

BEFORE THE  
VIRGIN ISLANDS PUBLIC SERVICES COMMISSION  
DOCKET NO. 604

DIRECT TESTIMONY OF JULIO A. RHYMER

ON BEHALF OF

THE VIRGIN ISLANDS WATER AND POWER AUTHORITY  
REGARDING THE PETITION FOR PERMANENT RATE RELIEF

FOR THE WATER SYSTEM

NOVEMBER 15, 2012

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1 **Q. PLEASE STATE YOUR NAME AND BUSINESS ADDRESS.**

2 A. My name is Julio A. Rhymer and my business address is: Virgin Islands Water  
3 and Power Authority, 9720 Estate Thomas, St. Thomas, Virgin Islands 00802.

4 **Q. WHAT IS YOUR OCCUPATION?**

5 A. I am the Chief Financial Officer of the Virgin Islands Water and Power  
6 Authority ("WAPA" or Authority"). In that capacity, subject to the direction  
7 of the Governing Board and Executive Director, I have overall responsibility  
8 for managing the business and financial affairs of the Authority. I am familiar  
9 with the Authority's finances in general and specifically with the financial  
10 justification for the Water System rate relief that is the subject of the  
11 Authority's petition dated November 16, 2012.

12 **Q. PLEASE SUMMARIZE YOUR EDUCATIONAL BACKGROUND AND**  
13 **YOUR WORK EXPERIENCE?**

14 A. I received a Bachelor of Business Administration in Finance from Georgia  
15 State University, Atlanta, Georgia in 1994; received a Masters of Accounting  
16 Financial Management from Devry University's Keller Graduate School of  
17 Management in 2012. I have held various financial management positions  
18 with the Virgin Islands Housing Financial Authority ("Housing Authority"). I  
19 joined the Authority as Chief Financial Officer in July 2012 after serving as the  
20 CFO of the Virgin Island's Housing Finance Authority for 5 years. Prior to  
21 working for the Housing Authority, I worked as an auditor for a private firm

1 for 6 years, the Director of Business and Financial Management for the Office  
2 of Lieutenant Governor and held a similar role directly for the Legislature of  
3 the Virgin Islands. I have more than 18 years of accounting experience. I am a  
4 member of the Certified Fraud Examiners, the National Association of Tax  
5 Professional, and the National Society of Tax Professionals.

6 **Q. HAVE YOU PREVIOUSLY TESTIFIED BEFORE THE VIRGIN ISLANDS**  
7 **PUBLIC SERVICES COMMISSION (“COMMISSION” or “PSC”)?**

8 **A. No.**

9 **Q. WHAT IS THE PURPOSE OF THIS TESTIMONY?**

10 **A. On July 6, 2012, the Authority received approval for emergency rate relief for**  
11 **the Water System from the Virgin Islands Public Services Commission. The**  
12 **interim rate increase approved by PSC Order No. 28-2012 was intended to**  
13 **immediately cure the Water System’s failure to meet the Rate Covenant**  
14 **related to the Debt Service Coverage requirement of the Bond Resolution**  
15 **associated with the Authority’s outstanding Series 1998 Revenue Bonds. PSC**  
16 **Order No. 28-2012 further required the Authority to file a petition for**  
17 **permanent rates no later than November 16, 2012. On November 15, 2012, the**  
18 **Authority’s Governing Board authorized management to file a petition to the**  
19 **Commission for a permanent rate increase for the Water System, to satisfy the**  
20 **requirements of PSC Order No. 28-2102 and proposed rates that will meet the**  
21 **Water System operating, capital and financial needs [Exhibit WAPA-JAR-1].**  
22 **The overall purpose of my testimony is to support the Authority’s petition and**  
23 **to complement and supplement the testimonies of the Authority’s Executive**  
24 **Director, Mr. Hugo Hodge, Jr. and its Rate Consultant, Mr. Henry Thomas,**  
25 **Vice President of Public Resources Management Group, Inc. Specifically, my**  
26 **testimony will: (1) provide the historical background and perspective for the**  
27 **petition; (2) explain the financial issues and justify the proposed financial basis**  
28 **for rate relief for the Water System; (3) help explain and justify the basis for**

1 the amount of the requested increase; (4) discuss the impact of the proposed  
2 increase on customers' monthly water bills; and (5) discuss the impact on the  
3 Authority's finances and rates.

4 Unless clearly indicated otherwise, the tables and exhibits included with and  
5 appended to this testimony were prepared by me or under my direction.

6 **Q. PLEASE SUMMARIZE THE AUTHORITY'S PETITION?**

7 **A.** In summary, the Authority is petitioning the Commission to approve a  
8 permanent Water System base rate increase of \$1.4 million annually over the  
9 interim rate increase for and a line loss reduction capital surcharge of \$0.71 per  
10 1000 gallons that is projected to produce an additional \$900,000 annually. The  
11 petition, if approved, is projected to increase annual revenues by \$2.3 million  
12 over the \$1.4 million level currently estimated to be produced by the rates  
13 approved for the interim rate relief. The \$2.3 million rate increase is equal to  
14 5.9% of total Water System revenues, including revenues from LEAC and  
15 amounts billed to the Electric System. Thus the permanent base rates and the  
16 proposed line loss reduction capital surcharge is estimated to produce a total  
17 of \$3.7 million in additional Test Year revenue compared with the revenues  
18 that would have been produced from rates in effect prior to the interim rate  
19 increase. Please refer to Mr. Thomas' testimony for a full discussion of  
20 proposed rate adjustments.

21 The emergency, interim request, had the limited purpose of complying with  
22 the terms of the General Water Revenue Bond Resolution as supplemented  
23 (The "Water Resolution") by providing the means to cure a Net Water  
24 Revenue deficiency, which caused the Water System's failure to achieve its  
25 minimum covenanted Debt Service Coverage Ratio ("DSC Ratio") for the four  
26 (4) fiscal years ending June 30, 2009 through June 30 2012 as shown in Exhibit  
27 WAPA-JAR-2.

1 The proposed increase of \$2.3 million above the interim rate levels derived  
2 from Exhibit WAPA-HLT-7 represents a 5.4% increase in base rate revenues  
3 and a line loss reduction surcharge of \$900,000 or \$0.71 per 1000 gallons sold.  
4 If the total revenue increase of \$2.3 million was included only in base rates it  
5 would represent an overall 9.0% increase in rate revenues above the interim  
6 rate relief. The proposed permanent rate adjustments are based on the Water  
7 System annual revenue requirements summarized on Exhibit WAPA-HLT-7  
8 (the "Test Year").

9 **Q. HOW IS THE TEST YEAR DEFINED?**

10 A. The Test Year selected for this petition estimates the projected rate needs for  
11 Fiscal Year 2014, which was predicated on the audited Fiscal Year 2011  
12 operating results that were adjusted to reflect certain, known changes to Water  
13 System revenues and expenses based on actual (unaudited) results for Fiscal  
14 Year 2012 and, in relation to operating expenses, adjustments to reflect current  
15 expense levels adopted by the Authority's Governing Board for Fiscal Year  
16 2013. The operating expenses were then reduced by approximately \$4.9  
17 million to reflect the projected savings associated with moving from  
18 producing water with the current outdated IDE technology to purchasing R.O.  
19 water from Seven Seas. Since such amounts were calculated in current dollars  
20 for Fiscal Year 2013, the expenses were then adjusted for one (1) additional  
21 year of inflation to approximate the operating expenditure needs for Fiscal  
22 Year 2014 that are \$2.9 million lower than the actual expenses for Fiscal Year  
23 2011. Mr. Thomas' testimony addresses the details behind the Test Year  
24 adjustments provided for on Exhibit WAPA-HLT-7.

25 **Q. WHAT IS THE IMPACT OF THE PROPOSED RATE INCREASE?**

26 A. The proposed increase is estimated to add \$4.40 to the monthly bill of the  
27 average residential water customer (using 2,400 gallons per month and based  
28 on the current interim rates and the current LEAC of \$11.14 per 1000 gallons

1 sold) as shown in Exhibit WAPA-HLT-8 before subsequent adjustments to the  
2 projected LEAC, which is estimated to decrease substantially over the next  
3 five (5) years as discussed in detail later in this testimony. Based upon the  
4 projected LEAC of \$9.13 per thousand gallons sold for Fiscal Year 2014 the  
5 overall rate level reflects a \$0.43 decrease in the typical residential bill. It  
6 should be noted that the LEAC is proposed to decrease again to \$7.31 per  
7 thousand gallons on July 1, 2014 once the prior period under recovery of fuel  
8 costs is eliminated which would result in an overall reduction of \$4.80 for the  
9 typical residential bill as shown in Mr. Thomas' Exhibit WAPA-HLT-8. In  
10 order for the permanent rate relief to have full effect, the petition proposes an  
11 effective date for the proposed rates of no later than July 1, 2013.

12 **Q. WHY IS THE INTERIM RATE INCREASE NOT FULLY ADEQUATE**  
13 **TO MEET THE PROJECTED TEST YEAR REQUIREMENTS? WHAT**  
14 **OPERATING AND CAPITAL CONSIDERATIONS HAVE CHANGED**  
15 **SINCE THE PETITION FOR EMERGENCY RATE RELIEF APPROVED ON**  
16 **JULY 6, 2012?**

17 **A.** The purpose of the emergency request was to move the Water System's  
18 financial position in a positive direction and give management time to fully  
19 address long term rate needs. In particular, we are currently facing significant  
20 uncertainties with respect to a number of economic issues that have effected  
21 recent operating sales and that will affect future demand. As submitted in the  
22 emergency rate petition, the unaudited Fiscal Year 2011 debt service coverage  
23 results were estimated at 1.08 DSC Ratio. Subsequent to the approval of the  
24 emergency rate petition, actual audited debt service coverage for Fiscal Year  
25 2011 was amended to 0.98 DSC Ratio, or \$390,000 lower than previously  
26 assumed. Additionally, unaudited Fiscal Year 2012 operating results are now  
27 available, which report a current \$4.3 million decrease in water base rate  
28 revenues from Fiscal Year 2011 to 2012. Based on the unaudited Fiscal Year  
29 2012 results, debt service coverage for the year is estimated at 0.23 DSC Ratio.

1 Such amounts exclude the unfunded portion of the Other Post Employment  
2 Benefits (OPEB) for each fiscal year, which were \$1.4 million and \$1.7 million,  
3 respectively. Subsequent to the approval of the emergency rate petition,  
4 which excluded unfunded OPEB, the Authority's Governing Board instructed  
5 management to begin funding the annual OPEB liability.

6 **Q. CAN YOU EXPLAIN THE IMPACT DUE TO THE COSTS AND**  
7 **LIABILITIES ASSOCIATED WITH OTHER POST EMPLOYMENT**  
8 **BENEFITS (OPEB)?**

9 **A.** Yes. Changes to the accounting treatment for OPEB related costs and  
10 liabilities have resulted in increased cash needs of the Authority and the Water  
11 System. Specifically, in FY2008, the Authority adopted the provisions of  
12 GASB Statement No. 45, Accounting and Financial Reporting by Employers  
13 for Postemployment Benefits Other Than Pensions. As a result of GASB 45  
14 implementation, the Authority started recognizing OPEB costs under the  
15 accrual basis of accounting, as opposed to the pay-as-you-go method used  
16 before the implementation of such pronouncement. OPEB cost is now  
17 recognized based on actuarial calculation of benefits earned by beneficiaries  
18 (employees and retirees). This represented a significant increase in costs  
19 recognized by the Authority beginning the year of implementation. However,  
20 these increased costs have not been included in Electric System rates approved  
21 by PSC.

22 According to the Authority's auditors, Ernst and Young, the "lack of inclusion  
23 of OPEB costs that are recognized for GAAP purposes in [our] rates has  
24 severely affected the ability to recover costs" and has led to a regulatory  
25 accounting issue identified in the FY2011 Financial Statement and  
26 Supplemental Schedule (FY 2011 Audit). As stated in the FY2011 Audit, the  
27 Authority employs an actuary to estimate the costs and liabilities for OPEB.  
28 The actuary's estimate of the Authority's accrued OPEB liability was

1 approximately \$101.2 million at June 30, 2011 of which the Water System  
2 share is \$19.2 million or approximately 19 percent. The Authority's annual  
3 OPEB cost is calculated based on the annual required contribution (ARC), an  
4 amount actuarially determined in accordance with GASB Statement No. 45.  
5 The ARC represents a level of funding that, if paid on an ongoing basis, is  
6 projected to cover normal cost (current and future benefits earned) each year  
7 and to amortize any unfunded actuarial liabilities over a period of time not to  
8 exceed 30 years.

9 According to Ernst and Young, the net OPEB obligation is the net amount for  
10 which the Authority would be obligated and is equivalent to the cumulative  
11 annual OPEB cost. The Water System's annual OPEB obligation for FY2011  
12 was approximately \$1.8 million, as identified in the FY2011 Audit. The Water  
13 System's annual estimated OPEB obligation for FY2012 (based on unaudited  
14 data) is \$1.6 million. Therefore the Authority has included an amount of \$1.1  
15 million to be included in the Test Year revenue requirements to recover its  
16 annual OPEB obligations. This amount is adjusted by approximately \$500,000  
17 to reflect the transfer of certain water production employees and their  
18 associated OPEB liability to the Electric System concurrent with the  
19 implementation of the purchased water supply strategy.

20 So, while we have prepared engineering studies related to distribution system  
21 capital needs and evaluated operational strategies tied to the shift to  
22 purchasing water from Seven Seas Corporation, we still have significant  
23 uncertainties about the effects of the Hovensa plant closing and government  
24 layoffs on future demand levels, and the impacts on user rates from funding  
25 OPEB.

1 **Q. PLEASE PROVIDE A HISTORICAL PERSPECTIVE TO THIS PETITION?**

2 **A.** By way of background, the Authority is statutorily mandated to maintain and  
3 develop adequate water and electric power systems for the people of the U.S.  
4 Virgin Islands. In furtherance of this mandate, it is legally empowered to  
5 develop, acquire, construct, and expand the necessary facilities, and to borrow  
6 money and issue bonds to finance such facilities. It is also empowered to issue  
7 bonds to refund or otherwise discharge outstanding bonds or other financial  
8 obligations. [30 V.I.C. § 105]

9 In December 1998, the Authority issued the Water System Revenue and  
10 Refunding Bonds ("1998 Bonds") in the principal amount of \$44.19 million, of  
11 which \$16.5 million remains outstanding as of June 2012. The proceeds of the  
12 1998 Bonds were used to refund \$40.13 million of then outstanding Water  
13 System Revenue Bonds, Series 1990A and Series 1992B, and to refinance  
14 certain costs funded through a line of credit. The 1998 Bonds were issued  
15 pursuant to the Water Resolution. The 1998 Bonds are secured by and are  
16 payable from the Net Water Revenues<sup>[1]</sup> of the Water System.

17 To provide protection for bondholders, the Water Resolution requires the  
18 Authority, for so long as the bonds are outstanding, to establish rates "...so  
19 that in each Fiscal Year the Net Water Revenues shall at all times be at least  
20 equal to 1.25 times the Aggregate Debt Service Requirement for such Fiscal  
21 Year." [Section 606.1] The Water Resolution further provides, that in the  
22 event of a failure to achieve the required 1.25 DSC Ratio<sup>[2]</sup> in any fiscal year,  
23 the Authority must "take whatever measures it can to produce the amount of  
24 Net Water Revenues required in the following Fiscal Year, including  
25 establishing revised rates, fees, rental and other charges and submission

[1] Net revenues, as defined in the Resolution, mean the difference between operating revenues and operating expenses, excluding depreciation and similar non-cash charges.

[2] The debt service coverage ratio is a widely accepted measure for maintaining revenues at amounts sufficient to ensure payment of operating expenses and to measure an entity's ability to meet its debt service (principal and interest) obligations on a timely basis.



1 thereof for approval by the Virgin Islands Public Services Commission ...”

2 [Emphasis added] [Section 606.2]

3 Bond Counsel to the Authority has advised that the failure to achieve the  
 4 minimum DSC Ratio does not, by itself, constitute a default under the Water  
 5 Resolution; provided the Authority takes appropriate steps to cure the Net  
 6 Water Revenue deficiency. However, failure to take appropriate steps to cure  
 7 the Net Water Revenue deficiency could lead to an Event of Default with very  
 8 serious consequences. In a worst case scenario, a Covenant Default could  
 9 result in the acceleration of the entire \$16.5 million outstanding balance of the  
 10 1998 Bonds to become immediately due and payable<sup>[3]</sup>.

11 **Q. WITH THAT BACKGROUND, IS THERE A COVERAGE ISSUE BEFORE**  
 12 **THE COMMISSION?**

13 **A.** Yes. The audited Fiscal Year 2011 financial statements of the Water System  
 14 indicate a DSC Ratio of 0.98 DSC as summarized in Exhibit WAPA-JAR-2,  
 15 which is well below the minimum required 1.25 DSC Ratio. The Net Water  
 16 Revenue deficiency is \$1.043 million below the minimum required coverage  
 17 for FY2011 as shown in Table 1 below. Additionally, the unaudited Fiscal Year  
 18 2012 financial statements are now available, and the estimated DSC Ratio for  
 19 the year is 0.23 DSC Ratio. The Authority is therefore required to take the  
 20 steps it can, including, as discussed below, filing for additional permanent -  
 21 above the interim rate levels rates, to make up the deficiency, in accordance  
 22 with the terms of the Water Resolution.

**Table 1: Water System Debt Service Coverage FY2009 - FY2012 [1]**

\$ in 1000s	FY 09	FY 10	FY 11	FY12
Debt Service Ratio [2]	0.22	1.09	0.98	0.23
Net Revenue Over (Under) [2]	(\$3,978)	(\$616)	(\$1,043)	(\$3,948)

[1] Amounts based on Audited Financial Statements for each Fiscal Year; except FY12 which is unaudited as shown in Exhibit WAPA-JAR-2.on FY12 which is unaudited as shown in Exhibit WAPA-JAR-2.

[2] Amounts exclude Unfunded OPEB.

[3] The entire amount would be re-classified as current debt (instead of long term debt) on the Water System financial statements.

1 Notwithstanding the minimum DSC Ratio contractually required by the Water  
2 Resolution, the Water System rates must also be sufficient to meet its  
3 operating, capital and financial needs. As indicated in Table 1 above, the  
4 Water System has consistently failed to produce Net Water Revenues  
5 sufficient to meet the minimum required DSC Ratio required to comply with  
6 the Water Resolution. Additionally, based on the recently approved operating  
7 budget including an adjustment for the under estimation of Administrative  
8 and General allocations from the Electric System we now project Debt Service  
9 Coverage of 1.00 for Fiscal Year 2013 which will not comply with the terms of  
10 the Bond Resolution in spite of the revenues generated by the interim rate  
11 relief.

12 Pursuant to the Bond Resolution under which the Authority's Series 1998  
13 Bonds were issued, the Authority has covenanted, among other things, to seek  
14 to establish rates and charges for water service in amounts at least equal to  
15 1.25 times the Aggregate Debt Service Requirements (all as defined in the  
16 Bond Resolution) for such fiscal year on all Bonds outstanding under the Bond  
17 Resolution.

18 **Q. WHAT IS THE CAUSE FOR THE FURTHER DETERIORATION IN NET**  
19 **WATER REVENUE SINCE THE APPROVAL OF THE EMERGENCY RATE**  
20 **PETITION?**

21 **A.** As shown in Exhibit-WAPA-HLT-2 of Mr. Thomas's testimony, in Fiscal Year  
22 2012 the Water System's sales were down 10.5% for the combined St. Thomas  
23 and St. Croix water systems compared with Fiscal Year 2011 results. This  
24 includes a 15.7% decrease in residential water sales, a 12.8% decrease in  
25 commercial water sales, a 8.6% decline in sales to government accounts and an  
26 84.3% decrease in stand-pipe sales. Overall base rate revenues were \$4.3  
27 million lower in FY2012 compared with FY2011. Based on our review of the  
28 events of FY2012 we believe that high rainfall levels and water rationing on St.

1 Thomas contributed to the decline in water sales, therefore, we anticipate  
2 more normal demand levels in St. Thomas including a recovery in standpipe  
3 sales. However, the effect of the Hovensa plant closing on St. Croix and recent  
4 V.I. government employee layoffs is likely to have a lasting impact on water  
5 sales and base rate revenues. Further the U.S. Virgin Islands government has  
6 implemented a number of water conservation measures that will likely result  
7 in a permanent reduction in water sales. Notwithstanding our test year sales  
8 projections which reflect an increase in sales over the FY2012 level, these  
9 events have created significant uncertainty with respect to future water  
10 demand. As part of the emergency rate petition filed for the Water System,  
11 the Authority had calculated the rate increase using a FY2011 Test Year that  
12 estimated debt service coverage prior to the interim rate increase at 1.08 DSC  
13 Ratio. The actual result for FY2011 based on the final audit numbers was 0.98  
14 DSC Ratio. Based upon the Authority's unaudited financial statement for  
15 actual FY2012 debt service coverage was a dismal 0.23 DSC Ratio. All  
16 amounts exclude unfunded OPEB expenses, which are expected to be funded  
17 in all subsequent years as discussed previously in this testimony.

18 **Q. WHAT ARE THE RAMIFICATIONS OF AN EVENT OF DEFAULT?**

19 **A.** The Authority's Water Resolution requires that the Water System meet its  
20 financial obligations and the Water System's financial performance is  
21 monitored by the Bond Trustees ("Trustee"). In the event the Water System  
22 fails to achieve the required 1.25 coverage requirement, and the covenant  
23 failure ripens into an Event of Default under the Water Resolution, there are  
24 various remedies available to the Trustee on behalf of the bondholders. As  
25 discussed above, the remedies include acceleration of the full principal and  
26 interest to be due and payable, immediately enforcement of the rights and  
27 remedies established under the Water Resolution by suit, action or special

1 proceedings in court, as well as the appointment of a receiver of the Water  
2 System.

3 In addition to the remedies available under the Water Resolution, the  
4 occurrence of an Event of Default would need to be disclosed by the Authority  
5 as a material event pursuant to the terms of the Authority's Continuing  
6 Disclosure Agreement entered into in connection with the issuance of the 1998  
7 Bonds to ensure compliance with the secondary reporting requirements  
8 imposed by the Securities and Exchange Commission (the "SEC"). This  
9 material event notice must be disseminated to the Municipal Securities Rule  
10 Making Board, all appropriate state information depositories and the rating  
11 agencies.

12 The disclosure of the occurrence of an Event of Default would have a material  
13 adverse effect on the Authority's ability to access the capital market for its  
14 long term capital needs which effect would not be limited to the Water  
15 System, but would also negatively impact the Electric System as well. As a  
16 result, the Authority's cost of capital, if available at all, would increase  
17 resulting in higher electric and water rates. In addition, the detrimental  
18 impact result in from the occurrence of an Event of Default would have a long  
19 term effect on the Authority's existing contractual obligations which may have  
20 cross-default provisions which could be triggered resulting in potential  
21 additional defaults.

22 **Q. PLEASE ELABORATE ON THE BASIS OF THE AUTHORITY'S**  
23 **PERMANENT RATE REQUEST?**

24 **A.** In short, the request is for a base rate increase of \$1.4 million or 5.4% and  
25 a line loss reduction capital surcharge of \$900,000 or \$0.71 per 1000 gallons  
26 sold at a level sufficient to provide an additional \$2.3 million in annual  
27 revenues above the revenues generated from the interim rates. PSC Order No.  
28 28-2012 estimated that the interim rates would produce \$1.5 million in annual

1 revenue; however, the current Test Year estimate of revenues from the interim  
2 rate increase is 1.4 million based on the reduced sales anticipated for the Test  
3 Year versus the actual Fiscal Year 2011 that was the basis for the interim rate  
4 analysis. The petition, if approved, is projected to increase annual revenues by  
5 \$2.3 million over the level approved for the interim rate relief or 5.9% of total  
6 Water System revenues, including revenues from LEAC and amounts billed  
7 the Electric System for internal plant use. The projected Water System  
8 financial requirements related to the permanent rate request considers: i)  
9 funding of adequate operating/working capital reserves to ensure future  
10 financial stability; ii) the repayment of certain deferred expenses owed to the  
11 Electric System from prior period operations; iii) repayment of a \$2,500,000  
12 loan from the Water System's \$5,000,000 line of credit held by First Bank and  
13 Banco Popular which was used to pay operating expenses in FY2011; iv)  
14 funding of Other Post Employment Benefits (OPEB); and v) funding of capital  
15 improvements required to increase water distribution system safety, reliability  
16 and efficiency and lower future water supply costs through line loss  
17 reductions on St. Thomas and St. Croix.

18 The Water System's unrestricted working cash/operating reserves are only  
19 \$588,442 or approximately 6 days of Test Year operating expenses as of the  
20 end of Fiscal Year 2012 as shown in Exhibit WAPA-JAR-3. Based on the level  
21 of revenues generated by the current Water System monthly base rates  
22 including the interim rate increase the unrestricted cash balance is projected to  
23 be less than \$25,000 by the end of Fiscal Year 2013. Therefore, the Test Year  
24 revenue requirements shown in Mr. Thomas testimony in Exhibit WAPA-  
25 HLT-7 includes an average deposit to the unrestricted operating  
26 reserve/working capital fund of approximately \$800,000 annually in order to  
27 build cash reserves over the next several years. The Authority has a  
28 unrestricted operating reserve/working cash target of 45 days of operating

1 expense which will not be fully achieved until Fiscal Year 2019 based on our  
2 current projections and the need to fund capital improvements and pay back  
3 the Electric System deferred expenses. Based on current rate levels including  
4 revenues from the interim rate increase there is not enough cash flow to fund  
5 critical distribution system capital needs and/or pay deferred liabilities  
6 associated with administrative costs that were allocated between the Electric  
7 and Water Systems and pay the monies owed through the outstanding line of  
8 credit. The recent deferral of these allocation payments due to insufficient  
9 revenues has also negatively impacted the Electric Systems cash liquidity.

10 **Q. WHAT AMOUNTS DOES THE WATER SYSTEM OWE THE**  
11 **ELECTRIC SYSTEM?**

12 **A.** As shown in Exhibit WAPA-JAR-4 the Water System currently owes the  
13 Electric system \$13,996,247 in deferred prior period operating expenses which  
14 includes \$3,925,051 in deferred fuel expenses as of June 30, 2012 that will be  
15 recovered through the LEAC charge and \$10,071,196 in deferred  
16 administrative and general charges that must be paid back to the Electric  
17 System out of Water System base rates. As shown in Exhibit WAPA-JAR-4, the  
18 Test Year revenue requirements included in Mr. Thomas' testimony in Exhibit  
19 WAPA-HLT-7 include a projected average payment of \$1,678,533 to pay off  
20 this liability over the next six (6) years. In addition the Test Year revenue  
21 requirements also include an allowance of \$500,000 annually to pay off the  
22 \$2,500,000 owed on the line of credit that was used to pay Fiscal Year  
23 operating expenses. This amount is also shown in Exhibit WAPA-HLT-7  
24 included in Mr. Thomas's testimony. It is envisioned that the Water Business  
25 Plan and the related permanent rate filing will also address the Authority's  
26 specific business needs with respect to capital investment needs and changes  
27 in inter-utility cost allocations in addition to targeting certain minimum  
28 financial standards and our goal, upon approval by the Authority's Governing

1 Board and the PSC, is to begin implementing the proposed rates and the other  
2 elements of the Business Plan by the end of FY2013. As shown in Mr. Thomas'  
3 testimony the projections of total rates including the reduced LEAC charges  
4 and the base rate increase are expected to result in lower overall rates to our  
5 customers.

6 In summary, the request is for a base rate increase and a line loss reduction  
7 capital surcharge at a level sufficient to provide an additional \$3.7 million in  
8 annual revenues excluding revenues from the interim rate relief, which  
9 allowed for a 6.18% increase in water base rates effective August 2012. The  
10 petition, if approved, is projected to increase annual revenues by \$2.3 million  
11 over the level approved for the interim rate relief or 5.9% of total revenues,  
12 including revenues from LEAC and amounts billed to the Electric System for  
13 internal plant use. The additional revenue is required to meet the Water  
14 System's operating, capital and financial needs above the revenues generated  
15 by the interim rates effective with bills rendered on or after July 1, 2013. It is  
16 envisioned that the Business Plan and the related permanent rate filing will  
17 address the Authority's long term revenue needs.

18 **Q. HOW WAS THE AMOUNT OF THE INCREASE DETERMINED?**

19 **A.** The proposed permanent rates discussed in Mr. Thomas' testimony and  
20 shown in Exhibit WAPA-HLT-8 are estimated to result in a proposed increase  
21 in revenue of \$2.3 million or 5.9% in total revenues above the revenues  
22 produced by the interim rates as derived from Mr. Thomas' Exhibit  
23 WAPA-HLT-7. The proposed rate increase reflects the Test Year revenue  
24 requirements including projected operating expenses as adjusted for changes  
25 in production expense allocations, debt service, capital needs required to be  
26 funded from rates, and financial obligations related to the repayment of  
27 deferred liabilities owed to the Electric System.

28

1 **Q. PLEASE ELABORATE OF THE CHOICE OF THE FY2011 TEST YEAR?**

2 A. As noted earlier, the amount of the Authority's request was derived from the  
3 audited financial results of the 12-month period covered by FY2011 (July 1,  
4 2010 to June 30, 2011). There are two main reasons for this choice of Test Year.  
5 First, it follows what has been a preference of this Commission for an  
6 historical Test Year.<sup>[5]</sup> Second it allows for comparison to recent actual audited  
7 results. The testimony of Mr. Henry Thomas, the Water system rate  
8 consultant discusses the proposed adjustments to actual FY2011 operating  
9 results in detail.

10 **Q. HOW DOES THE AUTHORITY PROPOSE TO REFLECT THE INCREASE**  
11 **IN THE WATER SYSTEM TARIFFS AND RATE STRUCTURE?**

12 A. The Authority proposes to apply the permanent base rate increase across the  
13 board, on a per thousand gallon ("kGal") basis to the residential and  
14 commercial rate classifications. In order to improve the sales to stand pipe  
15 customers, the Authority proposes to reduce the current base rate to standpipe  
16 customers. At this time, the Authority charges water haulers that purchase  
17 water from the standpipe the same rate as the commercial customers. The  
18 proposed standpipe rate reduction is based on competitive market factors and  
19 discussions with water haulers with respect to prices currently paid to  
20 alternative water supplies. As discussed previously, the sales to standpipe  
21 customers declined over 80% between FY2011 and FY2012 and the Authority  
22 believes a rate reduction for the rate/customer class is prudent and that  
23 recovery of standpipe sales to near historical levels is essential to the Water  
24 System's financial viability. The proposed rate reduction reflects an 18%  
25 decrease to the current base rates. It should also be noted that the standpipes  
26 are located adjacent to the Authority's water treatment facilities and as such  
27 do not directly benefit from the distribution system facilities.

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[5] Although I am not aware of a stated position of the Commission on this issue, there is ample anecdotal evidence of this preference.



1 In addition the Authority is requesting that the PSC approve the  
2 implementation of a line loss reduction capital surcharge to provide for  
3 internal funding of certain capital investments associated with its line loss  
4 reduction program that are not anticipated to be funded from future grants.  
5 The Authority does not propose to charge the line loss reduction capital  
6 surcharge to the stand pipe customers. The projects that are proposed to be  
7 funded from the line loss reduction capital surcharge are discussed in Mr.  
8 Hodge's testimony.

9 The proposed increase of \$2.3 million derived from Exhibit WAPA-HLT-7  
10 represents a 5.4% increase in base rate revenues and a \$900,000 or \$0.71 per  
11 1000 gallons sold line loss reduction capital surcharge for an overall 9.0%  
12 increase in base rate revenues above the interim rate relief levels, based on the  
13 Test Year revenue requirements. The impact of this increase is estimated to  
14 add \$4.40 to the monthly bill of the average residential water customer (using  
15 2,400 gallons per month and based on the current interim rates and the current  
16 LEAC of \$11.14 per 1000 gallons sold) as shown in Exhibit WAPA-HLT-8  
17 before subsequent adjustments to the projected LEAC, which is estimated to  
18 decrease substantially over the next five (5) years.

19 Based on the proposed changes to the LEAC formula as shown on Exhibit  
20 WAPA-JAR-5, which reflect the change from producing water to purchasing  
21 water and the projected LEAC charges shown on Exhibit WAPA-JAR-6, the  
22 Authority projects a decrease in the total water bill including the proposed  
23 base rate increase once the current prior period under-recovery of fuel is  
24 eliminated. Based upon the projected LEAC of \$9.13 per thousand gallons  
25 sold for Fiscal Year 2014 the overall rate level reflects a \$0.43 decrease in the  
26 typical bill. It should be noted that the LEAC is proposed to decrease again to  
27 \$7.31 per thousand gallons on July 1, 2014 once the prior period under  
28 recovery of fuel costs is eliminated, which would result in an overall reduction

1 of \$4.80 for the typical residential bill as shown in Mr. Thomas' Exhibit  
2 WAPA-HLT-8 or a 6.0% decrease for the average bill. In order for the  
3 permanent rate relief to have full effect, the petition proposes an effective date  
4 for the proposed rates of no later than July 1, 2013. Further the anticipated  
5 cost savings that will result from the line loss reduction capital program  
6 funded in part by the proposed line loss reduction capital surcharge will be  
7 greater than the amount of the surcharge resulting in further rate decreases  
8 over the next several years. As shown on Exhibit WAPA-JAR-6, the projected  
9 LEAC through FY18 is estimated to be \$1.77 per 1,000 gallons lower after  
10 investing \$0.71 per 1,000 gallons in the line loss reduction projects. The  
11 proposed rate structure is included in Mr. Thomas' testimony on Exhibit  
12 WAPA-HLT-8. A comparison of the proposed rates to the existing rates and  
13 typical monthly bill comparison are included in Mr. Thomas' testimony on  
14 Exhibit-WAPA-HLT-9.

15 **Q. IF THE PERMANENT WATER RATE INCREASE OF \$2.3 MILLION**  
16 **ABOVE THE INTERIM RATE LEVELS IS APPROVED, WHAT WILL THE**  
17 **WATER SYSTEM DO WITH THE ADDITIONAL REVENUE?**

18 **A.** The Water System will use the revenues from the permanent rates to fund  
19 operating expenses including the funding of OPEB expenses, repay liabilities  
20 associated with deferred operating expenses owed to the Electric System and  
21 the line of credit and fund certain capital improvements related to line loss  
22 reductions, health & safety, and system expansion.

23 **Q. WHAT, SPECIFICALLY, IS THE AUTHORITY REQUESTING OF THE**  
24 **COMMISSION?**

25 **A.** Through this petition, the Authority requests of the Commission the  
26 following:

- 27 i. Approve an permanent water base rate increase of 5.4% or \$1.4  
28 million per year above the interim rate levels;

1                   ii. Approve a water line loss reduction capital surcharge of \$0.71 per  
2                   1000 gallons sold or \$900,000 per year; and

3                   iii. Approve the Authority's proposed tariff, which includes a  
4                   reduction to the stand pipe base rate, to be effective with bills  
5                   rendered no later than July 1, 2013;

6           **Q. IS THERE ANYTHING ELSE YOU WANT TO ADD?**

7           **A.** We believe that it is imperative to demonstrate to the Bond holders that  
8           corrective measures have been implemented that will ultimately resolve the  
9           DSC coverage issues and maintain the financial operations of the Water  
10           System on a going concern basis. As previously in the my testimony, past  
11           rate relief granted by the PSC was not adequate to achieve compliance with  
12           the Rate Covenant of the Water Resolution; however, we realize that WAPA  
13           must be accountable for the justification of its future rates beyond the issue of  
14           compliance with our lender's financial requirements. This reality is why this  
15           petition for permanent rate relief exceeds the rate levels requested in the  
16           request for emergency/interim rate levels. It should be further noted WAPA  
17           still faces significant uncertainties with respect to the economy of the U. S.  
18           Virgin Islands. In addition to the continued effects of the general U.S.  
19           economic downturn, we are also dealing with the loss of approximately 2,000  
20           jobs on St. Croix associated with the recent closing of the Hovensa crude oil  
21           refinery. The closing of the Hovensa plant will adversely affect the tax  
22           revenue of the U.S. Virgin Islands government, which is a major customer of  
23           the Water System, and the loss of jobs has already had a significant impact  
24           on future water sales and revenues. In addition, the government of the U.S.  
25           Virgin Islands has recently reduced personnel. The impact of these events on  
26           future water demand is an important factor in setting rates at a proper level  
27           and while we have assumed that Test Year sales will exceed those experience

1 in Fiscal Year 2012 there is still significant uncertainty regarding WAPA's  
2 future.

3 END OF TESTIMONY  
4  
5  
6  
7

8 **AFFIDAVIT**

9 **ATTACHMENTS:**

10 Exhibit: WAPA-JAR-1 Governing Board Authorization  
11 Exhibit: WAPA-JAR-2 Summary of Historical Debt Service Coverage  
12 Exhibit: WAPA-JAR-3 Projected Working capital Needs  
13 Exhibit: WAPA-JAR-4 Projected Payments for Prior Period Expenses (Liabilities)  
14 Exhibit: WAPA-JAR-5 Proposed Purchase Water Adjustment Clause (PWA)  
15 Exhibit WAPA-JAR-6 Projected Purchased Water Adjustment (PWA) - Line Loss  
16 Reduction Analysis

Virgin Islands Water and Power Authority  
Water System Rate Case

Summary of Historical Debt Service Coverage

Line No.	Description	Fiscal Year Ending June 30, [ ]		
		Audited 2009 [2]	Audited 2010 [2]	Audited 2011 [2] / Unaudited 2012 [3]
	<b><u>Operating Revenues</u></b>			
1	Water Sales to Customers and Government	\$23,450,459	\$24,305,737	\$25,442,971
2	Fuel Escalator Revenues	15,555,884	10,131,175	12,463,680
3	<b>Total Operating Revenues</b>	<b>\$39,006,343</b>	<b>\$34,436,912</b>	<b>\$37,906,651</b>
	<b><u>Operating Expenses</u></b>			
4	Production Costs	\$26,476,086	\$19,153,099	\$21,572,825
5	Operation and Maintenance	7,682,624	6,989,224	7,516,271
6	Customer Service	1,206,748	1,137,584	1,301,940
7	A&G Expenses	4,077,770	4,628,242	4,946,625
8	Bad Debt Expenses	195,780	253,806	731,944
9	Sub-total Operating Expenses	<b>\$39,639,008</b>	<b>\$32,161,955</b>	<b>\$36,069,605</b>
10	Less Adjustment for Accrued OPEB Liabilities	1,294,262 [4]	1,382,516 [4]	1,427,919 [4]
11	<b>Total Operating Expenses</b>	<b>\$38,344,746</b>	<b>\$30,779,439</b>	<b>\$34,641,686</b>
12	Net Operating Revenues	\$661,597	\$3,657,473	\$3,264,965
13	Plus Other Income	198,553	563,975	525,687
14	<b>Total Net Revenues Available for Debt Service</b>	<b>\$860,150</b>	<b>\$4,221,448</b>	<b>\$3,790,652</b>
15	<b>Debt Service - Series 1998A Refunding Revenue Bonds [6]</b>	<b>\$3,870,913</b>	<b>\$3,869,913</b>	<b>\$3,866,563</b>
16	<b>Calculated Debt Service Coverage</b>	<b>0.22</b>	<b>1.09</b>	<b>0.98</b>
17	Minimum Debt Service Coverage Required	1.25	1.25	1.25

Virgin Islands Water and Power Authority  
Water System Rate Case

Summary of Historical Debt Service Coverage

Line No.	Description	Fiscal Year Ending June 30, [ ]			
		Audited 2009 [2]	Audited 2010 [2]	Audited 2011 [2]	Unaudited 2012 [3]
<b><u>Reconciliation of Debt Service Coverage to Audit</u></b>					
18	Total Net Revenues Available for Debt Service	\$860,150	\$4,221,448	\$3,790,652	\$891,647
19	Plus Capital Grants and Contributions	736,095	5,954,833	4,150,260	6,365,789
20	Less Bond Interest Expense and Amortized Discount	2,044,820	2,042,085	1,821,952	1,686,853
21	Less Depreciation and Amortization Expenses	3,525,911	3,626,083	3,858,652	3,951,484
22	Less Accrued OPEB Liabilities	1,294,262	1,382,516	1,427,919	1,651,764
23	<b>Increase (Decrease) in Net Assets</b>	<b>(\$5,268,748)</b>	<b>\$3,125,597</b>	<b>\$832,389</b>	<b>(\$32,665)</b>

Footnotes:

- [1] Amounts based upon the Audited Financial Statements as provided by WAPA staff. Amounts exclude depreciation and amortization expenses, accrued OPEB liabilities, grant revenues, and capital contributions.
- [2] Amounts derived from page 14 of the Audited Financial Statements for each Fiscal Year.
- [3] Amounts derived from page 13 of the Unaudited Fiscal Year 2012 Financial Statements.
- [4] Amount derived from page 16 of the Audited Financial Statements for each Fiscal Year.
- [5] Amounts derived from page 12 of the Unaudited Fiscal Year 2012 Financial Statements.
- [6] Amounts derived from the principal and interest payment schedule of the Series 1998A Refunding Bonds.

**Virgin Islands Water and Power Authority  
Water System Rate Case**

**Projected Working Capital Needs and Transfers (Cash Reserve Fund)**

Line No.	Description	Amount
<b><u>Projected Cash Balances [1]</u></b>		
<b>Unrestricted &amp; Restricted Cash &amp; Investments</b>		
1	Cash & Investments as of June 30, 2012	\$14,632,922
<b>Restricted / Designated Cash &amp; Investments</b>		
2	1998 Debt Service Reserve Fund	\$3,925,943
3	1998 Debt Service Sinking Fund	3,343,566
4	Renewal & Replacement Fund	752,203
5	Grant Funds for Capital Projects	3,379,503
6	Property Tax Funds for Capital Projects	2,555,667
7	Line of Credit	87,598
8	<b>Total Restricted / Designated Cash &amp; Investments</b>	<u>\$14,044,480</u>
9	<b>Amount Unrestricted &amp; Available July 1, 2012</b>	<u>\$588,442</u>
10	<b>Projected Cash Surplus (Deficiency) from User Rates - FY13 [2]</b>	(567,980)
11	<b>Projected Amount Unrestricted &amp; Available for Test Year (July 1, 2013)</b>	<u><u>\$20,462</u></u>
<b><u>Projected Days of Working Capital</u></b>		
12	<b>Projected Amount Unrestricted &amp; Available for Test Year</b>	\$20,462
13	<b>Operating Expenses (including OPEB)</b>	\$33,144,828
14	Days of Operating Expenses - Calculated	0
15	Days of Operating Expenses - Minimum	45
16	<b>Target Amount Unrestricted &amp; Available Over 5-Years</b>	\$4,086,349
17	Less Amount Available	<u>20,462</u>
18	<b>Projected Deposits Over 5-Years</b>	<u>\$4,065,887</u>
19	<b>Projected Average Deposit per Year</b>	<u><u>\$813,177</u></u>

## Footnotes:

[1] Based on unaudited financial statements as of June 30, 2012 as provided by staff.

[2] Projected current year net cash flow based on the existing financial forecast.

**Virgin Islands Water and Power Authority  
Water System Rate Case**

**Projected Payments for Prior Period Expenses (System Liabilities)**

Line No.	Description	Amount
<b><u>AMOUNT DUE ELECTRIC FOR PRIOR PERIOD EXPENSES</u></b>		
<b>Amounts Due Electric as of June 30, 2012 (Unaudited) [1]</b>		
1	Due Electric - Current Liability	\$6,069,397
2	Due Electric - Long-term Liability	4,724,347
3	Due Electric - Note for Deferred Fuel	3,202,503
4	<b>Total Due Electric - Deferred Fuel and A&amp;G Allocation</b>	<u>\$13,996,247</u>
5	<b>Actual Deferred Fuel as of June 30, 2012 (Unaudited)</b>	\$3,925,051
6	<b>Actual Prior Period A&amp;G Allocation</b>	<u>\$10,071,196</u>
<b><u>Projected Payments for Deferred Fuel (Amount Due Electric) [2] [3]</u></b>		
7	<b>Actual Deferred Fuel as of June 30, 2012 (Unaudited)</b>	\$3,925,051
8	Deferred Fuel Payment from LEAC/PWA - FY13	(2,182,304)
9	Deferred Fuel Payment from LEAC/PWA - FY14	(1,742,747)
10	<b>Projected Deferred Fuel as of June 30, 2014</b>	<u><u>\$0</u></u>
<b><u>Projected Payments for Prior Period A&amp;G Allocation (Amount Due Electric)</u></b>		
11	<b>Actual Prior Period A&amp;G Allocation as of June 30, 2012 (Unaudited)</b>	\$10,071,196
12	<b>Projected Average Payments per Year FY14-19 (6-Years) [4]</b>	<u><u>\$1,678,533</u></u>
<b><u>AMOUNT DUE CREDIT LINE FOR PRIOR PERIOD EXPENSES</u></b>		
13	<b>Actual Prior Period Expenses Due Credit Line as of June 30, 2012 (Unaudited)</b>	\$2,500,000
14	<b>Projected Average Payments per Year FY14-18 (5-Years) [4]</b>	<u><u>\$500,000</u></u>

*PWA = Purchased Water Adjustment Clause*

**Footnotes:**

- [1] Based on unaudited financial statements as of June 30, 2012 as provided by staff.
- [2] Payments for Deferred Fuel are not shown as a component to be recovered from Water Base Rates. Amounts anticipated to be recovered through the LEAC/PWA formula shown in Exhibit-JAR-5.
- [3] Payments based on the projected LEAC/PWA collection rates shown in Exhibit-JAR-6.
- [4] Amount included as an annual revenue requirement to be recovered from Water Base Rates for the Test Year as shown in Exhibit-HLT-7.



Virgin Islands Water and Power Authority  
Water System Rate Case

**Proposed Purchased Water Adjustment Clause (PWA) Cost Recovery Formula**  
*Previously the Levelized Energy Adjustment Clause (LEAC)*

Line No.	Description
1	<b><u>CURRENT PWA REVENUES (EXCLUDES DEFERRED CHARGES) [1]</u></b>
2	<b>Current Period Expenses</b>
3	Direct Purchased Water Charges (Seven Seas) [2]
4	Electric Production Costs Billed by Electric [3]
5	Regulatory Expenses, Interest Costs and Other Charges [4]
6	<b>Total Current Period Expenses</b>
7	<b>Less PWA Adjustments (Other Sources of Revenue)</b>
8	Amount Billed Electric for Internal Plant Use [5]
9	Amount Billed Electric for St. Thomas Station #2 [6]
10	<b>Total PWA Adjustments (Other Sources of Revenue)</b>
11	<b>Total Current Amount to be Recovered</b>
12	<b>Less Amount Recovered from Base Rates (\$2.88 per kgal)</b>
13	<b><u>Net Current Amount Due from PWA [1]</u></b>
14	<b>Water Sales (kgals) - Excluding Electric Plant Use</b>
15	<b><u>Average Current PWA per Kgal [1]</u></b>
16	<b><u>CALCULATION OF DEFERRED PWA BALANCE</u></b>
17	<b>Beginning Balance: Deficiency (Surplus)</b>
18	<b>Plus Net Current Amount Due from PWA [7]</b>
19	<b>Total Amount Due from PWA (Current &amp; Prior Period)</b>
20	<b>Less PWA Revenues - Based on Adopted PWA</b>
21	<b><u>Ending Balance: Deficiency (Surplus)</u></b>

*PWA = Purchased Water Adjustment Clause*  
*Footnotes on following page.*

Virgin Islands Water and Power Authority  
Water System Rate Case

**Proposed Purchased Water Adjustment Clause (PWA) Cost Recovery Formula**  
*Previously the Levelized Energy Adjustment Clause (LEAC)*

Footnotes:

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- [1] Formula used to calculate current period revenues from PWA for income statement purposes and for calculation of debt service coverage as required by the Bond Resolution.
- [2] Amount may include fuel charges associated with water production until all RO units are fully active, which should occur by 2014. Amount includes Gross Receipts Taxes that will be deducted from the vendor's bill and remitted to the Government.
- [3] Amount excludes electric charges associated with the water distribution that are included in the inter-company allocation and recovered from Water Base Rates.
- [4] Reflects any current period charges associated with managing PWA and the cost recovery process.
- [5] Internal plant use for electric requires a higher level of water production for pure water. Charges to electric will be based on the actual water rates charged by Seven Seas and the electric charges for water production billed to the Water System.
- [6] Station #2 on St. Thomas was constructed for the sole benefit of the Electric System. Seven Seas is recovering its investment through the St. Thomas wholesale water rates. Such amount is expected to be fully recovered from the Electric System.
- [7] As calculated on Line 13.

Virgin Islands Water and Power Authority  
Water System Rate Case

**Projected Purchased Water Adjustment (PWA) - Line Loss Reduction Analysis**  
**Previously the Levelized Energy Adjustment Clause (LEAC)**

Line No.	Description	Existing	Projected Amounts				
			2014	2015	2016	2017	2018
<b><u>Excluding Line Loss Reduction Initiative</u></b>							
1	Projected PWA / LEAC Billed [1]	\$11.14	\$9.78	\$8.50	\$8.54	\$8.66	\$8.77
2	Cumulative Decrease - \$		(\$1.36)	(\$2.64)	(\$2.60)	(\$2.48)	(\$2.37)
2	Cumulative Decrease - %		(12.2%)	(23.7%)	(23.3%)	(22.3%)	(21.3%)
<b><u>Including Line Loss Reduction Initiative</u></b>							
3	Projected PWA / LEAC Billed [1] [2]	\$11.14	\$9.13	\$7.31	\$7.05	\$7.06	\$7.00
4	Cumulative Decrease - \$		(\$2.01)	(\$3.83)	(\$4.09)	(\$4.08)	(\$4.14)
4	Cumulative Decrease - %		(18.0%)	(34.4%)	(36.7%)	(36.6%)	(37.2%)
<b><u>Projected Benefit of Line Loss Reduction Initiative</u></b>							
6	Decrease Associated with Line Loss Reduction - %		(\$0.65)	(\$1.19)	(\$1.49)	(\$1.60)	(\$1.77)
6	Decrease Associated with Line Loss Reduction - \$		(6.6%)	(14.0%)	(17.4%)	(18.5%)	(20.2%)
7	Projected Sales (kgals) - Excluding Electric Plant Use [3]		1,347,836	1,347,836	1,407,988	1,407,988	1,407,988
8	Projected Customer Savings [4]		\$876,093	\$1,603,925	\$2,097,902	\$2,252,780	\$2,492,138
<b><u>Projected Residential Bill at Existing Base Rates</u></b>							
9	Projected Residential Bill (2,400 Gallons)	\$76.63	\$71.81	\$67.44	\$66.82	\$66.84	\$66.70
10	Cumulative Decrease - \$		(\$4.82)	(\$9.19)	(\$9.82)	(\$9.79)	(\$9.94)
10	Cumulative Decrease - %		(6.3%)	(12.0%)	(12.8%)	(12.8%)	(13.0%)

PWA = Purchased Water Adjustment Clause

Footnotes:

[1] Amounts based on the formula provided in Exhibit-JAR-5 and the projected sales and expenses for the period through Fiscal Year 2018.

[2] Amounts further assume line loss reductions occur on St. Croix and St. Thomas as follows:

St. Croix from 38% Line Loss to 19% Line Loss over five (5) years.

St. Thomas from 12% Line Loss to 10% Line Loss over five (5) years.

[3] Amounts based upon a financial forecast prepared on behalf of the Water System by the Rate Consultant.

[4] Projected amount of customer savings.