292000	20674	2278	2394	250	375	Not Used	Not Used	8	\$ 1,418.00	\$ 4,000.00

1. FY2017 Production projections based on High Service being connected on Feb 1st 2017 through June 30, 2017. Flow is 800 GPM M-F (8 hour shift) for 7 months then 1600 GPM M-Su (16 hour shift )for 5 months.
2. FY 2015 and 2016 Potassium Permanganate projections based on the actual gallons used during test year 2014 for the given production. Using those calculations, an application rate of (0.0708 gals Permanganate /1000 gal Production) was applied to derive the FY2017 production estimate.
3. FY 2015 and 2016 Chlorine projections based on the actual gallons used during test year 2014 for the given production. Using those calculations, an application rate of (0.0078 gals Chlorine /1000 gal Production) was applied to derive the FY2017 production estimate. The Clean-In-Place (CIP) ultrafiltration maintenance system uses a constant annual volume of 150 gallons per year and is included in this total.
4. FY 2015 and 2016 Potassium Hydroxide projections based on the actual gallons used during test year 2014 for the given production. Using those calculations, an application rate of (0.0082 gals Hydroxide /1000 gal Production) was applied to derive the FY2017 production estimate.
5. FY 2017 Citric Acid projections based on the actual gallons used during test year 2015. The amount of citric acid used is constant because it used in an automatic cleaning sequence for the ultrafiltration membranes. This sequence runs independent of production.
6. FY 2017 Sodium Bisulfite projections based on the actual gallons used during test year 2015. The amount of sodium bisulfite used is constant because it used in an automatic Clean-In-Place (CIP) system for the ultrafiltration membranes. The CIP system sequence runs independent of production.
7. FY 2017 Sulfuric Acid projections based on the actual gallons used during test year 2015. The amount of sulfuric acid used is constant because it used in an automatic Clean-In-Place (CIP) system for the ultrafiltration membranes. The CIP system sequence runs independent of production.
8. Chemical delivery and Fees are based on actual costs FY 2014 and 2015 and applied to projected production needs. The delivery fees will be the same once running full scale because the amount delivered would increase but the amount of deliveries would stay the same.
9. Lab Chemicals and reagents are based on usage rates in FY 2014 and 2015 for online analytical equipment process control testing. The average cost for the chemicals is \$300/month. FY 2017 increased this amount by \$33.00 to account for addition analyzer chemical use once high service is connected.





## APPENDIX B-1

### MISHNOCK POWER COST AND QUANTITY MODEL

#### 800 GPM M-F Daily Production Time 8HRS

FROM ACTUAL POWER DATA LOG*	KWH	FUNCTION OF FLOW (KWH)	AVG RATE	HOUR DISTRIBUTION
AVG POWER FOR PRODUCTION	138.7	138.70	\$/KWH	8      24
AVG POWER NO PRODUCTION	13.9	13.90	\$      0.186	16

These are the factors used to determine the KWH output from the plant. The 138.70 KWH is the demand during production and is a function of flow (800 GPM). The 13.9 KWH is the demand baseline when the plant is offline.

PRODUCTION VOLUME GPM	USING AVG \$/ KWH RATE				
800	<table style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">x-Hour M-F</td> <td style="text-align: right;">\$ 64,415.52</td> </tr> <tr> <td style="text-align: center;">x-Hour M-Su</td> <td style="text-align: right;">\$ 90,181.73</td> </tr> </table>	x-Hour M-F	\$ 64,415.52	x-Hour M-Su	\$ 90,181.73
x-Hour M-F	\$ 64,415.52				
x-Hour M-Su	\$ 90,181.73				
	USING AVG \$/ KWH RATE				
	x-Hour M-F      \$      10,755.26				
	x-Hour M-Su      \$      15,057.37				
	NP KWH-M-F      57824.00				
	NP-KWH- M-Su      80953.60				
	USING AVG \$/ KWH RATE				
	x-Hour M-F      \$      53,660.26				
	x-Hour M-Su      \$      75,124.36				
	P KWH-M-F      288496.00				
	P-KWH- M-Su      403894.40				
TOTAL M-F	346320				
TOTAL M-sun	484848				

Model output for given scenario of 800 GPM for 8 hours per day M-F is

\* The power data log for power consumption were obtained from the Eaton power monitoring equipment and software at Mishnock. The test period was from 12/20/2013 to 1-22-2015 showing the best sample of average "production" KWH demand vs average "no production" KWH demand.



## APPENDIX B-2

### MISHNOCK POWER COST AND QUANTITY MODEL

#### 1600 GPM M-Su Daily Production Time 16 HRS

FROM ACTUAL POWER DATA LOG	KWH	FUNCTION OF FLOW (KWH)	AVG RATE	HOUR DISTRIBUTION
AVG POWER FOR PRODUCTION	138.7	277.40	\$/KWH	8      24
AVG POWER NO PRODUCTION	13.9	27.80	\$      0.186	16

These are the factors used to determine the KWH output from the plant. The 277.40 KWH is the demand during production and is a function of flow.(1600 GPM) The 13.9 KWH is the demand baseline when the plant is offline.

PRODUCTION VOLUME GPM	FUNCTION OF FLOW	USING AVG	\$/KWH RATE
1600	x-Hour M-F	\$	225,396.29
	x-Hour M-Su	\$	315,554.80
USING AVG      \$/KWH RATE			
	x-Hour M-F	\$	10,755.26
	x-Hour M-Su	\$	15,057.37
	NP KWH-M-F		57824.00
	NP-KWH- M-Su		80953.60
USING AVG      \$/KWH RATE			
	x-Hour M-F	\$	214,641.02
	x-Hour M-Su	\$	300,497.43
	P KWH-M-F		1153984.00
	P-KWH- M-Su		1615577.60
TOTAL M-F			1211808
TOTAL M-sun			1696531

Model output for given scenario of 1600 GPM for 16 hours per day M-Su is 1696531 KWH

\* The power data log for power consumption were obtained from the Eaton power monitoring equipment and software at Mishnock. The test period was from 12/20/2013 to 1-22-2015 showing the best sample of average "production" KWH demand vs average "no production" KWH demand.





22. Please provide support that East Greenwich and Mishnock are billed at the same rate for electricity usage.

Response: Please reference question 21c and 21e.

Witness Responsible: J. Gershkoff

23. Reference page 2, lines 19 through lines 31 of Ms. Gershkoff's testimony. Please provide illustrative journal entries showing how the adoption of GASB Nos. 68 and 71 (and the related amounts) were recorded by the Authority.

Response: See attached.

Witness Responsible: J. Gershkoff

**Adjusting Journal Entries JE # 6**

Entry to restate prior year fund balance for net pension liability as of 6/30/2014 in accordance with GASB 68 implementation.

12170	Net position restatement	948,679.00	
12220	Long Term Net Pension Liability		948,679.00
<b>Total</b>		<u>948,679.00</u>	<u>948,679.00</u>

**Adjusting Journal Entries JE # 7**

Entry to increase net pension liability in accordance with actuarial valuation as of 6/30/2015.

12221	NPL - Deferred Outflow	246,587.00	
12220	Long Term Net Pension Liability		10,076.00
12222	NPL - Deferred Inflow		187,080.00
19260	EMPLOYEE PENSION & BENE		49,431.00
<b>Total</b>		<u>246,587.00</u>	<u>246,587.00</u>

24. Reference the page 8, lines 4 through lines 23 of Ms. Gershkoff's testimony. Please update the top ten water users table as presented on that page to reflect the FY 16 year-to-date amounts.

Response: Please see attached.

Witness Responsible: J. Gershkoff



KENT COUNTY WATER AUTHORITY  
 10 LARGEST WATER USERS  
 AS OF 12/31/2015

	CYCLE	NAME	SERVICE LOCATION	TOWN OR CITY
1	M	AMGEN	40 TECHNOLOGY WAY	WG
2	Q	BRIARWOOD MEADOWS	940 QUAKER LANE	WAR
3	Q	KENT COUNTY MEMORIAL HOSPITAL	455 TOLLGATE ROAD	WAR
4	Q	COMMERCE PARK	CENTRE OF NEW ENGLAND BLVD - NLT	COV
5	Q	WESTWOOD TRAILER PARK	RESERVOIR ROAD	COV
6	Q	AIMCO WARWICK LLC	1 CEDAR POND DRIVE	WAR
7	Q	AMTROL INC.	1400 DIVISION ROAD	EG
8	Q	COWESETT HILLS	3595 POST ROAD	WAR
9	Q	EQUITY RESIDENTIAL PROP TRUST	47 TANGLEWOOD DRIVE	WW
10	Q	EDENS & AVENT	1000 DIVISION STREET	EG

25. Please provide the pension plan participants as of June 2016 broken down by:
- a. Retirees and beneficiaries receiving benefits from the plan
  - b. Terminated members entitled to future benefits, and
  - c. Active plan members.

Response: Please refer to response to question #16.

Witness Responsible: T. Brown