B&E Consulting, LLC

Certified Public Accountants

CONSULTING ENGAGEMENTS OF THE
BRISTOL COUNTY WATER AUTHORITY TO INCLUDE:

1. A FIVE YEAR RATE STUDY
2. A MODIFIED (AS TO SCOPE) PERFORMANCE AUDIT
3. CERTAIN REQUESTED AGREED UPON PRODEDURES RELATING TO SPECIFIC AREAS OF CONCERN

JUNE 2011

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PREPERED FOR THE TOWN COUNCILS OF:

BARRINGTON
WARREN
And BRISTOL

PREPARED BY B&E CONSULTING LLC

JUNE 2011

TABLE OF CONTENTS

	Page
Section I. Introduction	2
Section II. Five Year Rate Study	5
Section III. Performance Audit	21
A. Review of Major Cost Categories	23
1. Staffing (Salaries and Wages):	23
➢ Central Office	24
➢ Meter Department	28
➢ Engineering	30
➢ Transmission and Distribution	32
➢ Treatment	35
2. Payroll Taxes	39
3. Group Insurance/Pension	39
4. Purchase Water	39
5. Depreciation	40
6. Interest	40
7. Chemicals	42
8. Property Taxes	42
B. Labor Contract	43
C. Health Insurance	48
D. Production and Purchase Water	49
E. Transmission and Distribution	50
F. Accounting Functions:	50
➢ Accounting Systems	50
➢ Budgeting	51
➢ Reporting	51
BCWA Responses to Performance Audit	
Attachments to BCWA Response (1-4)	
Section IV: Agreed-upon Procedures	52
A. Review of the Pension Program	52
B. Review of Rate Regulation	57

SECTION I. INTRODUCTION

Consulting Engagement Modifications

On October 6, 2010 the Bristol County Water Authority (BCWA) and its members Barrington R.I., Bristol R. I. and Warren R.I requested proposals from consulting firms to conduct a Performance Audit of the BCWA. Sealed bids were to be received by October 28, 2010. B&E Consulting LLC (B&E) was the only bidder.

The engagement scope per the Request for Proposal (RFP) was as follows:

1. Review budget and other related financial documents to identify major cost categories for further review and detailed analysis.
2. Review payroll and related benefit costs to determine impact on overall costs and rates.
3. Compute and analyze cost of produced drinking water at BCWA Water Treatment Plant at full design production capacity based on existing engineering criteria versus purchase water.
4. Identify services, processes, practices and internal controls that could be modified or implemented to cause more cost effective operations.
5. Identify potential sources of Revenue that BCWA could explore, other than rate increases.
6. Estimate and evaluate the effect of increased debt service for BCWA debt upon completion of the rehabilitation of the Child Street Water Treatment Plant and other future planned infrastructure improvements to be financed by BCWA and any unrecorded obligations on rates for the next five years.
7. Compare Water Rates and structures with comparable water companies, authorities, and districts.

The Performance Audit was to be completed in compliance with Generally Accepted Governmental Auditing Standards (GAGAS often referred to as the Yellow Book).

On December 3rd, B&E met with representatives of BCWA and the three towns. B&E was asked to modify its bid substantially as follows:

- B&E was asked to reduce its bid by $10,750 from $43,750 to $33,000.

- B&E was asked to complete a five year rate study (to complete, estimated cost of $10,000).

- B&E was asked to do a thorough review of the pension plan and include a section in the report specifically addressing the pension plan (est. cost $5,000).

- Review the benefits and disadvantages of regulation by the R.I. Public Utilities Commission (PUC) (estimated cost to complete $2,000).

As a trade off to the estimated $27,750 worth of additions requested by BCWA and the Towns it was agreed that the following reductions in scope were appropriate:

- The scope of the Performance Audit was reduced to a Performance Audit based exclusively upon the procedures requested in the RFP as amended (the under scored procedures list above and also below were eliminated). Further, parts of the engagement were reduced in form from an audit to an attestation (pension review and the review of PUC regulation) and from an audit to a non-audit engagement (rate study).

- Task # 3 of the RFP "Compute and analyze cost of produced drinking water at BCWA Water Treatment Plant at full design production capacity based on existing engineering criteria versus purchased water." was eliminated.

- Task # 5 of the RFP "Identify potential sources of Revenue that BCWA could explore, other than rate increases." was eliminated

- Task # 7 of the RFP "Compare Water Rates and structures with comparable water companies, authorities, and districts." was eliminated.

BCWA, the towns and B&E agreed to all of the above changes. Although the overall financial impact for B&E was negative, B&E was very excited to complete this engagement in order to show other utilities in Rhode Island the type of work B&E could provide to them if they were facing the same or similar financial issues as BCWA.

Report Design

This report is separated into four sections:

Section I. Introduction
Section II. Five Year Rate Study
Section III. Modified Performance Audit
Section IV. Specific Agreed-Upon Procedures

Section II. The Five Year Rate Study is a non-audit and non-attestation engagement. Therefore, this section of the engagement is not subject to any Yellow Book requirements.

Section III. Performance Audits are subject to chapters 1-3, 7, and 8 of the Yellow Book. Given that the scope of the Performance Audit was limited by the client as part of the negotiations it reduces some of B&E's responsibilities under the Yellow Book. In this report, B&E has provided a listing of the exceptions to the Performance Audit Yellow Book requirements that were made.

Section IV. Agreed-Upon Procedures are identified in the Yellow Book as attestation engagements which are not subject to Chapters 7 and 8 of the Yellow Book. The two specific reviews in this section of the report were specifically requested during the negotiated settlement as reviews and not audits.

Section II.

FIVE YEARS PROFORMA RATE STUDY

BRISTOL COUNTY WATER AUTHORITY

FOR THE FISCAL YEARS ENDED
February 28, 2012 - 2016

The Bristol County Water Authority (BCWA) is a "Public Entity" that was created in 1984 after years of work by the Tri-Town Committee.

Rates

BCWA Customers are charged for services provided, as follows:

1. A connection charge for the original "hook up" to the system.

2. A fixed fee or customer charge to cover the costs relating to the reading of meters, providing customer bills and maintaining service lines.

3. There are currently five block consumption based rates.

Rate Blocks	Number of Cubic Feet (CF)	Price per HCF
1st Block	6,000 CF	$2.610
2nd Block	12,000 CF	$7.375
3rd Block	102,000 CF	$5.617
4th Block	240,000 CF	$2.610
5th Block	360,000 CF	$3.381

4. There are three state mandated surcharges.

5. And other miscellaneous charges (e.g.: meter repair and testing).

Scope of Study

This rate study was not included in the original RFP or B&E's initial proposal and when it was added it was intended to be only a small part of a much grander Performance Audit Engagement. In reality, this rate study represents nearly half of the overall engagement in man hours and complexity.

As part of this rate study, B&E made a complete review of the BCWA operating systems and financial position. B&E visited the facilities, reviewed the current financial position at February 28, 2011 and evaluated the District's present rate design.

General Overview

BCWA is a medium size water utility. Approximately 75 percent of the water provided to its customers is purchased from Providence Water Supply Board while the remainder is provided through the Authority's own treatment facility. BCWA supplies all of its retail customers through BCWA's owned and operated transmission and distribution system.

It is very important to note that BCWA is a "stand alone" entity that must have capital and operating reserves available to cover major capital and emergency expenditures. At this time no such reserves have been established. This rate study will start the funding for these reserves.

History of Rate Studies

This pro-forma, five-year rate study will be the first rate study completed for BCWA in over 20 years. This rate study will maintain the financial stability of BCWA and when possible avoid rate shock.

Current Rate Study Goals

In summary, the goals of this part of the engagement are to complete a five-year rate study that will provide appropriate and adequate cost based rates for each ratepayer for the services provided to them, allow for the financial stability and independence of BCWA, and reduce the need for, and cost of, a complete and comprehensive rate study in each of the next five years.

Review of Financial Condition

BCWA received a clean opinion on its FY February 28, 2010 audited financial statements. The independent auditor's report stated in part that "in our opinion, the financial statements referred to above present fairly, in all material respects, the respective financial position of the Bristol County Water Authority, as of February 28, 2010"

A review of the balance sheet showed current assets of $1,724,309 were less than the current liabilities of $3,904,875 which is unfavorable. Normally the current assets exceed the current liabilities at least 2 to 1. The reason for the large current liabilities is the current portion of long term debt $2,238,000. Excluding this one item would result in a current ratio of 1 to 1, still not good.

The balance sheet also shows a positive "net assets" of $47,240,583 the majority of which is invested in capital assets and restricted for capital activity. Clearly the debt related to the East Bay Pipeline has made a major impact on the financial position of BCWA.

The statement of revenues and expenses shows operating income of $1,568,171 in 2009 and $733,194 in 2010. Although this would appear to be very positive the operating income is eliminated in 2010 by interest expense and substantially reduced in 2009. Once again the effect of the East Bay Pipeline has a major impact on the financial results.

The notes to the financial statements show that the debt payments for the purchase of all of the assets of BCWA will end in CY 2017 at which time the principal and interest payments will be reduced by nearly $1,400,000 per year. This would have a significant impact (a reduction of about 13%) on the BCWA water rates. Further, in CY 2018 and 2019 the East Bay Pipeline bonds are paid in full reducing the debt service by an additional $1,000,000 and $500,000 respectively. This could provide an additional 15% reduction in rates. Please see the Performance Audit - Section "Major Cost Categories – Interest" for additional information on future debt service savings.

It is clear that BCWA has some of the highest (if not the highest) water rates in Rhode Island. The reason is that the BCWA ratepayers are paying the debt service cost of the East Bay Pipeline as well as the operating cost of an inefficient treatment plant and an inefficient raw water pump station and pipeline. Also labor costs are some of the highest in the State.

All of these observations will be addressed in this rate study.

Projected Revenues (at Current Rates) and Projected Expenditures

B&E has calculated the project revenues (at current rates) and the projected expenses for the fiscal years ended February 29, 2012 through February 29, 2016. See Schedule A, included in this section of the Report. Schedule "A" shows that BCWA should have surpluses each year if the savings suggested by B&E can be achieved. Therefore B&E has proposed no rate increases thought January 31, 2016 with the exception of the establishment of the State mandated Infrastructure Replacement Reserve charge.

Assumptions Used to Produce Schedule A:

It is important and required in any ratemaking analysis to state the assumptions that were used to make the projections. B&E's assumptions are as follows:

- FY 2012 customer charges reflected the actual count by meter size as of February 28, 2011.
- FY 2012 water consumption was established based on an extensive and time consuming review of the BCWA's FY 2010 actual billing. This review and analysis established the breakdown of quarterly and monthly total consumption by consumption block. Consumption

from major accounts were reviewed from FY 2011 and reconciled with the analysis of FY 2010 to provide the breakdown of quarterly and monthly total consumption by consumption block for FY 2011. The FY 2012 maintained the FY 2011 consumption blocks since FY 2010 was an abnormally low consumption period.

- Water sales and customer charges were increased by 55 new 5/8' residential accounts with 7,000 CF annual average usages per new customer each year after FY 2012 for customer growth. All other revenues and usage counts were left at the 2011 budget levels.

- The wholesale water cost was increased by 0.35% per year to reflect the customer growth projected above. Increase in the wholesale price of water charged by Providence Water will have to be passed along as incurred. However, recent trends have shown Providence Water sales are increasing and it is impossible to predict with any certainty the Providence Water rate increases for the next five years.

- The property tax expense projections were dependent upon each community. The property tax or, more properly "payments-in lieu of", from the three communities of Barrington, Bristol and Warren was held constant for each year of the projections (see the property tax section of this report). The remaining property taxes (Rehoboth and Swansea) were increased 2.5% per year, starting FY 2013.

- Production Utilities were increased to reflect both the greater than inflation cost expected in the future and additional costs from customer growth projected above. Production Utilities costs were first reviewed then were increased 10% per year to reflect the greater than inflation cost expected in the future.

- Production chemicals were increased to reflect both the greater than inflation cost expected in the future and additional costs from customer growth projected above. Production chemical costs were first reviewed then were increased 5% per year to reflect the greater than inflation costs expected in the future.

- The salaries and related expense were not increased (see the salary section of this report). The union contract will be negotiated in CY 2012 and the results of those negotiations are not, at this time, known. The FY 2012 salary was adjusted to reflect only a partial year increase for the 2012 salary increase which is effective May 2012.

- Payroll taxes were reviewed and recalculated to reflect actual payroll covered for the period.

- Employee benefits were increased only1.25% per year (see the group insurance/ pension section of this report).

- Depreciation and amortization is not included because it is not a cash item and not used for ratemaking.

- Debt service principal and interest was taken from the debt service schedule and the debt service reserve funding was estimated.

- Capital expenditures were projected to cover yearly Infrastructure Replacement (IFR), new services and major projects. The yearly costs for IFR were covered by monies provided by the new IFR reserve. The projected funding of the IFR reserve was provided by the new IFR rate. New service expenditures were offset by connection fees. A major purchase for a new accounting system and billing system has been included in FY 2013. The remaining major projects costs were included only to the extent that they would be covered by State funds. B&E recommends postponing the remaining projects until FY 2018 when debt service dramatically reduces due to the payoff of the 2004 refunding bond.

- All of the remaining expenses were either increased by a 1.25% rate of inflation or remained the same throughout the projected years because there are no expected increases within these items.

- Lastly the savings from performance audit recommendations were projected based upon the findings of this report. The savings for each year were estimated upon the earliest implementation available.

Conclusion:

From the above review and assumptions made, it is obvious the BCWA should have surpluses each year if the savings suggested by B&E can be achieved. B&E has proposed no rate increases thought January 31, 2016 with the exception of the establishment of the State mandated Infrastructure Replacement Reserve charge. These savings, however, will be utilized to make rate design change detailed later in the next section.

Schedule A

Five Year Financial Projection at Current Rates
Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
REVENUES						
Revenues from Rates						
927.20	Water Service	$ 10,371,731	$ 10,401,305	$ 10,427,180	$ 10,453,056	$ 10,466,263
927.05	Fire Service	562,245	562,245	562,245	562,245	562,245
927.19	RIWRB Tax	-	-	-	-	-
419.40		-				
Total Revenues from Rates		10,933,976	10,963,549	10,989,425	11,015,301	11,028,508
Other Revenues						
920.00	Interest Income	$ 9,000	$ 9,000	$ 9,000	$ 9,000	$ 9,000
419.31	Other	84,000	84,000	84,000	84,000	84,000
		-				
Total Other Revenues		93,000	93,000	93,000	93,000	93,000
	TOTAL REVENUES	$ 11,026,976	$ 11,056,549	$ 11,082,425	$ 11,108,301	$ 11,121,508
EXPENSES						
Administrative Expenses		$ 58,600	$ 59,333	$ 60,074	$ 60,825	$ 61,585
Management & Office Expenses		2,390,762	2,414,270	2,431,652	2,449,220	2,467,045
Commercial & Customer		573,473	578,098	579,980	581,475	583,500
Production Expenses		3,309,732	3,355,314	3,398,616	3,443,984	3,491,448
Distribution Expenses		930,954	939,954	944,060	948,112	952,214
Other Miscellaneous Expenses						
403.00	Depreciation Expense	-	-	-	-	-
426.00	Amortization	-	-	-	-	-
427.01	Interest Expense	903,600	816,499	720,367	616,409	507,863
	Principal	2,322,000	2,408,000	2,505,000	2,606,000	2,713,000
	Emergency Reserve	25,000	25,000	25,000	25,000	25,000
	Total Capital Projects	500,000	466,920	410,691	411,761	411,761
Total Other Miscellaneous Expenses		3,750,600	3,716,419	3,661,058	3,659,169	3,657,624
Savings from Performance Audit		(221,729)	(413,726)	(413,726)	(413,726)	(413,726)
	TOTAL EXPENSES	10,792,392	10,649,662	10,661,715	10,729,059	10,799,691
	Net Operating Reserve	161,511	159,370	159,551	160,561	161,620
	NET INCOME/(LOSS)	$ 73,073	$ 247,518	$ 261,160	$ 218,681	$ 160,197
	Cumulative Net Operating Reserve	$ 73,073	$ 320,591	$ 581,751	$ 800,432	$ 960,629

Projected Revenue at FY 2012 current rates
Bristol County Water Authority

Schedule A-1

	FY 2012		FY 2013		FY 2014		FY 2015		FY 2016	
	Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly
Water Use Data										
1st Block	$ 51,422	$ 2,043,549	$ 51,422	$ 2,050,137	$ 51,422	$ 2,058,750	$ 51,422	$ 2,067,363	$ 51,422	$ 2,067,363
2nd Block	138,621	2,700,998	138,621	2,710,777	138,621	2,714,833	138,621	2,718,890	138,621	2,718,890
3rd Block	241,986	568,283	241,986	568,283	241,986	568,283	241,986	568,283	241,986	568,283
4th Block	90,285	75,309	90,285	75,309	90,285	75,309	90,285	75,309	90,285	75,309
5th Block	73,310	177,563	73,310	177,563	73,310	177,563	73,310	177,563	73,310	177,563
Proforma Year	595,624	5,565,702	595,624	5,582,069	595,624	5,594,739	595,624	5,607,408	595,624	5,607,408
		6,181,326		6,177,693		6,190,363		6,203,032		6,203,032
Meters By Size										
Meter Size										
5/8 Elderly	17,240	590,605	17,240	590,605	17,240	590,605	17,240	590,605	17,240	590,605
5/8	44,662	3,053,606	44,662	3,066,813	44,662	3,080,019	44,662	3,093,226	44,662	3,106,432
3/4	-	721	-	721	-	721	-	721	-	721
1	12,620	120,184	12,620	120,184	12,620	120,184	12,620	120,184	12,620	120,184
1 1/2	12,016	18,023	12,016	18,023	12,016	18,023	12,016	18,023	12,016	18,023
2	105,725	165,313	105,725	165,313	105,725	165,313	105,725	165,313	105,725	165,313
3	3,605	-	3,605	-	3,605	-	3,605	-	3,605	-
4	12,015	6,008	12,015	6,008	12,015	6,008	12,015	6,008	12,015	6,008
6	-	48,061	-	48,061	-	48,061	-	48,061	-	48,061
8	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-
	207,883	4,002,521	207,883	4,015,728	207,883	4,028,934	207,883	4,042,141	207,883	4,055,348
		4,210,405		4,223,611		4,236,818		4,250,024		4,263,231
927.20	**Water Service**	$ 10,371,731		$ 10,401,305		$ 10,427,180		$ 10,453,056		$ 10,466,263
Private Fire Protection										
Meter Size										
4	$ -	$ 6,214	$ -	$ 6,214	$ -	$ 6,214	$ -	$ 6,214	$ -	$ 6,214
6	-	148,546	-	148,546	-	148,546	-	148,546	-	148,546
8	-	45,057	-	45,057	-	45,057	-	45,057	-	45,057
10	-	2,428	-	2,428	-	2,428	-	2,428	-	2,428
	-	202,245	-	202,245	-	202,245	-	202,245	-	202,245
Public Fire Protection										
Hydrants	-	360,000	-	360,000	-	360,000	-	360,000	-	360,000
	-	360,000	-	360,000	-	360,000	-	360,000	-	360,000
927.05	**Fire Service**	$ 562,244.88		$ 562,244.88		$ 562,244.88		$ 562,244.88		$ 562,244.88

Schedule A-1a

Projected Consumptions/Counts
Bristol County Water Authority

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
1st Block	19,702	782,969	19,702	785,493	19,702	788,793	19,702	792,093	19,702	792,093
2nd Block	18,796	366,237	18,796	367,563	18,796	368,113	18,796	368,663	18,796	368,663
3rd Block	43,081	101,172	43,081	101,172	43,081	101,172	43,081	101,172	43,081	101,172
4th Block	34,592	28,854	34,592	28,854	34,592	28,854	34,592	28,854	34,592	28,854
5th Block	21,683	52,518	21,683	52,518	21,683	52,518	21,683	52,518	21,683	52,518
Proforma Year	137,854	1,331,750	137,854	1,335,600	137,854	1,339,450	137,854	1,343,300	137,854	1,343,300

Meters By Size

Meter Size	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
5/8 Elderly	98	3,358	98	3,358	98	3,358	98	3,358	98	3,358
5/8	186	12,717	186	12,772	186	12,827	186	12,882	186	12,937
3/4	-	2	-	2	-	2	-	2	-	2
1	21	200	21	200	21	200	21	200	21	200
1 1/2	10	15	10	15	10	15	10	15	10	15
2	55	86	55	86	55	86	55	86	55	86
3	1	-	1	-	1	-	1	-	1	-
4	2	1	2	1	2	1	2	1	2	1
6	-	4	-	4	-	4	-	4	-	4
8	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-
	373	16,383	373	16,438	373	16,493	373	16,548	373	16,603

Private Fire Protection

Meter Size	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
4	-	16	-	16	-	16	-	16	-	16
6	-	170	-	170	-	170	-	170	-	170
8	-	29	-	29	-	29	-	29	-	29
10	-	1	-	1	-	1	-	1	-	1
	-	216	-	216	-	216	-	216	-	216

Public Fire Protection

	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
Hydrants	-	900	-	900	-	900	-	900	-	900
	-	900	-	900	-	900	-	900	-	900

IFR Charge

All Blocks	137,854	1,331,750	137,854	1,335,600	137,854	1,339,450	137,854	1,343,300	137,854	1,343,300

Schedule A-1b

Current Rates
Bristol County Water Authority

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
1st Block	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61
2nd Block	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38	$ 7.38
3rd Block	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62	$ 5.62
4th Block	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61	$ 2.61
5th Block	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38	$ 3.38

Meters By Size

Meter Size										
5/8 Elderly	$ 14.66	$ 43.97	$ 14.66	$ 43.97	$ 14.66	$ 43.97	$ 14.66	$ 43.97	$ 14.66	$ 43.97
5/8	$ 20.01	$ 60.03	$ 20.01	$ 60.03	$ 20.01	$ 60.03	$ 20.01	$ 60.03	$ 20.01	$ 60.03
3/4	$ 30.05	$ 90.14	$ 30.05	$ 90.14	$ 30.05	$ 90.14	$ 30.05	$ 90.14	$ 30.05	$ 90.14
1	$ 50.08	$ 150.23	$ 50.08	$ 150.23	$ 50.08	$ 150.23	$ 50.08	$ 150.23	$ 50.08	$ 150.23
1 1/2	$ 100.13	$ 300.39	$ 100.13	$ 300.39	$ 100.13	$ 300.39	$ 100.13	$ 300.39	$ 100.13	$ 300.39
2	$ 160.19	$ 480.56	$ 160.19	$ 480.56	$ 160.19	$ 480.56	$ 160.19	$ 480.56	$ 160.19	$ 480.56
3	$ 300.39	$ 901.21	$ 300.39	$ 901.21	$ 300.39	$ 901.21	$ 300.39	$ 901.21	$ 300.39	$ 901.21
4	$ 500.63	$ 1,501.89	$ 500.63	$ 1,501.89	$ 500.63	$ 1,501.89	$ 500.63	$ 1,501.89	$ 500.63	$ 1,501.89
6	$ 1,001.30	$ 3,003.84	$ 1,001.30	$ 3,003.84	$ 1,001.30	$ 3,003.84	$ 1,001.30	$ 3,003.84	$ 1,001.30	$ 3,003.84
8	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
10	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -

Private Fire Protection

Meter Size										
4	-	$ 97.10	-	$ 97.10	-	$ 97.10	-	$ 97.10	-	$ 97.10
6	-	$ 218.45	-	$ 218.45	-	$ 218.45	-	$ 218.45	-	$ 218.45
8	-	$ 388.42	-	$ 388.42	-	$ 388.42	-	$ 388.42	-	$ 388.42
10	-	$ 606.94	-	$ 606.94	-	$ 606.94	-	$ 606.94	-	$ 606.94

Public Fire Protection

	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
Hydrants	-	$ 100.00	-	$ 100.00	-	$ 100.00	-	$ 100.00	-	$ 100.00

Proforma Expenditure Projections
Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
EXPENSES						
Administrative Expenses						
927.20	Director Fees	$ 7,600	$ 7,695	$ 7,791	$ 7,889	$ 7,987
927.05	Director Insurance	12,000	12,150	12,302	12,456	12,611
419.31	Broker Fees	-	-	-	-	-
927.19	Trustee Fee/ Bank Charges	39,000	39,488	39,981	40,481	40,987
419.40	Arbitrage Rebate	-	-	-	-	-
Total Administrative Expenses		58,600	59,333	60,074	60,825	61,585
Management & Office Expense						
920.00	Salaries & Wages	392,706	397,753	397,753	397,753	397,753
921.06	Office Equipment Expense	-	-	-	-	-
921.36	Office Supplies	6,000	6,075	6,151	6,228	6,306
921.32	Lease - Office Equipemen	-	-	-	-	-
921.34	Data Processing Supplies	2,400	2,430	2,460	2,491	2,522
921.44	Express Package Delivery	2,400	2,430	2,460	2,491	2,522
927.09	Postage	-	-	-	-	-
927.12	Subscriptions & Publications	1,200	1,215	1,230	1,246	1,261
927.11	Printing	1,800	1,823	1,845	1,868	1,892
921.39	Janitorial Expense	24,000	24,300	24,604	24,911	25,223
931.00	Radio Rents - Admin	1,500	1,519	1,538	1,557	1,576
930.33	Computer Software	1,200	1,215	1,230	1,246	1,261
921.02	Misc Office Expenses	-	-	-	-	-
921.22	Transportation Expense	9,000	9,113	9,226	9,342	9,459
921.24	Utilities - Telephone	21,000	21,263	21,528	21,797	22,070
921.26	Utilities - Electric/Gas	21,000	21,263	21,528	21,797	22,070
930.27	Inventory Adjustmen	-	-	-	-	-
932.01	Repairs & Maintenance -Admin	30,000	30,375	30,755	31,139	31,528
926.11	Group Insurance	648,000	656,100	664,301	672,605	681,013
926.04	Pension Expense	247,800	250,898	254,034	257,209	260,424
925.11	Workers Compensation Insuranc	60,000	60,750	61,509	62,278	63,057
924.00	Property Insurance	48,000	48,600	49,208	49,823	50,445
925.04	General Liability	72,000	72,900	73,811	74,734	75,668
925.42	Auto Insurance	-	-	-	-	-
921.12	Operations Mgr Expense	-	-	-	-	-
921.13	WQ Supervisior Expense	-	-	-	-	-
921.14	Production Mgr Expense	-	-	-	-	-
921.11	Accounting Mgr Expense	-	-	-	-	-
921.10	Exec Director Expense	600	608	615	623	631
929.00	Conservation Program	2,400	2,430	2,460	2,491	2,522
927.13	Public Relations & Advertising	24,000	24,300	24,604	24,911	25,223
926.03	Employee Physicals	-	-	-	-	-
926.21	Employee Education/ Tution	9,000	9,113	9,226	9,342	9,459
926.06	Attendance & Safety Awards	1,800	1,823	1,845	1,868	1,892
926.07	Employee Functions	-	-	-	-	-
925.03	Compliant / Damages Expense	3,600	3,645	3,691	3,737	3,783
925.02	Other Employee Expense	1,800	1,823	1,845	1,868	1,892
930.32	Dues	4,800	4,860	4,921	4,982	5,045
930.21	Sys Mgt & Infstr Plans	-	-	-	-	-
926.41	Legal fees	60,000	60,750	61,509	62,278	63,057
926.42	Consulting Engineer	-	-	-	-	-
926.43	Audit Fees	15,000	15,188	15,377	15,570	15,764
422.00	Other Non-reoccuring Expense	-	-	-	-	-
926.47	General & Financial Consultan	6,000	6,075	6,151	6,228	6,306
406.10	Property Taxes	485,966	486,525	487,098	487,686	488,288
406.16	Payroll Taxes	185,790	187,113	187,136	187,120	187,135
Total Management & Office Expense		2,390,762	2,414,270	2,431,652	2,449,220	2,467,045
Commercial & Customer						
901.00	Salaries & Wages - Office	356,434	358,859	358,956	358,956	359,151

Proforma Expenditure Projections
Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
902.02	Salaries & Wages - Meter Readin	76,039	76,477	76,477	76,165	76,165
902.03	Transportation	9,000	9,113	9,226	9,342	9,459
902.04	Uniforms/Clothing	4,800	4,860	4,921	4,982	5,045
902.06	Supplies	7,200	7,290	7,381	7,473	7,567
903.54	Postage	38,400	38,880	39,366	39,858	40,356
903.01	Printing	-	-	-	-	-
907.11	Customer Inserts	-	-	-	-	-
903.55	Supplies	18,000	18,225	18,453	18,683	18,917
903.3	Collecting Expense	2,400	2,430	2,460	2,491	2,522
903.31	Collecting Agencie	-	-	-	-	-
902.5	Postage	-	-	-	-	-
903.53	Purolator Costs	-	-	-	-	-
903.56	Records Storage	-	-	-	-	-
927.03	Computer Maintenance	6,000	6,075	6,151	6,228	6,306
926.45	Computer Consultan	48,000	48,600	49,208	49,823	50,445
903.58	Postage Meter Lease	7,200	7,290	7,381	7,473	7,567
904.00	Provision for Bad Deb	-	-	-	-	-
907.12	Printed Inform. Materials	-	-	-	-	-
903.8	Miscellaneous	-	-	-	-	-
Total Commercial & Customer Expens		573,473	578,098	579,980	581,475	583,500
Production Expenses						
600	Supervision	105,852	107,013	107,055	107,055	107,055
611	Maintenance Labo	192,184	193,347	193,410	193,477	193,477
624	Pumping Labo	223,864	224,863	224,863	224,881	224,881
642	Water Treatment Labo	223,864	224,863	224,863	224,881	224,881
602	Purchased Wate	1,692,491	1,698,452	1,704,414	1,710,377	1,716,342
623	Power	62,982	69,281	76,209	83,829	92,212
641	Chemicals	503,858	529,051	555,504	583,279	612,443
625	Utilities - Electric	30,000	30,375	30,755	31,139	31,528
625	Utilities - Gas	15,000	15,188	15,377	15,570	15,764
625	Heating - Shad	-	-	-	-	-
625	Utilities - Telephone	2,400	2,430	2,460	2,491	2,522
625	Charts & Graphs	1,800	1,823	1,845	1,868	1,892
625	Plumbing & Electric Supplie	1,200	1,215	1,230	1,246	1,261
625	Safety Supplies	1,800	1,823	1,845	1,868	1,892
625	Oil & Grease	600	608	615	623	631
625	Uniforms & Clothing	4,800	4,860	4,921	4,982	5,045
625	Facilities Inspectior	-	-	-	-	-
643	Sludge Remova	47,237	47,827	48,425	49,030	49,643
625	Office Supplies	1,200	1,215	1,230	1,246	1,261
625	Janitorial Expense	1,800	1,823	1,845	1,868	1,892
625	Snow Removal & Lawn Car	9,000	9,113	9,226	9,342	9,459
625	Meals Allowance	3,600	3,645	3,691	3,737	3,783
625	Transportation	21,000	21,263	21,528	21,797	22,070
625	Miscellaneous	1,200	1,215	1,230	1,246	1,261
627	Other Pumping Expense	24,000	24,300	24,604	24,911	25,223
642	Samples - QC	48,000	48,600	49,208	49,823	50,445
642	Lab Samples	15,000	15,188	15,377	15,570	15,764
642	Lab Hardware	1,800	1,823	1,845	1,868	1,892
643	Misc Water Treatment Expense	30,000	30,375	30,755	31,139	31,528
612	Source of Supply Repair	18,000	18,225	18,453	18,683	18,917
613	Dam Repairs	-	-	-	-	-
614	Well Repairs	-	-	-	-	-
616	Transmission Mains Repai	1,200	1,215	1,230	1,246	1,261
631	Pumping Structure Repair	1,200	1,215	1,230	1,246	1,261
632	Power Equipment Repair	6,000	6,075	6,151	6,228	6,306
633	Pump & Motor Repair	9,000	9,113	9,226	9,342	9,459
652	Water Treatment Facility Repair	4,800	4,860	4,921	4,982	5,045
633	Miscellaneous	3,000	3,038	3,075	3,114	3,153

Proforma Expenditure Projections
Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
Total Production Expenses		3,309,732	3,355,314	3,398,616	3,443,984	3,491,448
Distribution Expenses						
660	Supervision	103,519	104,100	104,100	104,100	104,100
662.2	T&D Line Labor	177,013	179,074	179,074	179,074	179,074
663.2	Removal & Reset Meter	56,755	57,071	57,159	57,159	57,159
665.2	Maps & Records Labor	68,360	68,848	68,848	68,848	68,848
671.2	Maintenace Labor	209,107	210,708	210,724	210,724	210,724
662.14	Utilities - Electric	4,800	4,860	4,921	4,982	5,045
662.15	Utilities - Gas	3,600	3,645	3,691	3,737	3,783
662.22	Equipment Rentals	-	-	-	-	-
662.23	Street Permits	3,600	3,645	3,691	3,737	3,783
662.24	Notices	-	-	-	-	-
662.25	Dig Safe & Maps	9,000	9,113	9,226	9,342	9,459
666	Radio Rentals	-	-	-	-	-
662.17	Safety Supplies	600	608	615	623	631
662.18	Uniforms & Clothing	7,200	7,290	7,381	7,473	7,567
662.12	Transportation	18,000	18,225	18,453	18,683	18,917
662.13	Utilities - Telephone	30,000	30,375	30,755	31,139	31,528
662.16	Snow Removal	-	-	-	-	-
662.21	Hand Tools	1,500	1,519	1,538	1,557	1,576
662.27	Operating Supplies	3,600	3,645	3,691	3,737	3,783
662.26	Leaks Surveys	-	-	-	-	-
663.1	R & R Meters -Supplies	9,000	9,113	9,226	9,342	9,459
663.12	R & R Meters -Transportation	7,200	7,290	7,381	7,473	7,567
676.11	Meters Repair Program	-	-	-	-	-
677.12	Hydrant Repairs -Transportation	1,200	1,215	1,230	1,246	1,261
677.1	Hydrant Repairs -materials	12,000	12,150	12,302	12,456	12,611
677.11	Paint & Repair hydrants	1,200	1,215	1,230	1,246	1,261
675.1	Service Repairs - Transportation	7,200	7,290	7,381	7,473	7,567
675.12	Service Repairs - Contractor	24,000	24,300	24,604	24,911	25,223
675.13	Service Repairs - Paving	24,000	24,300	24,604	24,911	25,223
675.14	Service Repairs - Materials	15,000	15,188	15,377	15,570	15,764
671.1	T & D Structure Repairs	2,400	2,430	2,460	2,491	2,522
672.1	Tank & Standpipe Repairs	4,800	4,860	4,921	4,982	5,045
672.12	Telemetering Repairs	3,600	3,645	3,691	3,737	3,783
672.13	Alititude Valve Repairs	-	-	-	-	-
672.11	Tank Inspections	-	-	-	-	-
672.16	Valve Repairs	1,200	1,215	1,230	1,246	1,261
673.13	T & D Mains - Contractors	30,000	30,375	30,755	31,139	31,528
673.13	T & D Mains - Pavings	60,000	60,750	61,509	62,278	63,057
673.13	T & D Mains - Materials	30,000	30,375	30,755	31,139	31,528
665.31	Miscellaneous	1,500	1,519	1,538	1,557	1,576
665.3	Misc - Radio Line	-	-	-	-	-
Total Transmission & Distribution Expense		930,954	939,954	944,060	948,112	952,214
Other Miscellaneous Expense						
403.00	Depreciation Expense	-	-	-	-	-
426.00	Amortization	-	-	-	-	-
427.01	Interest Expense	903,600	816,499	720,367	616,409	507,863
	Principal	2,322,000	2,408,000	2,505,000	2,606,000	2,713,000
	Emergency Reserve	25,000	25,000	25,000	25,000	25,000
	Net Operating Reserve	161,511	159,370	159,551	160,561	161,020
	Total Capital Projects	500,000	466,920	410,691	411,761	411,761
Total Other Miscellaneous Expense		3,912,111	3,875,789	3,820,608	3,819,730	3,819,244
Net O&M, Capital & Debt Service		11,175,632	11,222,758	11,234,991	11,303,346	11,375,037

Schedule A-3

Proforma Chemical, Power, Sludge & Purchase Water Projections
Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
	Water Produced	314,911,440	314,911,440	314,911,440	314,911,440	314,911,440
			Average Rates per usage			
	Cost per 1,000 gallons	0.20	0.22	0.24	0.27	0.29
623	Power	62,982.29	69,280.52	76,208.57	83,829.43	92,212.37
	Water Produced	314,911,440	314,911,440	314,911,440	314,911,440	314,911,440
			Average Rates per usage			
	Cost per 1,000 gallons	1.60	1.68	1.76	1.85	1.94
641	Chemicals	503,858.30	529,051.22	555,503.78	583,278.97	612,442.92
	Water Produced	314,911,440	314,911,440	314,911,440	314,911,440	314,911,440
			Average Rates per usage			
	Cost per 1,000 gallons	0.1500	0.1519	0.1538	0.1557	0.1576
643	Sludge Removal	47,236.72	47,827.17	48,425.01	49,030.33	49,643.21
	Water Purchased	997,219,560	1,000,731,511	1,004,244,375	1,007,758,150	1,011,272,838
			Average Rates per usage			
	Cost per 1,000 gallons	0.00169721	0.00169721	0.00169721	0.00169721	0.00169721
602	Purchased Water	1,692,491	1,698,452	1,704,414	1,710,377	1,716,342

Projected Water Produced & Purchased

Water Produced	314,911,440	314,911,440	314,911,440	314,911,440	314,911,440
Water Purchased	997,219,560	1,000,731,511	1,004,244,375	1,007,758,150	1,011,272,838
	1,312,131,000	1,315,642,951	1,319,155,815	1,322,669,590	1,326,184,278
		100.35%	100.35%	100.35%	100.35%

Proforma Property Tax Projections
Bristol County Water Authority

Schedule A-4

Account #	*Account Name*	Actual FY 2011	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
	Barrington	$ 140,239.00	$ 140,239.00	$ 140,239.00	$ 140,239.00	$ 140,239.00	$ 140,239.00
	Bristol	201,480.56	201,480.56	201,480.56	201,480.56	201,480.56	201,480.56
	Warren	121,884.44	121,884.44	121,884.44	121,884.44	121,884.44	121,884.44
	Pilot	463,604.00	463,604.00	463,604.00	463,604.00	463,604.00	463,604.00
	Rehoboth	8,337.69	8,166.76	8,370.93	8,580.20	8,794.71	9,014.57
	Swansea	10,871.57	14,195.64	14,550.53	14,914.29	15,287.15	15,669.33
	Outside Authority Property Tax	19,209.26	22,362.40	22,921.46	23,494.50	24,081.86	24,683.91
		482,813.26	485,966.40	486,525.46	487,098.50	487,685.86	488,287.91

Schedule A-5

Proforma Debt Projections
Bristol County Water Authority

Principal	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
water bonds series 1997 $12,195,000	690,000	720,000	760,000	795,000	835,000
water bonds series 1998 $6,090,000	330,000	345,000	360,000	375,000	390,000
refunding bonds series 2004 $11,295,000	1,100,000	1,135,000	1,170,000	1,215,000	1,260,000
RICWFA 2008 $5,500,000	202,000	208,000	215,000	221,000	228,000
Total Principal	2,322,000	2,408,000	2,505,000	2,606,000	2,713,000

Interest	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
water bonds series 1997 $12,195,000	140,680	123,775	105,775	86,775	66,900
	123,775	105,775	86,775	66,900	46,025
water bonds series 1998 $6,090,000	73,226	65,719	57,784	49,459	40,740
	65,719	57,784	49,459	40,740	31,283
refunding bonds series 2004 $11,295,000	123,794	106,606	88,163	67,688	46,425
	123,794	106,606	88,163	67,688	46,425
RICWFA 2008 $5,500,000	94,920	95,420	92,428	88,883	85,336
	98,298	95,420	92,428	88,883	85,336
Debt Service Reserve	59,394	59,394	59,394	59,394	59,394
Total Interest	903,600	816,499	720,367	616,409	507,863
Total Debt Services	$ 3,225,600	$ 3,224,499	$ 3,225,367	$ 3,222,409	$ 3,220,863

Principal	FY 2017	FY 2018	FY 2019
water bonds series 1997 $12,195,000	875,000	920,000	-
water bonds series 1998 $6,090,000	410,000	430,000	450,000
refunding bonds series 2004 $11,295,000	1,300,000		
RICWFA 2008 $5,500,000	236,000	244,000	252,000
Total Principal	2,821,000	1,594,000	702,000

Interest	FY 2017	FY 2018	FY 2019
water bonds series 1997 $12,195,000	46,025	24,150	-
	24,150		
water bonds series 1998 $6,090,000	31,283	21,340	10,913
	21,340	10,913	
refunding bonds series 2004 $11,295,000	24,375		
	24,375	-	
RICWFA 2008 $5,500,000	81,562	77,562	73,317
	81,562	77,562	73,317
Debt Service Reserve	59,394	59,394	59,394
Total Interest	334,672	211,527	157,546
Total Debt Services	$ 3,155,672	$ 1,805,527	$ 859,546
		$ (1,350,145)	$ (2,296,125)

Proforma Capital Projections
Bristol County Water Authority

Schedule A-6

Account #	Account #	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016	Remaining Project Costs on Hold
Commercial Department							
	Curb Box Locator	$ -	$ -	$ -	$ -	$ -	
	Meter Reading Lap-top kit & software	-	-	-	-	-	
Meter Department							
	Meter Replacement	154,200	154,200	154,200	154,200	154,200	
Customer Service Department		-	-	-	-	-	
	Computer Server						
Office		-	-	-	-	-	
	Computer/Printers/&Other Equipment						
	Meter Reading Lap-top kit & software						
	File Conversion/Software/ &service update						
	Building Repairs						
	New Billing & Accounting System		200,000				
Engineering Department		-	-	-	-	-	
	CAD/GIS/MAP Software						
Vehilce Replacement							
	Distribution Vehicles						
Distribution Department							
	New Services	152,500	152,500	152,500	152,500	152,500	
	Replacement Services	42,000	42,000	42,000	42,000	42,000	
	Paving	100,000	100,000	100,000	100,000	100,000	
	Hydrants	28,300	28,300	28,300	28,300	28,300	
	Valves	29,200	29,200	29,200	29,200	29,200	
	Customer Service Connection Fees	**(152,500)**	**(152,500)**	**(152,500)**	**(152,500)**	**(152,500)**	
	Equipment	-	-	-	-	-	
	Building Repairs	-	-	-	-	-	
Production Department							
	New Equipment						
	Replace Equipment						
	Building Repairs						
Construction Projects		-	-	-	-	-	
	Main Replacement						
	Levee Repairs						
	Planting at clarifier						
	Kickemuit Fish Ladder						
	Storage Tanks						
	BCWA Water System Study						
	BCWA Interconnection Study	-	-	-	-	-	
	East Providence Interconnection						750,000
	New Shad Pipeline Engineering & Design	119,311	-	-	-	-	
	Shad Pipe Line Repairs	45,000	-	-	4,815,000	-	2,539,800
	Shad Pipe Line - Pump Station Repairs				185,000		-
	Water Treatment Renovation			1,904,000			-
	Contingency						
	HOLD - Water System Pressure Zones						6,800,000
Total Capital Expenditures by Year:		$ 518,011	$ 553,700	$ 2,257,700	$ 5,353,700	$ 353,700	
State Funds - Interconnection Study		-					
State Funds - East Providence Interconnection		-					400,000
State Funds - New Shad Pipeline Engineering & Design		119,311					
State Funds - Shad Pipe Line Repairs		41,400			4,815,000		-
State Funds - Shad Pipe Line - Pump Station Repairs					185,000		-
State Funds - Water Treatment Renovation				1,904,000			-
Other Grants - Kickemuit Fish Ladder							
Money Provided from New RICWFA Debt							
Money Provided from IFR Reserve			353,700	353,700	353,700	353,700	
Money Provided from Capital Reserve			142,700				
Total Budgeted Expenditure by Year:		$ 357,300	$ 57,300	$ -	$ -	$ -	
	Capital Reserve	142,700					
	IFR Reserve		409,620	410,691	411,761	411,761	
	Total Capital	$ 500,000	$ 409,620	$ 410,691	$ 411,761	$ 411,761	
Capital Reserve Balance for each year		$ 142,700	$ -	$ -	$ -	$ -	
IFR Reserve Balance for each year		$ -	$ 55,920	$ 112,911	$ 170,972	$ 229,032	

Proforma Salaries & Payroll Tax Expenditure Projections
Bristol County Water Authority

Schedule A-7

Excludes Savings from Preformance Audit

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
EXPENSES						
Administrative Expenses						
Total Administrative Expenses		-	-	-	-	-
Management & Office Expenses						
920.00	Salaries & Wages	392,706	397,753	397,753	397,753	397,753
Total Management & Office Expenses		392,706	397,753	397,753	397,753	397,753
Commercial & Customer						
901.00	Salaries & Wages - Office	356,434	358,859	358,956	358,956	359,151
902.02	Salaries & Wages - Meter Reading	76,039	76,477	76,477	76,165	76,165
Total Commercial & Customer Expense		432,473	435,336	435,433	435,121	435,316
Production Expenses						
600	Supervision	105,852	107,013	107,055	107,055	107,055
611	Maintenance Labor	192,184	193,347	193,410	193,477	193,477
624	Pumping Labor	223,861	224,863	224,863	224,881	224,881
642	Water Treatment Labor	223,861	224,863	224,863	224,881	224,881
Total Production Expenses		745,758	750,086	750,190	750,294	750,294
Distribution Expenses						
660	Supervision	103,519	104,100	104,100	104,100	104,100
662.2	T&D Line Labor	177,013	179,074	179,074	179,074	179,074
663.2	Removal & Reset Meters	56,755	57,071	57,159	57,159	57,159
665.2	Maps & Records Labor	68,360	68,848	68,848	68,848	68,848
671.2	Maintenace Labor	209,107	210,708	210,724	210,724	210,724
Total Transmission & Distribution Expenses		614,754	619,801	619,905	619,905	619,905
Other Miscellaneous Expenses						
Total Other Miscellaneous Expenses		-	-	-	-	-
Net O&M, Capital & Debt Service		2,185,691	2,202,976	2,203,282	2,203,074	2,203,269
406.16	Payroll Taxes	$ 185,790	$ 187,113	$ 187,136	$ 187,120	$ 187,135

Performance Audit Savings Projections
Bristol County Water Authority

Schedule A-8

Account #	Account Name		Report Savings	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
EXPENSES								
Administrative Expenses								
Total Administrative Expense.			-	-	-	-	-	-
Management & Office Expenses								
920.00	Salaries & Wages	A+B	(79,378)	(79,378)	(79,378)	(79,378)	(79,378)	(79,378)
921.39	Janitorial Expense	C	(10,000)	(5,000)	(10,000)	(10,000)	(10,000)	(10,000)
926.04	Pension Expense	G	(77,071)	(77,071)	(77,071)	(77,071)	(77,071)	(77,071)
	Pension Expense - Cosh:	F	(66,047)	-	(66,047)	(66,047)	(66,047)	(66,047)
406.16	Payroll Taxes	Tax A+B+C+D+E	(19,230)	(10,280)	(19,230)	(19,230)	(19,230)	(19,230)
Total Management & Office Expense.			(251,726)	(171,729)	(251,726)	(251,726)	(251,726)	(251,726)
Commercial & Customer								
Total Commercial & Customer Expens:			-	-	-	-	-	-
Production Expenses								
600	Supervision	D	(10,900)	-	(10,900)	(10,900)	(10,900)	(10,900)
611	Maintenance Labor	D	(17,900)	-	(17,900)	(17,900)	(17,900)	(17,900)
624	Pumping Labor	D + E	(66,600)	(25,000)	(66,600)	(66,600)	(66,600)	(66,600)
642	Water Treatment Labor	D + E	(66,600)	(25,000)	(66,600)	(66,600)	(66,600)	(66,600)
Total Production Expense:		-	(162,000)	(50,000)	(162,000)	(162,000)	(162,000)	(162,000)
Distribution Expenses								
Total Transmission & Distribution Expense			-	-	-	-	-	-
Other Miscellaneous Expenses								
Total Other Miscellaneous Expense.			-	-	-	-	-	-
TOTAL Performance Audit Saving			(413,726)	(221,729)	(413,726)	(413,726)	(413,726)	(413,726)

A See Review of Major Cost Categories - Salaries & Wages - Central Office (Performance audit sectionof the Repor
B See Review of Major Cost Categories - Salaries & Wages - Central Office (Performance audit sectionof the Repor
C See Review of Major Cost Categories - Salaries & Wages - Central Office (Performance audit sectionof the Repor
D See Review of Major Cost Categories - Salaries & Wages - Production (Performance audit sectionof the Repor
E See Review of Major Cost Categories - Salaries & Wages - Production (Performance audit sectionof the Repor
F See Review of Major Cost Categories - Group Insurance/Pension (Performance audit sectionof the Repor
G See Review of Major Cost Categories - Group Insurance/Pension (Performance audit sectionof the Repor

COST ALLOCATION STUDY

BCWA's current rate design was developed using the "base/extra capacity" model in 1988. B&E's findings from a review of that study are reflected in the Review of Current Rate section of this report. A "base/extra capacity" model is no longer an appropriate method allocation given the major change to base water costs. BCWA's main source of water at the time of the 1988 report was the water it produced which justifies a base/extra capacity. Since that time the BCWA installed the East Bay Pipeline and now purchases at least 70% of its water. This makes the majority of water costs fixed and warrants a change in methodology. In this section of the report B&E designed a cost allocation study that is consistent with industry standards and reflects cost causation. (See B Schedules included in this report)

First, B&E allocated line item costs for the adjusted rate year (budget 2012) between the functional areas of administration, billing, customer service, source of supply/ treatment, pumping, T&D, and direct fire (see functional allocation schedule in this section of the report). Next B&E allocated the functional costs into five rate areas of consumption, customer charge, billing, direct fire and indirect fire. To minimize the impact of rate shock on small consumers the new IFR rate was allocated using consumption. (The results of these calculations were the calculated amount of money needed from each revenue area to balance the budget.) The revenue requirements are as follows:

Consumption	$5,587,587
IFR	412,000
Customer Charge	3,868,256
Total Fire	796,139

The rate design section of this report will take these revenue requirements and develop new rates which will be fully implemented by FY 2016. The FYE 2012 rates will be adjusted each year (2013-2016) to reflect issues presented in the major rate design section of the rate study.

Current Rate Structure

Before implementing rate changes, it is important to review the current rate structure to determine if it is still suitable. To be suitable, a rate design must address the current economic, political and environmental concerns of the State of Rhode Island, Providence Water, and BCWA; while continuing to provide quality service to the BCWA customers. Further, the rates must generate an appropriate level of revenue to cover all operating and capital costs as well as provide reserves for the future. The current rate design is as follows:

Service Charges:

Meter Size	Monthly	Quarterly
Senior Rate	$ 14.66	$ 43.97
5/8 x ¾ inch	20.01	60.03
¾ x ¾ inch	30.05	90.14
1 inch	50.00	150.23
1 ½ inch	100.13	300.39
2 inch	160.19	480.56
3 inch	300.39	901.21
4 inch	500.63	1,501.89
6 inch	1,001.30	3,003.84
8 inch	1,602.06	4,806.13
10 inch	2,302.96	6,908.81

Consumption Charges:

Rate Blocks	Number of Cubic Feet (CF)	Price per HCF
1st Block	6,000 CF	$2.610
2nd Block	12,000 CF	$7.375
3rd Block	102,000 CF	$5.617
4th Block	240,000 CF	$2.610
5th Block	360,000 CF	$3.381

Fire Protection Rates:

Fire Service	Annual Rate	Quarterly Rate
4 inch or smaller	$388.39	$97.10
6 inch	$873.78	$218.45
8 inch	$1,553.66	$388.42
10 inch	$2,427.70	$606.94
Fire hydrants*	$400.00	$100.00

* negotiated with towns and are not changed.

In addition to the rates listed above, other miscellaneous fees are charged to BCWA ratepayers for additional services provided. These additional charges provide a minor amount of revenue and will not be addressed as part of this rate study.

Conclusion:

B&E concluded that the Service Charges are slightly high and the Fire Service Rates are low. However, the most concerning rate design issue to B&E is the consumption block rates (five blocks). B&E will be recommending significant changes to these rates over the next five years.

The use of a senior service charge is not a proper ratemaking principal. However, B&E maintained this rate class to avoid rate shock to this group of ratepayers given the other major rate design changes B&E is proposing.

Ratemaking Concerns:

It is important to note at this time that the philosophy of the State Legislature, water utility managers and regulators is that water is a "**valuable resource**" and that efforts must be made to conserve water usage. Using all raw water resources within the State of Rhode Island is important to the entire State. Water utilities, the Rhode Island Legislature, and the Rhode Island Public Utilities Commission have taken significant steps to provide ratepayers the correct pricing signals through cost based rates which in turn encourage water conservation.

The above consumption rate design falls far short in reaching the State's goals. Although the exorbitant second and third block consumption water rates have probably resulted in conservation; it was not achieved through cost based rates. The consumption rate design (five blocks) described above is not in compliance with either the State nor industry standards. B&E will recommend a redesign of the consumption block rates and propose changes to some of the other BCWA rates.

Major Rate Design Changes for this Rate Study

Consumption Based Rates

The most significant rate design change for this rate study will be the total revamp of the consumption block rates. It may be important to the reader for B&E to provide a short summary of the evolution of consumption rates in the Industry and in Rhode Island to explain why B&E is proposing its changes.

Twenty years ago consumption based rates were usually declining block rates. Meaning that each successive rate block was priced less than the preceding rate block. This form of rate design provided no incentive for ratepayers (especially the larger users) to conserve water. The current BCWA's rates are closest to declining block rates but with some unusual modifications.

With the passage of time the industry slowly moved toward flat rates for all customers which were very detrimental to the large users. As a result of this concern the industry and Rhode Island utilities moved to flat rates by customer class.

The current R. I. General Laws encourage inverted block rates (increasing block rates for subsequent blocks). Although a few of the smaller communities have adopted inverted block rates most of the regulated utilities have implemented flat rates by customer class. Unfortunately BCWA's current billing system does not provide the capability of different rates by customer class. Therefore, until a new billing system is implemented, B&E will have to modify the current five block rate structure.

B&E will propose over the next five years a reduction in the number of consumption block rates and move the block rates closer to reflecting the actual cost for BCWA to provide water to each customer class. The fact that the majority water is purchased at a flat wholesale rate from Providence Water reduces the need to have large variances between rate blocks. B&E will allocate BCWA's treatment facility, transmission and distribution and its overhead costs to determine what if any differences are required for the remaining rate blocks after B&E's adjustments.

Infrastructure Replacement Charge

The State of Rhode Island has determined that the transmission and distribution systems of all Rhode Island water utilities are old and in need of maintenance and/or replacement. The larger regulated water utilities in R.I. already started infrastructure replacement plans years ago. These plans cost millions to tens of millions of dollars each year. These plans include cleaning and lining programs and, if necessary, full removal and replacement of both transmission and distribution lines.

The State's General Laws requires that all water utilities establish an Infrastructure Replacement Plan (IFR Plan) and to fund this plan. The water utilities are required to charge a separate Infrastructure Replacement charge (IFR charge) to its customers. The law also requires that all revenues collected from the IFR charge be deposited in a restricted account to be used exclusively for the IFR plan. B&E will reflect this requirement in this rate study. The initial charge beginning in FY 2013 recommended will be $0.278 per HCF.

Rate Change Considerations:

- The current five block water consumption rates must be modified to move toward cost based rates. B&E's initial recommendation will be to eliminate the forth block of the five block consumption rates. This will move the consumption in the fourth block (current rate of $2.610 per HCF) to the fifth block (which has a current rate of $3.381 per HCF). (The reclassification of certain consumption will increase revenue by 29.5% for the consumption moved.) This results in increased revenue of approximately $45,000.

  B&E will then use this additional revenue to reduce the second block consumption rate from $7.375 to $7.279. The second block rate is by far the most intrusive block in the current rate design and will be reduced further when possible.

The second block simply does not reflect the fact that about 70% of the water is purchased at a fixed wholesale rate and therefore wide variances in the block rates are unreasonable. B&E will continue to propose additional adjustments to the consumption based rates for the five year rate plan.

Three things are important to note about the current consumption rate design.

1. Medium size commercial customers and any other customer that uses enough water to pay for water in the 2nd and 3rd blocks but do not receive the benefit from the 4th and 5th blocks are the most adversely impacted by the current rate structure.

2. The large users (large commercial and industrial) can purchase up to 246,000 HCF of water at the first block rate of $2.610 (1st and 4th blocks are the same) while the residential customer and the elderly can only purchase 6,000 HCF at the lowest rate.

3. Since the average residential customer uses about 10,000 CF of water each year and can only purchase the first 6,000 CF in the first block these customers must purchase the additional 4,000 CF in the second block which requires a payment of $7.375 per HCF. Using weighted averages, B&E calculated that the average cost per HCF for residential customers using 10,000 CF of water is $4.51 per HCF. The average cost of water for a customer using 400,000 CF is $3.60 per HCF. Given that 70 percent of the water is purchased at $1.155 per HCF from Providence Water the cost to the residential customer seems excessive.

Review and FY 2012 Projection of Revenues & Expenses
Bristol County Water Authority

Schedule B-1

Account #	Account Name	Budget 2010	Actual 2010	Budget 2011	Actual 2011	Budget 2012		Report Savings	Rate Adjustments	Rate Year 2012
REVENUES										
Revenues from Rates										
927.20	Water Service	$ 9,579,000	$ 9,019,270	$ 10,416,000	$ 10,349,741	$ 10,441,000			$ (69,269)	$ 10,371,731
927.05	Fire Service	534,000	536,753	550,000	555,123	558,000			4,245	562,245
927.19	RIWRB Tax	(306,000)	(261,113)	(300,000)	(299,510)	(300,000)			300,000	-
419.40		-								
Total Revenues from Rates		9,807,000	9,294,910	10,666,000	10,605,354	10,699,000		-	234,976	10,933,976
Other Revenues										
920.00	Interest Income	$ 176,400	$ 8,168	$ 9,000	$ 8,173	$ 9,000				$ 9,000
419.31	Other	56,400	53,796	56,400	79,065	84,000				84,000
		-								
Total Other Revenues		232,800	61,964	65,400	87,238	93,000			-	93,000
	TOTAL REVENUES	$ 10,039,800	$ 9,356,874	$ 10,731,400	$ 10,692,592	$ 10,792,000		$ -	$ 234,976	$ 11,026,976
EXPENSES										
Administrative Expenses										
927.20	Director Fees	$ 9,600	$ 11,465	$ 9,600	$ 6,333	$ 7,600				$ 7,600
927.05	Director Insurance	13,080	10,776	14,400	10,289	12,000				12,000
419.31	Broker Fees	-	-	-	-	-				-
927.19	Trustee Fee/ Bank Charges	31,200	38,346	36,000	37,081	39,000				39,000
419.40	Arbitrage Rebate	-								-
Total Administrative Expenses		53,880	60,587	60,000	53,703	58,600			-	58,600
Management & Office Expenses										
920.00	Salaries & Wages	378,293	396,561	385,944	407,764	397,456	A+B	(79,378)	(4,750)	313,328
921.06	Office Equipment Expense	-	-	-	-	-				-
921.36	Office Supplies	6,000	5,377	6,000	7,116	6,000				6,000
921.32	Lease - Office Equipement	-	-	-	-	-				-
921.34	Data Processing Supplies	2,400	1,881	2,400	5,291	2,400				2,400
921.44	Express Package Delivery	3,600	2,837	3,600	1,581	2,400				2,400
927.09	Postage	-	-	-	-	-				-
927.12	Subscriptions & Publications	1,800	691	1,200	1,048	1,200				1,200
927.11	Printing	2,400	1,637	2,400	1,564	1,800				1,800
921.39	Janitorial Expense	24,000	24,733	24,000	21,902	24,000	C	(5,000)		19,000
931.00	Radio Rents - Admin	1,500	1,363	1,500	1,348	1,500				1,500
930.33	Computer Software	2,400	740	2,400	340	1,200				1,200
921.02	Misc Office Expenses	-	24	-	1,821	-				-
921.22	Transportation Expense	12,000	8,694	12,000	7,386	9,000				9,000
921.24	Utilities - Telephone	18,000	20,880	21,000	17,874	21,000				21,000
921.26	Utilities - Electric/Gas	18,000	19,012	21,000	16,436	21,000				21,000
930.27	Inventory Adjustment	-	(3,990)	-	2,761	-				-
932.01	Repairs & Maintenance -Adm	30,000	30,119	30,000	27,977	30,000				30,000
926.11	Group Insurance	478,800	486,217	525,600	587,985	648,000				648,000
926.04	Pension Expense	240,000	821,685	180,000	785,893	247,800	G	(77,071)		170,729
	Pension Expense - Coshare						F	-		-
925.11	Workers Compensation Insura	60,000	51,298	60,000	57,376	60,000				60,000
924.00	Property Insurance	48,000	43,280	48,000	42,341	48,000				48,000
925.04	General Liability	72,000	70,280	72,000	71,141	72,000				72,000
925.42	Auto Insurance			-						-
921.12	Operations Mgr Expense	-	-	-	-	-				-
921.13	WQ Supervisior Expense	300	-	300	-	-				-
921.14	Production Mgr Expense	300	-	300	-	-				-
921.11	Accounting Mgr Expense	300	-	300	-	-				-
921.10	Exec Director Expense	1,200	515	1,200	92	600				600
929.00	Conservation Program	6,000	2,443	4,800	2,663	2,400				2,400
927.13	Public Relations & Advertisin	24,000	25,193	24,000	14,105	24,000				24,000
926.03	Employee Physicals	-	-	-	-	-				-
926.21	Employee Education/ Tution	6,000	8,643	12,000	10,668	9,000				9,000
926.06	Attendance & Safety Awards	1,200	1,667	1,800	-	1,800				1,800
926.07	Employee Functions	4,800	3,729	3,600	-					
925.03	Compliant / Damages Expense	3,600	50	3,600	409	3,600				3,600
925.02	Other Employee Expenses	0,000	1,453	2,400	400	1,000				1,000
930.32	Dues	6,000	1,513	7,200	2,702	4,800				4,800
930.21	Sys Mgt & Infstr Plans	-	(340)	-	(48,457)	-				-
926.41	Legal fees	60,000	68,411	60,000	130,039	60,000				60,000
926.42	Consulting Engineer	6,000	-	6,000	-	-				-
926.43	Audit Fees	18,000	13,750	15,000	14,060	15,000				15,000
422.00	Other Non-reoccuring Expens	-	3,868	-	-	-				-
926.47	General & Financial Consultar	3,000	2,500	3,000	26,055	6,000				6,000
406.10	Property Taxes	504,000	491,743	504,000	482,809	504,000			(18,034)	485,966
406.16	Payroll Taxes	194,761	158,867	198,403	177,096	204,960	Tax A+B	(10,280)	(19,170)	175,510
Total Management & Office Expenses		2,247,674	2,767,324	2,246,947	2,879,947	2,432,716		(171,729)	(41,954)	2,218,033

Review and FY 2012 Projection of Revenues & Expenses

Schedule B-1

Bristol County Water Authority

Account #	Account Name	Budget 2010	Actual 2010	Budget 2011	Actual 2011	Budget 2012		Report Savings	Rate Adjustments	Rate Year 2012
Commercial & Customer										
901.00	Salaries & Wages - Office	337,965	319,369	327,375	338,560	358,781			(2,347)	356,434
902.02	Salaries & Wages - Meter Rea	71,576	51,591	73,831	67,248	76,000			39	76,039
902.03	Transportation	12,000	7,397	9,000	5,600	9,000				9,000
902.04	Uniforms/Clothing	5,400	3,678	4,800	2,616	4,800				4,800
902.06	Supplies	5,400	6,798	9,000	1,579	7,200				7,200
903.54	Postage	36,000	40,503	40,800	32,349	38,400				38,400
903.01	Printing	-	-	-	-	-				-
907.11	Customer inserts	-	-	-	-	-				-
903.55	Supplies	21,600	17,831	21,600	15,383	18,000				18,000
903.3	Collecting Expense	1,500	2,042	1,500	4,098	2,400				2,400
903.31	Collecting Agencies	-	-	-	-	-				-
902.5	Postage	-	-	-	-	-				-
903.53	Purolator Costs	-	-	-	-	-				-
903.56	Records Storage	-	-	-	-	-				-
927.03	Computer Maintenance	9,000	6,726	7,200	1,658	6,000				6,000
926.45	Computer Consultant	36,000	78,581	40,800	65,710	48,000				48,000
903.58	Postage Meter Lease	12,000	6,656	9,000	8,976	7,200				7,200
904.00	Provision for Bad Debt	30,000	28,702	36,000	20,497	36,000			(36,000)	-
907.12	Printed Inform. Materials	-	-		-	-				-
903.8	Miscellaneous	-	(116)		259	-				-
Total Commercial & Customer Expense		578,441	569,758	580,906	564,532	611,781		-	(38,308)	573,473
Production Expenses										
600	Supervision	102,892	78,707	106,042	74,885	109,221	D	-	(3,369)	105,852
611	Maintenance Labor	185,423	131,108	191,199	120,487	196,666	D	-	(4,482)	192,184
624	Pumping Labor	210,170	252,594	216,112	270,073	221,806	D + E	(25,000)	2,058	198,864
642	Water Treatment Labor	210,170	270,248	216,112	290,788	221,806	D + E	(25,000)	2,058	198,864
602	Purchased Water	1,608,000	1,262,132	1,460,000	1,797,521	1,782,000			(89,509)	1,692,491
623	Power	90,000	83,989	90,000	62,107	84,000			(21,018)	62,982
641	Chemicals	432,000	602,120	600,000	438,580	552,000			(48,142)	503,858
625	Utilities - Electric	30,000	27,171	30,000	20,170	30,000				30,000
625	Utilities - Gas	18,000	13,877	15,000	12,815	15,000				15,000
625	Heating - Shad	-	-	-	-	-				-
625	Utilities - Telephone	2,400	2,163	2,400	2,109	2,400				2,400
625	Charts & Graphs	1,800	400	1,800	3,085	1,800				1,800
625	Plumbing & Electric Supplies	1,800	1,394	1,200	1,586	1,200				1,200
625	Safety Supplies	1,800	1,774	1,800	2,703	1,800				1,800
625	Oil & Grease	600	238	600	142	600				600
625	Uniforms & Clothing	6,000	3,815	4,800	4,204	4,800				4,800
625	Facilities Inspection	-	-	-	605	-				-
643	Sludge Removal	90,000	52,025	72,000	37,114	60,000			(12,763)	47,237
625	Office Supplies	1,800	150	1,200	2,077	1,200				1,200
625	Janitorial Expense	1,800	1,408	1,800	1,595	1,800				1,800
625	Snow Removal & Lawn Care	7,200	9,087	8,400	9,591	9,000				9,000
625	Meals Allowance	3,600	2,930	3,600	3,930	3,600				3,600
625	Transportation	18,000	17,254	21,000	18,798	21,000				21,000
625	Miscellaneous	1,500	711	1,200	435	1,200				1,200
627	Other Pumping Expense	24,000	27,492	30,000	20,749	24,000				24,000
642	Samples - QC	72,000	33,163	60,000	28,952	48,000				48,000
642	Lab Samples	18,000	15,103	18,000	13,441	15,000				15,000
642	Lab Hardware	2,400	1,973	1,800	778	1,800				1,800
643	Misc Water Treatment Expens	60,000	29,509	42,000	33,310	30,000				30,000
612	Source of Supply Repairs	24,000	14,173	24,000	26,471	18,000				18,000
613	Dam Repairs	4,000	-	1,800	-	-				-
614	Well Repairs	-	-	-	-	-				-
616	Transmission Mains Repair	4,000	35	2,400	-	1,200				1,200
631	Pumping Structure Repairs	4,000	240	2,400	1,237	1,200				1,200
632	Power Equipment Repairs	4,000	9,971	9,000	4,645	6,000				6,000
633	Pump & Motor Repairs	6,000	17,395	12,000	4,673	9,000				9,000
652	Water Treatment Facility Rep:	9,000	2,617	6,000	291	4,800				4,800
633	Miscellaneous	3,000	6,671	3,000	758	3,000				3,000
Total Production Expenses		3,259,355	2,973,637	3,258,665	3,310,705	3,484,899	-	(50,000)	(175,167)	3,259,732
Distribution Expenses										
660	Supervision	109,972	81,048	113,554	103,979	106,161			(2,642)	103,519
662.2	T&D Line Labor	169,627	171,324	175,553	144,445	180,965			(3,952)	177,013
663.2	Removal & Reset Meters	54,863	60,277	56,500	100,302	58,000			(1,331)	56,756
665.2	Maps & Records Labor	67,027	64,519	69,306	72,044	71,393			(3,033)	68,360
671.2	Maintenace Labor	190,515	262,977	197,169	241,988	203,250			5,857	209,107
662.14	Utilities - Electric	4,800	4,658	4,800	4,108	4,800				4,800
662.15	Utilities - Gas	4,800	3,489	4,800	3,297	3,600				3,600
662.22	Equipment Rentals	-	-	-	-	-				-
662.23	Street Permits	4,800	3,655	3,600	1,870	3,600				3,600
662.24	Notices	-	-	-	-	-				-
662.25	Dig Safe & Maps	9,000	7,275	8,400	11,009	9,000				9,000
666	Radio Rentals	900	-	600	-	-				-
662.17	Safety Supplies	900	483	600	312	600				600
662.18	Uniforms & Clothing	9,000	6,161	7,200	6,263	7,200				7,200
662.12	Transportation	24,000	15,367	18,000	29,846	18,000				18,000

Review and FY 2012 Projection of Revenues & Expenses

Schedule B-1

Bristol County Water Authority

Account #	Account Name	Budget 2010	Actual 2010	Budget 2011	Actual 2011	Budget 2012	Report Savings	Rate Adjustments	Rate Year 2012
662.13	Utilities - Telephone	36,000	30,557	30,000	26,761	30,000			30,000
662.16	Snow Removal	-	-	-	-	-			-
662.21	Hand Tools	1,500	919	1,500	576	1,500			1,500
662.27	Operating Supplies	4,800	3,562	4,800	2,361	3,600			3,600
662.26	Leaks Surveys	-	-	-	-	-			-
663.1	R & R Meters -Supplies	9,000	11,286	9,000	996	9,000			9,000
663.12	R & R Meters -Transportation	7,200	6,280	7,200	6,465	7,200			7,200
676.11	Meters Repair Program	-	-	-	-	-			-
677.12	Hydrant Repairs -Transportati	1,200	645	1,200	575	1,200			1,200
677.1	Hydrant Repairs -materials	9,000	14,588	12,000	3,568	12,000			12,000
677.11	Paint & Repair hydrants	1,200	169	1,200	331	1,200			1,200
675.1	Service Repairs - Transportati	7,200	7,126	7,200	8,530	7,200			7,200
675.12	Service Repairs - Contractor	24,000	29,177	24,000	33,121	24,000			24,000
675.13	Service Repairs - Paving	24,000	56,064	24,000	36,895	24,000			24,000
675.14	Service Repairs - Materials	12,000	18,167	12,000	20,360	15,000			15,000
671.1	T & D Structure Repairs	4,800	2,258	2,400	966	2,400			2,400
672.1	Tank & Standpipe Repairs	4,800	17,129	4,800	-	4,800			4,800
672.12	Telemetering Repairs	4,800	1,089	3,600	667	3,600			3,600
672.13	Alititude Valve Repairs	1,200	-	-	-	-			-
672.11	Tank Inspections	-	1,400	-	-	-			-
672.16	Valve Repairs	1,200	451	1,200	-	1,200			1,200
673.13	T & D Mains - Contractors	24,000	43,516	30,000	28,559	30,000			30,000
673.13	T & D Mains - Pavings	48,000	69,568	60,000	86,214	60,000			60,000
673.13	T & D Mains - Materials	36,000	49,730	45,000	25,227	30,000			30,000
665.31	Miscellaneous	1,800	1,679	1,500	1,964	1,500			1,500
665.3	Misc - Radio Line								-
Total Transmission & Distribution Expenses		913,904	1,074,593	942,691	1,003,692	936,055	-	(5,101)	930,954
Other Miscellaneous Expenses									
403.00	Depreciation Expense	1,239,000	1,118,310	1,155,000	1,165,638	1,122,000		(1,122,000)	-
426.00	Amortization	51,000	55,171	45,000	18,396	48,000		(48,000)	-
427.01	Interest Expense	991,800	873,865	966,000	874,472	903,600		(0)	903,600
	Principal	-						2,322,000	2,322,000
	Emergency Reserve							25,000	25,000
	Net Operating Reserve							161,511	161,511
	Total Capital Projects							500,000	500,000
Total Other Miscellaneous Expenses		2,281,800	2,047,346	2,166,000	2,058,507	2,073,600	-	1,838,511	3,912,111
	TOTAL EXPENSES	9,335,054	9,493,245	9,255,209	9,870,786	9,597,651	(221,729)	1,577,981	10,953,903
	NET INCOME/(LOSS)	$ 704,746	$ (136,371)	$ 1,476,191	$ 821,806	$ 1,194,349			$ 73,072

	$ 161,511
	73,072
Net Operating Reserve & Net Income	$ 234,583

Allocation of Net Revenue Requirement to Functional Catagories

Bristol County Water Authority

Schedule B-2

		Allocator	Rate Year 2012	Supply/ Treatment	Trans & Distribution	Pumping/ Storage	Meter/ Service	Billing Collection	Direct Fire	General/ Administration
Administrative Expenses										
927.20	Director Fees	J	$ 7,600	$ 3,348	$ 658	$ 428	$ 1,979	$ 401	18	767
927.05	Director Insurance	J	12,000	5,286	1,039	676	3,125	634	28	1,212
419.31	Broker Fees	J	-	-	-	-	-	-	-	-
927.19	Trustee Fee/ Bank Charges	J	39,000	17,179	3,377	2,197	10,157	2,059	92	3,938
419.40	Arbitrage Rebate	J	-	-	-	-	-	-	-	-
Total Administrative Expenses			58,600	25,812	5,075	3,300	15,262	3,094	139	5,917
Management & Office Expenses										
920.00	Salaries & Wages	G	313,328	-	-	-	-	-	-	313,328
921.06	Office Equipment Expense	G	-	-	-	-	-	-	-	-
921.36	Office Supplies	G	6,000	-	-	-	-	-	-	6,000
921.32	Lease - Office Equipement	G	-	-	-	-	-	-	-	-
921.34	Data Processing Supplies	G	2,400	-	-	-	-	-	-	2,400
921.44	Express Package Delivery	G	2,400	-	-	-	-	-	-	2,400
927.09	Postage	G	-	-	-	-	-	-	-	-
927.12	Subscriptions & Publications	G	1,200	-	-	-	-	-	-	1,200
927.11	Printing	G	1,800	-	-	-	-	-	-	1,800
921.39	Janitorial Expense	G	19,000	-	-	-	-	-	-	19,000
931.00	Radio Rents - Admin	G	1,500	-	-	-	-	-	-	1,500
930.33	Computer Software	G	1,200	-	-	-	-	-	-	1,200
921.02	Misc Office Expenses	G	-	-	-	-	-	-	-	-
921.22	Transportation Expense	G	9,000	-	-	-	-	-	-	9,000
921.24	Utilities - Telephone	G	21,000	-	-	-	-	-	-	21,000
921.26	Utilities - Electric/Gas	G	21,000	-	-	-	-	-	-	21,000
930.27	Inventory Adjustment	G	-	-	-	-	-	-	-	-
932.01	Repairs & Maintenance -Admin	G	30,000	-	-	-	-	-	-	30,000
926.11	Group Insurance	L	648,000	197,328	54,973	21,925	146,894	82,849	-	144,031
926.04	Pension Expense	L	170,729	51,990	14,484	5,777	38,702	21,828	-	37,948
925.11	Workers Compensation Insuranc	L	60,000	18,271	5,090	2,030	13,601	7,671	-	13,336
924.00	Property Insurance	G	48,000	-	-	-	-	-	-	48,000
925.04	General Liability	G	72,000	-	-	-	-	-	-	72,000
925.42	Auto Insurance	G	-	-	-	-	-	-	-	-
921.12	Operations Mgr Expense	G	-	-	-	-	-	-	-	-
921.13	WQ Supervisior Expense	G	-	-	-	-	-	-	-	-
921.14	Production Mgr Expense	G	-	-	-	-	-	-	-	-
921.11	Accounting Mgr Expense	G	-	-	-	-	-	-	-	-
921.10	Exec Director Expense	G	600	-	-	-	-	-	-	600
929.00	Conservation Program	G	2,400	-	-	-	-	-	-	2,400
927.13	Public Relations & Advertising	G	24,000	-	-	-	-	-	-	24,000
926.03	Employee Physicals	G	-	-	-	-	-	-	-	-
926.21	Employee Education Tution	G	9,000	-	-	-	-	-	-	9,000
926.06	Attendance & Safety Awards	G	1,800	-	-	-	-	-	-	1,800
926.07	Employee Functions	G	-	-	-	-	-	-	-	-

Allocation of Net Revenue Requirement to Functional Catagories

Bristol County Water Authority

		Allocator	Rate Year 2012	Supply/ Treatment	Trans & Distribution	Pumping/ Storage	Meter/ Service	Billing Collection	Direct Fire	General/ Administration
925.03	Compliant / Damages Expense	G	3,600	-	-	-	-	-	-	3,600
925.02	Other Employee Expenses	G	1,800	-	-	-	-	-	-	1,800
930.32	Dues	G	4,800	-	-	-	-	-	-	4,800
930.21	Sys Mgt & Infstr Plans	G	-	-	-	-	-	-	-	-
926.41	Legal fees	G	60,000	-	-	-	-	-	-	60,000
926.42	Consulting Engineer	G	-	-	-	-	-	-	-	-
926.43	Audit Fees	G	15,000	-	-	-	-	-	-	15,000
422.00	Other Non-reoccuring Expense	G	-	-	-	-	-	-	-	-
926.47	General & Financial Consultant	G	6,000	-	-	-	-	-	-	6,000
406.10	Property Taxes	S	485,966	485,966	-	-	-	-	-	-
406.16	Payroll Taxes	L	175,510	53,446	14,889	5,938	39,786	22,440	-	39,011
Total Management & Office Expenses			2,219,033	807,001	89,436	35,671	238,983	134,788	-	913,154
Commercial & Customer										
901.00	Salaries & Wages - Office	*	356,434	-	-	-	16,710	195,994	-	143,730
902.02	Salaries & Wages - Meter Readi	B	76,039	-	-	-	-	76,039	-	-
902.03	Transportation	m	9,000	-	-	-	9,000	-	-	-
902.04	Uniforms/Clothing	m	4,800	-	-	-	4,800	-	-	-
902.06	Supplies	m	7,200	-	-	-	7,200	-	-	-
903.54	Postage	B	38,400	-	-	-	-	38,400	-	-
903.01	Printing	B	-	-	-	-	-	-	-	-
907.11	Customer Inserts	B	-	-	-	-	-	-	-	-
903.55	Supplies	B	18,000	-	-	-	-	18,000	-	-
903.3	Collecting Expense	B	2,400	-	-	-	-	2,400	-	-
903.31	Collecting Agencies	B	-	-	-	-	-	-	-	-
902.5	Postage	B	-	-	-	-	-	-	-	-
903.53	Purolator Costs	B	-	-	-	-	-	-	-	-
903.56	Records Storage	B	-	-	-	-	-	-	-	-
927.03	Computer Maintenance	HE	6,000	-	-	-	-	3,000	-	3,000
926.45	Computer Consultant	HE	48,000	-	-	-	-	24,000	-	24,000
903.58	Postage Meter Lease	B	7,200	-	-	-	-	7,200	-	-
904.00	Provision for Bad Debt	B	-	-	-	-	-	-	-	-
907.12	Printed Inform. Materials	B	-	-	-	-	-	-	-	-
903.8	Miscellaneous	B	-	-	-	-	-	-	-	-
Total Commercial & Customer Expense			573,473	-	-	-	37,710	365,033	-	170,730
Production Expenses										
600	Supervision	E	105,852	95,267	-	10,585	-	-	-	-
611	Maintenance Labor	E	192,184	172,966	-	19,218	-	-	-	-
624	Pumping Labor	P	198,864	-	-	198,864	-	-	-	-
642	Water Treatment Labor	S	198,864	198,864	-	-	-	-	-	-
602	Purchased Water	S	1,692,491	1,692,491	-	-	-	-	-	-
623	Power	P	62,982	-	-	62,982	-	-	-	-
641	Chemicals	S	503,858	503,858	-	-	-	-	-	-

Allocation of Net Revenue Requirement to Functional Catagories

Bristol County Water Authority

		Allocator	Rate Year 2012	Supply/ Treatment	Trans & Distribution	Pumping/ Storage	Meter/ Service	Billing Collection	Direct Fire	General/ Administration
625	Utilities - Electric	E	30,000	27,000	-	3,000	-	-	-	-
625	Utilities - Gas	E	15,000	13,500	-	1,500	-	-	-	-
625	Heating - Shad	E	-	-	-	-	-	-	-	-
625	Utilities - Telephone	E	2,400	2,160	-	240	-	-	-	-
625	Charts & Graphs	E	1,800	1,620	-	180	-	-	-	-
625	Plumbing & Electric Supplies	E	1,200	1,080	-	120	-	-	-	-
625	Safety Supplies	E	1,800	1,620	-	180	-	-	-	-
625	Oil & Grease	E	600	540	-	60	-	-	-	-
625	Uniforms & Clothing	E	4,800	4,320	-	480	-	-	-	-
625	Facilities Inspection	E	-	-	-	-	-	-	-	-
643	Sludge Removal	E	47,237	42,513	-	4,724	-	-	-	-
625	Office Supplies	E	1,200	1,080	-	120	-	-	-	-
625	Janitorial Expense	E	1,800	1,620	-	180	-	-	-	-
625	Snow Removal & Lawn Care	E	9,000	8,100	-	900	-	-	-	-
625	Meals Allowance	E	3,600	3,240	-	360	-	-	-	-
625	Transportation	E	21,000	18,900	-	2,100	-	-	-	-
625	Miscellaneous	E	1,200	1,080	-	120	-	-	-	-
627	Other Pumping Expense	E	24,000	21,600	-	2,400	-	-	-	-
642	Samples - QC	E	48,000	43,200	-	4,800	-	-	-	-
642	Lab Samples	E	15,000	13,500	-	1,500	-	-	-	-
642	Lab Hardware	E	1,800	1,620	-	180	-	-	-	-
643	Misc Water Treatment Expense.	E	30,000	27,000	-	3,000	-	-	-	-
612	Source of Supply Repairs	E	18,000	16,200	-	1,800	-	-	-	-
613	Dam Repairs	E	-	-	-	-	-	-	-	-
614	Well Repairs	E	-	-	-	-	-	-	-	-
616	Transmission Mains Repair	E	1,200	1,080	-	120	-	-	-	-
631	Pumping Structure Repairs	E	1,200	1,080	-	120	-	-	-	-
632	Power Equipment Repairs	E	6,000	5,400	-	600	-	-	-	-
633	Pump & Motor Repairs	E	9,000	8,100	-	900	-	-	-	-
652	Water Treatment Facility Repair	E	4,800	4,320	-	480	-	-	-	-
633	Miscellaneous	E	3,000	2,700	-	300	-	-	-	-
Total Production Expenses			3,259,732	2,937,619	-	322,114	-	-	-	-
Distribution Expenses										
660	Supervision	A	103,519	-	51,760	-	51,760	-	-	-
662.2	T&D Line Labor	A	177,013	-	88,507	-	88,507	-	-	-
663.2	Removal & Reset Meters	M	56,755	-	-	-	56,755	-	-	-
665.2	Maps & Records Labor	A	68,360	-	34,180	-	34,180	-	-	-
671.2	Maintenace Labor	C	209,107	-	-	-	142,193	66,914	-	-
662.14	Utilities - Electric	A	4,800	-	2,400	-	2,400	-	-	-
662.15	Utilities - Gas	A	3,600	-	1,800	-	1,800	-	-	-
662.22	Equipment Rentals	A	-	-	-	-	-	-	-	-
662.23	Street Permits	A	3,600	-	1,800	-	1,800	-	-	-
662.24	Notices	A	-	-	-	-	-	-	-	-

Allocation of Net Revenue Requirement to Functional Catagories

Bristol County Water Authority

		Allocator	Rate Year 2012	Supply/ Treatment	Trans & Distribution	Pumping/ Storage	Meter/ Service	Billing Collection	Direct Fire	General/ Administration
662.25	Dig Safe & Maps	A	9,000	-	4,500	-	4,500	-	-	-
666	Radio Rentals	A	-	-	-	-	-	-	-	-
662.17	Safety Supplies	A	600	-	300	-	300	-	-	-
662.18	Uniforms & Clothing	A	7,200	-	3,600	-	3,600	-	-	-
662.12	Transportation	A	18,000	-	9,000	-	9,000	-	-	-
662.13	Utilities - Telephone	A	30,000	-	15,000	-	15,000	-	-	-
662.16	Snow Removal	A	-	-	-	-	-	-	-	-
662.21	Hand Tools	A	1,500	-	750	-	750	-	-	-
662.27	Operating Supplies	A	3,600	-	1,800	-	1,800	-	-	-
662.26	Leaks Surveys	A	-	-	-	-	-	-	-	-
663.1	R & R Meters -Supplies	M	9,000	-	-	-	9,000	-	-	-
663.12	R & R Meters -Transportation	M	7,200	-	-	-	7,200	-	-	-
676.11	Meters Repair Program	M	-	-	-	-	-	-	-	-
677.12	Hydrant Repairs -Transportation	FP	1,200	-	-	-	-	-	1,200	-
677.1	Hydrant Repairs -materials	FP	12,000	-	-	-	-	-	12,000	-
677.11	Paint & Repair hydrants	FP	1,200	-	-	-	-	-	1,200	-
675.1	Service Repairs - Transportation	M	7,200	-	-	-	7,200	-	-	-
675.12	Service Repairs - Contractor	M	24,000	-	-	-	24,000	-	-	-
675.13	Service Repairs - Paving	M	24,000	-	-	-	24,000	-	-	-
675.14	Service Repairs - Materials	M	15,000	-	-	-	15,000	-	-	-
671.1	T & D Structure Repairs	A	2,400	-	1,200	-	1,200	-	-	-
672.1	Tank & Standpipe Repairs	A	4,800	-	2,400	-	2,400	-	-	-
672.12	Telemetering Repairs	A	3,600	-	1,800	-	1,800	-	-	-
672.13	Alititude Valve Repairs	A	-	-	-	-	-	-	-	-
672.11	Tank Inspections	A	-	-	-	-	-	-	-	-
672.16	Valve Repairs	A	1,200	-	600	-	600	-	-	-
673.13	T & D Mains - Contractors	A	30,000	-	15,000	-	15,000	-	-	-
673.13	T & D Mains - Pavings	A	60,000	-	30,000	-	30,000	-	-	-
673.13	T & D Mains - Materials	A	30,000	-	15,000	-	15,000	-	-	-
665.31	Miscellaneous	A	1,500	-	750	-	750	-	-	-
665.3	Misc - Radio Line	A	-	-	-	-	-	-	-	-
Total Transmission & Distribution Expenses			930,954	-	282,146	-	567,494	66,914	14,400	-
Other Miscellaneous Expenses										
403.00	Depreciation Expense	W	-	-	-	-	-	-	-	-
426.00	Amortization	W	-	-	-	-	-	-	-	-
427.01	Interest Expense	W	903,600	275,499	82,760	69,125	473,122	-	3,093	-
	Principal	W	2,322,000	707,956	212,670	177,632	1,215,792	-	7,949	-
	Total Capital Projects	A	525,000	-	262,500	-	262,500	-	-	-
Total Other Miscellaneous Expenses			3,750,600	983,455	557,930	246,757	1,951,415	-	11,043	-
TOTAL EXPENSES			10,792,392	4,753,888	934,587	607,841	2,810,864	569,829	25,582	1,089,801

Allocation of Net Revenue Requirement to Functional Catagories

Bristol County Water Authority

		Allocator	Rate Year 2012	Supply/ Treatment	Trans & Distribution	Pumping/ Storage	Meter/ Service	Billing Collection	Direct Fire	General/ Administration
54417	Operating Resrve	J	234,584	103,331	20,314	13,212	61,097	12,386	556	23,688
Less:										
	Service & Extensions	J	(9,000)	(3,964)	(779)	(507)	(2,344)	(475)	(21)	(909)
	Misc Income	J	-	-	-	-	-	-	-	-
	Interest on Bills	J	-	-	-	-	-	-	-	-
	Interest on Investments	J	-	-	-	-	-	-	-	-
	Water Surcharge	J	-	-	-	-	-	-	-	-
	Repairs	J	(84,000)	(37,001)	(7,274)	(4,731)	(21,878)	(4,435)	(199)	(8,482)
TOTAL NET REVENUE REQUIREMENT			10,933,976	4,816,254	946,847	615,815	2,847,740	577,305	25,917	1,104,098
PERCENTAGE				44.0%	8.7%	5.6%	26.0%	5.3%	0.2%	10.1%

Schedule B-3

Allocation of Net Revenue Requirement to Functional Catagories
Bristol County Water Authority

	Allocator	Rate Year 2012	Wholesale/ Base	Direct Fire	Fire Protection	Meter/ Service	Billing
Supply/ Treatment	WB	$ 4,816,254	$ 4,575,441	$ -	$ 240,813	$ -	$ -
Transmission & Distribution	TD	946,847	506,818	-	253,684	186,345	-
Pumping/ Storage	PS	615,815	554,234	-	61,582	-	-
Meter/ Service	MS	2,847,740	-	-	-	2,847,740	-
Billing Collection	BC	577,305	-	-	-	432,979	144,326
Direct Fire	FP	25,917	-	25,917	-	-	-
Sub-total		9,829,878	5,636,493	25,917	556,079	3,467,063	144,326
General/ Administration	GA	1,104,098	633,094	2,911	62,459	389,423	16,211
Total		10,933,976	6,269,587	28,828	618,538	3,856,486	160,537

Base Water Allocation	$ 6,269,587
Amount to be recovered by IFF	(412,000)
Amount to be recovered by Usag	**$ 5,857,587**
Amount to be recovered by IFF	**$ 412,000**

Direct Fire Allocation	$ 28,828
Fire Protection Allocation	618,538
Amount service charges to be recovered by Fire	148,774
Amount to be recovered by Public & Private Fir	**$ 796,139**

Direct Fire Allocation	$ 3,856,486
Fire Protection Allocation	160,537
Amount service charges to be recovered by Fire	(148,767)
Amount to be recovered by Meter service Charge	**$ 3,868,256**

Proposed Rate Design

Projected Revenues (at Proposed Rates) and Projected Expenditures

B&E has calculated the projected revenues (at proposed rates) and the projected expenses for the fiscal years ended February 29, 2012 through February 29, 2016. See Schedule "C", included in this section of the Report. Schedule "C" shows that BCWA should still have minor surpluses each year if the savings suggested by B&E can be achieved. These minor surpluses can be used for Capital needs and provides a balance to absorb any potential declines in consumption.

Reserves:

B&E will propose Operating, Capital and IFR reserves to be deposited in restricted cash funded accounts. These cash reserves will, in the long run, save ratepayers money and assure continuity of service by allowing BCWA to avoid the significant costs related to borrowing money every time there is an emergency or a capital need.

Rate Design Recommendations:

In order to gradually improve the financial position of BCWA and to avoid rate shock, B&E recommends the following:

A. As stated above, B&E is recommending a new IFR charge of $0.278 per HCF.

B. B&E proposes in the first year the elimination of the fourth block of the five block consumption block rates and a reduction in the second block equal to the revenue gained from the elimination of the fourth block. The changes proposed for the subsequent years are as follows:

1. 2013:

Block 1 (0-6,000)	$ 2.534
Block 2 (6,001 - 18,000)	6.917
Block 3 (18,001 – 120,000)	5.453
Block 4 (120,001 – 360,000)	3.380
Block 5 (over 360,000)	3.380

2. 2014;

Block 1 (0-6,000)	$ 2.585
Block 2 (6,001 - 18,000)	6.502
Block 3 (18,001 – 120,000)	5.726
Block 4 (over 120,000)	3.650

3. 2015:

Block 1 (0-6,000)	$ 2.735
Block 2 (6,001 - 18,000)	6.150

Block 3 (18,001 – 120,000)	5.726
Block 4 (over 120,000)	3.650

4. 2016

Block 1 (0-6,000)	$ 2.953
Block 2 (6,001 - 18,000)	5.382
Block 3 (18,001 – 120,000)	5.668
Block 4 (over 120,000)	4.001

C. B&E proposes the roll back of the FY 2012 increase implemented by the BCWA prior to this study. This reduction would be implemented in FY 2013. Furthermore, service charges would be reduced to absorb additional savings and bring the service charge revenue closer in line to the cost allocation model. The changes proposed for the subsequent years are as follows:

1. 2013:

Service Charges:

Meter Size	Monthly	Quarterly
Senior Rate	$ 13.44	$ 40.32
5/8 x ¾ inch	18.55	55.66
¾ x ¾ inch	27.86	83.57
1 inch	46.43	139.29
1 ½ inch	92.84	278.52
2 inch	148.52	445.56
3 inch	278.49	835.59
4 inch	464.17	1,392.52
6 inch	928.38	2,785.11
8 inch	1,485.40	4,456.14
10 inch	2,135.26	6,405.70

2. 2014;

Service Charges:

Meter Size	Monthly	Quarterly
Senior Rate	$ 13.44	$ 40.32
5/8 x ¾ inch	18.55	55.66
¾ x ¾ inch	27.86	83.57
1 inch	46.43	139.29
1 ½ inch	92.84	278.52
2 inch	148.52	445.56
3 inch	278.49	835.59
4 inch	464.17	1,392.52

6 inch	928.38	2,785.11
8 inch	1,485.40	4,456.14
10 inch	2,135.26	6,405.70

3. 2015:

Service Charges:

Meter Size	Monthly	Quarterly
Senior Rate	$ 13.17	$ 39.51
5/8 x ¾ inch	18.18	54.54
¾ x ¾ inch	27.30	81.90
1 inch	45.50	136.50
1 ½ inch	90.98	272.95
2 inch	145.55	436.65
3 inch	272.92	818.88
4 inch	454.88	1,364.67
6 inch	909.82	2,729.41
8 inch	1,455.69	4,367.02
10 inch	2,092.55	6,277.59

4. 2016

Service Charges:

Meter Size	Monthly	Quarterly
Senior Rate	$ 13.17	$ 39.51
5/8 x ¾ inch	18.18	54.54
¾ x ¾ inch	27.30	81.90
1 inch	45.50	136.50
1 ½ inch	90.98	272.95
2 inch	145.55	436.65
3 inch	272.92	818.88
4 inch	454.88	1,364.67
6 inch	909.82	2,729.41
8 inch	1,455.69	4,367.02
10 inch	2,092.55	6,277.59

D. B&E next reviewed the public and private fire protection service charges. The private fire service customers have continued to be subsidized by the remaining customers for at least the past twenty years. It is for this reason that B&E recommends that after rolling back the the 3% rate increase of FY 2012 in FY 2013 that both private fire and public fire protection charges be increased to bring these revenues closer in line to the cost allocation model.

B&E recommends the following quarterly fire charges:

Year	Public	Private Size of Connection (Inches) 4	6	8	10
2012	$100	$97.10	$218.45	$388.42	$606.94
2013	100	94.27	212.08	377.10	589.26
2014	110	103.70	233.29	414.81	648.19
2015	125	119.25	268.28	477.03	745.41
2016	145	125.21	292.43	543.82	901.95

Using the above approach, the private fire rates will be much more reasonable and public fire protection rates are expected to be close to the State wide average in 2016.

F. BCWA is required to collect two Water Quality Protection surcharges which are forwarded to Providence Water (in proportion of monthly water purchased vs. water produced) and the State.

Five Year Financial Projection at Proposed Rates

Schedule C

Bristol County Water Authority

Account #	Account Name	FY 2012	FY 2013	FY 2014	FY 2015	FY 2016
REVENUES						
Revenues from Rates						
927.20	Water Service	$ 10,371,731	$ 9,874,262	$ 9,855,633	$ 9,786,964	$ 9,718,653
927.05	Fire Service	562,245	556,348	611,983	698,381	795,554
927.19	RIWRB Tax	-	-	-	-	-
419.40	IFR	-	409,620	410,691	411,761	411,761
Total Revenues from Rates		10,933,976	10,840,230	10,878,306	10,897,106	10,925,968
Other Revenues						
920.00	Interest Income	$ 9,000	$ 9,000	$ 9,000	$ 9,000	$ 9,000
419.31	Other	84,000	84,000	84,000	84,000	84,000
		-				
Total Other Revenues		93,000	93,000	93,000	93,000	93,000
	TOTAL REVENUES	$ 11,026,976	$ 10,933,230	$ 10,971,306	$ 10,990,106	$ 11,018,968
EXPENSES						
Administrative Expenses		$ 58,600	$ 59,333	$ 60,074	$ 60,825	$ 61,585
Management & Office Expenses		2,390,762	2,414,270	2,431,652	2,449,220	2,467,045
Commercial & Customer		573,473	578,098	579,980	581,475	583,500
Production Expenses		3,309,732	3,355,314	3,398,616	3,443,984	3,491,448
Distribution Expenses		930,954	939,954	944,060	948,112	952,214
Other Miscellaneous Expenses						
403.00	Depreciation Expense	-	-	-	-	-
426.00	Amortization	-	-	-	-	-
427.01	Interest Expense	903,600	816,499	720,367	616,409	507,863
	Principal	2,322,000	2,408,000	2,505,000	2,606,000	2,713,000
	Emergency Reserve	25,000	25,000	25,000	25,000	25,000
	Total Capital Projects	500,000	466,920	410,691	411,761	411,761
Total Other Miscellaneous Expenses		3,750,600	3,716,419	3,661,058	3,659,169	3,657,624
Savings from Performance Audit		(221,729)	(413,726)	(413,726)	(413,726)	(413,726)
	TOTAL EXPENSES	10,792,392	10,649,662	10,661,715	10,729,059	10,799,691
	Net Operating Reserve	161,511	159,370	159,551	160,561	161,620
	NET INCOME/(LOSS)	$ 73,073	$ 124,199	$ 150,041	$ 100,486	$ 57,657
	Cumulative Net Income	$ 73,073	$ 197,271	$ 347,313	$ 447,798	$ 505,455

Projected Revenue
Bristol County Water Authority

Schedule C-1

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
1st Block	$ 51,422	$ 2,043,549	$ 49,925	$ 1,990,439	$ 50,923	$ 2,038,777	$ 53,877	$ 2,166,051	$ 58,187	$ 2,339,335
2nd Block	138,621	2,700,998	130,004	2,542,272	122,203	2,393,311	115,604	2,267,455	101,154	1,984,023
3rd Block	241,986	568,283	234,921	551,691	246,667	579,275	246,667	579,275	244,200	573,463
4th Block	90,285	75,309	118,921	97,527	205,426	297,040	205,426	297,040	225,147	325,556
5th Block	73,310	177,563	73,289	177,511	-	-	-	-	-	-
Proforma Year	595,624	5,565,702	605,059	5,359,439	625,220	5,308,404	621,574	5,309,822	628,688	5,222,397
		6,161,326		5,964,498		5,933,624		5,931,396		5,851,085

Meters By Size

Meter Size										
5/8 Bizerly	17,240	590,605	16,602	541,560	16,602	541,560	16,486	530,748	16,486	530,748
5/8	44,662	3,063,606	41,395	2,843,425	41,395	2,855,670	40,567	2,810,556	40,567	2,822,556
3/4	-	721	-	669	-	669	-	655	-	655
1	12,620	120,184	11,701	111,429	11,701	111,429	11,467	109,201	11,467	109,201
1 1/2	12,016	18,023	11,140	16,711	11,140	16,711	10,917	16,377	10,917	16,377
2	105,725	165,313	98,024	153,274	98,024	153,274	96,064	150,209	96,064	150,209
3	3,605	-	3,342	-	3,342	-	3,275	-	3,275	-
4	12,015	6,008	11,140	5,570	11,140	5,570	10,917	5,459	10,917	5,459
6	-	48,061	-	44,562	-	44,562	-	43,671	-	43,671
8	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-
	207,883	4,002,521	192,844	3,717,220	192,544	3,729,465	188,693	3,666,875	188,693	3,678,875
		4,210,405		3,909,764		3,922,009		3,855,568		3,867,568

927.20 Water Service $ 10,371,731 | $ 9,874,262 | $ 9,855,633 | $ 9,786,964 | $ 9,718,653

Private Fire Protection

Meter Size										
4	$ -	$ 6,214	$ -	$ 6,033	$ -	$ 6,637	$ -	$ 7,632	$ -	$ 8,014
6	-	148,546	-	144,214	-	158,636	-	182,431	-	198,850
8	-	45,057	-	43,744	-	48,118	-	55,336	-	63,083
10	-	2,428	-	2,357	-	2,593	-	2,982	-	3,606
	-	202,245	-	196,348	-	215,983	-	248,381	-	273,554

Public Fire Protection

Hydrants	-	360,000	-	360,000	-	396,000	-	450,000	-	522,000
	-	360,000	-	360,000	-	396,000	-	450,000	-	522,000

927.05 Fire Service $ 562,244.88 | $ 556,348.32 | $ 611,983.15 | $ 698,380.62 | $ 795,554.18

IFR Charge

All Blocks	-	-	38,323	371,297	38,323	372,367	38,323	373,437	38,323	373,437
	-	-	38,323	371,297	38,323	372,367	38,323	373,437	38,323	373,437

927.20 IFR $ - | $ 409,620 | $ 410,691 | $ 411,761 | $ 411,761

Projected Consumptions/Counts
Bristol County Water Authority

Schedule C-1a

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
	CF	CF	CF	CF	CF	CF	CF	CF	CF	CF
1st Block	19,702	782,969	19,702	785,493	19,702	788,793	19,702	792,093	19,702	792,093
2nd Block	18,796	366,237	18,796	367,563	18,796	368,113	18,796	368,663	18,796	368,663
3rd Block	43,081	101,172	43,081	101,172	43,081	101,172	43,081	101,172	43,081	101,172
4th Block	34,592	28,854	34,592	28,854	56,275	81,372	56,275	81,372	56,275	81,372
5th Block	21,683	52,518	21,683	52,518	-	-	-	-	-	-
Proforma Year	137,854	1,331,750	137,854	1,335,600	137,854	1,339,450	137,854	1,343,300	137,854	1,343,300

Meters By Size

Meter Size	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
5/8 Elderly	98	3,358	98	3,358	98	3,358	98	3,358	98	3,358
5/8	186	12,717	186	12,772	186	12,827	186	12,882	186	12,937
3/4	-	2	-	2	-	2	-	2	-	2
1	21	200	21	200	21	200	21	200	21	200
1 1/2	10	15	10	15	10	15	10	15	10	15
2	55	86	55	86	55	86	55	86	55	86
3	1	-	1	-	1	-	1	-	1	-
4	2	1	2	1	2	1	2	1	2	1
6	-	4	-	4	-	4	-	4	-	4
8	-	-	-	-	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-
	373	16,383	373	16,438	373	16,493	373	16,548	373	16,603

Private Fire Protection

Meter Size	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
4	-	16	-	16	-	16	-	16	-	16
6	-	170	-	170	-	170	-	170	-	170
8	-	29	-	29	-	29	-	29	-	29
10	-	1	-	1	-	1	-	1	-	1
	-	216	-	216	-	216	-	216	-	216

Public Fire Protection

	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
Hydrants	-	900	-	900	-	900	-	900	-	900
	-	900	-	900	-	900	-	900	-	900

IFR Charge

All Blocks	137,854	1,331,750	137,854	1,335,600	137,854	1,339,450	137,854	1,343,300	137,854	1,343,300

Schedule C-1b

Proposed Rates
Bristol County Water Authority

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
1st Block	$ 2.610	$ 2.610	$ 2.534	$ 2.534	$ 2.585	$ 2.585	$ 2.735	$ 2.735	$ 2.953	$ 2.953
2nd Block	$ 7.375	$ 7.375	$ 6.917	$ 6.917	$ 6.502	$ 6.502	$ 6.150	$ 6.150	$ 5.382	$ 5.382
3rd Block	$ 5.617	$ 5.617	$ 5.453	$ 5.453	$ 5.726	$ 5.726	$ 5.726	$ 5.726	$ 5.668	$ 5.668
4th Block	$ 2.610	$ 2.610	$ 3.380	$ 3.380	$ 3.650	$ 3.650	$ 3.650	$ 3.650	$ 4.001	$ 4.001
5th Block	$ 3.381	$ 3.381	$ 3.380	$ 3.380						

Meters By Size

Meter Size										
5/8 Elderly	$ 14.66	$ 43.97	$ 13.44	$ 40.32	$ 13.44	$ 40.32	$ 13.17	$ 39.51	$ 13.17	$ 39.51
5/8	$ 20.01	$ 60.03	$ 18.55	$ 55.66	$ 18.55	$ 55.66	$ 18.18	$ 54.54	$ 18.18	$ 54.54
3/4	$ 30.05	$ 90.14	$ 27.86	$ 83.57	$ 27.86	$ 83.57	$ 27.30	$ 81.90	$ 27.30	$ 81.90
1	$ 50.08	$ 150.23	$ 46.43	$ 139.29	$ 46.43	$ 139.29	$ 45.50	$ 136.50	$ 45.50	$ 136.50
1 1/2	$ 100.13	$ 300.39	$ 92.84	$ 278.52	$ 92.84	$ 278.52	$ 90.98	$ 272.95	$ 90.98	$ 272.95
2	$ 160.19	$ 480.56	$ 148.52	$ 445.56	$ 148.52	$ 445.56	$ 145.55	$ 436.65	$ 145.55	$ 436.65
3	$ 300.39	$ 901.21	$ 278.49	$ 835.59	$ 278.49	$ 835.59	$ 272.92	$ 818.88	$ 272.92	$ 818.88
4	$ 500.63	$ 1,501.89	$ 464.17	$ 1,392.52	$ 464.17	$ 1,392.52	$ 454.88	$ 1,364.67	$ 454.88	$ 1,364.67
6	$ 1,001.30	$ 3,003.84	$ 928.38	$ 2,785.11	$ 928.38	$ 2,785.11	$ 909.82	$ 2,729.41	$ 909.82	$ 2,729.41
8	$ 1,602.06	$ 4,806.13	$ 1,485.40	$ 4,456.14	$ 1,485.40	$ 4,456.14	$ 1,455.69	$ 4,367.02	$ 1,455.69	$ 4,367.02
10	$ 2,302.96	$ 6,908.81	$ 2,135.26	$ 6,405.70	$ 2,135.26	$ 6,405.70	$ 2,092.55	$ 6,277.59	$ 2,092.55	$ 6,277.59

Private Fire Protection

Meter Size										
4	-	$ 97.10	-	$ 94.27	-	$ 103.70	-	$ 119.25	-	$ 125.21
6	-	$ 218.45	-	$ 212.08	-	$ 233.29	-	$ 268.28	-	$ 292.43
8	-	$ 388.42	-	$ 377.10	-	$ 414.81	-	$ 477.03	-	$ 543.82
10	-	$ 606.94	-	$ 589.26	-	$ 648.19	-	$ 745.41	-	$ 901.95

Public Fire Protection

	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts	Total Accounts
Hydrants	-	$ 100.00	-	$ 100.00	-	$ 110.00	-	$ 125.00	-	$ 145.00

IFR Charge

All Blocks	$ -	$ -	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278

Ratepayer Impact

Ratepayer impact is an important consideration in a rate study. B&E reviewed the results of its cost allocation study and noted the following:

- The rate increase proposed is least severe to the ratepayers that have the least consumption.

- The increase for the large commercial and industrial customers is larger than the decrease for the large residential customer because the large commercial and industrial customers are no longer being subsidized but the 4th block rate.

- All ratepayers are paying for the 100% increase in the IFR contribution. This is mandatory since BCWA has filed and IFR plan and it has been approved by the State.

- The study results suggest a major change is needed in the block rates. Through a revenue smoothing adjustment made in the cost allocation model, B&E was able to calculate a gradual transition in consumption rates to minimize the yearly impact on large commercial and industrial customers. This type of rate stabilization is favorable.

B&E prepared a ratepayer impact schedule which shows the impact by on various customer classes by customer size for FY 2012 through FY 2016 (See Ratepayer Impact Schedule in this section of the report). These schedules clearly show the reduction in rates in the second step of the consumption rates and the fact that the IFR increase is 100%.

B&E also prepared a table of new rates for the next five years (See Rate Schedule at the end of this section). This table shows that rates increase/decreases for the various individual rates. B&E believes that this implementation of rates over the next five years balances the needs of the BCWA and the ratepayers. Individual ratepayers can use this schedule to calculate their water rates for the next five years. Businesses can use this document to assist them in their budgeting process.

It must be noted that the PWSB may increase the price of purchased water after CY 2011. PWSB rate increases should be flowed through to the ratepayers as they are approved by the PUC.

Yearly Ratepayer Impacts
Bristol County Water Authority

Schedule D

	Annual Bill	Annual Net Increase/ (Decrease)	
Impact on 6,000 CF 5/8" meter Residential User			
FY 2012 @ current rates	345.58		
FY 2012	345.58	-	0.00%
FY 2013	343.10	(2.48)	-0.72%
FY 2014	346.15	3.04	0.89%
FY 2015	351.91	5.77	1.67%
FY 2016	365.04	13.13	3.73%
		19.46	
			5.63%
Impact on 18,000 CF 5/8" meter Residential User			
FY 2012 @ current rates	1,321.03		
FY 2012	1,321.03	-	0.00%
FY 2013	1,294.01	(27.02)	-2.05%
FY 2014	1,247.25	(46.76)	-3.61%
FY 2015	1,209.66	(37.59)	-3.01%
FY 2016	1,130.53	(79.13)	-6.54%
		(190.50)	
			-14.42%
Impact on 18,000 CF 1" meter Commercial User			
FY 2012 @ current rates	1,681.83		
FY 2012	1,681.83	-	0.00%
FY 2013	1,628.53	(53.31)	-3.17%
FY 2014	1,581.77	(46.76)	-2.87%
FY 2015	1,537.49	(44.28)	-2.80%
FY 2016	1,458.36	(79.13)	-5.15%
		(223.47)	
			-13.29%
Impact on 120,000 CF 2" meter Commercial User			
FY 2012 @ current rates	8,955.26		
FY 2012	8,955.26	-	0.00%
FY 2013	8,922.03	(33.23)	-0.37%
FY 2014	9,153.37	231.34	2.59%
FY 2015	9,084.59	(68.78)	-0.75%
FY 2016	8,947.06	(137.53)	-1.51%
		(8.20)	
			-0.09%
Impact on 1,000,000 CF 6" meter Commercial User			
FY 2012 @ current rates	48,872.70		
FY 2012	48,872.70	-	0.00%
FY 2013	52,392.54	3,519.84	7.20%
FY 2014	55,003.41	2,610.86	4.98%
FY 2015	54,747.46	(255.94)	-0.47%
FY 2016	57,693.79	2,946.33	5.38%
		8,821.09	
			18.05%

Impact of Proposed Rates - FY 2012
Bristol County Water Authority

Schedule D-1

	Count or Usage	2012 Count or Usage	Current	2012 Rate	Current Revenue	Proposed Revenue	Current Revenue	Proposed Revenue	Dollar Increase	% Increase
5/8 Inch Meter 6,000 cu ft/yr							$ 345.58	$ 345.58	$ -	0.00%
Service Charge			$ 43.97	$ 43.97	$ 176	$ 176				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.61	$ 157	$ 157				
State Surcharges	6,000	6,000	$ 0.2184	$ 0.2184	$ 13	$ 13				
Infrastructure	6,000	6,000	$ -	$ -	$ -	$ -				
			$ 59.79	$ 59.79	$ 345.58	$ 345.58				
5/8 Inch Meter 18,000 cu ft/yr							$ 1,321.03	$ 1,321.03	$ -	0.00%
Service Charge			$ 60.03	$ 60.03	$ 240	$ 240				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.61	$ 157	$ 157				
Step 2	12,000	12,000	$ 7.38	$ 7.38	$ 885	$ 885				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ -	$ -	$ -	$ -				
			$ 75.85	$ 75.85	$ 1,321.03	$ 1,321.03				
1 Inch Meter 18,000 cu ft/yr							$ 1,681.83	$ 1,681.83	$ -	0.00%
Service Charge			$ 150.23	$ 150.23	$ 601	$ 601				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.61	$ 157	$ 157				
Step 2	12,000	12,000	$ 7.38	$ 7.38	$ 885	$ 885				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ -	$ -	$ -	$ -				
			$ 166.05	$ 166.05	$ 1,681.83	$ 1,681.83				
2 Inch Meter 120,000 cu ft/yr							$ 8,955.26	$ 8,955.26	$ -	0.00%
Service Charge			$ 480.56	$ 480.56	$ 1,922	$ 1,922				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.61	$ 157	$ 157				
Step 2	12,000	12,000	$ 7.38	$ 7.38	$ 885	$ 885				
Step 3	102,000	102,000	$ 5.62	$ 5.62	$ 5,729	$ 5,729				
State Surcharges	120,000	120,000	$ 0.2184	$ 0.2184	$ 262	$ 262				
Infrastructure	120,000	120,000	$ -	$ -	$ -	$ -				
			$ 498.99	$ 498.99	$ 8,955.26	$ 8,955.26				
6 Inch Meter 1,000,000 cu ft/yr							$ 48,872.70	$ 48,872.70	$ -	0.00%
Service Charge			$ 3,003.84	$ 3,003.84	$ 12,015	$ 12,015				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.61	$ 157	$ 157				
Step 2	12,000	12,000	$ 7.38	$ 7.38	$ 885	$ 885				
Step 3	102,000	102,000	$ 5.62	$ 5.62	$ 5,729	$ 5,729				
Step 4	240,000	240,000	$ 2.61	$ 2.61	$ 6,264	$ 6,264				
Step 5	640,000	640,000	$ 3.38	$ 3.38	$ 21,638	$ 21,638				
State Surcharges	1,000,000	1,000,000	$ 0.2184	$ 0.2184	$ 2,184	$ 2,184				
Infrastructure	1,000,000	1,000,000	$ -	$ -	$ -	$ -				
			$ 3,025.65	$ 3,025.65	$ 48,872.70	$ 48,872.70				

Impact of Proposed Rates - FY 2013
Bristol County Water Authority

Schedule D-2

	Count or Usage	2013 Count or Usage	Current	2013 Rate	Current Revenue	Proposed Revenue	Current Revenue	Proposed Revenue	Dollar Increase	% Increase
5/8 Inch Meter 6,000 cu ft/yr							$ 345.58	$ 343.10	$ (2)	-0.72%
Service Charge			$ 43.97	$ 40.32	$ 176	$ 161				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.53	$ 157	$ 152				
State Surcharges	6,000	6,000	$ 0.2184	$ 0.2184	$ 13	$ 13				
Infrastructure	6,000	6,000	$ -	$ 0.28	$ -	$ 17				
			$ 59.79	$ 55.72	$ 345.58	$ 343.10				
5/8 Inch Meter 18,000 cu ft/yr							$ 1,321.03	$ 1,294.01	$ (27)	-2.05%
Service Charge			$ 60.03	$ 55.66	$ 240	$ 223				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.53	$ 157	$ 152				
Step 2	12,000	12,000	$ 7.38	$ 6.92	$ 885	$ 830				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ -	$ 0.28	$ -	$ 50				
			$ 75.85	$ 71.06	$ 1,321.03	$ 1,294.01				
1 Inch Meter 18,000 cu ft/yr							$ 1,681.83	$ 1,628.53	$ (53)	-3.17%
Service Charge			$ 150.23	$ 139.29	$ 601	$ 557				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.53	$ 157	$ 152				
Step 2	12,000	12,000	$ 7.38	$ 6.92	$ 885	$ 830				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ -	$ 0.28	$ -	$ 50				
			$ 166.05	$ 154.69	$ 1,681.83	$ 1,628.53				
2 Inch Meter 120,000 cu ft/yr							$ 8,955.26	$ 8,922.03	$ (33)	-0.37%
Service Charge			$ 480.56	$ 445.56	$ 1,922	$ 1,782				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.53	$ 157	$ 152				
Step 2	12,000	12,000	$ 7.38	$ 6.92	$ 885	$ 830				
Step 3	102,000	102,000	$ 5.62	$ 5.45	$ 5,729	$ 5,562				
State Surcharges	120,000	120,000	$ 0.2184	$ 0.2184	$ 262	$ 262				
Infrastructure	120,000	120,000	$ -	$ 0.28	$ -	$ 334				
			$ 498.99	$ 464.34	$ 8,955.26	$ 8,922.03				
6 Inch Meter 1,000,000 cu ft/yr							$ 48,872.70	$ 52,392.54	$ 3,520	7.20%
Service Charge			$ 3,003.84	$ 2,785.11	$ 12,015	$ 11,140				
Consumption - Step 1	6,000	6,000	$ 2.61	$ 2.53	$ 157	$ 152				
Step 2	12,000	12,000	$ 7.38	$ 6.92	$ 885	$ 830				
Step 3	102,000	102,000	$ 5.62	$ 5.45	$ 5,729	$ 5,562				
Step 4	240,000	240,000	$ 2.61	$ 3.38	$ 6,264	$ 8,112				
Step 5	640,000	640,000	$ 3.38	$ 3.38	$ 21,638	$ 21,632				
State Surcharges	1,000,000	1,000,000	$ 0.2184	$ 0.2184	$ 2,184	$ 2,184				
Infrastructure	1,000,000	1,000,000	$ -	$ 0.28	$ -	$ 2,780				
			$ 3,025.65	$ 2,807.27	$ 48,872.70	$ 52,392.54				

Impact of Proposed Rates - FY 2014
Bristol County Water Authority

Schedule D-3

	Count or Usage	2014 Count or Usage	Current	2014 Rate	Current Revenue	Proposed Revenue	Current Revenue	Proposed Revenue	Dollar Increase	% Increase
5/8 Inch Meter 6,000 cu ft/yr							$ 343.10	$ 346.15	$ 3	0.89%
Service Charge			$ 40.32	$ 40.32	$ 161	$ 161				
Consumption - Step 1	6,000	6,000	$ 2.53	$ 2.58	$ 152	$ 155				
State Surcharges	6,000	6,000	$ 0.2184	$ 0.2184	$ 13	$ 13				
Infrastructure	6,000	6,000	$ 0.28	$ 0.28	$ 17	$ 17				
			$ 55.72	$ 55.63	$ 343.10	$ 346.15				
5/8 Inch Meter 18,000 cu ft/yr							$ 1,294.01	$ 1,247.25	$ (47)	-3.61%
Service Charge			$ 55.66	$ 55.66	$ 223	$ 223				
Consumption - Step 1	6,000	6,000	$ 2.53	$ 2.58	$ 152	$ 155				
Step 2	12,000	12,000	$ 6.92	$ 6.50	$ 830	$ 780				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 71.06	$ 70.97	$ 1,294.01	$ 1,247.25				
1 Inch Meter 18,000 cu ft/yr							$ 1,628.53	$ 1,581.77	$ (47)	-2.87%
Service Charge			$ 139.29	$ 139.29	$ 557	$ 557				
Consumption - Step 1	6,000	6,000	$ 2.53	$ 2.58	$ 152	$ 155				
Step 2	12,000	12,000	$ 6.92	$ 6.50	$ 830	$ 780				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 154.69	$ 154.60	$ 1,628.53	$ 1,581.77				
2 Inch Meter 120,000 cu ft/yr							$ 8,922.03	$ 9,153.37	$ 231	2.59%
Service Charge			$ 445.56	$ 445.56	$ 1,782	$ 1,782				
Consumption - Step 1	6,000	6,000	$ 2.53	$ 2.58	$ 152	$ 155				
Step 2	12,000	12,000	$ 6.92	$ 6.50	$ 830	$ 780				
Step 3	102,000	102,000	$ 5.45	$ 5.73	$ 5,562	$ 5,840				
State Surcharges	120,000	120,000	$ 0.2184	$ 0.2184	$ 262	$ 262				
Infrastructure	120,000	120,000	$ 0.28	$ 0.28	$ 334	$ 334				
			$ 464.34	$ 464.52	$ 8,922.03	$ 9,153.37				
6 Inch Meter 1,000,000 cu ft/yr							$ 52,392.54	$ 55,003.41	$ 2,611	4.98%
Service Charge			$ 2,785.11	$ 2,785.11	$ 11,140	$ 11,140				
Consumption - Step 1	6,000	6,000	$ 2.53	$ 2.58	$ 152	$ 155				
Step 2	12,000	12,000	$ 6.92	$ 6.50	$ 830	$ 780				
Step 3	102,000	102,000	$ 5.45	$ 5.73	$ 5,562	$ 5,840				
Step 4	240,000	880,000	$ 3.38	$ 3.65	$ 8,112	$ 32,124				
Step 5	640,000	-	$ 3.38	$ -	$ 21,632	$ -				
State Surcharges	1,000,000	1,000,000	$ 0.2184	$ 0.2184	$ 2,184	$ 2,184				
Infrastructure	1,000,000	1,000,000	$ 0.28	$ 0.28	$ 2,780	$ 2,780				
			$ 2,807.27	$ 2,804.07	$ 52,392.54	$ 55,003.41				

Impact of Proposed Rates - FY 2015
Bristol County Water Authority

Schedule D-4

	Count or Usage	2015 Count or Usage	Current	2015 Rate	Current Revenue	Proposed Revenue	Current Revenue	Proposed Revenue	Dollar Increase	% Increase
5/8 Inch Meter 6,000 cu ft/yr							$ 346.15	$ 351.91	$ 6	1.67%
Service Charge			$ 40.32	$ 39.51	$ 161	$ 158				
Consumption - Step 1	6,000	6,000	$ 2.58	$ 2.73	$ 155	$ 164				
State Surcharges	6,000	6,000	$ 0.2184	$ 0.2184	$ 13	$ 13				
Infrastructure	6,000	6,000	$ 0.28	$ 0.28	$ 17	$ 17				
			$ 55.63	$ 54.62	$ 346.15	$ 351.91				
5/8 Inch Meter 18,000 cu ft/yr							$ 1,247.25	$ 1,209.66	$ (38)	-3.01%
Service Charge			$ 55.66	$ 54.54	$ 223	$ 218				
Consumption - Step 1	6,000	6,000	$ 2.58	$ 2.73	$ 155	$ 164				
Step 2	12,000	12,000	$ 6.50	$ 6.15	$ 780	$ 738				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 70.97	$ 69.65	$ 1,247.25	$ 1,209.66				
1 Inch Meter 18,000 cu ft/yr							$ 1,581.77	$ 1,537.49	$ (44)	-2.80%
Service Charge			$ 139.29	$ 136.50	$ 557	$ 546				
Consumption - Step 1	6,000	6,000	$ 2.58	$ 2.73	$ 155	$ 164				
Step 2	12,000	12,000	$ 6.50	$ 6.15	$ 780	$ 738				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 154.60	$ 151.61	$ 1,581.77	$ 1,537.49				
2 Inch Meter 120,000 cu ft/yr							$ 9,153.37	$ 9,084.59	$ (69)	-0.75%
Service Charge			$ 445.56	$ 436.65	$ 1,782	$ 1,747				
Consumption - Step 1	6,000	6,000	$ 2.58	$ 2.73	$ 155	$ 164				
Step 2	12,000	12,000	$ 6.50	$ 6.15	$ 780	$ 738				
Step 3	102,000	102,000	$ 5.73	$ 5.73	$ 5,840	$ 5,840				
State Surcharges	120,000	120,000	$ 0.2184	$ 0.2184	$ 262	$ 262				
Infrastructure	120,000	120,000	$ 0.28	$ 0.28	$ 334	$ 334				
			$ 464.52	$ 455.41	$ 9,153.37	$ 9,084.59				
6 Inch Meter 1,000,000 cu ft/yr							$ 55,003.41	$ 54,747.46	$ (256)	-0.47%
Service Charge			$ 2,785.11	$ 2,729.41	$ 11,140	$ 10,918				
Consumption - Step 1	6,000	6,000	$ 2.58	$ 2.73	$ 155	$ 164				
Step 2	12,000	12,000	$ 6.50	$ 6.15	$ 780	$ 738				
Step 3	102,000	102,000	$ 5.73	$ 5.73	$ 5,840	$ 5,840				
Step 4	880,000	880,000	$ 3.65	$ 3.65	$ 32,124	$ 32,124				
State Surcharges	1,000,000	1,000,000	$ 0.2184	$ 0.2184	$ 2,184	$ 2,184				
Infrastructure	1,000,000	1,000,000	$ 0.28	$ 0.28	$ 2,780	$ 2,780				
			$ 2,804.07	$ 2,748.17	$ 55,003.41	$ 54,747.46				

Impact of Proposed Rates - FY 2016
Bristol County Water Authority

Schedule D-5

	Count or Usage	2016 Count or Usage	Current	2015 Rate	Current Revenue	Proposed Revenue	Current Revenue	Proposed Revenue	Dollar Increase	% Increase
5/8 Inch Meter 6,000 cu ft/yr							$ 351.91	$ 365.04	$ 13	3.73%
Service Charge			$ 39.51	$ 39.51	$ 158	$ 158				
Consumption - Step 1	6,000	6,000	$ 2.73	$ 2.95	$ 164	$ 177				
State Surcharges	6,000	6,000	$ 0.2184	$ 0.2184	$ 13	$ 13				
Infrastructure	6,000	6,000	$ 0.28	$ 0.28	$ 17	$ 17				
			$ 54.62	$ 54.01	$ 351.91	$ 365.04				
5/8 Inch Meter 18,000 cu ft/yr							$ 1,209.66	$ 1,130.53	$ (79)	-6.54%
Service Charge			$ 54.54	$ 54.54	$ 218	$ 218				
Consumption - Step 1	6,000	6,000	$ 2.73	$ 2.95	$ 164	$ 177				
Step 2	12,000	12,000	$ 6.15	$ 5.38	$ 738	$ 646				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 69.65	$ 69.04	$ 1,209.66	$ 1,130.53				
1 Inch Meter 18,000 cu ft/yr							$ 1,537.49	$ 1,458.36	$ (79)	-5.15%
Service Charge			$ 136.50	$ 136.50	$ 546	$ 546				
Consumption - Step 1	6,000	6,000	$ 2.73	$ 2.95	$ 164	$ 177				
Step 2	12,000	12,000	$ 6.15	$ 5.38	$ 738	$ 646				
State Surcharges	18,000	18,000	$ 0.2184	$ 0.2184	$ 39	$ 39				
Infrastructure	18,000	18,000	$ 0.28	$ 0.28	$ 50	$ 50				
			$ 151.61	$ 151.00	$ 1,537.49	$ 1,458.36				
2 Inch Meter 120,000 cu ft/yr							$ 9,084.59	$ 8,947.06	$ (138)	-1.51%
Service Charge			$ 436.65	$ 436.65	$ 1,747	$ 1,747				
Consumption - Step 1	6,000	6,000	$ 2.73	$ 2.95	$ 164	$ 177				
Step 2	12,000	12,000	$ 6.15	$ 5.38	$ 738	$ 646				
Step 3	102,000	102,000	$ 5.73	$ 5.67	$ 5,840	$ 5,782				
State Surcharges	120,000	120,000	$ 0.2184	$ 0.2184	$ 262	$ 262				
Infrastructure	120,000	120,000	$ 0.28	$ 0.28	$ 334	$ 334				
			$ 455.41	$ 455.15	$ 9,084.59	$ 8,947.06				
6 Inch Meter 1,000,000 cu ft/yr							$ 54,747.46	$ 57,693.79	$ 2,946	5.38%
Service Charge			$ 2,729.41	$ 2,729.41	$ 10,918	$ 10,918				
Consumption - Step 1	6,000	6,000	$ 2.73	$ 2.95	$ 164	$ 177				
Step 2	12,000	12,000	$ 6.15	$ 5.38	$ 738	$ 646				
Step 3	102,000	102,000	$ 5.73	$ 5.67	$ 5,840	$ 5,782				
Step 4	880,000	880,000	$ 3.65	$ 4.00	$ 32,124	$ 35,207				
State Surcharges	1,000,000	1,000,000	$ 0.2184	$ 0.2184	$ 2,184	$ 2,184				
Infrastructure	1,000,000	1,000,000	$ 0.28	$ 0.28	$ 2,780	$ 2,780				
			$ 2,748.17	$ 2,747.91	$ 54,747.46	$ 57,693.79				

Proposed Rates
Bristol County Water Authority

Schedule E

Water Use Data

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
1st Block	$ 2.610	$ 2.610	$ 2.534	$ 2.534	$ 2.585	$ 2.585	$ 2.735	$ 2.735	$ 2.953	$ 2.953
2nd Block	$ 7.375	$ 7.375	$ 6.917	$ 6.917	$ 6.502	$ 6.502	$ 6.150	$ 6.150	$ 5.382	$ 5.382
3rd Block	$ 5.617	$ 5.617	$ 5.453	$ 5.453	$ 5.726	$ 5.726	$ 5.726	$ 5.726	$ 5.668	$ 5.668
4th Block	$ 2.610	$ 2.610	$ 3.380	$ 3.380	$ 3.650	$ 3.650	$ 3.650	$ 3.650	$ 4.001	$ 4.001
5th Block	$ 3.381	$ 3.381	$ 3.380	$ 3.380						

Meters By Size

Meter Size	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
5/8 Elderly	$ 14.66	$ 43.97	$ 13.44	$ 40.32	$ 13.44	$ 40.32	$ 13.17	$ 39.51	$ 13.17	$ 39.51
5/8	$ 20.01	$ 60.03	$ 18.55	$ 55.66	$ 18.55	$ 55.66	$ 18.18	$ 54.54	$ 18.18	$ 54.54
3/4	$ 30.05	$ 90.14	$ 27.86	$ 83.57	$ 27.86	$ 83.57	$ 27.30	$ 81.90	$ 27.30	$ 81.90
1	$ 50.08	$ 150.23	$ 46.43	$ 139.29	$ 46.43	$ 139.29	$ 45.50	$ 136.50	$ 45.50	$ 136.50
1 1/2	$ 100.13	$ 300.39	$ 92.84	$ 278.52	$ 92.84	$ 278.52	$ 90.98	$ 272.95	$ 90.98	$ 272.95
2	$ 160.19	$ 480.56	$ 148.52	$ 445.56	$ 148.52	$ 445.56	$ 145.55	$ 436.65	$ 145.55	$ 436.65
3	$ 300.39	$ 901.21	$ 278.49	$ 835.59	$ 278.49	$ 835.59	$ 272.92	$ 818.88	$ 272.92	$ 818.88
4	$ 500.63	$ 1,501.89	$ 464.17	$ 1,392.52	$ 464.17	$ 1,392.52	$ 454.88	$ 1,364.67	$ 454.88	$ 1,364.67
6	$ 1,001.30	$ 3,003.84	$ 928.38	$ 2,785.11	$ 928.38	$ 2,785.11	$ 909.82	$ 2,729.41	$ 909.82	$ 2,729.41
8	$ 1,602.06	$ 4,806.13	$ 1,485.40	$ 4,456.14	$ 1,485.40	$ 4,456.14	$ 1,455.69	$ 4,367.02	$ 1,455.69	$ 4,367.02
10	$ 2,302.96	$ 6,908.81	$ 2,135.26	$ 6,405.70	$ 2,135.26	$ 6,405.70	$ 2,092.55	$ 6,277.59	$ 2,092.55	$ 6,277.59

Private Fire Protection

Meter Size	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
4	-	$ 97.10	-	$ 94.27	-	$ 103.70	-	$ 119.25	-	$ 125.21
6	-	$ 218.45	-	$ 212.08	-	$ 233.29	-	$ 268.28	-	$ 292.43
8	-	$ 388.42	-	$ 377.10	-	$ 414.81	-	$ 477.03	-	$ 543.82
10	-	$ 606.94	-	$ 589.26	-	$ 648.19	-	$ 745.41	-	$ 901.95

Public Fire Protection

	FY 2012 Total Accounts	FY 2012 Total Accounts	FY 2013 Total Accounts	FY 2013 Total Accounts	FY 2014 Total Accounts	FY 2014 Total Accounts	FY 2015 Total Accounts	FY 2015 Total Accounts	FY 2016 Total Accounts	FY 2016 Total Accounts
Hydrants	-	$ 100.00	-	$ 100.00	-	$ 110.00	-	$ 125.00	-	$ 145.00

IFR Charge

	FY 2012 Monthly	FY 2012 Quarterly	FY 2013 Monthly	FY 2013 Quarterly	FY 2014 Monthly	FY 2014 Quarterly	FY 2015 Monthly	FY 2015 Quarterly	FY 2016 Monthly	FY 2016 Quarterly
All Blocks	$ -	$ -	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278	$ 0.278

Recommendations and Conclusions

As part of its review B&E identified certain areas that require additional consideration. The following recommendations are presented to assist the BCWA management in its efforts to improve the overall operations of the BCWA. They are intended to be helpful and not critical. B&E is prepared to assist BCWA in the implementation of any or all of the following recommendations:

1. BCWA should review the need for "Impact Fees" that would be charged to all new expansion of the system. These impact fees would be in addition to the connection fee and would be used exclusively to pay a part of the system additions needed to service additional customers. BCWA is considering significant capital improvements in the next five years and could help pay some of these expenditures using impact fees, "pay as you go" revenues and long term borrowing. B&E supports the concept of impact fees and recommends that these funds be kept in a separate restricted account.

2. Budgeting is very important to a well-managed operation. Capital as well as operating budgets should be prepared and updated annually. B&E reviewed the BCWA's five-year capital budget and B&E believes that this five-year rate study can be used as a guide to a five year operating budget. Variances from budget should be reviewed and evaluated monthly and reported to the BCWA Board.

3. It is also important for a utility that is capital asset intensive to have adequate cash (investment) reserves to handle emergencies such as a major main break, damage to the water tank, or contamination of the water supply. B&E recommends that the BCWA establish a cash emergency reserve in the amount of $200,000. Our pro-forma financial statements reflect a $25,000 yearly allowance to fund this reserve.

4. In addition to having adequate cash reserves, it is important to have accessibility to bank borrowing without the need for a lengthy bank approval processes. This safeguard is normally accomplished by obtaining a line of credit from the bank, which could be used exclusively for emergencies. B&E recommends that the BCWA obtain an adequate line of credit from the bank.

5. Impact fees and connection fees are not ordinary revenue and as such should not be commingled with normal operating revenue. (Note: Should any these fees be collected the BCWA should include them in the capital reserve fund.) B&E recommends that all such funds be kept in restricted accounts and not used for operations.

B&E's five-year implementation plan is a guide for the future. Facts and circumstances will change with the passage of time. The Towns should require a complete annual review of this five- year plan by an outside rate expert.

Section III. Performance Audit

Overview

Per the Yellow Book,

> **"Performance Audits are defined as engagements that provide assurance or conclusions based on an evaluation of sufficient, appropriate evidence against stated criteria, such as specific requirements, measures, or defined business practices. Performance Audits provide objective analysis so that management and those charged with governance and oversight can use the information to improve program performance and operations, reduce costs, facilitate decision making by parties with responsibility to oversee and initiate corrective action, and contribute to public accountability."**

B&E conducted this Performance Audit in accordance with generally accepted government auditing standards (GAGAS), except for the following specific applicable requirements that were not followed. B&E believes that the omission of these requirements had no impact on the objectives and results of the Performance Audit.

1. B&E has not had a peer review. Although B&E has completed numerous Performance Audit engagements during the past fifteen years, the current requirement for a Performance Audit (compliance with the new Yellow Book which requires a peer review) is new as of January 1, 2008. B&E's first Performance Audit under the Yellow Book was completed in CY 2010. The Yellow Book requirements allow for a peer review every three years therefore B&E will have its first peer review in CY 2013.

2. B&E relied on Mr. Edge's experience and the scope of the engagement per the RFP to establish the Performance Audit goals and procedures. This approach allowed B&E to spend more time in the field completing the Performance Audit. This modification was necessitated by the client's request for B&E to reduce the scope of and fee for the engagement. The fact that B&E completed an ongoing assessment of the objectives, audit risk, audit procedures, and evidence during the course of the audit field work allowed B&E to determine what to report and the proper context for the audit conclusion as the engagement progressed.

3. It was agreed that B&E would rely on the Financial Auditor's review of the accounting function internal controls of accounts receivable, cash receipts and cash disbursements, budgeting and purchasing. This function is an integral part of the annual financial audit. It was agreed that for B&E to complete the same standardized internal control questionnaires, ask the same internal control questions and complete the same tests of internal controls as the year-end financial auditor would be a waste of limited time and resources. B&E did review the last two years management letters provided by the year-end auditor to BCWA.

In addition to reviewing the management letters, B&E used observation and inquiry to evaluate the overall efficiency of the accounting functions and the overall internal controls of BCWA's operations. As B&E identified areas that required additional study the specific internal controls for that activity were reviewed in greater detail.

4. Information relating to the cost of providing water, billing procedures, rate design, and pro-forma financial revenue and expenditure calculations were reviewed as part of the "non-audit" five year rate study. Non-audit engagements do not require compliance with the Yellow Book. B&E excluded these items from the scope of the Performance Audit engagement.

5. As part of the overall engagement B&E completed two specific agreed-upon procedure attestation reviews (a detailed review of the BCWA pension plan and a review and evaluation of regulation by the Rhode Island Public Utilities Commission vs. current BCWA ratemaking). As such, these two agreed-upon procedure attestations were excluded from the scope of the Performance Audit engagement and did not require compliance with chapters 7 and 8 of the Yellow Book.

The GAGAS standards require that B&E plan and perform the Performance Audit to obtain sufficient, appropriate evidence to provide a reasonable basis for its findings and conclusions based on B&E's audit objectives. B&E believes that the evidence obtained provides a reasonable basis for its findings and conclusions based upon its audit objectives.

About the Yellow Book (GAGAS)

As stated above, an auditor completing a Performance Audit in compliance with the Yellow Book is required to comply with chapters 1-3 and chapters 7 and 8 of the Yellow Book (GAGAS). Chapter 1 provides the use and application of GAGAS; Chapter 2 addresses the ethical principles in government that guide the work of the auditor and Chapter 3 provides the general standards required in an audit under GAGAS.

Chapters 7 and 8 relate exclusively to Performance Audits. Chapter 7 relates to field work while Chapter 8 addresses reporting requirements. Although it was initially agreed to by the parties, that the Performance Audit would not be completed in compliance with the Yellow Book, the agreement does not change the requirements under Chapters 1 and 2 (which are required for all audits and attestation engagements). Only the scope of the engagement and the level of planning for the engagement under Chapter 3, (audit standards), Chapter 7 (field work) and Chapter 8 (reporting) were impacted by the engagement modification agreement.

Therefore, B&E has stated above that the Performance Audit was completed in compliance with GAGAS subject to exceptions. B&E concluded that this reporting approach is the most transparent and most appropriate given the complexity of the engagement (audit, attestation and non-audit).

Review of Major Cost Categories

The first step in the BCWA RFP states the following:

> **"Review budget and other related financial documents to identify major cost categories for further review and detailed analysis".**

B&E completed this review as shown on Schedule 1 ("Budget VS. Actual Revenue and Expenses") for the fiscal years ended February 28, 2006 -2011 and the adopted budget for FYE February 28, 2012. From this comparative analysis B&E determined that there are eight significant account groups (and the percentage of total cost) which make up the majority of the annual expenditures of the BCWA as follows:

1.	Salaries and Wages	22.9%
2.	Payroll Taxes	2.1%
3.	Group Insurance/Pension	9.3%
4.	Purchased Water	18.6%
5.	Depreciation	11.7%
6.	Interest	9.4%
7.	Chemicals	5.8%
8.	Property Tax	5.3%

B&E calculated that these eight account groups represent about $8,200,000 of a $9,600,000 (about 85%) of the FYE February 28, 2012 BCWA budgeted expenditures. B&E audited each of these account groups to identify program effectiveness and efficiency, internal control, and compliance (when required).

Although B&E's primary interest was toward effectiveness and efficiency, B&E also reviewed internal control of certain aspects of BCWA's operations to determine the reasons for a lack of effectiveness in order to determine how the effectiveness could be improved. B&E's findings and recommendations are included in each section of the report in which they are discussed.

1. Salaries and Wages

B&E reviewed the salary levels of the BCWA employees in comparison with five other water utilities Kent County Water Authority (which is an Authority servicing multiple communities like BCWA), Newport Water Department, and Woonsocket Water Department each of which have their own treatment facilities, Pawtucket Water Supply Board which has outsourced its treatment activities and Cumberland Water which has its own treatment facility, wells and also purchases water from Pawtucket. Four of the five comparative water utilities are regulated by the RI Public Utilities Commission (PUC).

B&E's overall conclusion was that the salary levels for BCWA employees are, for the most part, greater than the salary levels of the same employee positions at the other water utilities (See Schedule 2). B&E has reviewed the departments within BCWA individually, in the same order as they appear on Schedule 2.

- **Central Office (Administrative)**

Central Office staffing was divided into two sections *Executive* and *Clerical.*

Executive:

BCWA has five Executive positions budgeted for the FYE February 28, 2012 as follows:

1) Executive Director and Chief Engineer
2) Manager of Accounting and Management Information Systems (MIS)
3) Executive Management Assistant
4) Manager of Customer & Commercial Services
5) Personnel and Purchasing Coordinator

B&E observed these employees at work, made a review of the job descriptions, and discussed with the employees their jobs responsibilities. After this thorough review and using B&E's years of experience reviewing other water utilities central office executive staff, B&E determined that the positions of Chief Engineer, Manager of Accounting and MIS, Executive Management Assistant, and the Manager of Customer & Commercial Service are all necessary in order to properly operate a utility the size of the BCWA. Please note that B&E was unable to interview the Personnel and Purchasing Coordinator because she retired last year but B&E did review her job description.

B&E determined that the work of the Personnel and Purchasing Coordinator (P&P Coordinator) is currently being completed by other management personnel (such as the Manager of Accounting and MIS and the Manager of Customer and Commercial Services). In B&E's experience a P&P Coordinator position is generally not required for a medium size water utility like BCWA. Per a review of the job description, B&E determined that this position had very little purchasing and personnel responsibilities. The main responsibilities listed in the job description were 1) receive telephone calls and take messages, 2) establish and maintain files, 3) coordinate and communicate with other departments for the Executive Director, and 4) process refunds on main extensions.

Given that BCWA has a very stable work force with few employee turnovers and few labor grievances each year (three or four) the personnel functions appear to be insignificant. Further, most of the grievances are settled at the Supervisor or Accounting Manager level. B&E was surprised to note that the P&P Coordinator position is not even listed as one of the individuals who addressed grievances in the union contract and further "resolving grievances" is not even listed in the P&P Coordinator's job description.

In medium-size water utilities the purchasing function reports to an accounting manager position and not a P&P Coordinator. Purchasing is an accounting function normally completed by a clerical position (a clerk) with a manager making final decisions. B&E believes that the clerical purchasing position should receive guidance from an accounting manager.

In addition to the P&P coordinator, B&E identified three other non-union, not top management positions that reported directly to the Executive Director that appear to have some of the same type of responsibilities relating to the Executive Director as the P&P Coordinator. These include such duties as "coordinate and communicate with other departments for the Executive Director" and other tasks such as addressing various issues assigned by the Executive Director. These four positions; the P&P Coordinator, the Executive Management Assistant, the Engineering Aide and the Assistant Engineer all appear to be assistants for the Executive Director/Chief Engineer to help him deal with the problems that cross his desk. There is some redundancy between these four individual positions and the need for all four is questionable.

Compensation of Executive Positions:

The executive salaries in the Central Office range from average for the Manager of Customer & Commercial Services to excessive for the Manager of Accounting & MIS. The Executive Director and the Executive Administrative Assistant salaries are reasonable. Please note that the individual currently holding the Manager of Accounting & MIS position has 17 years of seniority in the position and he is the "go to guy" for staff when the Executive Director is out of the building. His value and responsibility have grown greater during the last few years. B&E is not, at this time, recommending a reduction in the salary level for the current Manager of Accounting but does recommend that the Authority consider a significant reduction (as much as $22,000) for this position upon retirement of the individual currently holding the position.

Given that most of the executive salaries are excessive as compared to the control group and the fact that the RI PUC has not allowed increases to non-union salaries in the regulated utilities for the last few years, B&E recommends that the salaries of the executives in the Central Office remain at the same level as they were in FY 2010 and not be increased in the 2012 budget. B&E noted that the increase provided in the 2012 budget for executive salaries was for two years (2011 and 2012) at about 3% per year.

Clerical

BCWA has six clerical positions budgeted for the FYE February 29, 2012 in the Central Office. There are 2 Accountant "A" positions, 2 Customer Service Representative (CSR) "A" positions, 1 CSR "B" and 1 CSR "C" position. At first glance, this level of staffing appears excessive but it was found to be reasonable given the inadequacy and age of the current accounting and billing software and the frequency of the billing (over 100 cycles).

The two Accounting "A" positions are cross trained to cover for each other during vacations and sicknesses. These two employees are responsible for the functions of accounts payable, payroll, cash receipts, revenues and accounts receivable, general bookkeeping, miscellaneous reports and subsidiary ledgers. B&E found that there is adequate work to support these two positions and the fact that they can provide backup for each other is an added benefit to the Authority.

In addition to the two accounting positions there are four customer service positions. There are two Customer Service Representatives "A" positions which are responsible for the daily billing functions (see rate study for frequency of billing information) which, per the job descriptions, include:

1) Review and edit routes for billing
2) Cycle all routes to be billed
3) Prepare and print bills
4) Prepare and print messages on bills or post cards
5) Process bills to be taken to the Post Office
6) Reconcile all daily billing
7) Run monthly reports

Like the two Accounting "A" positions, the two CSR "A" positions cover each other for vacation and sickness. To be a CSR "A" the employee must first have served in the positions of CSR "B" and "C". This requirement tends to provide for "promotion from within the section" which does not always result in the best person for the job.

The CSR "C" position is an entry level position assisting with general office tasks like answering phones, using office equipment, assisting others while at the same time learning the duties of the CSR "B" position. The CSR "C" fills in for the CSR "B" position as needed.

The primary responsibility of the CSR "B" position is to cover the front desk as the window cashier. The CSR "B" must be able to assist customers, complete all necessary teller reports, prepare all miscellaneous invoices, record payments, account codes and customer receipts.

B&E concluded that having four CSRs for a water utility this size is reasonable given the frequency of billing (daily). Given the type of work and the staffing levels, B&E would expect no overtime pay for these individuals. A review of the Central Office overtime showed no overtime for the CSR employees and only limited overtime is paid to one of the Accounting A positions and the Executive Management Assistant for after hour work related to their jobs.

Cleaning of the Central Office

Per observation of the cleaning activities and discussion with the individuals involved and the Manager of Accounting, B&E determined that the Executive Management Assistant (the Chief Engineer's secretary paid in excess of $46,000 per year) and one of the Accountant "A" positions (paid in excess of $47,000 per year) stay each night to clean the Central Office. These two employees are paid for their cleaning efforts at time and one half.

B&E determined that overtime paid to these two individuals in CY 2010 was $15,837 in addition to the overtime paid for cleaning estimated at about $20,000 paid through the janitorial account. Although some of this overtime may be appropriately related to their work the $20,000 of overtime paid for janitorial services appears excessive.

B&E finds no supportable reason for BCWA to pay two of the highest paid clerical positions in the Central Office about $33.00 per hour each to clean the office every night. Clearly a cleaning service or a part time custodian would be much cheaper. Further, B&E does not believe that the office has to be cleaned daily given the level of traffic and the individuals using the facilities. A cleaning service could provide the same level of cleaning service twice a week (instead of daily) for about $400 per month which would be a savings of as much as **$10,000**.

Conclusion and Recommendations

1. Given the limited number of personnel issues that have arisen over the past few years and the limited number of purchasing activities for BCWA, B&E recommends that the position of Personnel and Purchasing Coordinator be eliminated and removed from the 2012 budget. The combine salary and fringe benefits for this position is about **$60,000.** B&E suggests that the savings be used to reduce the 3% rate increase (intended to generate about $220,000) which was recently implemented for FYE February 29, 2012.

2. B&E recommends that the executive salary increases included in the FY 2012 budget be eliminated saving about **$19,000.** This savings could also be used to reduce the 3% rate increase in FY 2012.

3. Eliminate the practice of paying two central office employees time and a half for cleaning the Central Office. Any savings from outsourcing this activity (estimated to be as much as **$10,000)** should be used to reduce current and future rate increases. Further, BCWA should review the $15,837 of overtime paid to these two individuals to determine if the services could be provided at a lesser cost.

- **Commercial Meter Department**

Staffing

There are four Commercial Meter Department employees. They are 1) Commercial Forman, 2) Meter Repair Technician, 3) Customer Service Technician, and 4) Commercial Technician

The Commercial Forman coordinates the meter department activities and reports to the Manager of Customer and Commercial Services and assists in the supervision of the Commercial Department. The Commercial Forman dispatches and directs work assignments, maintains necessary supervisory records such as meter, scheduling, time sheets, etc. In addition, he performs leak detection and implements tagging and turn offs. He works directly with the accounting department to keep accounts receivable balances current. B&E found this position essential in providing quality service to the ratepayers and controlling accounts receivable.

The Meter Repair Technician maintains all water meters in the system and per the organization chart reports to the Operations Manager (this position no longer exist and he actually reports to the Commercial Forman). His responsibilities include testing, repairing, and servicing all water meters. He maintains meter records and meter department parts inventory. He is also responsible for installing new meters and removing old meters as a back-up to the Commercial Forman and at his direction.

The Customer Service Technician reports to the Manager of Accounting according to the job description (actually reports to the Commercial Forman). This position is responsible for the installation of meters and back flow devices under the new State mandated Cross Connection program. He is also available to remove and install meters.

The Commercial Technician also reports to the Manager of Accounting according to the job description (actually reports to the Commercial Forman) and is responsibility for the following per the job description: Reads all meters daily, maintains a neat appearance, performs leak detection duties, assist in the installation and removal of meters, promotes and maintains safety standards, reports problems to the customer service supervisor and assures that meter readings are provided to the office.

Findings:

B&E determined that the BCWA organization chart shows that all four of the Commercial Meter Department positions report to the Manager of Customer & Commercial Services who in turn reports to the Manager of Accounting. Clearly the Customer Service Technician and the Commercial Technician should not report directly to the Manager of Accounting. Further, the Meter Repairman Technician does not report to the Operations Manager because the position was eliminated June 21, 2007. B&E found that the meter department staff all report to the Commercial Forman who reports to the Manager of Customer & Commercial who in turn reports to the Manager of Accounting. B&E agrees with this reporting approach.

These four positions are all paid in excess of $60,000 per year. This is far in excess of comparable salaries in the other water utilities reviewed by B&E (See Schedule 2).

BCWA has been implementing a meter replacement program through its capital program for years and is almost done. Although the job descriptions do not address the meter replacement program, B&E found that, to date, all of the new meters have been installed by in house staff.

Conclusion and Recommendations

1. The job descriptions and organization chart should be corrected and the three Commercial Meter department employees should report to the Commercial Forman. B&E determined that the Manager of Customer and Commercial Services is directly managing and coordinating the activities of the Commercial Meter Department in conjunction with the activities in the accounting office.

2. Although B&E found the number of employees in the Commercial Service Department to be reasonable, B&E also found that the total cost of the department is far from reasonable. The fact that three positions (excluding the Forman) receive salaries in excess of $60,000 a year is excessive when compared to the same type of employees in other water utilities who receive between $32,000 and $50,000 per year. B&E recommends that the Meter department positions' salaries be evaluated and most likely frozen at the current levels until either they can be reduced through attrition or the salaries start coming into line with other water utilities.

- **Engineering**

Staffing

There are four engineering positions within the BCWA: 1) Executive Director/Chief Engineer, 2) Engineering Technician, 3) Assistant Engineer and 4) and Engineering Aide (who according to the organization chart reports to the Distribution Superintendent).

The Executive Director/Chief Engineer is the only individual who holds an engineering degree and is certified. This position is held by the Executive Director who was already evaluated in the Central Office section of this report.

The Engineering Technician reports directly to the Executive Director and per her job description she is responsible for the following:

- Receives telephone calls, takes messages, dispatches emergency calls, is familiar with water service and water main measurement records.
- Process incoming and outgoing mail.
- Record, transcribe and type dictation.
- Coordinate and communicate as directed by the executive director with other department heads.
- Perform typing for Operations Manager (position no longer exists), Distribution Supervisor, Production Supervisor and Chief Engineer.
- Process Main extension and capital project order folders.
- Process applications for Water Service.
- Process requests for bids, proposals and work orders.
- Compile monthly operating reports.
- Compile the input data into the RTD Compiler.
- Resolve customer problems as they arise.
- Update distribution maps using AutoCAD and generate drawings.
- Run reservoir capacity program "Supply".
- Twenty six additional tasks relating to protecting the water system and the Authority's property such as "Manage the performance of distribution system improvement projects as assigned by the Executive director".

After reviewing the job description with the individual holding this position, B&E determined that much of the job description is wrong and many of the items listed (which included most of the 26 items in the last dot above) are not done at this time by this position. B&E reviewed the current responsibilities of the position and found that they are mostly clerical in nature and not engineering type activities. Further, the individual holding the position is not an engineer. Although she may be essential to the Transmission and Distribution (T&D) department as the front desk person her salary level is not justified by the work she performs.

Her duties include all clerical requirements of the T&D department and assisting the T&D field employees by researching information in the office. She also helps the Executive Director with preparing reports and she is responsible for updating certain information within her purview. As part of her responsibilities she is assigned special projects, like the build out of the new office building and the move to the new Central Office.

Unfortunately the work she completes on a daily basis does not justify her $51,000 per year salary. The salary level for this position was increased when the Operations Manager position was eliminated. It was anticipated at that time that this position would assist with modernizing the T&D department. Nothing has been done along those lines. Records are still all manual on index cards and rolodex. Everything is still maintained in hard copy books and posted manually. The fact that there are no computerized records causes inefficiency in the field.

The Assistant Engineer's primary responsibility is resident inspection during the installation and rehabilitation of potable water pipes. He is also responsible for assisting the T&D Department in the preparation of all Engineering specifications and drawings related to new water main installations, cleaning & lining and/or slip line of existing water mains. A few of the detailed responsibilities listed in the job description include:

- Assure contract compliance with approved specification plans, and construction schedule.
- Review work variations, if any, from established requirements.
- Reject defective work and/or material, and required work.
- Prepare progress reports.
- Observe/monitor specific industry related tests with other BCWA personnel.
- Provide final construction inspection at work completion.
- Review contractors' invoices and other requests.
- Assist in the preparation of all Engineering specifications and drawings related to the rehabilitation of existing facilities such as buildings, water basin, clarifiers, dams, and water tanks.

The Assistant Engineer reports directly to the Chief Engineer and is one of four (other than top management) positions that receive assignments directly from the Chief Engineer. To qualify for the position the individual must have a bachelor's Degree in Civil Engineering (he does) but does not have to be certified (he is not). This type of engineering field position is essential to the proper operation of a water utility the size of BCWA. The salary level appears reasonable.

The Engineering Aide will be reviewed as part of the Distribution Department.

Recommendation

The Engineering Tech position's salary level should be frozen until a reasonable level of modernization of the T&D department office records has been implemented. B&E recommends that when at least 25% of the T&D office records have been computerized and there is a plan for the rest of the files then the Engineering Tech position should start getting appropriate raises in line with other departments within BCWA. The other alternative would be to reduce the salary level of the Engineering Tech position to something in line with the responsibilities of the current position.

- ***Transmission and Distribution:***

Responsibilities

The transmission and distribution (T&D) department maintains 233.7 miles of transmission and distribution mains. BCWA services about 17,000 connections. The T&D department is also responsible for numerous valves, hydrants, etc.

Staffing

The T&D department employs seven positions per the organization chart while there are 8 positions budgeted. The difference is one additional Utility Worker "A" position which is budgeted but not on the organization chart (the organization chart was in error). At the exit conference B&E was told that the Utility Worker A position missing from the organization chart has been out on TDI for an extended period of time. So much that the chief engineer does not consider this individual as part of the work force. The budgeted positions include Distribution Superintendent, Distribution Forman, Engineering Aide, three Utility Worker "A" positions, and 2 Utility Laborers.

The Distribution Superintendent directs the day to day management, development and operation of the distribution system. He remains for the most part in the office. B&E knows from its experience that most water utilities the size of BCWA have an individual in charge of the T&D department although the titles vary; such as System Chief, T&D Manager, etc. From its comparative analysis B&E noted that the Distribution Superintendent's salary level is in excess of that of his peers, even those in larger water systems such as Kent County Water Authority.

The Distribution Forman reports to the Distribution Superintendent and his major function is to assist in the general operation and direction of the Distribution Department. This position is responsible for the following:

- Directs and assists in the work of a crew in the general construction, maintenance and operation of all water distribution facilities and appurtenances.
- Dispatches work assignments in the absence of his immediate supervisor.
- Maintains necessary distribution records.
- Makes reports as required.
- Promotes and maintains safety standards.
- Performs other Distribution Department related duties as conditions require.

It appears from the above list of responsibilities that the Distribution Forman is the assistant to the Distribution Supervisor. The all inclusive list above does not appear to justify a full time position. However, B&E determined that the BCWA Forman completes some of the tasks normally done by the Supervisor in other water utilities. There is definitely overlap in the responsibilities of these two positions.

The **Engineering Aide position** in the Distribution Department reports to the Distribution Superintendent. The Engineering Aide's "authority" is to make necessary decisions with respect to his duties in the absence of his immediate supervisor.

His responsibilities are to assist the Distribution Superintendent in the general preparation of the records of the Distribution Department as well as the following:

- Prepares distribution work orders, estimates and associated sketches.
- Prepares and maintains distribution records, including field work when required.
- Dispatches work assignments in the absence of his immediate supervisor.
- Promotes and maintains safety standards.
- Performs other Distribution Department related duties as conditions require.

Once again this complete list of responsibilities does not seem to justify a full time position. In fact there are significant overlaps in the responsibilities of the Engineering Aide, the Distribution Forman and the T&D Superintendent. It should be noted that the Engineering Aide is not an Engineer and his major responsibilities do not appear to justify his $64,226 salary level. Further, the Engineering Aide position makes far more than the other two engineering positions within BCWA and is the only one in the union.

Utility Worker "A" positions perform all duties assigned by the immediate supervisor which are required for the general operation of the Distribution Department. These individuals report to the "Working" Forman and the Distribution Superintendent. Their responsibilities are as follows:

- Performs all work necessary in the general construction, installation, maintenance and operation of all water distribution facilities and appurtenances
- Keeps the necessary records pertaining to work assigned
- Promotes and maintains safety standards
- Performs other Distribution Department related duties as conditions require

Although the list of responsibilities is short the first item describes sufficiently what the Utility "A" employees do and B&E understands the need for these positions based upon knowledge obtained during previous consulting engagements. The actual number of Utility "A" positions will have to be reviewed later in this report.

Utility Laborers provide the physical labor which is required for the operation and maintenance of the BCWA's facilities. These laborers report to the "Sub-forman" or Distribution Superintendent.

They are responsible for the following:

- Carry out and accomplish various assignments of an unskilled or semi-skilled nature.
- Assist in the construction, maintenance and operation of BCWA's facilities.
- Promote and maintain safety standards.
- Perform other related duties as required.

Findings

1. The number of T&D employees in the field appears a bit excessive. Two of the three Utility Worker A positions are responsible for managing two teams of two individuals (includes a laborer). These teams maintain all of the mains within the system in all three communities. These teams fix leaks, flush hydrants, exercise and change valves, etc. The third Utility A position (which has been out of work for over a year) is responsible for all of the dig safe requests as well as being available to handle problems that arise for which the two teams are not available. The Forman has "like type" responsibilities and with the third Utility A person out on TDI for an extended period of time he has had to fill in for this activity).

2. The BCWA's Utility A positions are paid more than like kind positions in the other five water departments reviewed by B&E. Their average salary of $63,000 is more than most of the salaries paid to their peers. Laborer salaries are likewise excessive when compared to the other water utilities.

3. The Forman is a working forman who works with the crews on large jobs, sets up new service connections, and line extensions. He also responds to emergencies in the field and is responsible for management of all field employees.

4. The Engineering Aide position is overpaid when compared to the other five utilities reviewed by B&E. Some of the records reviewed by B&E which are maintained by the Engineering Aide (like the Engineering Tech) are manual, resulting in inefficiency and redundancy. At the exit conference with the Chief Engineer, B&E determined that the records maintained by BCWA regarding the type and length of mains are computerized. B&E returned to the T&D department and found that the Engineering Aide does provide the data entry information regarding mains to another person to enter into the computer. Nevertheless, maintaining manual records which should be eliminated or computerized for use by the T&D department is unreasonable and does not warrant the current salary level.

Recommendation

- Freeze all salaries in the T&D department for at least three years to bring them into line with like type positions in other utilities.

- **Production (Treatment)**

Staffing

The production department has nine full time positions. They are Production Superintendent, Production Forman, 4 Production Plant Operator A positions, and 3 Maintenance Tech – Relief Operator A positions.

These individuals are responsible for the operation of the Treatment facility (twenty four hours per day, seven days a week) as well as the quality of the water in the system. After reviewing the organization chart and discussing the staffing with the Superintendent B&E determined that the number of employees seems reasonable. B&E concluded that they are not being used in the most efficient manner.

As part of its review B&E determined that the Treatment Facility employees received in excess of $222,000 in compensation over and above their base paid in CY 2010. The following is a schedule of the amounts paid compared to the base salaries.

Position	Base Salary	2010 Compensation
Production Forman	$ 68,078.40	$ 96,663.25
Operator A Position	64,987.20	91,054.50
Operator A Position	64,987.20	87,633.99
Operator A Position	64,987.20	95,821.79
Operator A Position	64,987.20	89,029.95
Maintenance Tech.	64,123.20	98,424.36
Maintenance Tech.	64,391.20	92,193.98
Maintenance Tech.	64,495.20	92,678.33
Total	$521,036.80	$743,500.15

The difference in the above schedule between base salary and actual pay is $222,463.35. In other words, the BCWA paid eight employees on average $27,807.92 (nearly 42%) more compensation than their base salary in one year. When asked to explain how this happened B&E was told that normal overtime is budgeted each year at about $125,000 and that most of the overage above the normal level was the result of BCWA painting the Bayview Tank. According to the Superintendent it was necessary for someone to be at the tank from 4PM through 6AM to make adjustments to the pumps. This was done by the Forman and the Techs; all on an overtime basis.

Based upon the above B&E was interested in determining what the normal cost of labor has been in the Treatment Department for the past five years. B&E obtained the production numbers and compared them to the salary amounts.

B&E found that the production vs. labor was as follows:

Year	Production in Million Gallons	Salaries	Cost per Million Gallons
B 2012	315 million	$749,499	$2,379
2011	250 million	756,233	3,024
2010	410 million	732,657	1,787
2009	348 million	736,155	2,115
2008	400 million	718,887	1,797

Given that Providence Water's current wholesale rate is $1,544.16 per million gallons it is essential for BCWA to reduce the cost per gallon of its water production. This can be done by reducing costs and increasing production. See the Interest section of this report for recommendations for increasing production.

Clearly the compensation paid to the Treatment department employees must be cut significantly if there is any chance of continuing the operation of the plant. B&E believes that there are many ways to reduce the cost of the treatment department.

Conclusion and Recommendations

The first area that must be addressed is overtime pay for the Treatment Department employees. Some of the most egregious overtime provisions must be removed during the next union negotiations and work assignments must be reassigned.

1. Salaries for the treatment department should be reduced by 10% across the board (saving **$52,000** per year) and then frozen for the next three years.

2. Operators on the second shift currently arrive early three days a week to complete water sampling. Because they are completing this task in addition to their 40 hour work week they receive time and one half for the first two hours and double time for the second two hours. This task requires the individual to go to different buildings within the system and take samples. Most samples are taken to a lab in Cranston for testing while other samples are tested in house. B&E determined that all of the employees in the treatment department are qualified to do this sampling which is completed on the first shift.

   B&E recommends that the sampling be done by the Forman who has responsibility for the lab and has the most flexibility of schedule. In his absence, one of the maintenance Techs could fill in. This function could be completed each day during regular work hours of the Forman or Tech saving the entire cost of using the operators. This will save in excess of **$30,000** per year in overtime pay.

3. Operators work three 40 hour shifts and one 48 hour shift per four week period. The week that they work 48 hours they get time and one half for the 6th day. The sixth day falls on a Sunday. When operators take vacation they are allowed to take two of their vacation weeks as six day vacations for pay and are only charged for five days of vacation. Further, the sixth day of vacation is paid at time and one half. This provision should be eliminated.

4. Maintenance Techs are all scheduled for the first shift. B&E recommends that the three maintenance employees be scheduled one on each shift (1st, 2nd, and 3rd). This will serve two purposes. The first is to cover for sickness for the operators rather than the current method of the operator on the preceding shift staying an extra four hours and the operator on the next shift coming in four hours earlier. Further, the Tech on the shift can cover for vacations (est. savings **$40,000**). The second benefit is the safety factor of having two people on each shift. BCWA calculated that overtime for sickness cost at about **$12,480**.

5. One provision in the contract allows a shift employee scheduled to work a Sunday be paid two additional hours. This is like getting overtime for scheduled Sundays which costs the BCWA **$6,240** per year. This provision should be eliminated.

6. According to BCWA's own calculations it costs about **$16,000** per year to cover holidays for the operators.

7. There is a reassignment provision which states that any shift employee who is assigned on Monday to a schedule different from his regular hours without notification prior to his/her normal week; and any employee, with or without notification, who is assigned to any schedule other than his/her regular schedule of work, effective any day subsequent to Monday during a given week, shall receive time and half for the work on the assigned schedule for the duration of the work week. B&E believes that this provision may be causing close to **$43,000** of overtime.

The bottom line is that B&E believes that the BCWA must reduce the base pay of the treatment employees by $52,000 and overtime to the treatment employees by at least $100,000 per year. This can be done using the recommendations above or other changes identified by management. In no year should the total cost of the treatment labor be greater than $600,000.

Should the union not agree to the majority of the above recommendations, B&E suggests that the BCWA shut down the treatment facility and lay off all of the employees with the exception of the Superintendent, Forman, one operator and one Tech. With the savings from the shut down BCWA should purchase a SCADA System and start remolding the treatment facility. Only when the improvements to the Shad pipeline and the treatment facility are completed should BCWA consider re-staffing the treatment facility.

SCADA

B&E recommends that BCWA purchase a SCADA system. The implementation of a SCADA (Supervisory Control and Data Acquisition) system can have many benefits.

- Operations that are currently assigned to individual operators to monitor and record data can now be done by a SCADA system.
- Employees do not have to manually read and record meter readings at regular intervals because data on water use is collected automatically;
- Data can be downloaded at the users convenience;
- The system can be designed for telemetry access by radio, satellite, cell phone, or telephone landline and allow the user to remotely control the system and access data instantly.
- Reduces operational costs
- Provides immediate knowledge of system performance
- Improves system efficiency and performance
- Increases equipment life
- Reduces costly repairs
- Reduces number of man-hours (labor costs) required for troubleshooting or service
- Frees up personnel for other important tasks
- Facilitates compliance with regulatory agencies through automated report generating

A properly designed SCADA system saves time and money by eliminating the need for service personnel to visit each site for inspection, data collection/logging or to make adjustments. Real-time monitoring, system modifications, troubleshooting, increased equipment life, automatic reports generating are just a few of the benefits that come with today's SCADA systems.

Some believe that the best part about a SCADA system is that a user can gradually work SCADA into a water delivery system if the user chooses not to install a complete SCADA system up front.

2. Payroll Taxes

Payroll taxes are mandated by the federal government and are a direct function of payroll. Simply stated, if we reduce payroll expense we can reduce payroll taxes. This expense represents only about 2.1% of the cost to operate BCWA and is beyond BCWA's control and as such does not require additional review.

3. Group Insurance/Pension

Group Insurance is BCWA's health insurance account. This account has been increasing significantly for the last six years from $399,391 to the budgeted amount for FY 2012 of $648,000. This is an increase of 62%; an average in excess of 10% per year. See the separate section of the report relating to Health Insurance for more details relating to the health and dental insurance coverage and B&E's recommendations.

The pension review is located in the attestation section of this report. Please note that B&E has recommended a co-share of 3% for the pension plan which will save the ratepayers about **$66,047** per year. In addition, B&E recommends that the contribution to the pension for FY 2012 be reduced from $247,800 budgeted to the normal cost of $170,729 saving a portion of the difference (**$77,071**) in FY 2012. The difference between B&E's recommendation and the budget amount is the result of a $509,661 recent shortfall in the plan investment as a result of the recent market decline. B&E believes that the market and BCWA's investments have already recovered much of this shortfall and adding to the June 30, 2011 contribution is unnecessary at this time. Consideration should be made after next year's actuarial report as to the appropriate funding.

4. Purchase Water

The second largest expense for BCWA is purchased water which cost $1,797,521 in FY 2011. This expense is the wholesale cost of water from Providence Water Supply Board (PWSB). The amount is calculated by multiplying the consumption purchased (HCF) by BCWA times the wholesale rate approved for PWSB by the Rhode Island Public Utilities Commission. PWSB supplies wholesale water to a number of water utilities and at least three of the wholesale customers have intervened in PWSB rate filings. In fact, Kent County Water Authority intervenes in all of PWSB's rate filings.

Except for intervention in PWSB rate filings (which probably would not result in savings) and/or reduction of purchased water this cost cannot be controlled by BCWA. In fact, given PWSB wholesale water rates are far lower than the cost of water obtained from BCWA's treatment facility (as it currently operates) one would have to question why BCWA would want to lower the wholesale water purchases.

5. Depreciation

Depreciation is a non-cash item in the year it is recognized. In other words, depreciation is the result of the purchase of utility plant that cannot be written off in the year of acquisition but rather is charged to expense in subsequent years in the form of depreciation. Depreciation is not used when setting rates for a "municipally owned utility" but instead principal payments on long term debt is substituted for depreciation. The only ways to control depreciation are to reduce the purchase of utility plant or increase the depreciation amortization period. Since controlling depreciation has no impact on rates for BCWA no additional review was considered necessary.

6. Interest

Interest expense is the cost of borrowing money. Repayment of a loan requires the payment of principal and interest (combined called debt service payments). The schedule that shows the annual principal and interest payments is called the debt amortization schedule. B&E reviewed the debt amortization schedule and the footnotes on long term debt in the audited financial statements and determined the following:

1. BCWA has four major debts outstanding (bonds and loans payable). They are as follows:
    a. A 2004 bond (principal balance at February 28, 2010 of $8,250,000) that was incurred to refinance the 1995 bonds; the proceeds of which were used to purchase the assets of BCWA.
    b. Two East Bay Pipeline bonds (the 1997 Series A General Revenue Bond and 1998 Series A General Revenue Bond). The principal balance that was outstanding at February 28, 2010 for each of these bonds was $6,250,000 and $3,405,000 respectively.
    c. Loan Payable at February 28, 2010 of $5,500,000 which was obtained from the Rhode Island Clean Water Finance Agency.

B&E reviewed the debt amortization schedules for each of these debts and determined that the debt service payments will decrease this year and over the next ten years as follows:

FY	Amount
2012	3,166,206
2013	3,165,105
2014	3,165,973
2015	3,163,015
2016	3,161,469
2017	3,155,672
2018	1,805,527
2019	859,546
2020	244,400

The fact that the debt service costs decrease substantially starting in FY 2018 (CY2017) is a very favorable situation for BCWA. This significant reduction in annual costs will allow BCWA the flexibility to plan ahead as to how best to use the savings.

B&E recommends that part of the savings be used to reduce the FY 2016 water rates recommended by B&E in the rate study section of this report. Also the additional funds provided from the reduction in debt service payments (savings) should be used to supplement the $6.9 million available from the State to upgrade the Shad pipeline and to make the necessary improvements to the treatment facility (should additional State funding not become available) to increase production from 1 million gallons per day to closer to 5 million gallons per day.

The use of these funds for the upgrades (Shad and treatment facility) could take the form of pay-as-you go funds of a million dollars or more per year or could be used to pay the debt service on new borrowing from Clean Water or the bond market. If the option selected by BCWA is to borrow money to complete the projects faster B&E recommends that the new debt be designed to "wrap around" the debt service payments of existing debt. In other words BCWA should pay interest only on the new debt until FY 2018 when the principal payments could start.

Coverage Allowance

BCWA is required under the bonding provisions to achieve a 25% coverage allowance over and above all debt service payments in each fiscal year. The calculation of the FY 2010 coverage allowance is as follows:

Revenue Fund balance at March 1, 2009	$ 1,073,794
Revenues collected from operations	9,652,035
Operations and maintenance expense (cash basis)	(7,133,593)
Interest income	9,159
Net revenue available for debt service requirement	$ 3,601,398
Debt service requirement	$ 2,853,055
Computed ratio	1.26
Required ratio	1.25

B&E reviewed the recently completed FY 2011 coverage calculation and determined that the allowance improved to 1.32 as a result of an increase in the net cash available during FY 2011. Given that the 2012 budget was prepared using the 2011 actual results adjusted for known and measurable changes suggests that the 2012 budget will likewise result in a favorable variance for the coverage allowance.

7. Chemicals

Chemical costs are only 5.8% of the total operating costs. This expense will be significantly increased when the plant is fully operational. Currently BCWA's chemical costs are excessive for the water produced and sold because at times during the year the treatment plant produces water to waste. This inefficiency should be reduced, if not eliminated, when the treatment facility is fully operational.

8. Property Taxes

The majority of the property tax expense is "payments-in lieu" of taxes paid to Barrington, Bristol and Warren. The rate of the "payment in lieu" of taxes is negotiated between BCWA and the three towns. The allocation between the towns is based upon relative consumption by each town. No consideration is given to the property actually located within the town.

Payment in lieu of taxes has been argued before the RIPUC many times and in many forms. The conclusion reached by the PUC has been the same every time. The PUC does not allow the water utilities to be charged payments in lieu of taxes to protect the ratepayers. Because BCWA is not regulated by the PUC this practice has never been challenged and has been this way for years.

Exacerbating this issue is the hydrant fees paid by the three towns. B&E calculated that hydrant fees should be greater and the amount negotiated by the communities with BCWA. Requiring the BCWA, and in turn the ratepayers, to pay payments in lieu of taxes to the towns and then allowing the towns to pay lower hydrant fees is a type of hidden taxation and double dip benefit to the towns against the BCWA and in turn the ratepayers. Because this has been a generally accepted practice at BCWA for many years, B&E has made no adjustment for the payment-in-lieu of taxes.

B&E recommends that the method of allocation of PILOT be readdressed by BCWA and the three towns because the use of consumption only addresses the utility property such as mains but it does not address the remaining property owned by the BCWA. B&E believes that a bit more sophisticated allocation is needed for fairness between the communities.

B. Labor Contract

With the exception of eight executive employees (Executive Director, the Manager of Accounting, Executive Administrative Assistant, the Manager of Customer & Commercial Services, Assistant Engineer, Distribution Superintendent, Engineering Tech., and the Production Superintendent) all of the remaining employees are represented by Local 359 of the Utility Workers of America, affiliated with the A. F. L. – C. I. O. The eight executive positions serve without contracts. The most recent contract negotiated with Local 359 has a term from May 10, 2008 to May 10, 2012. This contract will most likely be renegotiated early next year.

B&E reviewed the contract in detail and made the following observations:

1. The contract provides for the reopening of the contract, however, should the parties disagree with any changes to the terms of the contract, the unresolved issues may be referred to mediation and/or arbitration in accordance with Chapter 9.4 of the General laws of RI entitled "arbitration of Municipal Employees' .....disputes." Since the contract expires in about a year it makes no sense to try to reopen the contract and incur the costs of doing so. Instead the findings, observations and recommendations made by B&E in this section of the report should be addressed in the next union negotiations.

2. "Selection of employees for promotion shall be based on the following two factors (1) length of continuous service and (2) fitness and ability." (Page 10)

3. "Authority seniority shall govern all promotions" (Page 10). This reference appears to be in direct conflict with 2 above. It might be relating to layoffs but is unclear and misleading when compared to the statement in 2 above.

4. Section 8 of the contract deals with wages and hours. This section provides the hourly wage rates and hours for each department and for each year of the contract.

5. Production department employees receive shift differentials of $1.05 per hour for the second shift (2PM to 10PM) and $1.30 per hour for the third shift (10pm to 6AM). Page 16

6. Overtime at a rate of 1.5 times the regular hourly rate will be paid for anyone working in excess of 40 hours in a week or in excess of 8 hours in a day. Page 19

7. A special overtime hourly rate of 1.25 times the normal hourly rate is applicable to employees that are scheduled to work outside their regular schedule doing hydrant flushing, pitometer surveys, flow testing or extraordinary operations. Page 19

8. Any employee working in excess of 10 hours in any 24 hour period commencing with the start of his/her first scheduled hours will be paid double time for hours in excess of first ten hours. Page 19

9. Non-shift employees scheduled in advance to work Saturdays shall be paid 1.5 times their normal hourly rate for no less than two hours. Page 19

10. Non-shift employees scheduled in advance to work Sundays or Holidays shall be paid 2 times their normal hourly rate for no less than two hours. Page 19

11. Production department employees receive double time for all hours worked if they have to work on the second day of two consecutively scheduled days off or on the seventh day of a six day schedule. Page 20

12. Any shift employee who works on Sunday, if said Sunday is included in his/her scheduled 40 hours will receive two extra hours of pay at their normal straight time rate. Page 20

13. Any shift employee who is assigned on Monday to a schedule different from his regular hours without notification prior to his/her normal week; and any employee, with or without notification, who is assigned to any schedule other than his/her regular schedule of work, effective any day subsequent to Monday during a given week, shall receive time and half for the work on the assigned schedule for the duration of the work week. Page 20

14. Any shift employee who is required to remain at work because his replacement fails to report to work receives double time to cover the second of two shifts in a row. Page 21

15. Unit B employees receive time and one half for all hours over 7.5 hours per day up to 10 hours per day and the double time for any additional time over 10 hours. This is exclusive of all other overtime provisions. Page 21

16. Unit A employees shall be paid a minimum of 2 hrs of pay at double their normal rate if called back to work unless it is a Sunday or holiday for which they get double their normal rate for a minimum of 3 hours. Page 21

17. If an employee is working at time and one half and additional employees are called in, the first employee called gets double time starting at the time the call back was made. Page 22

18. All employees get 13 holidays. 1) New Year's Day, 2) Presidents' Day, 3) Good Friday, 4) Memorial Day, 5) Independence Day, 6) Victory Day, 7) Labor Day, 8) Columbus Day, 9) Veterans' Day, 10) Thanksgiving Day, 11) Friday after Thanksgiving Day, 12) Day before Christmas, 13) Christmas. Page 22

19. Production department employees receive a holiday bonus for each of the 13 holidays equal to 8 hours at straight time. Production employees get paid triple time if the Holiday falls on the sixth day of an employees work week. Page 23

20. Production employees who actually work the holiday will receive, in addition to their holiday bonus time (eight hours of straight time), one and one half times their normal pay for all hours worked up to 8 hours and two and one half times their normal pay for all hours over 8 hours. Page 23

21. Employees are entitled to two personal days and their birthday in addition to the holidays listed above. Page 24

22. Production department operators are paid 10% of the day rate for training a new operator. Page 24

23. Longevity pay is $.10 per hour for 20 years of service, $.15 per hour for 25 years, $.20 per hour for 30 years and $.25 for 35 years. Page 24

24. Unit A employees work 8 hours per day while Unit B employees work 7.5 hours per day. Page 25

25. Shift employees (operators) are required to work three weeks at 40 hours and one week at 48 hours. Page 25

26. Overtime by employee must be publicly listed where it can be seen by all employees at the end of each month. Page 26

27. Employees receive meal money ($10.50 1st two years of the contract and $11.50 last two year of the contract) at the following intervals 1) after two hours of overtime, and 2) after each 4 hours of additional overtime. Page 29

28. Vacation Page 30

    28 years or more the employee gets 6 weeks of vacation
    18 years up to 28 years employee gets 5 weeks of vacation
    10 years up to 18 years employee gets 4 weeks of vacation
    5 years up to 10 years employee gets 3 weeks of vacation
    2 years up to 5 years employee gets 2 weeks of vacation

29. Employees are paid vacation at a rate in an amount equal to what they would be customarily paid for a week's work. An employee who customarily works 48 hours once every four weeks is entitled to "up to" two 48 hour vacation pays. Page 31

30. Incapacity benefits for new employees with 6 months to a year service would be eligible to receive 1 week of incapacity pay in any incapacity year. Over 1 year of service the employee would be eligible to receive 1 week of incapacity pay in any incapacity year for each completed year of service (minimum of 2 weeks). The incapacity year commences on the first day of the incapacity following the employee's first anniversary date. Page 32

31. If the employee is entitled to, in any given week, weekly benefits under the Rhode Island Temporary Disability Insurance Act, or Worker's Compensation Act, the payment by the Authority in such week shall be limited to the difference between the employee's normal weekly earnings and the amount of such benefits. Page 33

32. Incapacity as a result of the birth of a child shall be eligible for up to seven weeks pay. Page 35

33. Health Insurance is reviewed by the Authority and Union health care Cost Containment Committee. There will be three members each on the committee from the Authority and the Union. The committee will explore ways to control the authority's Health Insurance costs. Since October 1, 1992 employees pay 20% of annual increases of the health Insurance premium. If the committee can find ways to maintain or reduce the health insurance costs, the employee will pay only 20% of the amount over the October 1, 1992 base. Page 35

34. The Authority sponsors a Section 125 plan which allows health and dental premium payments to be paid pre-tax. Page 39

Observations and Recommendations:

A. The provisions for overtime in the contract (especially for the operators in the treatment department) are far too complicated and much too expensive for the Authority and the ratepayers. B&E has no problem with overtime being paid to employees at a rate of time and one half (see item 6 above) but B&E finds overtime pay that results in compensation that is twice, two and one half times, three times or even three and one half times the normal hourly rate excessive and wasteful. B&E finds it mindboggling to try to understand how this area of the contract has become so cumbersome and expensive to the Authority.

   a. As noted earlier in this report the Authority paid in excess of $222,000 above base pay to the treatment employees alone for the CY 2010 which is at best excessive and at worst an abusive use of overtime. Allowing employees to receive premium pay between $20,000 and $34,000 per person in one year when normal base salaries range from $64,000 to $68,000 reflects poor judgment by management during contract negotiations (allowing the Authority to get into this position in the first place), poor operational judgment (not finding a cheaper way of accomplishing the treatment department's goals) and a lack of control and oversight of overtime costs by the Authority's Board and administration during the year.

   b. When the contract is renegotiated next year the Authority must gain significant concessions in the overtime language in order to control costs to protect the ratepayers. Obtaining contract concessions in the area of overtime is only one step in correcting this very expensive department within the Authority's

operations. See the recommendations in the salary section of this report for additional recommendations to control overtime costs.

B. B&E compared the hourly pay rates in the contract with five other water utilities and found them higher when comparing like positions. (See Schedule 2 attached) BCWA must constrain pay increases for the next five years to put BCWA employee salaries into line with other water utilities in R.I.

C. B&E reviewed the State contract and found that the State of Rhode Island provides State employees with 10 paid holidays. The 13 paid holidays provided by BCWA is excessive and costly to the ratepayers. The additional provision of allowing two personal days and the employee's birthday off is even further excess within the contract that cannot be justified.

D. The vacation provisions are less unreasonable than the Holiday and overtime sections of the contract. That said, allowing for five and six weeks of vacation are expensive to the ratepayers if the individuals have to be replaced during these periods of absence. The vacation provision that appears the most excessive is allowing employees who normally work 48 hours one week out of every four weeks to get paid 48 hours pay (one day at time and one half) while on vacation (no more than twice per year). Given that vacation for most employees is four weeks or less the employee is most likely getting half or more of their vacation weeks paid at 48 hours while only working 48 hours for 25% of their weeks. The ratio is unjustifiable.

   Even more unjustifiable is the fact that the employee getting 48 hours of vacation pay in one week (but only charged for 40 hours of vacation) is also receiving eight of those hours at time and a half. Time and a half pay while on vacation is a new concept to B&E and hard to justify.

E. During the exit conference B&E pointed out that there appeared to be an inordinate amount of TDI and Worker's Compensation claims made against BCWA by its employees. The Chief Engineer pointed to the contract language that allow for an employee to receive his or her entire salary while on TDI or Worker's Compensation (with the cash claims under the programs being paid to the BCWA). He was especially concerned with the Utility A employee that had been out for over a year. B&E recommends that this section of the contract be reviewed and modified to save money. This benefit is too rich for a public water utility.

F. Not all of the contract provisions are unreasonable. B&E found many of the provisions within the contract reasonable such as the longevity and shift differentials pays.

C. Health Insurance

BCWA provides both health insurance and dental insurance to its employees. The coverage is provided through Blue Cross/Blue Shield (BCBS) and the type of coverage is Health Mate. Dental coverage is provided through Delta Dental. BCWA makes payments to BCBS and Delta Dental using a premium based approach. BCWA is not self insured.

To "control health insurance costs" BCWA has established a health insurance committee (union and management members) to review the health insurance annually and determine the best option available to control the BCWA insurance costs. This committee recognized that there could be savings if they could join a bigger insurance pool like one of the three communities they serve. Attempts to do so were unsuccessful.

In the early 1990's the committee agreed that there should be some level of co-share by the employees. A base year was established and all premium increases from the base period forward would be paid for by the BCWA 80% and the employee 20%. Currently, the employees pay approximately 15% of the insurance premium.

Although steps taken by the committee and BCWA have resulted in saving some insurance costs for the ratepayers, the changes that would result in the most savings have not been addressed. B&E reviewed the co-pay amounts for the BCWA Health Insurance plan. B&E was not surprised that the co-pay amounts have not changed in years, if ever, and there is no deductable. The co-pays are as follows:

Prescriptions	$5/15/30/30
Office Visits	$10
Special Visits	$10
"Urgicenter"/ emergency room	$10/50

B&E has completed a number of performance audits recently (within the last five years) and has found that most of the entities we have audited have been adjusting (increasing) the co-pays to save substantial health insurance dollars. The above co-pays are significantly less than all of the public plans recently reviewed by B&E. Further, B&E has noticed that entities are adding a deductable to further reduce the health insurance costs to the entity and when appropriate the ratepayers. The savings can be in the tens of thousands of dollars per year.

Recommendation:

B&E recommends that the insurance committee reviews the current co-pays and make appropriate adjustments. In the future, BCWA should also determine the value of adding a deductable to the insurance plan. Often times a utility can add a deductable, reimburse its employees for the deductible, and still reduce health insurance costs.

D. Production and Purchase Water

As stated earlier in this report, BCWA purchases about 70% of its water from Providence Water Supply Board (PWSB). PWSB is regulated by the RIPUC and the rate charged by PWSB to BCWA is a PUC approved wholesale water rate. The PUC approved the rate only after extensive testimony and hearings. The rate can only be changed by PWSB by filing a rate case before the PUC.

The water produced by BCWA varies from 20-30% of the water needed by the system. BCWA's treatment facility is operating at about 20% capacity and requires significant upgrades to return its production to maximum capacity. Because the treatment facility is operating far below full capacity the cost per HCF of producing 20-30% of the water used in the system is far greater than the cost per HCF of the water purchased from PWSB.

Strictly from a financial point of view, it makes no sense to continue to produce water at the BCWA treatment facility while it is still operating at far less than its capacity. B&E calculated that the salary cost alone per HCF produced at the treatment plant (excluding payroll taxes, benefits, chemicals, utilities, etc.) exceeds the wholesale price per HCF of water purchased from PWSB. It is unreasonable to continue to burden the ratepayers with such excessive costs.

BCWA has, in the past, purchased all of its water from PWSB for a period of about four years so it is possible to supply all of BCWA's water needs from PWSB. The problem with BCWA choosing the option of exclusive use of PWSB water is the inevitable loss of BCWA's own raw water source and BCWA's treatment facility. Given that water is a valuable resource, it seems unreasonable to believe that eliminating the BCWA raw water source and the BCWA treatment facility is the best option. The State of R.I. identified this point when it agreed to fund the upgrade of the BCWA's treatment plant and the raw water pipeline.

The only viable overall and complete solution is to significantly reduce the cost of operating the BCWA treatment facility immediately and take the necessary steps to renovate the treatment facility as soon as possible. The renovations will allow BCWA to allocate the cost of operating the plant over a significantly greater amount of water production (hence reducing cost per HCF).

Of course having the treatment facility ready to process five million gallons a day is irrelevant if the raw water available is only a million or two a day. Therefore, B&E recommends that BCWA immediately start the project to fix the Shad pump station and pipeline. Initially the BCWA can use the funds available from the State and then complete the project with funds made available from the reduction of debt service costs starting in FY 2018. See the Interest section of this report for more details regarding the financing options.

See B&E's recommendations for reducing the cost of operating the treatment facility in the salaries section of this study.

E. Transmission and Distribution

The State of Rhode Island has mandated that every utility implement an Infrastructure Replacement Plan (IFR) to be funded by a separate rate charged to the ratepayers. BCWA has no such rate.

Of the 233.7 total miles of transmission and distribution mains owned by BCWA, management has identified 92.7 miles of main that required priority attention. A program was established to clean and line or replace this mains. The projected is about 60% complete and has been funded through the BCWA Capital Budget. Although this effort was the beginning of an IFR plan it was not called an IFR program and there was no direct revenue stream available to pay for the program.

B&E has addressed this issue in the rate study.

F. Accounting Functions

- Accounting Systems

All of BCWA's accounting functions are addressed and for the most part controlled by the General Bond Resolution that was adopted in November 13, 1986. This document addresses the Authorization of Bonds; General Terms and Conditions of Bonds; Redemption of Bonds; Establishment and Application of Funds; Particular Covenants of the Authority; Defaults and Remedies; the Fiduciaries; etc. The Establishment of Funds section requires BCWA to establish certain funds and accounts such as Project Fund, Revenue Fund, Operations and Maintenance Fund, Debt Service Funds, Debt Service Reserve Funds, Stabilization Funds, General Fund, etc. (The Particular Covenants section requires an annual operating budget, capital improvement budget, and accounts and reports). The accounts and reports section addresses the books of original entry and the annual audit. In short the financial systems and records are designed to address the requirements of a document that was adopted in 1986 and little has been done since.

B&E has reviewed the accounting systems and software. The accounting systems and internal controls appear reasonable. Although the software is ancient it still allows BCWA's financial officer to produce financial statements that are audited each year and which receive a clean opinion from the outside CPA. B&E's concerns are the flexibility of the accounting system and the limitations of the accounting system. For example, one limitation is that the accounting soft ware cannot make a payment of greater than $100,000. When an invoive exceeds $100,000 a separate check is needed for every increment of a $100,000 (for example payment of a bill for $150,000 requires two checks and one for $305,000 requires four checks).

The limitations of the computer system were even greater in the billing system software as B&E was unable to get even the most routine information to complete the rate study. B&E had to manually create information relating to revenue by rate block.

Recommendation

1. B&E recommends that the accounting software be updated to increase efficiency and add flexibility.

2. BCWA's billing system needs to be scrapped and a new system implemented. At such time, BCWA should consider reducing its 115 billing cycles to something more manageable like 12 billing cycles and bill all customers monthly instead of providing small group of customers monthly bills daily. This should result in a one-time infusion of cash and less work for the billing department. B&E was impressed with the manager of Customer and Commercial Services and believes he will be able to properly modernize the accounting office if given the proper support. B&E expects that efficiencies will be made with a new billing system that will allow for a reduction in staff in the accounting office and maybe in the metering department.

- ***Budgeting***

BCWA completes an annual operating and capital budget for approval by the Board. These budgets are completed almost entirely by the Accounting Manager. B&E reviewed the operating budgets and the actual results for the past five years (See Schedule 1) and found that the budgeting was reasonable. B&E noted that the budgets were maintained on a modified GAAP basis and not adjusted to evaluate rates and rate design. In general the budgeting process was acceptable.

- **Reporting**

BCWA reports the results of its operations each year in financial statements that are audited by an independent CPA. B&E reviewed the financial statements and the management letters and found that the reporting was acceptable.

BUDGET VS. ACTUAL REVENUE & EXPENSES
BRISTOL COUNTY WATER AUTHORITY

ACCT. #	BUDGET ACCOUNT DESCRIPTION	FY 2006 BUDGET REVENUES	FY 2006 ACTUAL REVENUES	FY 2007 BUDGET REVENUES	FY 2007 ACTUAL REVENUES	FY 2008 BUDGET REVENUES	FY 2008 ACTUAL REVENUES	FY 2009 BUDGET REVENUES	FY 2009 ACTUAL REVENUES	FY 2010 BUDGET REVENUES	FY 2010 ACTUAL REVENUES	FY 2011 BUDGET REVENUES	FY 2011 ACTUAL REVENUES	FY 2012 BUDGET REVENUES
REVENUES														
Revenues from Rates														
927.20	Water Service	$ 8,136,000	$ 8,583,201	$ 8,924,000	$ 8,809,051	$ 8,796,000	$ 9,534,284	$ 9,360,000	$ 9,370,549	$ 9,579,000	$ 9,019,270	$ 10,416,000	$ 10,349,741	$ 10,441,000
927.05	Fire Service	528,000	502,445	510,000	509,804	504,000	519,518	528,000	527,869	534,000	536,753	550,000	555,123	558,000
927.19	RIWRB Tax	(330,000)	(306,602)	(336,000)	(290,607)	(306,000)	(313,006)	(306,000)	(290,082)	(306,000)	(261,113)	(300,000)	(299,510)	(300,000)
419.40		-	-		-	-	-		-	-				
Total Operating Revenues		8,334,000	8,779,044	9,098,000	9,028,248	8,994,000	9,740,796	9,582,000	9,608,336	9,807,000	9,294,910	10,666,000	10,605,354	10,699,000
Other Revenues														
920.00	Interest Income	$ 120,000	$ 205,685	$ 228,000	$ 312,392	$ 252,000	$ 307,338	$ 231,600	$ 125,920	$ 176,400	$ 8,168	$ 9,000	$ 8,173	$ 9,000
419.31	Other	64,800	46,448	56,400	38,877	51,600	53,838	51,600	51,016	56,400	53,796	56,400	79,065	84,000
			-		-				-	-				
Total Other Revenues		184,800	252,133	284,400	351,269	303,600	361,176	283,200	176,936	232,800	61,964	65,400	87,238	93,000
	TOTAL REVENUES	$ 8,518,800	$ 9,031,177	$ 9,382,400	$ 9,379,517	$ 9,297,600	$ 10,101,972	$ 9,865,200	$ 9,785,272	$ 10,039,800	$ 9,356,874	$ 10,731,400	$ 10,692,592	$ 10,792,000

BUDGET VS. ACTUAL REVENUE &EXPENSES
BRISTOL COUNTY WATER AUTHORITY

ACCT. #	BUDGET ACCOUNT DESCRIPTION	FY 2006 BUDGET EXPENSES	FY 2006 ACTUAL EXPENSES	FY 2007 BUDGET EXPENSES	FY 2007 ACTUAL EXPENSES	FY 2008 BUDGET EXPENSES	FY 2008 ACTUAL EXPENSES	FY 2009 BUDGET EXPENSES	FY 2009 ACTUAL EXPENSES	FY 2010 BUDGET EXPENSES	FY 2010 ACTUAL EXPENSES	FY 2011 BUDGET EXPENSES	FY 2011 ACTUAL EXPENSES	FY 2012 BUDGET EXPENSES
EXPENSES														
Administrative Expenses														
927.20	Director Fees	$ 9,600	$ 9,410	$ 9,600	$ 9,250	$ 9,600	$ 9,950	$ 9,600	$ 8,610	$ 9,600	$ 11,465	$ 9,600	$ 6,333	$ 7,600
927.05	Director Insurance	12,000	13,018	15,000	12,151	15,000	11,541	12,600	11,070	13,080	10,776	14,400	10,289	12,000
419.31	Broker Fees	-	-	-	-	-	-	-	-	-	-	-	-	-
927.19	Trustee Fee/ Bank Charges	30,000	26,471	30,000	25,958	30,000	26,598	30,000	38,352	31,200	38,346	36,000	37,081	39,000
419.40	Arbitrage Rebate	-	(35,535)		377	-	-		-	-				
Total Administrative Expenses		51,600	13,364	54,600	47,736	54,600	48,089	52,200	58,032	53,880	60,587	60,000	53,703	58,600
Management & Office Expenses														
920.00	Salaries & Wages	$ 324,249	$ 312,286	$ 330,289	$ 320,229	$ 339,368	$ 331,846	$ 350,237	$ 344,961	$ 378,293	$ 396,561	$ 385,944	$ 407,764	$ 397,456
921.06	Office Equipment Expense	-	-	-	481	-	-	-	575	-	-	-	-	-
921.36	Office Supplies	6,000	5,816	6,000	5,104	6,000	5,198	6,000	5,803	6,000	5,377	6,000	7,116	6,000
921.32	Lease - Office Equipement	3,600	3,777	3,600	3,201	3,600	726	3,600	-	-	-	-	-	-
921.34	Data Processing Supplies	4,800	3,382	4,800	2,561	4,800	1,582	3,600	2,072	2,400	1,881	2,400	5,291	2,400
921.44	Express Package Delivery	1,200	1,008	1,200	1,014	1,200	1,775	1,200	2,956	3,600	2,837	3,600	1,581	2,400
927.09	Postage	-	-	-	172	-	-	-	439	-	-	-	-	-
927.12	Subscriptions & Publications	1,800	2,241	2,400	1,034	2,400	1,313	1,800	1,043	1,800	691	1,200	1,048	1,200
927.11	Printing	3,000	2,679	3,600	1,866	3,600	2,774	3,600	1,546	2,400	1,637	2,400	1,564	1,800
921.39	Janitorial Expense	7,200	14,277	12,000	21,289	21,000	22,281	21,600	24,794	24,000	24,733	24,000	21,902	24,000
931.00	Radio Rents - Admin	2,400	1,703	2,400	1,360	1,800	1,176	1,500	1,383	1,500	1,363	1,500	1,348	1,500
930.33	Computer Software	1,800	820	1,800	-	1,800	4,939	1,200	3,198	2,400	740	2,400	340	1,200
921.02	Misc Office Expenses	-	17	-	4	-	49	-	-	-	24	-	1,821	-
921.22	Transportation Expense	9,000	12,248	12,000	14,220	15,000	13,047	15,000	10,399	12,000	8,694	12,000	7,386	9,000
921.24	Utilities - Telephone	18,000	19,349	18,000	18,286	18,000	16,135	18,000	20,393	18,000	20,880	21,000	17,874	21,000
921.26	Utilities - Electric/Gas	6,000	12,986	12,000	18,978	18,000	16,298	18,000	18,862	18,000	19,012	21,000	16,436	21,000
930.27	Inventory Adjustment	-	238	-	929	-	(2,041)	-	7,050	-	(3,990)	-	2,761	-
932.01	Repairs & Maintenance -Admin	18,000	31,357	18,000	30,937	24,000	31,685	30,000	36,188	30,000	30,119	30,000	27,977	30,000
926.11	Group Insurance	420,000	399,391	410,000	439,094	456,000	468,935	456,000	453,811	478,800	486,217	525,600	587,985	648,000
926.04	Pension Expense	222,000	151,498	124,000	293,983	223,200	200,648	198,000	198,637	240,000	821,685	180,000	785,893	247,800
925.11	Workers Compensation Insurance	54,000	33,787	52,000	50,188	54,000	52,948	54,000	61,055	60,000	51,298	60,000	57,376	60,000
924.00	Property Insurance	48,000	49,320	47,000	40,686	48,000	41,515	48,000	43,477	48,000	43,280	48,000	42,341	48,000
925.04	General Liability	72,000	72,147	69,000	72,817	78,000	72,069	78,000	71,077	72,000	70,280	72,000	71,141	72,000
925.42	Auto Insurance	-	-	-	-							-		-
921.12	Operations Mgr Expense	300	800	300	-	300	-	300	-	-	-	-	-	-
921.13	WQ Supervisior Expense	300	-	300	-	300	-	300	-	300	-	300	-	-
921.14	Production Mgr Expense	300	-	300	-	300	-	300	-	300	-	300	-	-
921.11	Accounting Mgr Expense	300	-	300	-	300	(750)	300	-	300	-	300	-	-
921.10	Exec Director Expense	1,200	550	1,200	574	1,200	575	1,200	574	1,200	515	1,200	92	600
929.00	Conservation Program	12,000	5,443	9,000	16,135	6,000	3,547	9,000	3,219	6,000	2,443	4,800	2,663	2,400
927.13	Public Relations & Advertising	30,000	16,541	24,000	28,884	24,000	23,481	24,000	24,198	24,000	25,193	24,000	14,105	24,000
926.03	Employee Physicals	1,200	-	-	385	-	-	-	-	-	-	-	-	-
926.21	Employee Education/ Tution	9,000	11,665	6,000	10,390	6,000	7,925	6,000	10,454	6,000	8,643	12,000	10,668	9,000
926.06	Attendance & Safety Awards	1,500	406	1,500	89	1,200	695	1,200	2,068	1,200	1,667	1,800	-	1,800
926.07	Employee Functions	4,800	7,468	4,800	3,030	4,800	3,894	4,800	2,725	4,800	3,729	3,600	-	-
925.03	Compliant / Damages Expense	4,800	2,369	4,800	1,370	3,600	-	3,600	3,346	3,600	50	3,600	409	3,600
925.02	Other Employee Expenses	3,600	1,984	9,600	1,206	9,000	893	9,000	2,386	9,000	1,453	2,400	460	1,800
930.32	Dues	7,200	4,778	7,200	5,900	7,200	5,113	6,000	6,531	6,000	1,513	7,200	2,702	4,800
930.21	Sys Mgt & Infstr Plans	-	28,938	-	(2,226)	-	12,709	-	(7,878)	-	(340)	-	(48,457)	-
926.41	Legal fees	60,000	75,028	60,000	87,191	60,000	26,752	90,000	35,953	60,000	68,411	60,000	130,039	60,000
926.42	Consulting Engineer	6,000	-	6,000	-	6,000	900	6,000	14,329	6,000	-	6,000	-	-
926.43	Audit Fees	18,000	14,500	18,000	15,400	18,000	16,000	18,000	16,500	18,000	13,750	15,000	14,060	15,000
422.00	Other Non-reoccuring Expense	-	(319,900)	-	(3,644)	-	423,546	-	188,545	-	3,868	-	-	-
926.47	General & Financial Consultant	3,000	7,500	3,000	-	3,000	-	3,000	-	3,000	2,500	3,000	26,055	6,000
406.10	Property Taxes	500,000	498,676	500,000	496,803	500,000	499,232	500,000	493,721	504,000	491,743	504,000	482,809	504,000
406.16	Payroll Taxes	194,845	154,776	220,487	172,710	206,130	185,899	204,747	180,463	194,781	158,867	198,403	177,096	204,960
Total Management & Office Expenses		2,081,394	1,641,849	2,006,876	2,172,630	2,177,098	2,495,309	2,197,084	2,286,853	2,247,674	2,767,324	2,246,947	2,879,646	2,432,716
Commercial & Customer														

BUDGET VS. ACTUAL REVENUE &EXPENSES
BRISTOL COUNTY WATER AUTHORITY

ACCT. #	BUDGET ACCOUNT DESCRIPTION	FY 2006 BUDGET EXPENSES	FY 2006 ACTUAL EXPENSES	FY 2007 BUDGET EXPENSES	FY 2007 ACTUAL EXPENSES	FY 2008 BUDGET EXPENSES	FY 2008 ACTUAL EXPENSES	FY 2009 BUDGET EXPENSES	FY 2009 ACTUAL EXPENSES	FY 2010 BUDGET EXPENSES	FY 2010 ACTUAL EXPENSES	FY 2011 BUDGET EXPENSES	FY 2011 ACTUAL EXPENSES	FY 2012 BUDGET EXPENSES
901.00	Salaries & Wages - Office	290,428	250,936	305,410	275,477	308,538	287,354	317,872	312,033	337,965	319,369	327,375	338,560	358,781
902.02	Salaries & Wages - Meter Reading	65,040	68,212	66,944	69,646	68,904	64,530	68,383	60,931	71,576	51,591	73,831	67,248	76,000
902.03	Transportation	15,000	9,762	15,000	12,154	15,000	10,872	15,000	7,310	12,000	7,397	9,000	5,600	9,000
902.04	Uniforms/Clothing	4,800	3,617	4,800	2,723	4,800	5,201	4,800	3,955	5,400	3,678	4,800	2,616	4,800
902.06	Supplies	6,000	2,140	4,800	3,526	4,800	2,188	4,800	8,057	5,400	6,798	9,000	1,579	7,200
903.54	Postage	28,800	32,123	36,000	34,951	36,000	34,401	40,800	37,575	36,000	40,503	40,800	32,349	38,400
903.01	Printing	-	-	-	10	-	-	-	-	-	-	-	-	-
907.11	Customer Inserts	-	-	-	-	-	-	-	-	-	-	-	-	-
903.55	Supplies	18,000	17,644	18,000	18,448	18,000	19,611	18,000	19,198	21,600	17,831	21,600	15,383	18,000
903.3	Collecting Expense	2,400	293	2,400	584	1,200	1,277	1,200	1,726	1,500	2,042	1,500	4,098	2,400
903.31	Collecting Agencies	600	-	600	-	-	-	-	-	-	-	-	-	-
902.5	Postage	-	300	-	320	-	-	-	-	-	-	-	-	-
903.53	Purolator Costs	-	-	-	-	-	-	-	-	-	-	-	-	-
903.56	Records Storage	-	-	-	-	-	-	-	-	-	-	-	-	-
927.03	Computer Maintenance	9,000	6,641	9,000	10,482	9,000	3,389	12,000	5,584	9,000	6,726	7,200	1,658	6,000
926.45	Computer Consultant	30,000	28,160	30,000	34,034	30,000	64,898	32,400	41,783	36,000	78,581	40,800	65,710	48,000
903.58	Postage Meter Lease	10,000	11,191	12,000	10,884	12,000	11,487	12,000	7,882	12,000	6,656	9,000	8,976	7,200
904.00	Provision for Bad Debt	28,000	21,025	28,000	22,807	28,000	24,493	28,000	35,498	30,000	28,702	36,000	20,497	36,000
907.12	Printed Inform. Materials	-	-	-	-	-	-	-	-	-	-	-	-	-
903.8	Miscellaneous	600	243	600	2	600	-	600	-	-	(116)		259	-
Total Commercial & Customer Expense		508,668	452,287	533,554	496,048	536,842	529,701	555,855	541,532	578,441	569,758	580,906	564,533	611,781
Production Expenses														
600	Supervision	123,229	146,664	127,058	149,043	131,513	124,324	97,279	121,408	102,892	78,707	106,042	74,885	109,221
611	Maintenance Labor	163,096	171,927	167,819	150,825	172,569	139,648	177,468	130,882	185,423	131,108	191,199	120,487	196,666
624	Pumping Labor	186,608	167,434	192,155	192,207	197,126	209,565	202,220	218,858	210,170	252,594	216,112	270,073	221,806
642	Water Treatment Labor	186,608	242,868	192,155	240,993	197,126	245,350	202,220	265,007	210,170	270,248	216,112	290,788	221,806
602	Purchased Water	1,296,000	1,527,030	1,730,400	1,152,894	1,080,000	1,328,125	1,464,000	1,484,942	1,608,000	1,262,132	1,460,000	1,797,521	1,782,000
623	Power	90,000	27,749	30,000	149,531	30,000	92,944	108,000	88,732	90,000	83,989	90,000	62,107	84,000
641	Chemicals	120,000	154,030	60,000	338,849	360,000	306,631	336,000	466,204	432,000	602,120	600,000	438,580	552,000
625	Utilities - Electric	12,000	3,856	6,000	3,896	6,000	21,889	6,000	30,973	30,000	27,171	30,000	20,170	30,000
625	Utilities - Gas	12,000	19,637	12,000	14,807	18,000	14,581	18,000	14,254	18,000	13,877	15,000	12,815	15,000
625	Heating - Shad	-	241	-	-	-	-	-	-	-	-	-	-	-
625	Utilities - Telephone	3,600	1,679	2,400	2,355	2,400	2,439	2,400	2,343	2,400	2,163	2,400	2,109	2,400
625	Charts & Graphs	1,800	2,176	1,800	1,443	1,800	2,151	1,800	1,972	1,800	400	1,800	3,085	1,800
625	Plumbing & Electric Supplies	1,800	2,952	1,800	1,966	1,800	2,294	2,400	780	1,800	1,394	1,200	1,586	1,200
625	Safety Supplies	2,400	1,984	2,400	1,181	2,400	817	1,800	2,730	1,800	1,774	1,800	2,703	1,800
625	Oil & Grease	600	135	600	130	600	179	600	28	600	238	600	142	600
625	Uniforms & Clothing	4,800	4,384	4,800	3,063	4,800	5,630	4,800	4,089	6,000	3,815	4,800	4,204	4,800
625	Facilities Inspection	-	-	-	18,386	-	-	-	547	-	-	-	605	-
643	Sludge Removal	60,000	8,209	12,000	58,716	78,000	45,756	90,000	58,310	90,000	52,025	72,000	37,114	60,000
625	Office Supplies	2,400	2,288	2,400	1,731	2,400	514	2,400	209	1,800	150	1,200	2,077	1,200
625	Janitorial Expense	1,500	1,822	1,800	1,709	1,800	1,230	1,800	1,680	1,800	1,408	1,800	1,595	1,800
625	Snow Removal & Lawn Care	9,000	4,336	9,000	4,164	7,200	6,298	7,200	9,170	7,200	9,087	8,400	9,591	9,000
625	Meals Allowance	2,400	4,845	3,600	2,860	3,600	2,993	3,600	3,279	3,600	2,930	3,600	3,930	3,600
625	Transportation	15,000	12,531	15,000	15,121	18,000	18,076	18,000	20,254	18,000	17,254	21,000	18,798	21,000
625	Miscellaneous	2,400	1,041	2,400	1,181	1,800	751	1,500	350	1,500	711	1,200	435	1,200
627	Other Pumping Expense	30,000	78,000	30,000	18,466	40,000	22,155	40,000	28,576	24,000	27,492	30,000	20,749	24,000
642	Samples - QC	42,000	65,264	60,000	30,130	72,000	48,530	60,000	66,362	72,000	33,163	60,000	28,952	48,000
642	Lab Samples	12,000	12,986	12,000	14,310	18,000	17,159	18,000	14,903	18,000	15,103	18,000	13,441	15,000
642	Lab Hardware	1,200	4,957	1,800	2,192	3,600	2,676	3,600	1,616	2,400	1,973	1,800	778	1,800
643	Misc Water Treatment Expense.	57,600	146,246	60,000	49,900	108,000	26,650	72,000	35,337	60,000	29,509	42,000	33,310	30,000
612	Source of Supply Repairs	18,000	16,932	18,000	8,579	18,000	32,509	18,000	16,001	24,000	14,173	24,000	26,471	18,000
613	Dam Repairs	6,000	3,248	6,000	350	6,000	-	6,000	-	4,000	-	1,800	-	-
614	Well Repairs	-	-	-	-	-	-	-	-	-	-	-	-	-
616	Transmission Mains Repair	6,000	2,158	6,000	-	6,000	1,265	6,000	-	4,000	35	2,400	-	1,200
631	Pumping Structure Repairs	6,000	2,057	6,000	256	6,000	1,608	6,000	217	4,000	240	2,400	1,237	1,200
632	Power Equipment Repairs	3,000	6,577	3,000	2,866	3,000	439	3,000	6,858	4,000	9,971	9,000	4,645	6,000
633	Pump & Motor Repairs	12,000	455	12,000	1,893	12,000	5,198	6,000	4,135	6,000	17,395	12,000	4,673	9,000
652	Water Treatment Facility Repairs	12,000	7,299	12,000	11,986	12,000	3,830	12,000	4,197	9,000	2,617	6,000	291	4,800
633	Miscellaneous	3,000	4,014	3,000	1,959	3,000	2,063	3,000	2,188	3,000	6,671	3,000	758	3,000

BUDGET VS. ACTUAL REVENUE &EXPENSES
BRISTOL COUNTY WATER AUTHORITY

ACCT. #	BUDGET ACCOUNT DESCRIPTION	FY 2006 BUDGET EXPENSES	FY 2006 ACTUAL EXPENSES	FY 2007 BUDGET EXPENSES	FY 2007 ACTUAL EXPENSES	FY 2008 BUDGET EXPENSES	FY 2008 ACTUAL EXPENSES	FY 2009 BUDGET EXPENSES	FY 2009 ACTUAL EXPENSES	FY 2010 BUDGET EXPENSES	FY 2010 ACTUAL EXPENSES	FY 2011 BUDGET EXPENSES	FY 2011 ACTUAL EXPENSES	FY 2012 BUDGET EXPENSES
Total Production Expenses		2,506,041	2,860,011	2,807,387	2,649,938	2,626,534	2,736,267	3,003,087	3,107,391	3,259,355	2,973,637	3,258,665	3,310,705	3,484,899
Distribution Expenses														
660	Supervision	125,346	102,139	129,920	105,759	134,464	80,263	103,972	76,394	109,972	81,048	113,554	103,979	106,161
662.2	T&D Line Labor	145,725	128,660	151,442	152,129	156,326	159,289	161,574	151,676	169,627	171,324	175,553	144,445	180,965
663.2	Removal & Reset Meters	46,753	74,575	48,097	76,231	49,414	79,889	52,532	80,704	54,863	88,277	56,509	100,392	58,086
665.2	Maps & Records Labor	58,665	60,696	60,410	60,493	62,196	62,739	64,063	62,497	67,027	64,519	69,306	72,044	71,393
671.2	Maintenace Labor	163,667	169,892	170,093	224,285	175,576	220,045	181,470	228,406	190,515	262,977	197,169	241,988	203,250
662.14	Utilities - Electric	3,000	4,014	3,600	4,654	3,600	4,691	4,800	4,988	4,800	4,658	4,800	4,108	4,800
662.15	Utilities - Gas	3,000	3,382	3,000	3,761	3,600	3,425	4,800	3,854	4,800	3,489	4,800	3,297	3,600
662.22	Equipment Rentals	-	-	-	-	-	-	-	-	-	-	-	-	-
662.23	Street Permits	2,600	1,700	2,400	2,125	2,400	2,084	2,400	3,485	4,800	3,655	3,600	1,870	3,600
662.24	Notices	-	-	-	-	-	-	-	-	-	-	-	-	-
662.25	Dig Safe & Maps	9,600	9,042	9,600	9,805	9,600	8,444	9,600	7,390	9,000	7,275	8,400	11,009	9,000
666	Radio Rentals	1,800	1,245	1,800	1,236	1,800	858	1,800	124	900	-	600	-	-
662.17	Safety Supplies	1,800	669	1,800	750	1,200	458	1,200	469	900	483	600	312	600
662.18	Uniforms & Clothing	6,000	6,238	6,600	2,748	6,600	8,308	6,600	6,082	9,000	6,161	7,200	6,263	7,200
662.12	Transportation	20,400	17,456	20,400	18,070	24,000	14,452	24,000	15,534	24,000	15,367	18,000	29,846	18,000
662.13	Utilities - Telephone	30,000	31,399	36,000	28,702	36,000	31,029	36,000	24,743	36,000	30,557	30,000	26,761	30,000
662.16	Snow Removal	-	-	-	-	-	-	-	-	-	-	-	-	-
662.21	Hand Tools	2,400	404	1,800	1,447	1,800	1,077	1,800	1,337	1,500	919	1,500	576	1,500
662.27	Operating Supplies	1,200	2,320	1,800	2,575	1,800	5,090	2,400	5,252	4,800	3,562	4,800	2,361	3,600
662.26	Leaks Surveys	-	-	-	-	-	-	-	-	-	-	-	-	-
663.1	R & R Meters -Supplies	4,800	2,112	3,600	2,029	3,600	7,547	6,000	8,438	9,000	11,286	9,000	996	9,000
663.12	R & R Meters -Transportation	6,000	5,603	6,000	6,623	7,200	6,163	7,200	6,400	7,200	6,280	7,200	6,465	7,200
676.11	Meters Repair Program	-	-	-	-	-	-	-	-	-	-	-	-	-
677.12	Hydrant Repairs -Transportation	1,200	349	1,200	457	1,200	919	1,200	2,583	1,200	645	1,200	575	1,200
677.1	Hydrant Repairs -materials	12,000	11,029	15,000	21,013	15,000	4,155	18,000	10,027	9,000	14,588	12,000	3,568	12,000
677.11	Paint & Repair hydrants	600	-	-	-	600	1,154	1,800	619	1,200	169	1,200	331	1,200
675.1	Service Repairs - Transportation	6,000	2,622	6,000	6,221	7,200	7,461	7,200	5,491	7,200	7,126	7,200	8,530	7,200
675.12	Service Repairs - Contractor	24,000	14,823	24,000	26,718	24,000	20,370	24,000	24,700	24,000	29,177	24,000	33,121	24,000
675.13	Service Repairs - Paving	24,000	26,134	24,000	27,202	24,000	18,772	24,000	18,061	24,000	56,064	24,000	36,895	24,000
675.14	Service Repairs - Materials	12,000	12,544	12,000	10,011	12,000	15,300	12,000	14,597	12,000	18,167	12,000	20,360	15,000
671.1	T & D Structure Repairs	2,400	2,619	2,400	1,700	2,400	2,546	6,000	2,032	4,800	2,258	2,400	966	2,400
672.1	Tank & Standpipe Repairs	24,000	-	24,000	-	24,000	2,719	6,000	-	4,800	17,129	4,800	-	4,800
672.12	Telemetering Repairs	2,400	5,406	2,400	-	4,800	827	4,800	5,111	4,800	1,089	3,600	667	3,600
672.13	Alititude Valve Repairs	1,200	-	1,200	-	1,200	-	1,200	-	1,200	-	-	-	-
672.11	Tank Inspections	4,800	-	4,800	-	-	6,600	-	-	-	1,400	-	-	-
672.16	Valve Repairs	1,200	13	1,200	-	1,200	-	1,200	-	1,200	451	1,200	-	1,200
673.13	T & D Mains - Contractors	24,000	20,339	24,000	42,288	24,000	35,129	24,000	36,233	24,000	43,516	30,000	28,559	30,000
673.13	T & D Mains - Pavings	36,000	43,855	36,000	60,879	36,000	45,322	36,000	61,698	48,000	69,568	60,000	86,214	60,000
673.13	T & D Mains - Materials	24,000	18,625	24,000	20,222	24,000	31,137	24,000	43,463	36,000	49,730	45,000	25,227	30,000
665.31	Miscellaneous	1,800	1,281	1,800	1,281	1,800	1,397	1,800	1,524	1,800	1,679	1,500	1,967	1,500
665.3	Misc - Radio Line		57		-									
Total Transmission & Distribution Expenses		834,356	781,242	862,362	921,414	884,576	889,659	865,411	913,912	913,904	1,074,593	942,691	1,003,692	936,055
Other Miscellaneous Expenses														
403.00	Depreciation Expense	1,074,000	1,092,518	1,128,000	1,134,264	1,188,000	1,135,386	1,183,200	1,124,657	1,239,000	1,118,310	1,155,000	1,165,638	1,122,000
426.00	Amortization	48,000	72,017	67,200	67,461	62,400	61,653	52,500	60,365	51,000	55,171	45,000	18,396	48,000
427.01	Interest Expense	1,280,400	1,209,272	1,066,800	1,112,043	1,046,400	1,029,301	998,400	956,346	991,800	873,865	966,000	874,472	903,600
	Principal		-		-				-	-				
Total Other Miscellaneous Expenses		2,402,400	2,373,807	2,262,000	2,313,768	2,296,800	2,226,340	2,234,100	2,141,368	2,281,800	2,047,346	2,166,000	2,058,506	2,073,600
	TOTAL EXPENSES	$ 8,384,459	$ 8,122,560	$ 8,526,779	$ 8,601,534	$ 8,576,450	$ 8,925,365	$ 8,907,737	$ 9,049,088	$ 9,335,054	$ 9,493,245	$ 9,255,209	$ 9,870,785	$ 9,597,651
	NET INCOME/(LOSS)	$ 134,341	$ 908,617	$ 855,621	$ 777,983	$ 721,150	$ 1,176,607	$ 957,463	$ 736,184	$ 704,746	$ (136,371)	$ 1,476,191	$ 821,807	$ 1,194,349

Salary Comparison - Size Comparisons

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Service Connections (Retail)	16,729	26,000	22,200	14,708	9,358	8,076
Miles of Pipe	233.7	388	267	N/A	N/A	N/A

Salary Comparison - Administrative

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Executive Director & Chief Engineer	$ 119,097					
General Manager		$ 139,256				
General Manager & Chief Engineer			$ 128,372			
Director of Utilities (gross-up for sewer)				$ 100,497		
Water Div Superintentdent					$ 73,459	
Water Superintentdent						$ 76,000
Manager of Accounting & MIS	$ 96,959					
Director of Finance		$ 83,200				
Chief Financial Officer			$ 75,988			
Assoc.Dir of Finance (gross-up for sewer)				$ 88,108		
Managerial Accountant					$ 51,891	
(Town provides this service)						$ -
Manager of Customer & Commercial Services	$ 62,771					
Director of Technical Service		$ 76,076				
Customer Service Manager			$ 67,224			
Financial Analyst				$ 67,594		
(duties of Managerial Accountant)					$ -	
N/A						$ -
Executive Administrative Assistant	$ 45,721					
N/A		$ -				
Administrative Assistant			$ 53,768			
Admin Secretary (gross-up for sewer)				$ 47,477		
N/A					$ -	
N/A						$ -
Personnell & Purchasing Coordinator	$ 46,772					
N/A		$ -				
N/A			$ -			
N/A				$ -		
N/A					$ -	
N/A						$ -
(duties Manager of Accounting & MIS)	$ -					
Chief Computer Operator		$ 59,405				
Informational System Managers			$ 69,118			
Informational System Specialist			$ 61,028			
N/A				$ -		
N/A					$ -	
N/A						$ -
Other Positions						
Assistant Chief Engineer			$ 84,249			
Financial Administrator			$ 67,224			
Building Custodian			$ 36,581			

Salary Comparison - Customer Service

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Customer Service Rep. "A"	$ 42,002					
Customer Service Rep. "A"	$ 42,002					
Customer Service Rep. "B"	$ 34,988					
Customer Service Rep. "C"	$ 33,767					
Customer Service		$ 38,085				
Customer Service		$ 38,085				
Customer Service		$ 34,112				
Customer Service Rep.			$ 46,634			
Collections Assistant			$ 35,112			
Customer Service Agent			$ 39,808			
Customer Service Agent			$ 42,395			
Principal Water Account Clerk				$ 49,491		
Sr Acct Clerk					$ 29,142	
Account Clerk					$ 29,515	
Clerk Typist					$ 32,099	
Water Works Clerk					$ 29,514	
Clerk						$ 33,500
Clerk						$ 33,500
Accountant A	$ 45,958					
Accountant A	$ 45,860					
N/A		$ -				
Financial Assisstant			$ 41,667			
N/A				$ -		
N/A					$ -	
N/A						$ -

Salary Comparison - Meter

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Commercial Forman	$ 66,232					
Chief Meterman		$ 58,936				
Technical Assistance Supervisor			$ 65,257			
Water Meter Foreman				$ 51,493		
Water Meter Foreperson					$ 34,200	
N/A						$ -
Meter Repair Tech	$ 63,257					
Customer Service Tech	$ 62,741					
Commercial Tech	$ 61,522					
Meter Reader		$ 43,202				
Meter Reader		$ 38,085				
Meter Reader		$ 34,112				
Meter Reader		$ 34,112				
Water Meter Service Tech			$ 41,561			
Water Meter Service Tech			$ 41,561			
Water Meter Service Tech			$ 40,801			
Water Meter Service Tech			$ 40,422			
Meter Reader Service			$ 38,601			
Meter Reader Service			$ 36,245			
Meter Reader Service			$ 36,245			
Cross Connection Control Tech			$ 50,074			
Senior Maintenance Person				$ 46,822		
Meter Repair Tech				$ 45,601		
Meter Repair Tech				$ 42,818		
Meter Repair Tech				$ 40,934		
Maintenance Mechanic				$ 48,881		
Meter Reader/Repair Service					$ 31,848	
Meter Reader/Repair Service					$ 31,848	
N/A						$ -

Salary Comparison - T&D

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Distribution Superintendent	$ 79,915					
System Chief		$ 71,048				
T&D Manager			$ 74,109			
Supervisor of Water Distribution				$ 79,050		
T&D Supervisor					$ 59,128	
N/A						$ -
Distribution Foreman	$ 66,232					
N/A		$ -				
N/A			$ -			
N/A				$ -		
N/A					$ -	
Distribution Foreman						$ 42,500
Utility Worker "A"	$ 63,153					
Utility Worker "A"	$ 63,153					
Utility Worker "A"	$ 62,945					
Crew Chief		$ 72,334				
Crew Chief		$ 66,769				
Crew Chief		$ 61,547				
Water Utility Supervisor			$ 64,656			
Water Utility Supervisor			$ 49,643			
Crew Leader			$ 55,643			
Crew Leader			$ 56,156			
Crew Leader			$ 55,130			
Crew Leader			$ 55,130			
Maintenance Mechanic				$ 51,123		
Maintenance Mechanic				$ 52,518		
Maintenance Mechanic				$ 52,616		
Sr Water Foreperson					$ 43,753	
Water Foreperson					$ 40,487	
N/A						$ -
N/A	$ -					
Dig Safe Operator		$ 50,378				
Dig Safe Operator		$ 50,814				
Water Equipent Operator			$ 50,695			
Water Equipent Operator			$ 47,402			
Water Equipent Operator			$ 47,402			
Heavy Equipment Operator				$ 46,567		
Heavy Equipment Operator					$ 36,776	
Heavy Equipment Operator					$ 36,776	
Heavy Equipment Operator						$ 41,000

Salary Comparison - T&D

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Utility Laborer	$ 53,358					
Utility Laborer	$ 53,566					
Piper		$ 49,941				
Laborer		$ 47,736				
Laborer		$ 46,550				
Laborer		$ 41,267				
Laborer		$ 47,923				
Laborer		$ 46,987				
Laborer		$ 46,550				
Laborer		$ 47,507				
Laborer		$ 47,029				
Water Utility Worker Class 0			$ 38,601			
Water Utility Worker Class 2			$ 42,395			
Water Utility Worker Class 1			$ 41,561			
Water Utility Worker Class 0			$ 38,964			
Water Utility Worker Class 1			$ 40,801			
Water Utility Worker Class 1			$ 40,422			
Water Utility Worker Class 1			$ 40,422			
Water Utility Worker Class 0			$ 38,601			
Skilled Laborer Equip Operator				$ 48,085		
Skilled Laborer Equip Operator				$ 44,663		
Skilled Laborer Equip Operator				$ 42,945		
Laborer				$ 37,840		
Senior Maintenance Person				$ 45,459		
Skilled Laborer Equip Operator				$ 47,906		
Skilled Laborer Equip Operator				$ 41,411		
Skilled Laborer Equip Operator				$ 40,440		
Utility person					$ 33,821	
Utility person					$ 33,821	
Utility person					$ 33,821	
Utility person					$ 33,821	
Laborer						$ 40,000
Laborer						$ 40,000
(duties of Engineering Aide)	$ -					
N/A		$ -				
Water Stock Clerk			$ 40,169			
Inventory Control Tech				$ 41,441		
N/A					$ -	
N/A						$ -
Other Positions						
Operations Assistant			$ 46,633			
Fleet Maintenance Mechanic			$ 50,309			

Salary Comparison - Engineering

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending June 2010	Pawtucket Water Supply Board CY 2009 Ending Dec 2009	Newport Water Division FY 2010 Ending June 2010	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department FY 2010 Ending June 2010
Engineering Aide	$ 64,226					
Engineering Tech	$ 51,182					
Assistant Engineer	$ 49,588					
Engineer		$ 80,000				
Construction Administration		$ 49,941				
GIS Operator		$ 43,000				
Water Engineering Manager			$ 76,196			
Water Project Manager			$ 72,563			
Sr Project Engineer			$ 65,859			
Sr Project Engineer			$ 64,656			
Water Project Engineer			$ 54,617			
Water Project Engineer			$ 54,617			
Jr. Water Project Engineer			$ 39,808			
Water Board Engineer Intern			$ 29,556			
Water Board Engineer Clerk			$ 43,589			
Dep.Dir Util Engineer (inc sewer portion)				$ 92,155		
Engineering Tech				$ 55,863		
Engineering Aide					$ 39,185	
Engineering Tech					$ 47,431	
N/A						$ -

Salary Comparison - Treatment

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending Feb 2010	Pawtucket Water Supply Board CY 2009 Ending June 2010	Newport Water Division FY 2010 Ending Dec 2009	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department Ending June 2010
Production Superintendent	$ 72,969					
Facilities Chief		$ 75,011				
Source Water Manager			$ 76,196			
Water Quality Production Supervisor				$ 70,290		
(duties of Water Div Superintentdent)					$ -	
(duties of Water Superintentdent)						$ -
Production Foreman	$ 66,232					
Chief Operator		$ 52,603				
Source Water Technician			$ 48,284			
Assistant Water Quality Prod. Super.				$ 49,748		
N/A					$ -	
N/A						$ -
(performed by Operators - Overtime)	$ -					
N/A		$ -				
Plant is operated by Outside Contractors			$ -			
Laboratory Supervisor				$ 67,573		
Microbiologist				$ 60,072		
Water Treatment Lab Tech					$ 37,040	
Chemist/Bacteriologist					$ 60,189	
N/A						$ -

Salary Comparison - Treatment

	Bristol County Water Authority FY 2010 Ending Feb 2010	Kent County Water Authority FY 2010 Ending Feb 2010	Pawtucket Water Supply Board CY 2009 Ending June 2010	Newport Water Division FY 2010 Ending Dec 2009	Woonsocket Water Department FY 2010 Ending June 2010	Cumberland Water Department Ending June 2010
Production Plant Operator A	$ 63,215					
Production Plant Operator A	$ 63,215					
Production Plant Operator A	$ 63,215					
Production Plant Operator A	$ 63,215					
Maintenance Tech -Relief Operator A	$ 62,429					
Maintenance Tech -Relief Operator A	$ 62,637					
Maintenance Tech -Relief Operator A	$ 62,741					
Operator		$ 48,714				
Operator		$ 32,032				
Operator		$ 32,032				
Plant is operated by Outside Contractors			$ -			
Water plant Operator Grade 2				$ 38,618		
Water plant Operator Grade 3				$ 54,458		
Water plant Operator Grade 3				$ 52,202		
Water plant Operator Grade 3				$ 51,517		
Water plant Operator Grade 3				$ 51,467		
Water plant Operator Grade 3				$ 46,413		
Water plant Operator Grade 3				$ 45,528		
Water plant Operator Grade 3				$ 41,377		
Water plant Operator Grade 2				$ 38,618		
Water plant Operator Grade 3				$ 55,203		
Water plant Operator Grade 3				$ 52,306		
Water plant Operator Grade 3				$ 52,163		
Water plant Operator Grade 3				$ 51,749		
Water plant Operator Grade 3				$ 51,476		
Water plant Operator Grade 3				$ 50,668		
Water plant Operator Grade 3				$ 45,580		
Water plant Operator Grade 3				$ 44,617		
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Water Plant operator					$ 40,264	
Plant Master Mechanic					$ 47,835	
Plant Equipment Operator					$ 40,169	
Water Plant operator						$ 41,000
Water Plant operator						$ 41,000
Water Plant operator						$ 41,000
Water Plant operator						$ 41,000
Water Plant operator						$ 41,000
Water Plant operator						$ 41,000
Water Plant operator						$ 38,000
Water Plant operator						$ 38,000
Water Plant operator						$ 38,000
Other Positions						
Water Supply Inspector					$ 33,794	

Section III Performance Audit: BCWA Response
June 10, 2011

BCWA welcomed the opportunity to have an Efficiency Report done on its operations and now welcomes the opportunity to respond to the findings and recommendations made in the B & E Report. It must be noted, however, that there was insufficient time to investigate some of the findings in relation to peer water utilities since the Preliminary Draft of the Efficiency Report was presented to the Chairman of the Board and legal counsel on May 24th, and the findings were orally reported to the Executive Director and the Manager of Accounting and MIS on May 26th, thereby limiting the amount of time that a response could be formulated in a thorough way. Nonetheless, the investigation and the results are important and relevant information will be utilized by the Board and the Executive Director going forward.

Many of the efficiency recommendations of B & E are on point and have been recognized by the Board and management; but for budgetary constraints and labor contract terms, many of these recommendations might have been implemented already. In some instances, the unique situation of BCWA as a utility that operates with water sources, facilities and pipelines in two states, under regulatory review by two states and multiple municipalities, and an antiquated system going back to the 1900s, imposes more constraints on system efficiencies and costs than other water utilities. BCWA is particularly different from the other water utilities used by B & E for comparative purposes in that it has three water crossings, one under Narragansett Bay; it has one transmission main that is over 100 years old, and to a great extent submerged under water and only accessible by boat at low tides for inspections and repairs. For a review of the BCWA Facilities and unique characteristics, see Exhibit 1.

In addition, the Authority employees have an average longevity of 21 years and in some departments where salaries are higher than comparable positions, the average longevity is 27 years. The good news is many high salaried employees will be retiring in the next few years, and the entry level salaries will be more in line with entry level positions of other water utilities. While the continual employment of employees with long service to BCWA has provided continuity of service, it may have led to salaries above the norm for like positions, which is duly noted. It is also noted that three of the peer water companies used for comparison to BCWA (Kent County, Pawtucket Water Supply and Newport Water) have more employees than BCWA (35, 55 and 48 employees, respectively). BCWA has, over the years, reduced its workforce from 42 in 1992 to 29 active employees currently.

Finally, it is important to emphasize what the report also shows: there was no evidence of wrongdoing, fraud or mismanagement of assets. The reporting function, the financial function and the fact that the financials are audited yearly by an independent accounting firm and are subject to Bond Trustee review provides further financial accountability backup to the volunteer BCWA Board review function, the town council review function and ultimately strengthens the integrity of the organization. B & E noted that BCWA management and staff were open, cooperative and provided all information requested during this process. Indeed, information that the staff thought helpful, but was not

requested, was also provided, which was acknowledged by B & E to be relevant and appreciated.

A. Review of Major Cost Categories

Staffing – Central Office:

1. Recommendation to eliminate the position of Personnel and Purchasing Coordinator. **The position has been vacant since May 2010 and will not be filled. The duties have been taken over by the Executive Administrative Assistant, the Manager of Customer and Commercial Services, and the Manager of Accounting and MIS.**

2. Recommendation to eliminate BCWA employees from cleaning duties at time and a half. **The Executive Director has maintained this practice due to his opinion that employees should clean for "security reasons." There had been continuous problems with prior cleaning companies that had unauthorized use of the phone, poor performance and failure to abide by security procedures. While the Board is satisfied with the services currently provided by employees, it acknowledges that cleaning should not be done at overtime rates. The Board and the Executive Director accept the recommendation and will either outsource the function through an RFP process or allow employees to provide the service, but not at overtime rates. (Note: the correct figure for Overtime for cleaning is $13,608 and not the $15,837 reported by B & E.)**

3. Recommendation to eliminate the Staff (Non-Union) Salary increases in the FY2012 budget is under consideration by the Board. **To date, no increases have been given since July 2009. See below for a description of the process used by the Authority to determine and award raises for non union positions.**

The following description relates to non-union positions.

- **In 1992, the Executive Director issued an RFP for a compensation study for the BCWA and to conduct a salary survey. The work was done by Olney Associates, Inc. and a Compensation Study was issued to the Authority dated November 1993. The recommendations were by position, and reflected a minimum, midpoint and maximum salary recommendation for the positions of Executive Director, Chief Engineer, Manager of Accounting & MIS, Operations Manager, Production Superintendent, Distribution Superintendent, Water Quality Supervisor, Assistant Engineer, Office Manager, Executive Secretary, Personnel/Purchasing Coordinator and Secretary. The Olney Compensation Study was updated in 1998.**

- **In 1998, a Special Committee on Professional Employees Salary Structure of the Board was established to investigate and produce a Study ("BCWA 98-99 Study of Salary Structure for Professional Employees") which produced a Final Committee Recommendation of Salary Limits for BCWA Staff Employees dated March 25, 1999. The information and recommendations were taken, in part, on the American**

Water Works 1997 Water Utility Compensation Survey. The salary adjustments were recommended to and adopted by the Board. The Board updated the salary limits again based on the 2000 Water Utility Compensation Survey.

- **In 2003, the Public Relations/Personnel Committee of the Board conducted a "2003 Study of Salary Structure for Professional Employees", based upon the 2003 Water Utility Compensation Survey and in 2004 the Board approved the Committee's recommendation for a 2% increase in the minimum and maximum salary range as had been previously established by prior studies, which was less than the Compensation Survey recommendation of 2 ½% to 3 %.**

- **In 2006, a recommendation was made by the Executive Director and the Personnel Committee to eliminate the maximum limit to allow for salary increases for 4 employees whose caps were exceeded under former limits, which was approved by the Board.**

- **Since 2006, individual salary recommendations have been recommended by the Executive Director to the Personnel Committee, and then a full recommendation from the Personnel Committee to the Board for salary adjustments, all within the budgeted amount. Salary increases were in accordance with like raises given to other utility workers.**

Staffing – Commercial Meter Department:

1. Recommendation to update job descriptions and organizational chart to follow existing procedures to reflect that three Commercial Meter Department employees report to commercial foreman. **This recommendation is accepted.**

2. Recommendation to freeze the existing four Meter Department position salaries at current levels and reduce the starting salary through attrition so that the salaries are consistent with like positions in other water companies at a range of $32,000 to $50,000 per year. **The current salaries are a result of longevity of service in the department. The average tenure of all BCWA employees is 21 years. The four employees (commercial foreman, the meter repair tech, customer service tech and commercial tech) in the Meter Department have 33, 24, 27 and 26 years of service (or average longevity of 27 ½ years) This recommendation is subject to collective bargaining in the next contract.**

Staffing – Engineering:

1. The recommendation that the Engineering Technician salary level should be frozen until a reasonable level of modernization of the T&D Department records has been implemented. **This is an interesting performance-based goal which the Board of Directors, the Personnel Committee and the Executive Director will review. The Engineering Technician is an asset to BCWA and has been involved in water industry regulatory matters state-wide on behalf of BCWA and has recently**

undertaken the additional responsibility of revising and maintaining the BCWA website in consultation with Roger Williams University. The Executive Director, during his interview with Walter Edge, acknowledged that the job description of the Engineering Technician has evolved over time and the current duties and performance of that position is markedly different from the older job description. The Engineering Technician assumed part of the responsibilities of the Operations Manager (whose position was not filled after his retirement). The salary alone for that position was $74,435 (plus 35% for fringe benefits). The Engineering Technician, under the supervision of the Executive Director, has met with regulatory bodies and authored the required BCWA Water Supply Systems Management Plan, the BCWA Infrastructure Plan, and the BCWA Emergency Response Action Plan. These reports must be completed and submitted to RIWRB and RIDOH by all large water companies in Rhode Island. Since this additional function was prepared in house by the Engineering Technician, and not outsourced to third parties (consultants, engineers or attorneys) it might be interesting to determine how other water utilities handled this requirement, internally or outsourced, and at what level of employee involvement. The recommendation of B & E to update this job description, among others, is duly noted and accepted.

Staffing – Transmission and Distribution:

1. Recommendation to freeze all salaries in the T&D Department for at least three years to bring them into line with other like positions and comparable utilities. **This recommendation is subject to collective bargaining in the next contract. Again, the longevity of service of employees is a factor in the increased pay in comparison to other water utilities. It should be noted that BCWA has 7 employees in this department to service 233 miles of pipe, as compared to Kent County which reported 15 employees to service 388 miles of pipe, Pawtucket which reported 21 employees to service 267 miles of pipe, and Newport Water which reported 14 employees to service 170 miles of pipe.**

2. The recommendation to task the Engineering Aid to start computerizing the T&D records should be implemented immediately. **B & E may not be fully aware of the current extent of computerized records. For example, the Executive Director has created a software program which is utilized by management to maintain the level and type of pipe, expenditures, cost per town, etc. BCWA also has CAD drawings of all pipes that are updated by the Assistant Engineer. In addition BCWA has a hydraulic model of its systems developed by Pare Engineering in 2009. It is not clear what further computerization will involve, and at what cost, but management is willing to take it under advisement.**

Staffing – Production (Treatment):

1. Recommendation to address overtime pay for Treatment Department employees during the next union negotiations and reassign work assignments. **See discussion below relating to the use of scheduled OT for the Production Department, and note that**

this department is also responsible for system data monitoring and recording, submitting chemical reports to RIDOH and the Warren Sewer Department, preparation of the Consumer Confidence Report, inspection and maintenance of the facilities and mechanical equipment at all locations (both RI and MA), clean basins, maintain chemical equipment, etc.

The following description responds to the use of Overtime in the Production Department:

- **BCWA runs a 24/7 water production operation with a minimal number of employees, and previous to this Report made a business decision to not hire additional workers, and instead to use scheduled or planned overtime as a more economical way to run operations. Therefore, so long as the plant is in operation, it is not possible to eliminate scheduled overtime (OT) in the water Production Department. The Authority has "scheduled" or planned OT to cover for weekends and holidays. OT is also necessary to cover for excused absence (vacation time, sick time, jury duty, TDI, workers compensation) and emergencies. There are 8 union employees and 1 supervisor in the production department; only the 8 union employees have OT.**

- **Attached to this Response as Exhibit 2 is a summary of production/treatment OT for 5 years of Plant operation (2006 through 2010). OT in this department is made up of 5 components: scheduled OT, excused absence OT, OT to take samples, emergency OT, and non-frequently occurring special tasks.**

- **One notable example of these non-frequent special tasks occurred in 2010 and involved the rehabilitation of the 2-million-gallon Bay View tank in Bristol for a period of approximately 16 weeks. When the Tank was taken off line, the water system lacked adequate fire protection and water demand buffering. The lack of water demand buffering will cause the pumps at a pump station, if not monitored, to go on and off numerous times in the course of a day to respond to whatever real-time instantaneous demand is occurring in the system. The continuous "off and on" of a pump will eventually break the pump. During normal operations when the Tank is operational, the water demand buffer (2 million gallons of water stored in the tank) will sufficiently balance these real-time demands and the pumps will change speed under normal operating conditions 4 times per day, usually one speed, 5:00 am to 8:00 am; a second speed 8:00 am to 4:30 pm; a third 4:30 pm to 9:00 pm; and a fourth 9:00 pm to 5:00 am. (Please see the discussion concerning SCADA in this Response and Exhibit 3 for more detailed information on the Booster Pump Station operation in Barrington during the shut-down of the Bay View Tank.) It is noted that Bay View, in addition to providing flow and pressure balance nearly system-wide, controls by telemetry the rate of pumping at the East Bay Pipeline Booster Station in Barrington. This function of Bay View can be thought of as Bay View being the "automatic pilot" for driving the pumps. When taken off line, the Authority had to use employees to manually perform the tasks.**

The OT assigned during this period was 1,316 hours, which is not a reoccurring OT cost.

- **For the above years, OT averages for the 5 years (2006 – 2010) as follows:**

Scheduled OT:	**1,442 hours per year**
Excused Absence OT*:	**298 hours per year**
Sampling OT:	**628 hours per year**
Emergencies OT:	**486 hours per year**
Non-Frequently Occurring Tasks OT:**	**304 hours per year**

***Total Excused Absence (sick time, TDI, workman's compensation, jury duty and vacation) for the 5 years: 12,018 hours; 2,632 hours for 2010.**

****Due to the Bay View Tank rehabilitation in 2010 (1,316 hours) and the E. Coli Violation in 2009 (203 hours)**

- **It is also noted that the B & E Report had not identified OT in production (treatment) departments of comparable water companies that it has identified for comparative use. (See Exhibit 4) Of those companies, it is noted that Newport Water is the only utility that can be compared to BCWA for water production since the other water companies do not treat surface (reservoir) water or outsource that function. It is interesting to note that Newport Water has 2 water treatment plants, one of which is equipped with SCADA. The number of Treatment personnel, as reported by B & E is 21 for Newport Water as compared to 9 for BCWA. The "straight" payroll for Newport Water Treatment, as reported by B & E, for 2010 is $1,071,643, as compared to $579,868 for BCWA payroll. It would be advantageous to determine the overall cost for Newport Water and include Newport Water OT costs as well as straight payroll to reassess the efficiency and cost savings of the business decision made by BCWA as to its use of OT in this department. Note that the above payroll amounts do not include fringe benefits. By including fringe benefits, there is greater difference between BCWA and Newport. Assuming 35% of payroll for fringe benefits, the difference in cost of $491,775 becomes $663,896.**

2. Recommendation to reduce salaries in the Treatment Department by 10% across the board and then freeze them for the next three years to bring them in line with like positions in other water utilities. **This recommendation is subject to negotiation in the next union contract.**

3. Recommendation that the sampling be done by the foreman who has responsibility for the lab and has the most flexibility in his schedule. This should be done within their regular work week which would eliminate the time and one half for the first few hours and double time for the second two hours of sampling. **BCWA will evaluate this recommendation and the cost to outsource this function, and determine the most economical way to proceed. This may be subject to union negotiation.**

4. Recommendation to eliminate the overtime sections of the union contract noted in recommendation number 3 **will be considered in the next union negotiation.**

5. Recommendation to change work schedules of maintenance techs so that one will be scheduled for each of the first, second and third shifts to cover sickness for the operators. **The Executive Director is open to this recommendation and will consult further with B & E about this, again subject to negotiation. It is noted that Newport Water has 21 employees in Treatment and BCWA 9 employees.**

6. Recommendation to eliminate getting overtime for scheduled Sundays. **See discussion above for the use of scheduled OT in the Production Department. This is subject to union negotiation.**

7. Recommendation to change the reassignment provision in the union contract to eliminate the time and a half provision. **This is subject to union negotiation.**

8. Recommendation to shut down the treatment facility and layoff all employees with the exception of the superintendent, foreman, one operator and one tech, and with the savings from the shutdown, purchase a SCADA system and start the Shad Line and treatment facility improvements. **The Shad Line and WTP improvements are subject to permitting and regulatory approval, which is in process.**

Response relating to shutdown: The current legislation, the Bristol County Water Supply Act (RIGL 46-15.5), mandates this Water Treatment Plant be kept in operation. BCWA is the only water company subject to legislation of this type that mandates maintenance of an existing system.

Response relating to the SCADA System:

- **BCWA agrees with the benefits of a Supervisory Control and Data Acquisition system (SCADA) recommended by B & E. BCWA plans to install SCADA concurrently with the rehabilitation of the Child Street Water Treatment Plant and the construction of a new Shad Pipeline and Pump Station in Rehoboth, as Newport Water did when it installed SCADA when it rehabilitated its water treatment plant in 1991, and plans to install SCADA in its second water treatment plant with its upcoming planned rehabilitation. Pawtucket installed its SCADA system with its recent construction of its Plant in 2008.**

- **BCWA has at present a telemetry system which transmits information from points in the water system to the Child Street Water Treatment Plant (for example, the water levels in BCWA storage tanks.) A telemetry system can be thought of as a one-way SCADA system, as data flows in only one direction, for example from a tank to a chart and an operator at the Plant.**

- **SCADA systems gather status points, something is either on or off; analog values, how open a valve is; totalized data, the amount of production; monitor alarms. All data is sent to computers and ultimately to a master computer terminal and an operator. SCADA systems however are slow in response time and not 100% reliable. When a system is operating in "abnormal conditions", such as when a main component of a water system is inoperable or out of service, personnel should be dispatched to assure adequate system performance and safety. Hence, having SCADA will not fully address the need for OT personnel in situations like having the Bay View Tank off line for rehabilitation. See prior discussion in Production OT and Summary of OT on Exhibit 3 for the challenges of operating the water system manually with the Bay View storage tank off line.**

- **To understand how a SCADA system works, it is important to understand its limitations. The mechanics are quite complex. Consider opening a valve. A person would open a switch that would interrupt the power to a solenoid that supplies air to the valve, and it is done in one simple step, manually. On the other hand, a SCADA operator would open a switch in a central controller. That switch position would be included in the next instruction to a remote terminal unit (RTU), perhaps half an hour later. The RTU would receive the instruction and store it in a memory module dedicated to that valve. Soon after, the air to the solenoid would be removed and the valve would move. At the next routine scan, the RTU would send status indications of all valves. If the subject valve has moved properly, nothing more needs be done. If the valve has failed to move properly, an alarm is generated, alerting the employee/operator, who would have to investigate "what" in the process has indeed failed.**

Payroll Taxes:

BCWA acknowledges that if the payroll expense is reduced, the payroll taxes will likewise be reduced.

Group Insurance/Pension:

1. For response to health insurance recommendations, see Section entitled "Health Insurance" below.

2. Recommendation of B & E that the contribution to the fiscal Y2012 be reduced from $247,800 as budgeted to $170,729 for FY2012 will be evaluated with the actuarial consultant to BCWA at the time such contribution must be made taking into account the market value of the pension plan at such time. It should be noted that the BCWA Pension Plan, comparatively speaking to municipal and state plans, is in reasonable financial shape.

Purchased Water:

BCWA concurs that the cost of purchased water is a cost that cannot be controlled by BCWA. **It is also noted that it is the <u>second largest expense</u> for BCWA. BCWA continues to believe that following the state law and maintaining its existing water sources and maintenance and a redundant system is an important policy decision.**

Depreciation:

Controlling depreciation has no impact on rates or BCWA and no recommendations or response is required.

Interest:

B & E recommends that as the debt service costs decrease in FY2017 that the savings be used to reduce FY2016 water rates and to supplement the $6.9 million available from the state to update the Shad pipeline and make the necessary improvements to the treatment facility to increase production to Plant capacity. **BCWA concurs with this recommendation.**

Chemicals:

No recommendations noted.

Property Taxes:

B & E has noted that the hydrant fees payable by the towns to BCWA should be much greater than the amounts negotiated by the communities with BCWA in 1987. It notes that by requiring the BCWA, and in return the rate payers, to pay payments in lieu of taxes to the towns and then allowing the towns to pay lower hydrant fees is a type of hidden taxation and double dip benefit by the towns to the detriment of the BCWA and in turn the rate payers. B & E recommends that the method of allocation be readdressed by BCWA and the three towns because the use of consumption only addresses the utility property, such as mains, but it does not address the remaining property owned by the BCWA. This recommendation is subject to negotiation among the towns and BCWA. The towns, all three, must consent to any changes or modification to the existing Agreement, which expires June 30, 2018.

B. Labor Contract

B & E recommends that the findings, observations and recommendations in the labor contract section of the report be addressed in the next union negotiations. **BCWA accepts this recommendation.**

Specific recommendations:

1. To simplify and reduce the expense for the Authority and the rate payers for the overtime provisions in the contract. **The recommendation is to have stronger management presentation during contract negotiations as well as better control of the overtime costs by the Authority's board and administration during the year. This recommendation is accepted. All previous contracts (other than the last contract entered into in May 2008 which was negotiated without the benefit of professional assistance to save money on legal fees) were negotiated with labor counsel and based upon terms and conditions in other like contracts. The Authority anticipates having experienced labor counsel present to negotiate future labor contracts with the goal of implementing some of the recommendations made in the B & E report.**

2. Recommendation to constrain pay increases for the next five years to put BCWA employee salaries in line with other water utilities in Rhode Island. **See discussion above for process for salary for non union employees and issues relating to longevity of service.**

3. Recommendation to thirteen paid holidays to ten paid holidays as provided by the State of Rhode Island and eliminate two personal days and day off for employee's birthday. **This is subject to union negotiation.**

4. Recommendation to renegotiate five and six weeks of vacation or change the overtime provisions. **This is subject to union negotiation.**

5. Recommendation to eliminate time and a half pay while on vacation. **This is subject to union negotiation.**

C. Health Insurance

Recommendation that the insurance committee review current co-pays and make appropriate adjustments to be consistent with current market co-pays and consider adding a deductible to reduce health insurance costs and then reimburse the employees for the deductible. **This will be addressed when the current contract is up for renewal (May 10, 2012) and the recommendation is noted.**

D. Production and Purchase Water

B & E recommends that BCWA immediately start the project to fix the Shad pipeline and pump station and use the funds available from the state and complete the projects made available from reduction of debt service costs starting in FY2017 if the State determines that it is not fully liable for the costs. **The Authority agrees with this recommendation and these activities have been underway with the state and local authorities in Rhode Island and in Massachusetts.**

E. Transmission and Distribution

Recommendation that BCWA implement an infrastructure replacement plan (IFR) to be funded by a separate rate charged to the rate payers to fund it. **This has been previously discussed with the Board and will be addressed at future budget meetings. The Authority does not have the funds to fund an infrastructure maintenance reserve fund, continue with the capital improvements the Authority is currently funding with existing rates and charges, and address some of the other capital expenditures put on hold (e.g. accounting system and system improvements).**

F. Accounting Functions

Accounting Systems:

1. B & E recommends that the accounting software be updated to increase efficiency and add flexibility. **BCWA accepts this recommendation, and notes that the need for an updated software system has been the subject of board consideration in each of the capital budgets since Fiscal Year 2009-2010 where it was noted "Implementation of Financial System, 3 to 5 year window, anticipated budget: $300,000". This was put on hold by the Board after consultation with its software consultants for several reasons: (i) lack of funding; (ii) timing considerations—recommendation to purchase software at time when the Authority replaces the current IBM hardware in 2015; (iii) while inflexible and old, the current system "gets the job done" and is reliable. Hence, the board has not appropriated funds and instead, has carried forward the noted capital item in each of the capital budgets since 2009.**

2. Recommendations to implement a new billing system and consider reducing 115 billing cycles to 12 billing cycles. **The 115 billing cycles follows the 115 routes initially set up by American Water Works and represents a method that was used when meter readings where done manually by employees. Through the use of updated technology and the installation of radio read technology, currently approximately 10 % of the meters are still read manually by one employee. This change resulted in the elimination of 3 meter reading positions. It is noted that water consumption for more than 50% of large users is billed monthly.**

Currently, one person reads meters and, depending upon which portion of the system (sparse/dense population) can read anywhere between 250-350 accounts per day. There are approximately 17,000 accounts that need to be read each quarter. The Authority is evaluating a reduction in the number of times the employee reads from 20 times per month to 9 times per month. This would lead to either a) making the position a part time position or b) expanding the duties of the meter reader to include visual inspection of the meters, conduct cross connections (installation of check valves for backflow prevention), and increase the audit function of tracking down illegal tie-ins, among other important functions. Since this is a union position, any changes may have to be negotiated in the next union contract.

In order to accept the recommendation to bill monthly all customers, the Authority would have to invest in a system that would allow for fixed base reading—in essence, the radio read water meters would transmit data to repeaters on telephone poles and eventually to a computer center at the Authority. The Authority previous to its decision to purchase radio read meters had investigated the cost to implement Orion Fixed Base Reading System and found it prohibitively expensive. At that time, the hardware alone was estimated to cost $500,000 and would also require replacement of all meters.

Budgeting: No issues cited, and no recommendations noted.

Reporting: No issues cited, and no recommendations noted.

BRISTOL COUNTY WATER AUTHORITY

By: _____
John M. Jannitto, Chairman

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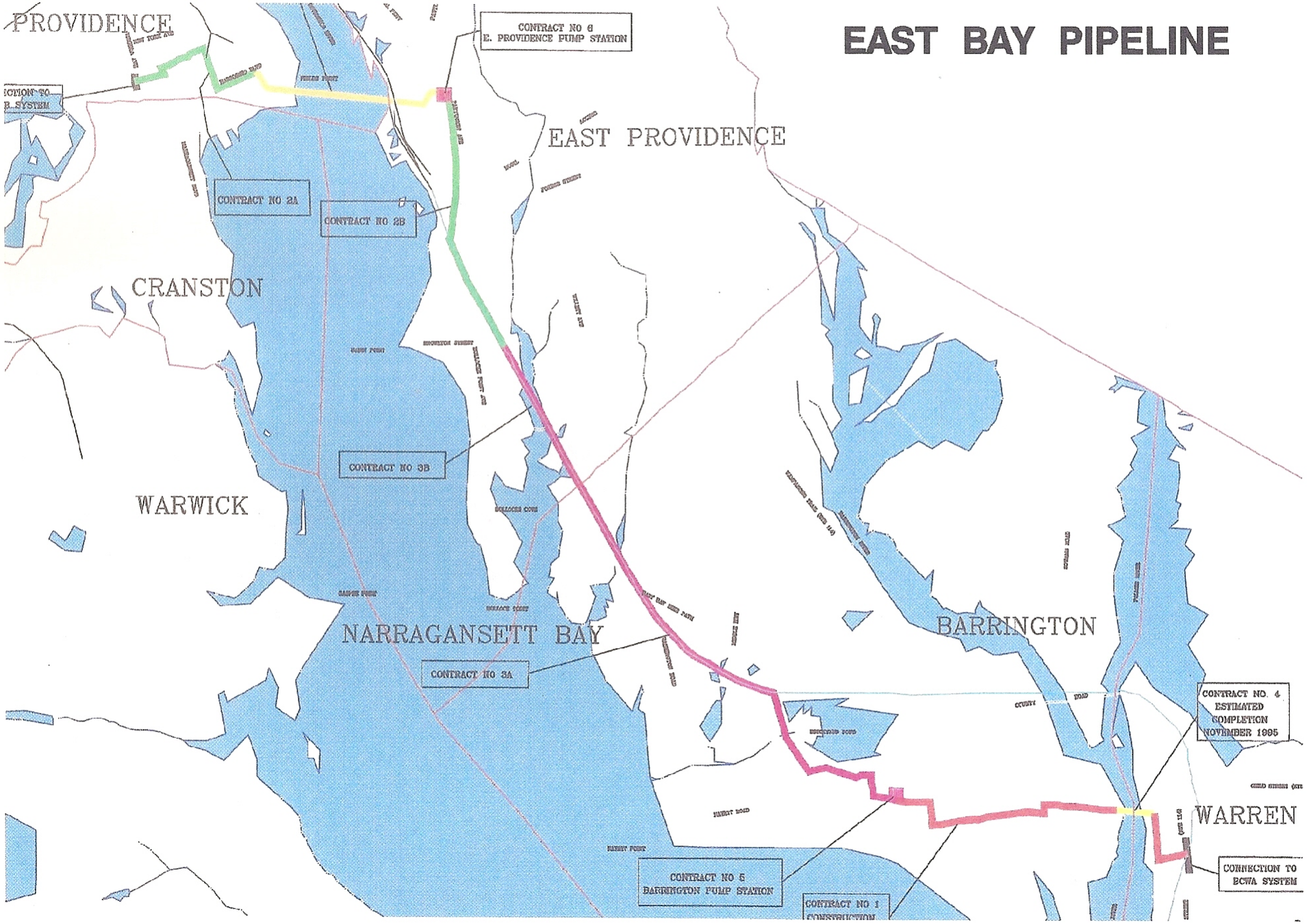
Exhibit 1

OVERVIEW OF BCWA FACILITIES

BCWA has facilities in 7 towns in 2 states, in Barrington, Bristol, Warren, East Providence, and Providence, RI, and in Swansea and Rehoboth, Ma. These facilities are inspected routinely and maintained as necessary.

4 reservoirs
4 dams
4 spillways
2 pumping stations
2 metering stations
2 treatment plants (1 inactive)
5 storage tanks
2 sediment basins
3 clarifiers
3 emergency interconnetions with East Providence
1 emergency pumping station
3 water crossings
1 transmission main submerged along the Palmer River accessable only by boat for inspection or repair
18 miles of transmission pipelines for raw water and treated water, crossing state-line and Narragansett Bay
233 miles of water distribution piping
16,758 service connections
1 administrative office building
1 distribution building
several acres of watershed protection land

EAST BAY PIPELINE



RHODE ISLAND
MASSACHUSETT
BAD LUCK BROOK
EAST PROVIDENCE, RI
EMERGENCY BOOSTER
STATION
ANAWAN RESERVOIR
REHOBOTH, MA
Providence
East Providence
METER PIT
PROVIDENCE, RI
SHAD RESERVOIR
REHOBOTH, MA
SHAD PIPELINE
SWANSEA RESERVOIR
SWANSEA, MA
EAST BAY PIPELINE
KICKEMUIT RIVER
KICKEMUIT RESERVOIR
WARREN, RI
FOUNTAIN AVE. TANK
BARRINGTON, RI
Barrington
472 Child St, Warren, RI 02885
BOOSTER STATION
BARRINGTON, RI
BCWA WATER
TREATMENT PLANT
WARREN, RI
HOPE ST. TANK
BRISTOL, RI
METACOM & BAY VIEW TANKS
BRISTOL, RI
Bristol
FERRY RD TANK
BRISTOL, RI

Exhibit 2

Production Department

Total OT	hours	2010	2009	2008	2007	2006	AVERAGE
scheduled	OT	1,357	1,334	1,316	1,346	1,856	1,442
excused absence	OT	240	472	324	195	260	298
sampling	OT	624	624	624	624	643	628
emergecy	OT	268	187	830	828	317	486
non-frequent tasks *	OT	1,316	203	none	none	none	304
		Bay View * tank	E Coli * violation				

Excused Absence	hours	2010	2009	2008	2007	2006	AVERAGE	TOTAL
sick and/or TDI-WC		1,320	1,164	956	1,044	750	1,047	5,234
jury duty		48	none	none	none	none	10	48
vacation		1,264	1,588	1,344	1,284	1,256	1,347	6,736
TOTAL		2,632	2,752	2,300	2,328	2,006		12,018

Exhibit 3

Importance of Bay View Tank and Use of Production OT

The Bay View Tank has a capacity of 2 million gallons of water. It balances and maintains flows/pressures across nearly the entire water system. It controls the water output into the system (rate of pumping) at the Booster Station in Barrington with water coming from Providence through the East Bay Pipeline. Without Bay View, the Booster Station cannot operate properly and distribute into the system the amounts necessary to compensate demands. In addition, the lack of water buffer (2 million gallons of water in the tank) would cause pumps to operate sporadically to respond to real-time instantaneous demands throughout the day and eventually break.

Storage tank rehabilitation is a time-consuming task involving tank draining, removing sediment, sand-blasting, cleaning, inspecting, making structural repairs, priming, panting, disinfecting, testing, re-inspecting and refilling. Because tanks are of major importance to the operation of the water system, taking one out of service affects distribution system performance to a great extent. The reduction in system capacity can be dramatic. Conversely, the system can "over pressurize" during off-peak periods when demands fall below pumping ranges.

Tanks are important for flow equalization, but their main purpose is to contribute capacity for peak hour demands and fire protection, therefore taking a tank out of service removes a major source of water for emergencies. Problems meeting fire demands are most obvious when taking a tank off-line. Additionally, when pressure zones are fed by a pumping station, such as in the case of BCWA and the Bay View tank, with the tank off line, the pumps will constantly move along their pump curves to attempt to match demand. During several times in the course of a day, system demands will be off the pump curves which may cause pumps to break. In this case it is necessary that the pumping station be manned and operated manually, as BCWA did, to balance the system and to prevent damage to the pumps. Additionally, because of the wide range of demands and pumping rates during the course of a day, from less than 1.0 MGD to greater than 5.0 MGD, chlorine residual was constantly monitored by BCWA personnel and adjusted as needed. The project was completed successfully, without above noted potential problems and practically transparently for BCWA customers.

Exhibit 4

This Exhibit shows relevant data for the companies reported by B & E and departmental comparisons.

Woonsucket and Cumberland reported by B&E but not shown here as these companies are substantially smaller than the rest in the group.

As reported by B&E — Total Payroll

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Administrative	324,548 *	357,937	643,552	303,676
Customer Services	244,577	110,282	205,616	49,991 ***
Meter	253,752	208,447	390,767	276,549
T & D	442,322	794,380	1,014,844	672,064
Engineering	164,996	172,941	501,461	148,018
Treatment	579,868	240,392	124,480 **	1,071,643
Total	$2,010,063	$1,884,379	$2,880,720	$2,521,941

* Amount based on 33 employees, as one position in "Administrative" has been vacant since May 2010 and will not be filled. BCWA has at present 29 active employees as 4 employees have retired and 1 employee is on WC. Average age of all employees: 55 years old; average length of employement @ BCWA: 21 years.

** Outsourced Contract for Treatment for Pawtucket Water. Cost of services not reported by B&E.

*** B&E reported 1 position in Customer Service for Newport Water. This does not appear to be correct.

As reported by B&E

Total No. of Positions

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Administrative	4 *	4	9	4
Customer Services	6	3	5	1 ***
Meter	4	5	9	6
T & D	7	15	21	14
Engineering	3	3	9	2
Treatment	9	5	2 **	21
Total	33	35	55	48

* Amount based on 33 employees, as one position in "Administrative" has been vacant since May 2010 and will not be filled. BCWA has at present 29 active employees as 4 employees have retired and 1 employee is on WC. Average age of all employees: 55 years old; average length of employement @ BCWA: 21 years.

** Outsourced Contract for Treatment for Pawtucket Water. Cost of services not reported by B&E.

*** B&E reported 1 position in Customer Service for Newport Water. This does not appear to be correct.

As reported by B&E	BCWA*	KENT COUNTY	PAWTUCKET**	NEWPORT***	
Total Payroll	$2,010,063	$1,884,379	$2,880,720	$2,521,941	
No. of Employees	33	35	55	48	
Customer Services	16,758	26,000	22,200	14,708	
Miles of pipe	233	388	267	not reported	
Other Information Provided by BCWA					
Source Water Type	surface	ground	surface	surface	
Newport Miles of pipe				170	Includes Transmission & Distribution piping
Water Crossings	3	none	1	1	1 of the water crossing for BCWA crosses Narragansett Bay
Submerged Transmission Mains accessable only by boat for Inspection or Repair	1	none	none	none	
Operations & Facilities in 2 States	yes	no	no	no	
Operations & Facilities on both sides of Narr. Bay	yes	no	no	no	
Regulated by 2 States	yes	no	no	no	
Monitoring	telemetry	SCADA	SCADA	SCADA	Newport has SCADA in 1 of its 2 Plants. Will install SCADA in the other when plant is rehabilitated

* Amount based on 33 employees, as one position in "Administrative" has been vacant since May 2010 and will not be filled. BCWA has at present 29 active employees as 4 employees have retired and 1 employee is on WC. Average age of all employees: 55 years old; average length of employement @ BCWA: 21 years.

** Outsourced Contract for Treatment for Pawtucket Water. Cost of services not reported by B&E.

*** B&E reported 1 position in Customer Service for Newport Water. This does not appear to be correct.

Comparable Departments	BCWA*	KENT COUNTY	PAWTUCKET**	NEWPORT***	
Administrative	X	X			based on no. of employees
Customer Services	X			X	based on no. of customer services
Meter	X			X	based on no. of customer services
T & D	X		X	X	based on miles of pipe
Engineering	X		X	X	based on miles of pipe
Treatment	X	ground water	outside contract	X	based on source water type (i.e. Treatment)

Administration	$324,548	$357,937		
Custumer Services	$244,577			$49,991
Meter	$253,752			$276,549
T & D	$442,322		$1,014,844	$672,064
Engineering	$164,996		$501,461	$148,018
Treatment	$579,868	ground water	outside contract	$1,071,643

* Amount based on 33 employees, as one position in "Administrative" has been vacant since May 2010 and will not be filled. BCWA has at present 29 active employees as 4 employees have retired and 1 employee is on WC. Average age of all employees: 55 years old; average length of employement @ BCWA: 21 years.

** Outsourced Contract for Treatment for Pawtucket Water. Cost of services not reported by B&E.

*** B&E reported 1 position in Customer Service for Newport Water. This does not appear to be correct.

As reported by B&E

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Administrative	119,097	139,256	128,372	100,497
	96,959	83,200	75,988	88,108
	62,771	76,076	67,224	67,594
	45,721	59,405	53,768	47,477
	46772*		69,118	
			61,028	
			84,249	
			67,224	
			36,581	
subtotal	$324,548	$357,937	$643,552	$303,676
No. of Positions	4	4	9	4

* Position vacant since May 2010 and will not be filled. This position is excluded.

As reported by B&E	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT	
Customer Service	42,002	38,085	46,634	49,991	1 position reported by B&E for Newport Water, in Customer Service. This does not appear to be correct.
	42,002	38,085	35,112		
	34,988	34,112	39,808		
	33,767		42,395		
	45,958		41,667		
	45,860				
subtotal	$244,577	$110,282	$205,616	$49,991	
No. of Positions	6	3	5	1	

As reported by B&E

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Meter	66,232	58,936	65,257	51,493
	63,257	43,202	41,561	46,822
	62,741	38,085	41,561	45,601
	61,522	34,112	40,801	42,818
		34,112	40,422	40,934
			38,601	48,881
			36,245	
			36,245	
			50,074	
subtotal	$253,752	$208,447	$390,767	$276,549
No. of Positions	4	5	9	6

As reported by B&E

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Transmission & Distribution	79,915	71,048	74,109	79,050
	66,232	72,334	64,656	51,123
	63,153	66,769	49,643	52,518
	63,153	61,547	55,643	52,616
	62,945	50,378	56,156	46,567
	53,358	50,814	55,130	48,085
	53,566	49,941	55,130	44,663
		47,736	50,695	42,945
		46,550	47,402	37,840
		41,267	47,402	45,459
		47,923	38,601	47,906
		46,987	42,395	41,411
		46,550	41,561	40,440
		47,507	38,964	41,441
		47,029	40,801	
			40,422	
			40,422	
			38,601	
			40,169	
			46,633	
			50,309	
subtotal	$442,322	$794,380	$1,014,844	$672,064
No. of Positions	7	15	21	14

As reported by B&E

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Engineering	64,226	80,000	76,196	92,155
	51,182	49,941	72,563	55,863
	49,588	43,000	65,859	
			64,656	
			54,617	
			54,617	
			39,808	
			29,556	
			43,589	
subtotal	$164,996	$172,941	$501,461	$148,018
No. of Positions	3	3	9	2

As reported by B&E

	BCWA	KENT COUNTY	PAWTUCKET	NEWPORT
Treatment	72,969	75,011	76,196	70,290
	66,232	52,603	48,284	49,748
	63,215	48,714	+	67,573
	63,215	32,032	Outside	60,072
	63,215	32,032	Contract	38,618
	63,215			54,458
	62,429		cost of services	52,202
	62,637		not reported	51,517
	62,741			51,467
				46,413
				45,528
				41,377
				38,618
				55,203
				52,306
				52,163
				51,749
				51,476
				50,668
				45,580
				44,617
subtotal	$579,868	$240,392	$124,480	$1,071,643
No. of Positions	9	5	2	21
			+ Outside Contract	

Section IV. Agreed Upon Procedures

During the negotiations to modify the scope of the engagement the BCWA and the three Towns requested that B&E expand its engagement to include 1) a thorough review of the BCWA Pension Plan and 2) An analysis of the advantages and disadvantages of BCWA being regulated by the RI Public Utilities Commission. This section of the report will address these two "agreed-upon procedures" tasks.

A. BCWA Pension Plan:

In order to get a full understanding of the BCWA Pension plan it was necessary for B&E to review three documents as follows:

- The "Pension Plan for the Employees of Bristol County Water" amended and restated, effective July 1, 2008
- The "Annual Actuarial Report" as of July 1, 2010
- The Washington Trust July 14, 2010 "Investors Report"

These three documents provide a complete picture of the BCWA Pension Plan from its beginnings through today. The following is a summary of B&E's findings by document.

Pension Plan

The current BCWA Pension Plan is a successor to the Pension Plan for the employees of the American Water Works Company, Inc (AWWC) and its designated subsidiaries. The Bristol County Water Company was a subsidiary of the AWWC until acquired by the BCWA on November 25, 1986. The BCWA Pension Plan is a defined benefit plan which was common practice when the plan was initially established.

1. All employees having completed one year of service are eligible to join the pension plan.

2. Employees hired after May 10, 2008 (currently none) will be required to contribute 1% of his/her earnings to the Pension Plan. Employees hired before May 10, 2008 are not required to pay anything into the Pension Plan.

3. Normal retirement age is 65. Vesting is after five years of service.

4. Early retirement can start at age 55 plus 15 years of service (or any combination of years served and age (where age is 55 or older) that adds up to at least 70.

5. Disability retirement is available only after 10 years of service.

6. A participant's monthly retirement income would be calculated as the monthly average of the last 60 months of compensation times 1.85%, times the number of years of service, up to 25 years. Therefore, a retiree who has 25 years of service is entitled to annual compensation of 46.25% of the average of the last five years monthly compensation times 12. Years of service over 25 years would generate an additional .7% per year for each additional year of service. Therefore, an employee who works for 35 years would be entitled to a monthly pension allowance of 53.25% of the average of their last five years' monthly salaries.

7. Early retirement is calculated the same as the normal retirement.

8. Disability Retirement is calculated differently. If an employee has a total years of age and years of service of less than 75 years they are entitled to disability compensation of $150.00 per month. If they have greater than 75 years of combined age and years of service they are entitled to the annual average of the last 60 months of compensation times 1.15% times the years of service.

9. At retirement the employee has a number of options. They are 1) Monthly Income for Life, 2) Survivor Benefits Available by Election, and 3) partial or lump sum distribution.

10. The Authority (and in turn the ratepayers) are protected under the plan as follows:
    - "The Authority reserved the right by action of the Board of Directors to amend the Plan, provided that no amendment shall operate to deprive any Participant, surviving spouse or Contingent Annuitant of any right to a benefit irrevocably vested in him under the Plan prior to such amendment."
    - "The plan as a whole may be terminated at any time by the Board of Directors."
    - "If the assets of the Plan are insufficient to provide in full the benefits described in (a), (b) or (c) above, the assets shall be allocated pro rata among all Participants, surviving spouse or Contingent Annuitant in the affected group on the basis of the present value, as of the Plan's termination date, of their respective benefits."
    - "The Authority shall have no liability for the payment of benefits under the Plan, except to make the contributions required under Section 11.1 (Contribution for Plan Expenses), nor shall the Authority have any liability for the administration of the funds or assets paid over to the Insurance Company, the Trustee or any Investment Manager, and each Participants, surviving spouse or Contingent Annuitant shall look solely to the Insurance company for any payments of benefits under the Plan."

Annual Actuarial Report (dated July 1, 2010)

This report was prepared by Benefits Management Inc. located in North Attleboro, Mass. The Actuarial computations in the report were made using the "frozen initial liability" method of calculation. This method keeps the past service costs and funds unaffected by any differences that may develop between actual experience and assumptions. The report states that "Due to large investment losses during the past year, the initial liability was re-established at this valuation date."

The following are the observations from B&E's review of the Actuarial Report:

1. There are 34 active participants, 2 terminated vested participants and 1 retired participant included in the valuation.

2. Market value of fund on current valuation date (July 1, 2010) is $6,069,607.

3. Present value as of the valuation date of all future benefits is $7,711,114.

4. Frozen initial liability remaining unfunded is $509,661.

5. Present value of those benefits which are to be funded through normal cost payments is $1,131,846.

6. Normal cost payable June 30, 2011 is $170,729 (no amortization of Past Service Costs).

   - June 30, 2011 payment with funding of Past Service Costs over 10 years is $246,684.
   - June 30, 2011 payment with funding of Past Service Costs over 30 years is $216,002.
   - June 30, 2011 payment funding Past Service Costs over average remaining working life of Active Participants is $247,606.

7. There is only 1 retired employee, 2 vested terminated, 1 active eligible for Normal Retirement, 17 active eligible for early retirement, 15 active and fully vested, 1 without vesting. These statistics were used to calculate the Present Value of Vested Benefits.

8. From FY 2009 to FY 2010 the net assets rose from $5,410,786 to $6,069,607 in most part as a result of increases in the fair market value of investments.

9. There was no Actual Accrued Liability through July 1, 2008. The plan was funded at 101.1%.

10. With the investment losses in FY 2009 the fund dropped to 80.6% funded.

11. Five of the last seven years the employer contribution was 100% of the requirement.

Trustee Report (prepared by Washington Trust Investors)

The trustee for the BCWA Pension Plan is Washington Trust Investors. The Trustee report for FYE June 30, 2010 shows that the Trust received employer contributions of $185,877 and paid invoices to the actuary ($7,725), for insurance ($1,227), management and custody ($44,835), and legal ($38,187). There was $5,606 paid in employee benefit payments. Interest was $143,694 and appreciation in securities was $423,494.

The BCWA Pension Plan Investment Performance Report from Washington Trust shows that the actual growth in the fund from 1991 through 2010 has been 360.1% which is an average of 8.4% per year. Over that same period of time stocks have increased 9.7% per year on average and bonds 6.7% on average. The results are favorable when compared to the actuarial assumptions and major indexes.

The Plan sold investments and suffered two major losses in FYE June 30, 2010. The plan lost $26,805.54 on 1,930 shares of FPL Group Inc. and $32,006.94 on 1,100 shares of Monsanto. On the other hand, the Plan profited from sales of 850 shares of Alcon Inc. ($23,976.49) and 1,420 shares of Cognizant Tech Solutions Corp. ($51,488.13).

Comparison with State, Municipal and Teachers Retirement Plan

B&E prepared the following table that compared the State, Municipal and Teacher's Retirement Pension Plan with the BCWA Pension Plan.

Criteria	BCWA Employees	State Employees	Municipal Employees	Teachers
Vesting	5 years	10 Years	10 Years	10 Years
Employee Contribution (% of salary)	0-1%	8.75%	6.0%	9.5%
Final Average Earnings (FAE)	5 years *	3 years **	3 years **	3 years **
10 years Annual Benefit (% of FAE)	18.5%	16%	20%	16%
20 years Annual Benefit (% of FAE)	37.0%	34%	40%	34%
30 years Annual Benefit (% of FAE)	49.75%	55.25%	60%	55.25%
37 years Annual Benefit (% of FAE)	54.65%	75%	75%	75%
Eligibility	After one year	Immediately	Immediately	Immediately

* Last 60 months annual average.
** The three highest consecutive years.

Conclusions

The BCWA Pension Plan is well written, adequately funded and on a current basis, financially strong. Both the "Summary of Cash Flows" (included in the Trustee Report) and the "Summary of Fund Operations" (reflected in the Actuarial Report) show that the Pension Plan has been well funded in the past and continues to be well funded currently.

The investments within the Plan are safeguarded and managed by a Trustee. With the exception of investment losses which impact the funding of the plan the Authority and the ratepayers are protected from all risks relating to the activity of the Pension Plan.

After reviewing the three documents (Pension Plan, Actuarial Report and the Trustee Report) and analyzing the above comparative table, B&E finds that the BCWA Pension Fund is, from a ratemaking point of view, reasonable as it relates to the ratepayers and the employees with the exception of two areas of the Plan. The two areas are vesting and employee contribution which result in unnecessary additional costs to the ratepayers.

Recommendations

1. The fact that BCWA's Pension Plan allows vesting in just five years adds to the overall cost of this defined benefit plan. In today's financial environment not only are defined benefit plans being eliminated and replaced with defined contribution plans (not a B&E recommendation for BCWA) but the vesting in most pension plans has been extended to ten years of service before vesting. Early vesting does not encourage longevity of the employees and further it allows employees with only five years of service to leave with a substantial amount of money.

   B&E is not an actuary and does not have the information needed to calculate the savings that may be attained if vesting eligibility was changed to 10 years. B&E recommends that the Authority ask its actuary to determine the financial savings on the normal cost calculation if vesting was 10 years. If the savings are significant (greater than $10,000) the Authority should address this issue in the next union negotiations.

2. The 1% of an employee's salary contribution for employees hired after May 10, 2008 (currently no employees) and the 0% of an employee's salary contribution for employees hired before May 10, 2008 (all current employees) in the BCWA Pension Plan does not reflect the current trend relating to an appropriate percentage of employees' contribution to their own pension. B&E completed a review of other plans.

   The State/Municipal Pension Plan requires employee contribution for teachers of 9.5%, while state employees contribute 8.75%, and municipal employees contribute at least 6% (there are additional 1% increases to the 6% if the municipality has chosen additional benefits). The current use of defined contribution plan results in an employer match of the employee's contribution which is often between 3-6% of the employee salary.

   B&E noted that in a number of areas the BCWA Pension Plan is not as good as the State Pension Plan and therefore the BCWA Plan may not warrant the same level of employee contribution as the State Plan. That said the BCWA plan is a good defined benefit plan and warrants a much larger employee contribution than zero. The ratepayers should not be required to totally fund the employees' pension plan

   B&E determined that the total annual compensation of the current employees' active in the Plan is approximately $2.4 million dollars. A 1% contribution would provide almost $24,000 toward reducing rates. A 3% employee contribution (which B&E believes is fair would provide $66,000 per year to reduce rates. A three percent employee contribution would reduce an annual rate increase by $1%.

3. B&E noted in its review of the 2011 budget that the BCWA has included in the budget a payment to the pension plan of $247,800 (June 30, 2011). Given that the market has recovered nicely in the FYE just ended (FYE February 28, 2011) and B&E expects that the unfunded past service costs has been reduced substantially as a result, B&E recommends that the amortization of the remaining balance of the unfunded past service costs be deferred for one year and the contribution to the pension plan be equal to the "normal cost" of $170,129 which was calculated by the actuary.

   B&E recommends that the Authority negotiate with the union an increase to the employee pension contribution to put the BCWA employee contribution in line with current pension practices. An increase from zero to 3% would be appropriate over the next three years.

B. RI Public Utilities Commission (RI PUC) Regulation

BCWA is currently exempt from regulation by the RI PUC because it has a Board of Directors that is made up of individual Directors from all three of the communities serviced by the BCWA (representation) and the Authority does not sell more than 10% of its water outside the three towns. It is important to note that the PUC does not regulate the majority of the water utilities in R.I. because they are exempt from regulation by the following language in Chapter 39-20 of the RI General Laws:

> **"this definition" (of a Public Utility subject to PUC regulation) "shall not be construed to apply to any public waterworks or water service owned and furnished by any city, town, water district, fire district, municipality, or quasi-municipal corporation, excepting the water supply board of the city of Providence, unless any city, town, water district, fire district, municipality, or quasi-municipal corporation obtains water from a source owned or leased by the water resources board, either directly or indirectly, or obtains a loan from the board pursuant to the provisions of chapter 15 of title 46, or sells water, on a wholesale or retail basis, inside and outside the territorial limits of the city, town, water district, fire district, municipality, or quasi-municipal corporation, except, however, that a public waterworks or water service owned and furnished by any city, town, water district, fire district, municipality, or quasi-municipal corporation which sells water on a wholesale or retail basis, inside and outside its territorial limits shall not be construed as a public utility if it has fewer than one-thousand five hundred (1,500) total customers service connections and provided outside sales do not exceed ten percent (10%) of the total water service connections or volumetric sales and provided the price charged to outside customers, per unit of water, is not greater than the price charged inside customers for the same unit of water...."**

In fact, only Providence Water Supply Board, Kent County Water Authority, Newport Water, Pawtucket Water Supply Board, Woonsocket Water Department and United Water are regulated by the RI PUC (all other water utilities are exempt). All but United Water and Providence Water are regulated because they sell more than 10% of their water outside their water district.

United Water is regulated because it is a "for profit" company and not exempt as a "public water utility". Providence Water is regulated because it is specifically named as regulated by the RI PUC in the RI State Law (see above).

On February 3, 2011 legislation was introduced to put BCWA under PUC regulation. If this passes BCWA will be a named water utility required to file with the RI PUC to increase rates. It is impossible to list the "advantages" and "disadvantages" of RI PUC regulation because the advantages to the ratepayers may be disadvantages to the Authority and vice-versa. Therefore, B&E will list the differences between PUC regulation and self regulation and allow the reader to determine if the item is an advantage or a disadvantage.

It should be noted that it is generally agreed in the industry that if you can avoid PUC regulation you should. Nevertheless here are the differences:

Cost

It is far more costly to increase rates at the PUC than it is outside PUC regulation. The rate study provided in this report would have cost BCWA about $15,000 to $20,000 on a stand-alone basis (and it covers five years). A rate filing at the RI PUC would most likely cost no less than $100,000 (for the rate year only). In either case, the costs are paid for by the ratepayers.

A PUC rate filing requires the preparation of expert testimony and all supporting schedules. It is filed with the PUC and the Division of Public Utilities and Carriers (DPUC) by an attorney who must comply with all the filing requirements stated in the PUC regulations. The DPUC is the advisory arm of the regulation and their job is to assure the financial stability of the utility while at the same time protecting the ratepayers.

The DPUC will have to hire an expert to review the rate filing (all DPUC expert costs are charged to the utility filing for the rate increase and those costs are passed on to the ratepayers). The three towns serviced by the BCWA would be automatic interveners and if they wanted to participate they would have to pay their own costs.

A time limit is set so that any other concerned party can file for intervention status if they can show that their best interests are not going to be addressed by the DPUC. These additional interveners will have to pay their own way.

Next, the PUC establishes a discovery schedule; the time made available by the PUC for all parties (and including the PUC) to ask questions in writing (data requests) to the utility filing for a rate increase. This is a very time consuming process and is a significant cost to the utility filing of rate relief.

After discovery, the interveners file their direct testimony which is then addressed by the utility in the form of rebuttal testimony. The interveners can than file surrebuttal testimony if they want to argue against points made in the utility's rebuttal. All this is very time consuming.

When discovery is completed the PUC holds hearings which are recorded by a stenographer which is paid for by the ratepayers. Upon completion of the hearings the lawyers write briefs and sometimes reply briefs. Everyone pays for their own lawyers.

The process takes about nine months and Commission orders are appealable to the Superior Court. When it is all done, the utility is billed for the PUC and DPUC expenses and they have to pay their own expenses.

Duration of the Rate Increase

The rate study in this report is a five year rate study therefore a complete rate study is not needed again for five years. It is important however to review the revenues each year to determine if the rate study is working. This review and fix, if necessary, cost about $5,000 to $10,000 per year.

A PUC rate increase is for one year (the rate year). If a rate increase is needed the next year the utility must go through the PUC rate process again at substantial cost (please note that it is possible to reduce some work if an abbreviated rate filing can be filed). If no rate increase is needed the PUC rates will remain in effect until the utility files for new rates.

Rate Flexibility

BCWA makes payments in lieu of taxes (PILOT) to the three communities. The concept of PILOT has been rejected by the PUC and would not be allowed in the cost of service if BCWA were regulated by the PUC.

BCWA has a five step rate structure which is inconsistent with the rate design in every other water utility in RI. This would not be allowed by the PUC unless the Utility could show that the rates were cost justified. B&E believes that it is very unlikely that cost justification for the BCWA rates could be made.

In general, the PUC tries to treat all customer classes fairly and requires that all rate designs be cost justified. Frequently used models are "Base Extra Capacity", "Functional Cost" and "Commodity Demand". The five year rate study in this report was completed using the functional cost approach. The current BCWA rate design was completed before BCWA began purchasing the majority of its water from Providence Water and therefore it does not reflect the current cost of purchased water and therefore the rate design is no longer appropriate.

Increasing rates 3% across the board (without looking at rate design) is not proper ratemaking and would not be accepted by the PUC. Developing water rates must reflect cost causation by customer class and not simply be incremental increases.

Timing

Rate increases take nine months at the PUC. Rate increases can be nearly immediate when set without regulation.

Revenue Reserves

The RI PUC has only recently allowed revenue reserves. Utilities that are unregulated have been building cash reserves for capital improvements and emergencies for years.

Findings and Recommendations

B&E does not recommend that BCWA become regulated by the RI PUC. The extra cost, additional bureaucracy, lack of flexibility, and built in delays are not worth the additional level of review. Instead, the towns should require that BCWA have regular five year rate studies done by an independent consultant familiar with the current status of the RIPUC regulation. Through these rate studies BCWA could be brought into compliance with PUC requirements.

In addition, B&E recommends that a subcommittee of the BCWA board be established that deals with rates. This subcommittee should be responsible for reading all PUC orders relating to Water Utilities and report trends and rulings back to the full board. This will provide the Board with some inside knowledge that can be acted upon between rate studies.

B&E is aware that there is very little trust between BCWA and the three communities, some of which is well founded. However, this lack of trust could be overcome with more transparency, external reviews, rate studies, etc. Given the number of items for concern found by B&E during this engagement it would be easy to recommend PUC regulation. However, B&E knows too well the various costs related to PUC regulation that is born by the ratepayers and therefore cannot recommend PUC regulation for BCWA.