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December 7, 2012

Via Electronic Mail and Regular Mail

Luly E. Massaro, Commission Clerk
Rhode Island Public Utilities Commission
89 Jefferson Boulevard
Warwick, Rhode Island 02888

Re: Newport Water – Docket No. 4355

Dear Ms. Massaro:

Enclosed for filing on behalf of Portsmouth Water & Fire District are an original and nine copies of the Prefiled Direct Testimony of Christopher P.N. Woodcock.

Thank you for your attention to this matter. Please feel free to contact me if you have any questions.

Very truly yours,



Adam M. Ramos

AMR;jlm

Enclosures

cc: RIPUC Service List (electronically only)

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RHODE ISLAND PUBLIC UTILITIES COMMISSION
DOCKET NO. 4355
CITY OF NEWPORT WATER DIVISION
PREFILED TESTIMONY OF
CHRISTOPHER P.N. WOODCOCK

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3 **PREFILED TESTIMONY OF**
4 **CHRISTOPHER P.N. WOODCOCK**

5 **Q: Please state your name and business address?**

6 A: My name is Christopher P.N. Woodcock and my business address is 18 Increase
7 Ward Drive, Northborough, Massachusetts 01532.

8
9 **Q: By whom are you employed and in what capacity?**

10 A: I am the President of Woodcock & Associates, Inc., a consulting firm specializing in
11 water and wastewater rate and financial studies.

12 **Prior Experience**

13 **Q: Please describe your qualifications and experience.**

14 A: I have undergraduate degrees in Economics and in Civil Engineering from Tufts
15 University in Medford, Massachusetts. After graduating in 1974, I was employed by
16 the environmental consulting firm of Camp, Dresser, and McKee Inc. (now CDM
17 Smith). For approximately 18 months, I worked in the firm's environmental engi-
18 neering group performing such tasks as designing water distribution and transmis-
19 sion pipes, sewer collection and interception systems, pumping facilities and por-
20 tions of a wastewater treatment facility. From approximately January 1976, I
21 worked in the firm's management and financial consulting services group, gaining
22 increasing responsibility. At the time of my resignation, I was a corporate Vice
23 President and appointed the leader of the group overseeing all rate and financial
24 studies. In my career, I have worked on approximately 500 water and wastewater
25 rate and financial studies, primarily in the United States, but also for government
26 agencies overseas. I also have worked on a number of engineering and financial
27 feasibility studies in support of revenue bond issues, I have helped draft and review
28 revenue bond indentures, and I worked on several valuation studies, capital im-
29 provement financing analyses, and management audits of public works agencies.

1 In addition to my professional experience I have held elected and appointed posi-
2 tions on municipal boards overseeing public works functions.

3 **Q: Have you previously testified before state regulatory commissions or courts**
4 **on rate related matters?**

5 A: Yes, I have provided testimony on rate related matters before utility commissions in
6 Rhode Island, Maine, Massachusetts, Connecticut, New York, New Hampshire,
7 Texas, Maryland, and Alberta, Canada. I have been retained as an expert witness
8 on utility rate related matters in proceedings in state courts in Arkansas, Florida,
9 Massachusetts, Michigan, New Jersey, Maryland, Ohio, Virginia, and Pennsylvania,
10 as well as the Federal Court in Michigan. I have been selected to several arbitration
11 panels related to disputes over water rates and charges; I was appointed as a me-
12 diator on an inter-state water rate dispute in Federal court; I have provided testimo-
13 ny on rate related matters to the Michigan and Massachusetts legislatures, and I
14 have provided testimony at administrative hearings on a number of occasions.

15 **Q: Do you belong to any professional organizations or committees?**

16 A: Yes, I am a member of the Water Environment Federation, the Rhode Island Water
17 Works Association, the Massachusetts Water Works Association, the New England
18 Water Works Association, and the American Water Works Association. For the Wa-
19 ter Environment Federation, I was a member of the committee that prepared the
20 manual on Wastewater Rates and Financing. I am past chairman and a current
21 member of the New England Water Works Association's Financial Management
22 Committee. In my capacity as a past President of the New England Water Works
23 Association I sat on the Board of Directors as well as chairing and sitting on a num-
24 ber of other administrative committees. For the American Water Works Association,
25 I am past chairman of the Financial Management Committee and the Rates and
26 Charges Committee that has prepared the manuals on Revenue Requirements,
27 Water Rates, Alternative Rate Structures, and Water Rates and Related Charges. I

1 have been reappointed to and am currently a member of the Rates & Charges
2 Committee.

3 **Summary**

4 **Q: What is your role in this proceeding?**

5 A: I have been retained by the Portsmouth Water & Fire District ("PWFD") to review
6 the City of Newport, Utilities Division, Water Department's ("NWD") filing in Docket
7 4355. I have been involved in a similar capacity in NWD's rate and cost of service
8 filings before the Rhode Island Public Utilities Commission (the "Commission")
9 since 2001 (Docket No. 2985).

10 **Q: Will you summarize your findings and conclusions?**

11 A: NWD has filed a cost of service study that provides an updated rate design. The
12 parties to this proceeding reached a settlement that was approved by the Commis-
13 sion in Docket 4128. That settlement agreement included an agreed-upon method-
14 ology for the implementation of a new cost of service study, including a number of
15 very specific procedures related to the allocation of various costs as well as specific
16 procedures and processes for the development and approval of demand factors for
17 each customer class. A critical part of the settlement was the parties' approval of a
18 spreadsheet that would be updated with the most recent data and used in subse-
19 quent rate filings.

20

21 The settlement agreement called for the implementation of the new cost of service
22 allocations and rate designs as part of a general rate filing. The cost of service
23 study, however, was not complete when NWD filed its general rate case in Docket
24 4243. Therefore, it could not be implemented in connection with that case. The
25 parties agreed in Docket 4243 that NWD would time a filing to implement the cost of
26 service study to coincide with the implementation of one of the step increases ap-
27 proved in Docket 4243. It is my understanding that this Docket addresses only the
28 rate design. Accordingly, the change in revenue requirements due to the change in

1 debt service requirements reflected in this filing are included only to illustrate the
2 impact of the rate design if the Commission approves NWD's proposed step in-
3 crease from Docket 4243 after NWD makes its compliance filing seeking approval
4 for that step increase. NWD has updated its estimate of the necessary step in-
5 crease based on actual debt service on a recent bond issue (\$53.1 million issue in
6 June 2012) plus an estimated increase for an estimated \$26.9 million bond issue
7 currently expected to be issued in 2013. As a result, the debt presented in this case
8 can be expected to change during later proceedings to remove estimated or pro-
9 jected debt and use only known amounts.

10
11 There are several general findings and conclusions that I will expand on in this tes-
12 timony:

- 13 • NWD failed to use the spreadsheet that the parties agreed to in Docket 4128 and
14 that the Commission approved in that Docket. NWD's unilateral changes do not
15 comply with the settlement agreement.
- 16 • NWD introduced errors into the spreadsheet in several places.
- 17 • There are outstanding questions related to the value of assets that are used to
18 allocate the capital costs.

19 **Q: Are there any other matters you wish to address?**

20 A: Yes. NWD's initial filing in September 2012 included demand data from 2010 that
21 all parties previously rejected because it did not conform to the terms of the settle-
22 ment agreement. On October 25, 2012, Mr. Harold Smith presented updated testi-
23 mony and schedules that removed the 2010 demand data and substituted new de-
24 mand data from the summer of 2012. PWFD agrees that the updated 2012 demand
25 data complies with the requirements of the settlement agreement.

1 **Changes to Docket 4128 COS Settlement Spreadsheet**

2
3 **Q: What changes did NWD make to the agreed-upon cost of service spreadsheet**
4 **from the settlement in Docket 4128?**

5 A: NWD made numerous revisions and changes to the system-wide production and
6 demand data that are used in the agreed-upon cost of service spreadsheet. These
7 revisions and changes have an impact on various allocation factors proposed by
8 NWD.

9
10 NWD also unilaterally changed the way capital costs are allocated. The settlement
11 in Docket 4128 required allocation of the capital costs associated with both the Sta-
12 tion One and Lawton Valley water treatment plants based on the maximum day de-
13 mand patterns. HJS Schedule B1 Updated (page 6) shows the capital items for the
14 treatment plants are "Allocated Based on Reserve Capacity". NWD acknowledges
15 that this change is a departure from the settlement model.

16 **Q: What is the impact of NWD's proposed unilateral change to the capital cost al-**
17 **location method?**

18 A: This unilateral change increases costs for PWFD and the Navy while lowering costs
19 for Newport. More specifically, NWD's change in the allocation of capital costs in-
20 creases PWFD's proposed rate by 6%, increases the Navy's proposed rate by 14%,
21 and leaves the retail rates for Newport essentially unchanged while dropping the
22 public fire charges by more than 10%.

23 **Q: In his initial testimony, Mr. Smith explains that he made this change to reflect**
24 **the capacity of the new water treatment facilities. Do you agree with this ap-**
25 **proach?**

26 A: No. The change is a significant variation from the cost of service model agreed to
27 by the parties and approved by the Commission. There has been no discussion or
28 agreement on this fundamental change to the cost of service model by the parties.

1 **Q: On page 24 of his initial prefiled testimony, Mr. Smith asserts that this change**
2 **is more fair and equitable; do you agree?**

3 A: No. NWD proposes a different allocation based on intended proceeds for a single
4 bond issue for the new treatment facility. That bond issue represents only \$0.47
5 million out of \$2.21 million of debt costs in FY 2013 (HJS Schedule D-6 Updated) –
6 less than ¼ of the debt. If NWD used this method of allocation for all bond issues –
7 as opposed to allocation based on the value of assets – PWFD would not bear any
8 of the costs of bonds related to meter replacements or distribution pipes. In other
9 words, NWD's selective application of this improper allocation method unfairly dis-
10 advantages PWFD. If the Commission let PWFD pick a single bond issue to set al-
11 locations, PWFD, like NWD, could also selectively choose a bond issue that result-
12 ed in a relatively lower allocation for PWFD. In short, NWD's results-oriented pro-
13 posal to change the allocation based on the intended proceeds for a single bond is-
14 sue (for the treatment plant) imposes an unfair burden on PWFD and the Navy and
15 therefore is neither fair nor equitable.

16 **Corrections**

17 **Q: You mentioned the need for several corrections to the model. Can you identi-**
18 **fy and describe these corrections?**

19 A: Yes. The schedules referenced below refer to the updated schedules attached to
20 Mr. Smith's October 25, 2012 supplemental direct testimony.

- 21 • On Schedule B2 under "Allocation Results" under the Base category there is an
22 amount for Pumping. The formula includes an incorrect Excel cell reference; the
23 capital costs related to pumping should be included here. This error is corrected
24 on my schedules.
- 25 • On Schedule B8 the values for the "Estimated Systemwide Peaks" are input val-
26 ues and not calculated from the data presented elsewhere. I have corrected this
27 on my schedules.

- The customer class demand factors on Schedule B8 should be rounded to two decimal places as was agreed in the settlement model. These values are not precise enough to carry them beyond two decimal places.

Q: Are there any other corrections to the schedules?

A: Yes. Schedule B-7 presents the Water Production Peaking Analysis. The average day, maximum day and maximum hour demands from this schedule are the basis for every allocation of costs associated with maximum day or maximum hour demands. A review of Schedule B-1 shows that this involves the vast majority of costs in this docket. On Schedule B-7, NWD has used the average of 2008 - 2010 demands for the average and maximum day costs and the average of 2010 – 2012 for the maximum hour costs. It is clearly incorrect to mix time periods in this manner.

Additionally, the allocations to the base, maximum day, and maximum hour cost categories are subsequently allocated to the customer classes (retail residential and commercial, PWFD, and the Navy). The allocations to customer classes are based on the recent demand studies for the summer of 2011 and 2012. NWD has first allocated costs based on a mixture of 2008-2010 and 2010-2012 demands and then distributed these costs to classes using 2011-2012 demands. The mixing of time periods is not appropriate. Because we are using the demand studies for the summers of 2011 and 2012, the three year average of 2010 – 2012 should be used in Schedule B-7 to ensure the use of matching time periods.

Q: What are the outstanding questions you have related to the value of assets that are used to allocate the capital costs?

A: HJS Schedule B5 contains a listing of assets by functional category (treatment, source of supply, transmission/distribution, etc.). In the settlement agreement, the parties agreed that debt, IFR and any other capital costs would be assigned based on the allocation of assets. This method is quite common in water cost of service studies; it is assumed that future capital costs will be proportionate to past capital

1 expenditures (assets). Because the asset values are so critical to the allocation of
2 more than \$6 million of the revenue requirements (more than 40% of the total costs),
3 PWFD data request 1-7 asked several questions regarding the asset listing, includ-
4 ing the basis for the amounts. In response, NWD provided a listing of the assets
5 with the amounts of each. This list did not include any pipes before 1975, yet does
6 include other pre-1975 assets. The asset list, therefore, appears to be incomplete
7 and/or incorrect. To the extent that the asset listing is incorrect or incomplete, it
8 compromises the allocation of more than 40% of the costs in this docket. PWFD is-
9 sued a formal data request on this matter on December 5, 2012 and is awaiting
10 NWD's response.

11 **Q: Are there any other matters where there are outstanding questions?**

12 A: Yes. On HJS Schedule D-3, the peak hour at the Lawton Valley Plant dropped from
13 8.0 million gallons per day (mgd) each year to exactly 6.0 mgd for the fiscal years
14 2010, 2011, and 2012. PWFD is still awaiting an explanation of this change.

15 **Schedules**

16 **Q: Have you prepared schedules that summarize your findings?**

17 A: Yes. I used Mr. Smith's schedule numbering, but relabeled them as "CW" sched-
18 ules to distinguish them. While these schedules contain calculations of the retail
19 rates, base charges and fire protection charges, I have focused on the rates to be
20 charged to PWFD. There are still several unanswered questions that may result in
21 additional changes to these schedules.

22

23

24

Newport Water Cost of Service Model

Index of Model Schedules

Summary Schedules

CW A-1	<u>Revenue Requirements</u>
CW A-2	<u>Cost of Service Rates and Charges</u>
CW A-3	<u>Bill Impacts</u>
CW A-4	<u>Revenue Proof</u>

Core Model Schedules

CW B-1	<u>Base Extra Capacity Cost Allocations</u>
CW B-2	<u>Allocation of Costs to Water Rate Classes</u>
CW B-3	<u>Cost Allocation Bases</u>
CW B-4	<u>Allocation Analyses</u>
CW B-5	<u>Capital Functionalization</u>
CW B-6	<u>Water Demand History</u>
CW B-7	<u>Water Production Peaking Analysis</u>
CW B-8	<u>Billed Demand Peaking Analysis: Determination of Customer Class Peaking Factors</u>
CW B-9	<u>System Demands Imposed by Each Customer Class' Peaking Behavior</u>
CW B-10	<u>Summary of Peak Load Distributions (by Rate Class and Base/Extra-Capacity Categories)</u>
CW B-11	<u>Fire Protection Demand Analysis</u>

Supporting Data

CW D-1	<u>Water Accounts, by Size and Class</u>
CW D-2	<u>Fire Protection Accounts</u>
CW D-3	<u>Production Summary</u>
CW D-4	<u>Demand Summary</u>
CW D-5	<u>Development of Pumping Costs</u>
CW D-6	<u>Demand Factor Calculations</u>

O&M COSTS

Administration

	Rate Year Approved in Docket 4243
Salaries & Wages	\$ 273,889
AFSCME retro	-
NEA retro	-
AFSCME benefits on retro pay	-
NEA benefits on retro pay	-
Standby Salaries	12,500
Accrued Benefits Buyout	175,000
Employee Benefits	128,202
Retiree Insurance Coverage	514,000
Workers Compensation	85,000
Annual Leave Buyback	2,400
Advertisement	9,000
Membership Dues & Subscriptions	2,500
Conferences & Training	4,000
Tuition Reimbursement	2,000
Consultant Fees	233,033
Postage	1,000
Fire & Liability Insurance	76,468
Telephone & Communication	5,500
Water	1,942
Electricity	5,805
Natural Gas	7,252
Property Taxes	226,774
Legal & Administrative	
Audit Fees	5,389
OPEB Contribution	-
City Counsel	4,529
Citizens Survey	-
City Clerk	3,285
City Manager	56,725
Human Resources	31,357
City Solicitor	19,616
Finance Administrative 80%	20,294
Finance Administrative 5%	7,108
Purchasing	17,222
Assessment	5,828
Collections	49,176
Accounting 5%	10,016
Accounting	66,675
Public Safety	-
Facilities Maintenance	12,438
Data Processing	143,888
Mileage Allowance	2,000
Gasoline & Vehicle Allowance	7,508
Repairs & Maintenance	1,200
Regulatory Expense	10,000
Regulatory Assessment	48,096
Office Supplies	20,000
Self Insurance	10,000
Unemployment Claims	12,000
Subtotal:	\$ 2,330,614

	Rate Year Approved in Docket 4243
Customer Service	
Salaries & Wages	\$ 256,335
Overtime	10,200
Collections	-
Temp Salaries	10,200
Injury Pay	-
Employee Benefits	168,793
Annual Leave Buyback	5,000
Copying & binding	500
Conferences & Training	5,000
Support Services	26,002
Postage	31,706
Gasoline & Vehicle Allowance	33,421
Repairs & Maintenance	40,000
Meter Maintenance	10,000
Operating Supplies	5,000
Uniforms & protective Gear	1,000
Customer Service Supplies	10,343
Subtotal:	\$ 613,500
Source of Supply - Island	
Salaries & Wages	\$ 258,897
Overtime	\$ 28,903
Temp Salaries	\$ 10,000
Injury Pay	-
Employee Benefits	134,334
Annual Leave Buyback	6,300
Electricity	42,108
Gas/Vehicle Maintenance	58,648
Repairs & Maintenance	7,425
Reservoir Maintenance	16,000
Operating Supplies	7,750
Uniforms & protective Gear	700
Chemicals	72,735
Subtotal:	\$ 643,800
Source of Supply - Mainland	
Overtime	\$ 4,617
Temp Salaries	\$ 13,000
Permanent Part time	\$ 15,264
Employee Benefits	\$ 2,525
Electricity	120,189
Repairs & Maintenance	7,200
Reservoir Maintenance	4,500
Operating Supplies	630
Subtotal:	\$ 167,925

	Rate Year Approved in Docket 4243
Station One	
Salaries & Wages	\$ 446,983
Overtime	\$ 60,021
Holiday Pay	\$ 17,045
Employee Benefits	\$ 278,523
Annual Leave Buyback	\$ 5,000
Conferences & Training	4,500
Fire & Liability Insurance	12,687
Electricity	252,674
Natural Gas	24,250
Rental of Equipment	600
Sewer Charge	293,020
Gas/Vehicle Maintenance	7,583
Repairs & Maintenance	25,000
Operating Supplies	25,210
Uniforms & protective Gear	1,062
Station One Pumping	\$22,428
Chemicals	354,210
Subtotal:	\$ 1,830,796
Lawton Valley	
Salaries & Wages	\$ 459,704
Overtime	\$ 37,657
Holiday Pay	\$ 16,760
Employee Benefits	\$ 287,143
Annual Leave Buyback	\$ 3,966
Conferences & Training	3,000
Fire & Liability Insurance	18,614
Electricity	132,551
Natural Gas	29,909
Rental of Equipment	500
Sewer Charge	360,640
Gas/Vehicle Maintenance	7,882
Repairs & Maintenance	34,048
Operating Supplies	18,475
Uniforms & protective Gear	1,542
LV Pumping	\$31,646
Chemicals	169,977
Subtotal:	\$ 1,614,014
Laboratory	
Salaries & Wages	\$ 104,358
Employee Benefits	\$ 64,208
Annual Leave Buyback	\$ 2,750
Repairs & Maintenance	1,700
Regulatory Assessment	32,000
Laboratory Supplies	18,684
Subtotal:	\$ 223,700

	Rate Year Approved in Docket 4243
Transmission & Distribution	
Salaries & Wages	\$ 418,161
Overtime	\$ 52,364
Temp Salaries	\$ 10,000
Injury Pay	\$ -
Employee Benefits	\$ 251,514
Annual Leave Buyback	\$ 10,943
Conferences & Training	4,000
Contract Services	12,430
Fire & Liability Insurance	18,748
Electricity	18,762
Heavy Equipment Rental	8,260
Gas/Vehicle Maintenance	110,305
Repairs & Maintenance	26,000
Main Maintenance	35,000
Hydrant Maintenance	35,000
Service Maintenance	30,000
Operating Supplies	10,000
Uniforms & protective Gear	1,761
Subtotal:	\$ 1,053,248
Fire Protection	
Repair & Maintenance - Equipment	\$ 13,500
Subtotal:	\$ 13,500
Total O&M Costs	\$ 8,491,097

CAPITAL COSTS

Contribution to Capital Spending Acct.

Existing Debt Service

Revenue Bonds

SRF Loans

New Debt Service

Revenue Bonds

SRF Loans

Total Debt Service

Total Capital Costs

Contribution to Repayment to City Account

Operating Revenue Allowance

Total Costs before Offsets

OFFSETS

Nonrate Revenues

Sundry charges

WPC cost share on customer service

Middletown cost share on customer service

Rental of Property

Water Penalty

Miscellaneous

Investment Interest Income

Water Quality Protection Fees

Total Nonrate Revenues

Net Costs to Be Recovered through Rates

Rate Year Approved in Docket 4243
\$ 2,500,000
\$3,576,079
\$ -
\$ -
\$ -
3,576,079
-
\$ 6,076,079
\$ 254,733
\$ 14,821,909
\$ 104,000
\$ 296,856
\$ 143,506
\$ 108,167
\$ 47,500
\$ 8,600
\$ 3,900
\$ 22,500
\$ 735,029
<u>\$ 14,086,880</u>

Rate Year costs are those approved in Docket No. 4243 with adj for Debt Service

Newport Water
 Cost Of Service Analysis
 CW A-2
 Cost of Service Rates and Charges

(1)								
		Docket 4243	Current Rates	Revenue w/Current	Cost of Service	Calculated Rates	Revenue w/ New	Change in Rev
Base Charge (per bill)								
Monthly								
	5/8	\$	18.75	\$ 24,750	\$ 7.7238	\$ 7.72	\$10,195	(\$14,555)
	3/4	\$	18.75	\$ 14,400	7.8114	7.81	5,999	(\$8,401)
	1	\$	18.75	\$ 37,125	8.5369	8.54	16,903	(\$20,222)
	1.5	\$	18.75	\$ 40,050	10.3773	10.38	22,166	(\$17,884)
	2	\$	18.75	\$ 48,375	12.1591	12.16	31,371	(\$17,004)
	3	\$	18.75	\$ 11,250	21.9011	21.90	13,141	\$1,891
	4	\$	18.75	\$ 2,700	24.5313	24.53	3,533	\$833
	5	\$	18.75	\$ 225	28.0382	28.04	336	\$111
	6	\$	18.75	\$ 4,500	30.6683	30.67	7,360	\$2,860
	8	\$	18.75	\$ 225	37.6821	37.68	452	\$227
	10	\$	18.75	\$ 225	50.3945	50.39	605	\$380
Quarterly								
	5/8	\$	18.75	\$ 799,125	\$ 10.5528	\$ 10.55	449,759	(\$349,366)
	3/4	\$	18.75	\$ 181,050	10.8158	10.82	104,437	(\$76,613)
	1	\$	18.75	\$ 29,325	12.9923	12.99	20,320	(\$9,005)
	1.5	\$	18.75	\$ 13,950	18.5134	18.51	13,774	(\$176)
	2	\$	18.75	\$ 4,425	23.8589	23.86	5,631	\$1,206
	3	\$	18.75	\$ 1,275	53.0848	53.08	3,610	\$2,335
	4	\$	18.75	\$ 225	60.9753	60.98	732	\$507
	5	\$	18.75	\$ -	71.4960	71.50	0	\$0
	6	\$	18.75	\$ 300	79.3864	79.39	1,270	\$970
	8	\$	18.75	\$ -	100.4277	100.43	0	\$0
	10	\$	18.75	\$ -	138.5650	138.57	0	\$0
				\$ 1,213,500			\$ 711,594	\$ (501,906)
Volume Charge (per 1,000 gallons)								
Retail								
	Residential	\$	6.43	\$ 4,051,749	\$ 8.2080	\$ 8.21	5,172,108	\$1,120,360
	Commercial	\$	6.43	\$ 3,212,730	\$ 9.1432	\$ 9.14	4,568,396	\$1,355,666
				\$ 7,264,479			9,740,504	\$ 2,476,025
Wholesale								
	Navy	\$	3.9540	\$ 707,651	\$ 5.2459	\$5.2459	938,867	\$231,216
	Portsmouth Water & Fire District	\$	3.152	\$ 1,350,692	\$4.152	\$4.1525	1,779,412	\$428,720
				\$ 2,058,343			\$ 2,718,279	\$ 659,936
Fire Protection								
	Public (per hydrant)	\$	1,065.00	\$ 1,103,340	\$ 636.58	\$ 636.58	\$ 659,495	(\$443,845)
Private (by Connection Size) (2)								
	Connection Size	Existing Charge Differential						
	<2		\$21.00		\$ 18.35	\$ 18.35		\$0
	2	6.19	\$88.00	\$ 352	\$ 76.88	\$ 76.88	308	(\$44)
	4	38.32	\$541.00	\$ 33,001	\$ 268.85	\$ 268.85	16,400	(\$16,601)
	6	111.31	\$1,083.00	\$ 265,335	\$ 632.98	\$ 632.98	155,081	(\$110,254)
	8	237.21	\$2,478.00	\$ 153,636	\$ 1,261.04	\$ 1,261.04	78,184	(\$75,452)
	10	426.58	\$4,091.00	\$ -	\$ 2,205.76	\$ 2,205.76	-	\$0
	12	689.04	\$6,568.00	\$ 13,136	\$ 3,515.12	\$ 3,515.12	7,030	(\$6,106)
				\$ 465,460			\$ 257,003	\$ (208,457)
Total Projected Rate Revenues			\$ 12,105,122				\$ 14,086,875	\$ 1,981,752

(1) From CW B-2, 'Allocation of Costs to Water Rate Classes'.

(2) From CW D-2, 'Fire Protection Accounts'.

Customer Class		Proposed				Proposed			Proposed			Proposed			Proposed			Proposed		
	All Meter	5/8 Inch Meter				3/4 Inch Meter			1 Inch Meter			1.5 Inch Meter			2 Inch Meter			3 Inch Meter		
	Monthly Consumption (gallons)	Bill at Current Rates	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change
Residential (Monthly)																				
Avg Monthly Bill	1,000	\$25 18	\$15 93	-\$9 25	-36 7%	\$16 02	-\$9 16	-36 4%	\$16 74	-\$8 44	-33 5%	\$18 59	-\$6 59	-26 2%	\$20 37	-\$4 81	-19 1%	\$30 11	\$4 93	19 6%
	2,000	\$31 61	\$24 14	-\$7 47	-23 6%	\$24 23	-\$7 38	-23 4%	\$24 95	-\$6 66	-21 1%	\$26 79	-\$4 82	-15 2%	\$28 58	-\$3 03	-9 6%	\$38 32	\$6 71	21 2%
	4,000	\$44 47	\$40 56	-\$3 91	-8 8%	\$40 64	-\$3 83	-8 6%	\$41 37	-\$3 10	-7 0%	\$43 21	-\$1 26	-2 8%	\$44 99	\$0 52	1 2%	\$54 73	\$10 26	23 1%
	5,000	\$50 90	\$48 76	-\$2 14	-4 2%	\$48 85	-\$2 05	-4 0%	\$49 58	-\$1 32	-2 6%	\$51 42	\$0 52	1 0%	\$53 20	\$2 30	4 5%	\$62 94	\$12 04	23 7%
	7,500	\$66 98	\$69 28	\$2 31	3 4%	\$69 37	\$2 40	3 6%	\$70 10	\$3 12	4 7%	\$71 94	\$4 96	7 4%	\$73 72	\$6 74	10 1%	\$83 46	\$16 49	24 6%
	10,000	\$83 05	\$89 80	\$6 75	8 1%	\$89 89	\$6 84	8 2%	\$90 62	\$7 57	9 1%	\$92 46	\$9 41	11 3%	\$94 24	\$11 19	13 5%	\$103 98	\$20 93	25 2%
	15,000	\$115 20	\$130 84	\$15 64	13 6%	\$130 93	\$15 73	13 7%	\$131 66	\$16 46	14 3%	\$133 50	\$18 30	15 9%	\$135 28	\$20 08	17 4%	\$145 02	\$29 82	25 9%
	20,000	\$147 35	\$171 88	\$24 53	16 6%	\$171 97	\$24 62	16 7%	\$172 70	\$25 35	17 2%	\$174 54	\$27 19	18 5%	\$176 32	\$28 97	19 7%	\$186 06	\$38 71	26 3%
	25,000	\$179 50	\$212 92	\$33 42	18 6%	\$213 01	\$33 51	18 7%	\$213 74	\$34 24	19 1%	\$215 58	\$36 08	20 1%	\$217 36	\$37 86	21 1%	\$227 10	\$47 60	26 5%
30,000	\$211 65	\$253 96	\$42 31	20 0%	\$254 05	\$42 40	20 0%	\$254 78	\$43 13	20 4%	\$256 62	\$44 97	21 2%	\$258 40	\$46 75	22 1%	\$268 14	\$56 49	26 7%	

Avg Quarterly Bill	15,000	\$115 20	\$133 67	\$18 47	16 0%	\$133 94	\$18 74	16 3%	\$136 11	\$20 91	18 2%	\$141 63	\$26 43	22 9%	\$146 98	\$31 78	27 6%	\$176 20	\$61 00	53 0%
	20,000	\$147 35	\$174 71	\$27 36	18 6%	\$174 98	\$27 63	18 7%	\$177 15	\$29 80	20 2%	\$182 67	\$35 32	24 0%	\$188 02	\$40 67	27 6%	\$217 24	\$69 89	47 4%
	30,000	\$211 65	\$256 79	\$45 14	21 3%	\$257 06	\$45 41	21 5%	\$259 23	\$47 58	22 5%	\$264 75	\$53 10	25 1%	\$270 10	\$58 45	27 6%	\$299 32	\$87 67	41 4%
	40,000	\$275 95	\$338 87	\$62 92	22 8%	\$339 13	\$63 18	22 9%	\$341 31	\$65 36	23 7%	\$346 83	\$70 88	25 7%	\$352 18	\$76 23	27 6%	\$381 40	\$105 45	38 2%
	60,000	\$404 55	\$503 03	\$98 48	24 3%	\$503 29	\$98 74	24 4%	\$505 47	\$100 92	24 9%	\$510 99	\$106 44	26 3%	\$516 34	\$111 79	27 6%	\$545 56	\$141 01	34 9%
	80,000	\$533 15	\$667 19	\$134 04	25 1%	\$667 45	\$134 30	25 2%	\$669 63	\$136 48	25 6%	\$675 15	\$142 00	26 6%	\$680 50	\$147 35	27 6%	\$709 72	\$176 57	33 1%
	100,000	\$661 75	\$831 35	\$169 60	25 6%	\$831 61	\$169 86	25 7%	\$833 79	\$172 04	26 0%	\$839 31	\$177 56	26 8%	\$844 66	\$182 91	27 6%	\$873 88	\$212 13	32 1%
	120,000	\$790 35	\$995 51	\$205 16	26 0%	\$995 77	\$205 42	26 0%	\$997 95	\$207 60	26 3%	\$1,003 47	\$213 12	27 0%	\$1,008 82	\$218 47	27 6%	\$1,038 04	\$247 69	31 3%

Customer Class		All Meter	Proposed			Proposed			Proposed			Proposed			Proposed			Proposed		
			5/8 Inch Meter			3/4 Inch Meter			1 Inch Meter			1.5 Inch Meter			2 Inch Meter			3 Inch Meter		
	Monthly Consumption (gallons)	Bill at Current Rates	Bill at Proposed Rates	Dollar Change	Percent Change	Proposed Rates	Dollar Change	Percent Change	Proposed Rates	Dollar Change	Percent Change	Proposed Rates	Dollar Change	Percent Change	Proposed Rates	Dollar Change	Percent Change	Proposed Rates	Dollar Change	Percent Change
Commercial (Monthly)																				
	2,000	\$31 61	\$26 01	-\$5 60	-17 7%	\$26 10	-\$5 51	-17 4%	\$26 82	-\$4 79	-15 1%	\$28 66	-\$2 95	-9 3%	\$30 45	-\$1 16	-3 7%	\$40 19	\$8 58	27 1%
Avg Monthly Bill	5,000	\$50 90	\$53 44	\$2 54	5 0%	\$53 53	\$2 63	5 2%	\$54 25	\$3 35	6 6%	\$56 09	\$5 19	10 2%	\$57 88	\$6 98	13 7%	\$67 62	\$16 72	32 8%
	15,000	\$115 20	\$144 87	\$29 67	25 8%	\$144 96	\$29 76	25 8%	\$145 69	\$30 49	26 5%	\$147 53	\$32 33	28 1%	\$149 31	\$34 11	29 6%	\$159 05	\$43 85	38 1%
	20,000	\$147 35	\$190 59	\$43 24	29 3%	\$190 68	\$43 33	29 4%	\$191 40	\$44 05	29 9%	\$193 24	\$45 89	31 1%	\$195 02	\$47 67	32 4%	\$204 77	\$57 42	39 0%
	30,000	\$211 65	\$282 02	\$70 37	33 2%	\$282 11	\$70 46	33 3%	\$282 83	\$71 18	33 6%	\$284 67	\$73 02	34 5%	\$286 46	\$74 81	35 3%	\$296 20	\$84 55	39 9%
	40,000	\$275 95	\$373 45	\$97 50	35 3%	\$373 54	\$97 59	35 4%	\$374 27	\$98 32	35 6%	\$376 11	\$100 16	36 3%	\$377 89	\$101 94	36 9%	\$387 63	\$111 68	40 5%
	50,000	\$340 25	\$464 89	\$124 64	36 6%	\$464 97	\$124 72	36 7%	\$465 70	\$125 45	36 9%	\$467 54	\$127 29	37 4%	\$469 32	\$129 07	37 9%	\$479 06	\$138 81	40 8%
	75,000	\$501 00	\$693 47	\$192 47	38 4%	\$693 55	\$192 55	38 4%	\$694 28	\$193 28	38 6%	\$696 12	\$195 12	38 9%	\$697 90	\$196 90	39 3%	\$707 64	\$206 64	41 2%
	100,000	\$661 75	\$922 05	\$260 30	39 3%	\$922 14	\$260 39	39 3%	\$922 86	\$261 11	39 5%	\$924 70	\$262 95	39 7%	\$926 48	\$264 73	40 0%	\$936 23	\$274 48	41 5%

Customer Class	All Meter	Proposed			Proposed			Proposed			Proposed			Proposed			Proposed			
		5/8 Inch Meter			3/4 Inch Meter			1 Inch Meter			1.5 Inch Meter			2 Inch Meter			3 Inch Meter			
		Monthly Consumption (gallons)	Bill at Current Rates	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change	Bill at Proposed Rates	Dollar Change	Percent Change		
Commercial with 6" Fire Connection(Monthly Account)																				
Base Charge and Commodity Charges	180,000	\$1,382.40	\$1,738.47	\$356.07	25.8%	\$1,739.52	\$357.12	25.8%	\$1,748.23	\$365.83	26.5%	\$1,770.31	\$387.91	28.1%	\$1,791.69	\$409.29	29.6%	\$1,908.60	\$526.20	38.1%
Fire Protection Charge		\$1,083.00	\$632.98	-\$450.02	-41.6%	\$632.98	-\$450.02	-41.6%	\$632.98	-\$450.02	-41.6%	\$632.98	-\$450.02	-41.6%	\$632.98	#####	-41.6%	\$632.98	#####	-41.6%
Total Annual Charges		\$2,465.40	\$2,371.45	-\$93.95	-3.8%	\$2,372.50	-\$92.90	-3.8%	\$2,381.21	-\$84.19	-3.4%	\$2,403.29	-\$62.11	-2.5%	\$2,424.68	-\$40.72	-1.7%	\$2,541.58	\$76.18	3.1%

Newport Water
 Cost Of Service Analysis
 CW A-3
 Bill Impacts - Cost of Service Rates
 Page 2 of 2

Customer Class	Monthly Consumption (gallons)	Bill at Current Rates	Proposed		
			Bill at Proposed Rates	Dollar Change	Percent Change
Portsmouth (Monthly)					
Avg Monthly Bill	10,000,000	\$31,539	\$41,549	\$10,010	31.7%
	20,000,000	\$63,059	\$83,074	\$20,015	31.7%
	38,000,000	\$119,795	\$157,818	\$38,024	31.7%
	40,000,000	\$126,099	\$166,123	\$40,025	31.7%
	75,000,000	\$236,419	\$311,460	\$75,041	31.7%
	100,000,000	\$315,219	\$415,271	\$100,053	31.7%
	150,000,000	\$472,819	\$622,895	\$150,076	31.7%
Navy (Monthly)					
Avg Monthly Bill (All Meters)	10,000,000	\$39,559	\$52,763	\$13,204	33.4%
	20,000,000	\$79,099	\$105,222	\$26,123	33.0%
	38,000,000	\$150,252	\$199,648	\$49,396	32.9%
	50,000,000	\$197,719	\$262,599	\$64,881	32.8%
	75,000,000	\$296,569	\$393,747	\$97,179	32.8%
	100,000,000	\$395,419	\$524,895	\$129,477	32.7%

Newport Water Division
 Cost Of Service Analysis
 CW A-4
 Revenue Proof

	Rate Year Revenue	
	Existing Rates	Proposed Rates
REVENUES		
Water Rates		
Base Charge (Billing Charge)	\$ 1,213,500	\$ 711,594
Volume Charge		
Residential	4,051,749	5,172,108
Commercial	3,212,730	4,568,396
Navy	707,651	938,867
Portsmouth Water & Fire District	1,350,692	1,779,412
Fire Protection		
Public	1,103,340	659,495
Private	465,460	257,003
Total Rate Revenues	\$ 12,105,122	\$ 14,086,875
Other Operating Revenues		
Sundry charges	\$ 104,000	104,000
WPC cost share on customer service	\$ 296,856	296,856
Middletown cost share on customer service	\$ 143,506	143,506
Rental of Property	\$ 108,167	108,167
Total Other Operating Revenues	\$ 652,529	652,529
Total Operating Revenues	\$ 12,757,651	\$ 14,739,404
Add: Non-Operating Revenues		
Water Penalty	47,500	47,500
Miscellaneous	8,600	8,600
Investment Interest Income	3,900	3,900
Water Quality Protection Fees	22,500	22,500
Total Non Operating Revenues	\$ 82,500	\$ 82,500
Total Revenues	\$ 12,840,151	\$ 14,821,904
COSTS		
Departmental O&M	\$ (8,491,097)	(8,491,097)
Capital Costs		
Contribution to Capital Spending Acct.	(2,500,000)	(2,500,000)
Existing Debt Service	(3,576,079)	(3,576,079)
New Debt Service	-	-
Total Capital Costs	\$ (6,076,079)	(6,076,079)
Operating Revenue Allowance	(254,733)	(254,733)
Total Costs	\$ (14,821,909)	\$ (14,821,909)
Revenue Surplus (Deficit)	\$ (1,981,758)	\$ (5)

Docket 4025 Rate Year		Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Operation & Maintenance Costs										
Administration										
Salaries, Wages, & Benefits										
Salaries & Wages	\$ 273,889	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
AFSCME retro	\$ -	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
NEA retro	\$ -	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
AFSCME benefits on retro pay	\$ -	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
NEA benefits on retro pay	\$ -	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Standby Salaries	\$ 12,500	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Accrued Benefits Buyout	\$ 175,000	O&M Labor	59%	27%	2%	6%	5%	2%	0%	100%
Employee Benefits	\$ 128,202	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Retiree Insurance Coverage	\$ 514,000	O&M Labor	59%	27%	2%	6%	5%	2%	0%	100%
Workers Compensation	\$ 85,000	O&M Labor	59%	27%	2%	6%	5%	2%	0%	100%
Annual Leave Buyback	\$ 2,400	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Subtotal	1,190,991									

Docket 4025 Rate Year		Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
All Other Administrative Costs										
Advertisement	9,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Membership Dues & Subscriptions	2,500	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Conferences & Training	4,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Tuition Reimbursement	2,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Consultant Fees	233,033	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Postage	1,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Fire & Liability Insurance	76,468	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Telephone & Communication	5,500	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Water	1,942	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Electricity	5,805	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Natural Gas	7,252	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Property Taxes	226,774	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Legal & Administrative	-									
Audit Fees	5,389	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
OPEB Contribution	-	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
City Counsel	4,529	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Citizens Survey	-	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
City Clerk	3,285	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
City Manager	56,725	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Human Resources	31,357	Non-Administrative Wages & Salaries	59%	27%	2%	6%	5%	2%	0%	100%
City Solicitor	19,616	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Finance Adimistrative 80%	20,294	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Finance Adimistrative 5%	7,108	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Purchasing	17,222	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Assessment	5,828	Capital Costs	64%	30%	2%	0%	3%	0%	0%	100%
Collections	49,176	100% Billing	0%	0%	0%	0%	100%	0%	0%	100%
Accounting 5%	10,016	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Accounting	66,675	Non-Administrative Wages & Salaries	59%	27%	2%	6%	5%	2%	0%	100%
Public Safety	-	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Facilities Maintenance	12,438	Total Non-Admin Costs Before Offsets	67%	24%	2%	2%	4%	1%	1%	100%
Data Processing	143,888	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Mileage Allowance	2,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Gasoline & Vehicle Allowance	7,508	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Repairs & Maintenance	1,200	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Regulatory Expense	10,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Regulatory Assessment	48,096	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Office Supplies	20,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Self Insurance	10,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Unemployment Claims	12,000	Non-Administrative O&M costs	64%	22%	1%	5%	5%	2%	1%	100%
Subtotal	1,139,623									

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No 4355

Docket 4025 Rate Year		Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Customer Service										
Salaries & Wages	281,735	CW B-4, 'Allocation Analyses.	0%	0%	0%	46%	41%	13%	0%	100%
Benefits	168,793	CW B-4, 'Allocation Analyses.	0%	0%	0%	46%	41%	13%	0%	100%
Copying & binding	500	100% billing (based on budget analysis)					100%			100%
Conferences & Training	5,000	100% billing (based on budget analysis)					100%			100%
Support Services	26,002	100% billing (software support & printing/mailling)					100%			100%
Postage	31,706	100% billing (based on budget analysis)					100%			100%
Gasoline & Vehicle Allowance	33,421	CW B-4, 'Allocation Analyses	0%	0%	0%	46%	41%	13%	0%	100%
Repairs & Maintenance	40,000	100% metering (meter repairs)				100%				100%
Meter Maintenance	10,000	100% metering (based on budget analysis)				100%				100%
Operating Supplies	5,000	100% metering (based on budget analysis)				100%				100%
Uniforms & protective Gear	1,000	100% metering (based on budget analysis)				100%				100%
Customer Service Supplies	10,343	100% billing (based on budget analysis)					100%			100%
Subtotal	613,500									
Source of Supply - Island										
Salaries & Wages	\$ 258,897	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Overtime	\$ 28,903	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Temp Salaries	\$ 10,000	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Injury Pay	\$ -	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Employee Benefits	\$ 134,334	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Annual Leave Buyback	\$ 6,300	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Electricity	\$ 42,108	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Gas/Vehicle Maintenance	\$ 58,648	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$ 7,425	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Reservoir Maintenance	\$ 16,000	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Operating Supplies	\$ 7,750	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Uniforms & protective Gear	\$ 700	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Chemicals	\$ 72,735	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Subtotal	\$ 643,800									
Source of Supply - Mainland										
Overtime	\$ 4,617	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Temp Salaries	\$ 13,000	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Permanent Part time	\$ 15,264	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Employee Benefits	\$ 2,525	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Electricity	\$ 120,189	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$ 7,200	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Reservoir Maintenance	\$ 4,500	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Operating Supplies	\$ 630	Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Subtotal	\$ 167,925									

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

Docket 4025 Rate Year		Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Station One (Excludes pumping and chemicals)										
Salaries & Wages	\$ 446,983	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Overtime	\$ 60,021	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Holiday Pay	\$ 17,045	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Employee Benefits	\$ 278,523	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Annual Leave Buyback	\$ 5,000	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Conferences & Training	\$ 4,500	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Fire & Liability Insurance	\$ 12,687	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Electricity	\$ 252,674	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Natural Gas	\$ 24,250	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Rental of Equipment	\$ 600	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Sewer Charge	\$ 293,020	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Gas/Vehicle Maintenance	\$ 7,583	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$ 25,000	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Operating Supplies	\$ 25,210	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Uniforms & protective Gear	\$ 1,062	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Station One Pumping	\$ 22,428	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Station One Chemicals	\$ 354,210	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Subtotal	\$ 1,830,796									
Lawton Valley (Excludes pumping and chemicals)										
Salaries & Wages	\$459,704	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Overtime	\$37,657	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Holiday Pay	\$16,760	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Employee Benefits	\$287,143	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Annual Leave Buyback	\$3,966	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Conferences & Training	\$3,000	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Fire & Liability Insurance	\$18,614	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Electricity	\$132,551	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Natural Gas	\$29,909	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Rental of Equipment	\$500	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Sewer Charge	\$360,640	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Gas/Vehicle Maintenance	\$7,882	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$34,048	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Operating Supplies	\$18,475	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Uniforms & protective Gear	\$1,542	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Lawton Valley Pumping	\$31,646	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Lawton Valley Chemicals	\$169,977	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Subtotal	1,614,014									

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

	Docket 4025 Rate Year	Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Laboratory										
Salaries & Wages	\$ 104,358	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Employee Benefits	\$ 64,208	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Annual Leave Buyback	\$ 2,750	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$ 1,700	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Regulatory Assessment	\$ 32,000	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Laboratory Supplies	\$ 18,684	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Subtotal	\$ 223,700									
Transmission and Distribution										
Salaries & Wages	\$ 418,161	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Overtime	\$ 52,364	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Temp Salaries	\$ 10,000	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Injury Pay	\$ -	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Employee Benefits	\$ 251,514	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Annual Leave Buyback	\$ 10,943	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Conferences & Training	\$ 4,000	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Contract Services	\$ 12,430	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Fire & Liability Insurance	\$ 18,748	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Electricity	\$ 18,762	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Heavy Equipment Rental	\$ 8,260	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Gas/Vehicle Maintenance	\$ 110,305	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Repairs & Maintenance	\$ 26,000	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Main Maintenance	\$ 35,000	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Hydrant Maintenance	\$ 35,000	100% Fire	0%	0%	0%	0%	0%	0%	100%	100%
Service Maintenance	\$ 30,000	100% Services	0%	0%	0%	0%	0%	100%	0%	100%
Operating Supplies	\$ 10,000	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Uniforms & protective Gear	\$ 1,761	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Subtotal	\$ 1,053,248									
Fire Protection	13,500	100% Fire	0%	0%	0%	0%	0%	0%	100%	100%
Total O&M Costs	8,491,097									

CAPITAL COSTS

	Docket 4025 Rate Year	Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
	Docket 4025 Rate Year	Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Water Supply	1,395,751	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Treatment Station 1	1,609,150	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Treatment Lawton Valley	508,569	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
Treatment Both Plants	654,700	Maximum Day Demand Patterns	58%	42%	0%	0%	0%	0%	0%	100%
T&D Pumping	64,843	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
T&D	1,565,587	Maximum Hour Demand Patterns	54%	39%	8%	0%	0%	0%	0%	100%
Fire	25,119	100% Fire	0%	0%	0%	0%	0%	0%	100%	100%
Meters	22,481	100% Meters	0%	0%	0%	100%	0%	0%	0%	100%
Services	22,481	100 % Services	0%	0%	0%	0%	0%	100%	0%	100%
Billing	207,398	100% Billing	0%	0%	0%	0%	100%	0%	0%	100%
Total Capital Costs	6,076,079									
Revenue Allowance	254,733	100% base	100%							100%
Total Costs before Offsets	14,821,909									

OFFSETS

Nonrate Revenues

Sundry charges	104,000	Non Admin less electricity & chemicals	64%	22%	1%	5%	5%	2%	1%	100%
WPC cost share on customer service	296,856	50/50 Split between Metering and Billing	0%	0%	0%	50%	50%	0%	0%	100%
Middletown cost share on customer service	143,506	50/50 Split between Metering and Billing	0%	0%	0%	50%	50%	0%	0%	100%
Rental of Property	108,167	Non Admin less electricity & chemicals	64%	22%	1%	5%	5%	2%	1%	100%
Water Penalty	47,500	Non Admin less electricity & chemicals	64%	22%	1%	5%	5%	2%	1%	100%
Miscellaneous	8,600	Non Admin less electricity & chemicals	64%	22%	1%	5%	5%	2%	1%	100%
Investment Interest Income	3,900	Non Admin less electricity & chemicals	64%	22%	1%	5%	5%	2%	1%	100%
Water Quality Protection Fees	22,500	100% Base	100%	0%	0%	0%	0%	0%	0%	100%
Total Nonrate Revenues	735,029									
Net Costs To Recover Through Rates	\$ 14,086,880									

Operation & Maintenance Costs

Administration

Salaries, Wages, & Benefits

Salaries & Wages

AFSCME retro

NEA retro

AFSCME benefits on retro pay

NEA benefits on retro pay

Standby Salaries

Accrued Benefits Buyout

Employee Benefits

Retiree Insurance Coverage

Workers Compensation

Annual Leave Buyback

Subtotal

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
Salaries & Wages	175,397	59,395	4,007	14,025	13,881	4,725	2,459	273,889
AFSCME retro	-	-	-	-	-	-	-	-
NEA retro	-	-	-	-	-	-	-	-
AFSCME benefits on retro pay	-	-	-	-	-	-	-	-
NEA benefits on retro pay	-	-	-	-	-	-	-	-
Standby Salaries	8,005	2,711	183	640	634	216	112	12,500
Accrued Benefits Buyout	102,653	47,597	2,850	9,839	9,014	2,869	178	175,000
Employee Benefits	82,100	27,802	1,875	6,565	6,498	2,211	1,151	128,202
Retiree Insurance Coverage	301,506	139,798	8,371	28,900	26,474	8,427	523	514,000
Workers Compensation	49,860	23,118	1,384	4,779	4,378	1,394	87	85,000
Annual Leave Buyback	1,537	520	35	123	122	41	22	2,400
Subtotal	721,058	300,942	18,705	64,871	61,000	19,883	4,532	1,190,991

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
All Other Administrative Costs								
Advertisement	5,764	1,952	132	461	456	155	81	9,000
Membership Dues & Subscriptions	1,601	542	37	128	127	43	22	2,500
Conferences & Training	2,562	867	59	205	203	69	36	4,000
Tuition Reimbursement	1,281	434	29	102	101	34	18	2,000
Consultant Fees	149,233	50,535	3,409	11,933	11,811	4,020	2,092	233,033
Postage	640	217	15	51	51	17	9	1,000
Fire & Liability Insurance	48,970	16,583	1,119	3,916	3,876	1,319	687	76,468
Telephone & Communication	3,522	1,193	80	282	279	95	49	5,500
Water	1,243	421	28	99	98	33	17	1,942
Electricity	3,718	1,259	85	297	294	100	52	5,805
Natural Gas	4,644	1,573	106	371	368	125	65	7,252
Property Taxes	145,225	49,178	3,317	11,612	11,493	3,912	2,036	226,774
Legal & Administrative								
Audit Fees	3,603	1,280	87	129	208	50	32	5,389
OPEB Contribution	-	-	-	-	-	-	-	-
City Counsel	3,028	1,076	73	108	174	42	27	4,529
Citizens Survey	-	-	-	-	-	-	-	-
City Clerk	2,196	780	53	79	127	30	19	3,285
City Manager	37,927	13,475	920	1,358	2,185	525	334	56,725
Human Resources	18,394	8,529	511	1,763	1,615	514	32	31,357
City Solicitor	13,116	4,660	318	470	756	182	116	19,616
Finance Adimistrative 80%	13,569	4,821	329	486	782	188	120	20,294
Finance Adimistrative 5%	4,752	1,688	115	170	274	66	42	7,108
Purchasing	11,515	4,091	279	412	663	159	102	17,222
Assessment	3,721	1,723	119	22	199	22	24	5,828
Collections	-	-	-	-	49,176	-	-	49,176
Accounting 5%	6,697	2,379	162	240	386	93	59	10,016
Accounting	39,111	18,134	1,086	3,749	3,434	1,093	68	66,675
Public Safety	-	-	-	-	-	-	-	-
Facilities Maintenance	8,316	2,954	202	298	479	115	73	12,438
Data Processing	92,145	31,203	2,105	7,368	7,293	2,482	1,292	143,888
Mileage Allowance	1,281	434	29	102	101	34	18	2,000
Gasoline & Vehicle Allowance	4,808	1,628	110	384	381	130	67	7,508
Repairs & Maintenance	768	260	18	61	61	21	11	1,200
Regulatory Expense	6,404	2,169	146	512	507	172	90	10,000
Regulatory Assessment	30,800	10,430	704	2,463	2,438	830	432	48,096
Office Supplies	12,808	4,337	293	1,024	1,014	345	180	20,000
Self Insurance	6,404	2,169	146	512	507	172	90	10,000
Unemployment Claims	7,685	2,602	176	614	608	207	108	12,000
Subtotal	697,450	245,576	16,397	51,783	102,522	17,396	8,500	1,139,623

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No 4355

Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
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Customer Service

Salaries & Wages	-	-	-	128,413	116,547	36,776	-	281,735
Benefits	-	-	-	76,935	69,826	22,033	-	168,793
Copying & binding	-	-	-	-	500	-	-	500
Conferences & Training	-	-	-	-	5,000	-	-	5,000
Support Services	-	-	-	-	26,002	-	-	26,002
Postage	-	-	-	-	31,706	-	-	31,706
Gasoline & Vehicle Allowance	-	-	-	15,233	13,825	4,363	-	33,421
Repairs & Maintenance	-	-	-	40,000	-	-	-	40,000
Meter Maintenance	-	-	-	10,000	-	-	-	10,000
Operating Supplies	-	-	-	5,000	-	-	-	5,000
Uniforms & protective Gear	-	-	-	1,000	-	-	-	1,000
Customer Service Supplies	-	-	-	-	10,343	-	-	10,343
Subtotal								

Source of Supply - Island

Salaries & Wages	258,897	-	-	-	-	-	-	258,897
Overtime	28,903	-	-	-	-	-	-	28,903
Temp Salaries	10,000	-	-	-	-	-	-	10,000
Injury Pay	-	-	-	-	-	-	-	-
Employee Benefits	134,334	-	-	-	-	-	-	134,334
Annual Leave Buyback	6,300	-	-	-	-	-	-	6,300
Electricity	42,108	-	-	-	-	-	-	42,108
Gas/Vehicle Maintenance	58,648	-	-	-	-	-	-	58,648
Repairs & Maintenance	7,425	-	-	-	-	-	-	7,425
Reservoir Maintenance	16,000	-	-	-	-	-	-	16,000
Operating Supplies	7,750	-	-	-	-	-	-	7,750
Uniforms & protective Gear	700	-	-	-	-	-	-	700
Chemicals	72,735	-	-	-	-	-	-	72,735
Subtotal								

Source of Supply - Mainland

Overtime	4,617	-	-	-	-	-	-	4,617
Temp Salaries	13,000	-	-	-	-	-	-	13,000
Permanent Part time	15,264	-	-	-	-	-	-	15,264
Employee Benefits	2,525	-	-	-	-	-	-	2,525
Electricity	120,189	-	-	-	-	-	-	120,189
Repairs & Maintenance	7,200	-	-	-	-	-	-	7,200
Reservoir Maintenance	4,500	-	-	-	-	-	-	4,500
Operating Supplies	630	-	-	-	-	-	-	630
Subtotal								

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
Station One (Excludes pumping and chemicals)								
Salaries & Wages	259,393	187,590	-	-	-	-	-	446,983
Overtime	34,831	25,190	-	-	-	-	-	60,021
Holiday Pay	9,892	7,153	-	-	-	-	-	17,045
Employee Benefits	161,633	116,890	-	-	-	-	-	278,523
Annual Leave Buyback	2,902	2,098	-	-	-	-	-	5,000
Conferences & Training	2,611	1,889	-	-	-	-	-	4,500
Fire & Liability Insurance	7,363	5,324	-	-	-	-	-	12,687
Electricity	252,674	-	-	-	-	-	-	252,674
Natural Gas	14,073	10,177	-	-	-	-	-	24,250
Rental of Equipment	348	252	-	-	-	-	-	600
Sewer Charge	293,020	-	-	-	-	-	-	293,020
Gas/Vehicle Maintenance	4,401	3,182	-	-	-	-	-	7,583
Repairs & Maintenance	14,508	10,492	-	-	-	-	-	25,000
Operating Supplies	14,630	10,580	-	-	-	-	-	25,210
Uniforms & protective Gear	616	446	-	-	-	-	-	1,062
Station One Pumping	12,029	8,699	1,700	-	-	-	-	22,428
Station One Chemicals	354,210	-	-	-	-	-	-	354,210
Subtotal								
Lawton Valley (Excludes pumping and chemicals)								
Salaries & Wages	266,776	192,928	-	-	-	-	-	459,704
Overtime	21,853	15,804	-	-	-	-	-	37,657
Holiday Pay	9,726	7,034	-	-	-	-	-	16,760
Employee Benefits	166,635	120,508	-	-	-	-	-	287,143
Annual Leave Buyback	2,302	1,664	-	-	-	-	-	3,966
Conferences & Training	1,741	1,259	-	-	-	-	-	3,000
Fire & Liability Insurance	10,802	7,812	-	-	-	-	-	18,614
Electricity	132,551	-	-	-	-	-	-	132,551
Natural Gas	17,357	12,552	-	-	-	-	-	29,909
Rental of Equipment	290	210	-	-	-	-	-	500
Sewer Charge	360,640	-	-	-	-	-	-	360,640
Gas/Vehicle Maintenance	4,574	3,308	-	-	-	-	-	7,882
Repairs & Maintenance	19,759	14,289	-	-	-	-	-	34,048
Operating Supplies	10,721	7,754	-	-	-	-	-	18,475
Uniforms & protective Gear	895	647	-	-	-	-	-	1,542
Lawton Valley Pumping	16,973	12,275	2,399	-	-	-	-	31,646
Lawton Valley Chemicals	169,977	-	-	-	-	-	-	169,977
Subtotal								

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated	
Laboratory									
Salaries & Wages	104,358	-	-	-	-	-	-	104,358	
Employee Benefits	64,208	-	-	-	-	-	-	64,208	
Annual Leave Buyback	2,750	-	-	-	-	-	-	2,750	
Repairs & Maintenance	1,700	-	-	-	-	-	-	1,700	
Regulatory Assessment	32,000	-	-	-	-	-	-	32,000	
Laboratory Supplies	18,684	-	-	-	-	-	-	18,684	
Subtotal									
Transmission and Distribution									
Salaries & Wages	224,272	162,190	31,698	-	-	-	-	418,161	
Overtime	28,084	20,310	3,969	-	-	-	-	52,364	
Temp Salaries	5,363	3,879	758	-	-	-	-	10,000	
Injury Pay	-	-	-	-	-	-	-	-	
Employee Benefits	134,894	97,554	19,066	-	-	-	-	251,514	
Annual Leave Buyback	5,869	4,244	830	-	-	-	-	10,943	
Conferences & Training	2,145	1,551	303	-	-	-	-	4,000	
Contract Services	6,667	4,821	942	-	-	-	-	12,430	
Fire & Liability Insurance	10,055	7,272	1,421	-	-	-	-	18,748	
Electricity	10,063	7,277	1,422	-	-	-	-	18,762	
Heavy Equipment Rental	4,430	3,204	626	-	-	-	-	8,260	
Gas/Vehicle Maintenance	59,160	42,784	8,362	-	-	-	-	110,305	
Repairs & Maintenance	13,945	10,085	1,971	-	-	-	-	26,000	
Main Maintenance	18,772	13,575	2,653	-	-	-	-	35,000	
Hydrant Maintenance	-	-	-	-	-	-	35,000	35,000	
Service Maintenance	-	-	-	-	-	30,000	-	30,000	
Operating Supplies	5,363	3,879	758	-	-	-	-	10,000	
Uniforms & protective Gear	944	683	133	-	-	-	-	1,761	
Subtotal									
Fire Protection	-	-	-	-	-	-	13,500	13,500	
Total O&M Costs	Non-Administrative O&M	4,218,156	1,171,315	79,012	276,580	273,749	93,171	48,500	6,160,483

Newport Water Division
Cost Of Service Analysis
CW B-1
Base Extra Capacity Cost Allocations

Docket No. 4355

		Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
		Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
CAPITAL COSTS									
Water Supply		1,395,751	-	-	-	-	-	-	1,395,751
Treatment Station 1		933,822	675,328	-	-	-	-	-	1,609,150
Treatment Lawton Valley		295,133	213,436	-	-	-	-	-	508,569
Treatment Both Plants		379,936	274,764	-	-	-	-	-	654,700
T&D Pumping		34,777	25,150	4,915	-	-	-	-	64,843
T&D		839,671	607,239	118,678	-	-	-	-	1,565,587
Fire		-	-	-	-	-	-	25,119	25,119
Meters		-	-	-	22,481	-	-	-	22,481
Services		-	-	-	-	-	22,481	-	22,481
Billing		-	-	-	-	207,398	-	-	207,398
Total Capital Costs		3,879,090	1,795,917	123,593	22,481	207,398	22,481	25,119	6,076,079
		64%	30%	2%	0%	3%	0%	0%	100%
Revenue Allowance		254,733	-	-	-	-	-	-	254,733
Total Costs before Offsets	Total Non-Admin Costs	8,351,979	2,967,232	202,605	299,061	481,147	115,652	73,619	12,491,295
		67%	24%	2%	2%	4%	1%	1%	100%
OFFSETS									
Nonrate Revenues									
Sundry charges		66,601	22,553	1,521	5,325	5,271	1,794	934	104,000
WPC cost share on customer service		-	-	-	148,428	148,428	-	-	296,856
Middletown cost share on customer service		-	-	-	71,753	71,753	-	-	143,506
Rental of Property		69,269	23,457	1,582	5,539	5,482	1,866	971	108,167
Water Penalty		30,419	10,301	695	2,432	2,407	819	427	47,500
Miscellaneous		5,507	1,865	126	440	436	148	77	8,600
Investment Interest Income		2,498	846	57	200	198	67	35	3,900
Water Quality Protection Fees		22,500	-	-	-	-	-	-	22,500
Total Nonrate Revenues		196,794	59,022	3,981	234,118	233,975	4,695	2,444	735,029
Net Costs To Recover Through Rates		\$ 8,155,185	\$ 2,908,211	\$ 198,624	\$ 64,943	\$ 247,172	\$ 110,957	\$ 71,175	\$ 11,756,266
Non-Admin O&M Costs		\$ 4,218,156	\$ 1,171,315	\$ 79,012	\$ 276,580	\$ 273,749	\$ 93,171	\$ 48,500	\$ 6,160,483
Less: Chemicals									\$ -
Station One		\$ (354,210)							\$ (354,210)
Lawton Valley		\$ (169,977)							\$ (169,977)
Source Supply		\$ (72,735)							\$ (72,735)
Electricity									\$ -
Source Supply		\$ (162,297)							\$ (162,297)
Station One		\$ -	\$ -						\$ -
Lawton Valley		\$ -	\$ -						\$ -
Costs Adjusted		\$ 3,458,937	\$ 1,171,315	\$ 79,012	\$ 276,580	\$ 273,749	\$ 93,171	\$ 48,500	\$ 5,401,264
		64%	22%	1%	5%	5%	2%	1%	100%

Newport Water Division
Cost Of Service Analysis
CW B-2
Allocation of Costs to Water Rate Classes

Docket No. 4355

ALLOCATION PERCENTAGES

Cost Category	Allocation Basis	Commodity Charges					Fire	Total % Allocated
		Base Charge	Retail	Commercial & Governmental	Navy	Portsmouth		
Base	Average annual demand	41%	32%	9%	18%	0%	0%	100%
Base Excluding PWFD		50%	40%	11%	0%	0%	0%	100%
Base Excluding PWFD & 50% Navy		53%	42%	6%	0%	0%	0%	100%
Water Quality Protection Fees		56%	44%	0%	0%	0%	0%	100%
Total Base to Class		43%	34%	8%	15%	0%	0%	100%
Max Day	Estimated customer peaking factors	28%	34%	5%	15%	18%	0%	100%
Base Excluding PWFD		33%	40%	6%	0%	22%	0%	100%
Max Day Excluding PWFD & 50% Navy		34%	41%	3%	0%	22%	0%	100%
Total Max Day to Class		30%	36%	5%	10%	20%	0%	100%
Max Hour	Estimated customer peaking factors	17%	25%	3%	8%	46%	0%	100%
Base Excluding PWFD		19%	27%	4%	0%	50%	0%	100%
Max Hour Excluding PWFD & 50% Navy		19%	28%	2%	0%	51%	0%	100%
Total Max Hour to Class		19%	28%	2%	0%	51%	0%	100%
Metering	Direct Assignment	100%						100%
Billing	Direct Assignment	100%						100%
Services	Direct Assignment	100%						100%
Fire	Direct Assignment						100%	100%

ALLOCATION RESULTS

Cost Category	Docket 4025 Rate Year	Commodity Charges					Fire	Total \$ Allocated
		Base Charge	Retail	Commercial	Navy	Portsmouth		
Base								
Base excluding T&D&WQPF & Pumping	6,918,503	2,825,845	2,240,681	594,530	1,257,447			6,918,503
Transmission & Distribution	1,369,698	721,608	572,180	75,910	-			1,369,698
Pumping	63,779	31,837	25,244	6,698	-			63,779
Water Quality Protection Fees	(22,500)	(12,549)	(9,951)	-	-			(22,500)
Revenue Offsets	(174,294)	(74,695)	(59,227)	(14,131)	(26,241)			(174,294)
Administrative Charges	1,418,508	607,910	482,027	115,006	213,566			1,418,508
Max Day								
Max Day Except T&D & Pumping	1,930,562	535,000	651,842	100,205	287,420	356,095		1,930,562
Transmission & Distribution	990,547	332,661	405,313	31,153	-	221,419		990,547
Pumping	46,124	15,018	18,298	2,813	-	9,996		46,124
Revenue Offsets	(59,022)	(17,558)	(21,392)	(2,669)	(5,717)	(11,686)		(59,022)
Administrative Charges	546,517	162,575	198,081	24,712	52,938	108,210		546,517
Max Hour								
Max Hr Except T&D & Pumping	-	-	-	-	-	-		-
Transmission & Distribution	193,591	36,853	54,131	3,686	-	98,921		193,591
Pumping	9,014	1,684	2,473	337	-	4,520		9,014
Revenue Offsets	(3,981)	(757)	(1,112)	(79)	-	(2,033)		(3,981)
Administrative Charges	35,102	6,677	9,807	697	-	17,921		35,102
Metering	299,061	-	-	-	-	-		299,061
Revenue Offsets	(234,118)	(234,118)	-	-	-	-		(234,118)
Administrative Charges	116,654	116,654	-	-	-	-		116,654
Services	115,652	115,652	-	-	-	-		115,652
Revenue Offsets	(4,695)	(4,695)	-	-	-	-		(4,695)
Administrative Charges	37,279	37,279	-	-	-	-		37,279
Billing	481,147	481,147	-	-	-	-		481,147
Revenue Offsets	(233,975)	(233,975)	-	-	-	-		(233,975)
Administrative Charges	163,522	163,522	-	-	-	-		163,522
Fire	73,619						73,619	73,619
Revenue Offsets	(2,444)						(2,444)	(2,444)
Administrative Charges	13,032						13,032	13,032
Total To Recover through Rates	\$ 14,086,880	\$ 740,526	\$ 5,172,108	\$ 4,568,396	\$ 938,867	\$ 1,779,412	\$ 887,570	\$ 14,086,880

COST OF SERVICE PER UNIT

Description of Billing Units
Percentage of Dollars Allocated
Allocated Cost
Divided by Number of Units
Unit Cost of Service

(1)	(2)	(2)	(2)	(2)	(3)	
# of accounts x 12 months	1000's of gallons annually	1000's of gallons annually	1000's of gallons annually	1000's of gallons annually	Equivalent Connections	Total
1.3%	36.7%	32.4%	6.7%	12.6%	5.7%	100.0%
\$ 181,597	\$ 5,172,108	\$ 4,568,396	\$ 938,867	\$ 1,779,412	\$ 803,364	\$ 14,086,880
207,132	630,132	499,647	178,971	428,519	161,036	
\$0.8767 per equiv per month	\$8.21 per 1000 gallons	\$9.14 per 1000 gallons	\$5.25 per 1000 gallons	\$4.15 per 1000 gallons	\$4.99 Equivalent connections	

Description of Billing Units
Percentage of Dollars Allocated
Allocated Cost
Divided by Number of Units
Unit Cost of Service

Billing	Services	Hydrants
No. of bills per year	No. of bills per year	No. of Hydrants
2.9%	1.1%	0.6%
\$ 410,694	\$ 148,236	\$ 84,207
65,094	275,639	1,036
\$6.3092 per bill	\$0.5378 per equiv	\$81.2807 per Hydrant

- (1) From CW D-1, 'Water Accounts, by Size and Class'
(2) From CW B-6, 'Water Demand History'.
(3) From CW D-2, 'Fire Protection Accounts'

Newport Water Division
 Cost Of Service Analysis
 CW B-3
 Cost Allocation Bases

Cost allocations will ensure that an appropriate amount of labor and materials costs are allocated to service pipes and meters.

Allocation Basis

Average Day Demand Patterns
 Maximum Day Demand Patterns
 Maximum Hour Demand Patterns
 Fire Protection
 Salary Costs
 Administration
 Customer Service
 Non-Administrative Wages & Salaries
 Capital Costs
 Total Non-Admin Costs before Offsets
 Other Costs

Used to allocate the following cost categories	Source Schedule	Base	Max Day	Max Hour	Metering	Billing	Services	Direct Fire Protection	Total % Allocated
<i>Supply, Laboratory</i>	N/A	100%							100%
<i>Treatment</i>	B-10	58%	42%	0%					100%
<i>Pumping, Transmission/Distribution, Storage</i>	B-10	54%	39%	8%					100%
<i>Public/Private Fire Protection Costs</i>	D-2							100%	100%
<i>Administration Salaries, Wages, & Benefits</i>	B-1	64%	22%	1%	5%	5%	2%	1%	100%
<i>Customer Service Salaries, Wages, & Benefits</i>	B-4	0%	0%	0%	46%	41%	13%	0%	100%
<i>Administrative Labor Related</i>	B-1	59%	27%	2%	6%	5%	2%	0%	100%
<i>Certain Legal and Administrative</i>	B-1	64%	30%	2%	0%	3%	0%	0%	0%
<i>Certain Legal and Administrative</i>	B-1	67%	24%	2%	2%	4%	1%	1%	100%
<i>Administration Non-Salary Costs</i>	B-1	64%	22%	1%	5%	5%	2%	1%	100%

Newport Water Division
 Cost Of Service Analysis
 CW B-4
 Allocation Analyses

Administration 15-500-2200

Salaries by Staff Position

	FY 2010 Salary
Director of Utilities	\$ 63,851
Administrative Secretary	\$ 27,753
Deputy Director - Finance	\$ 58,372
Deputy Director - Engineering	\$ 55,027
Financial Analyst	\$ 68,886
Salary \$ Allocation Results	\$ 273,889

Resulting % Allocation of Administration Salaries, Wages, & Benefits

Customer Service 15-500-2209

Salaries by Staff Position

Meter Repairman/Reader	\$ 36,757
Meter Repairman/Reader	\$ 38,996
Principal Account Clerk	\$ 35,687
Meter Repairman/Reader	46,483
Maintenance Mechanic	\$ 45,889
SAE - Sr. Maintenance Mechanic	\$ -
Water Meter Foreman	\$ 52,523
Salary \$ Allocation Results	\$ 256,335

Resulting % Allocation of Customer Service Salaries, Wages, & Benefits

Allocation of Salary Costs							Total Allocated
Base	Max Day	Max Hour	Metering	Billing	Services	Direct Fire Protection	
64%	22%	1%	5%	5%	2%	1%	100%
64%	22%	1%	5%	5%	2%	1%	100%
64%	22%	1%	5%	5%	2%	1%	100%
64%	22%	1%	5%	5%	2%	1%	100%
64%	22%	1%	5%	5%	2%	1%	100%
\$ 175,397	\$ 59,395	\$ 4,007	\$ 14,025	\$ 13,881	\$ 4,725	\$ 2,459	\$ 273,889
64%	22%	1%	5%	5%	2%	1%	100%

			50%	50%			100%
			50%	50%			100%
				100%			100%
			100%				100%
			33%	33%	34%		100%
			100%				100%
			33%	33%	34%		100%
			\$ 116,835	\$ 106,039	\$ 33,460		\$ 256,335
0%	0%	0%	46%	41%	13%	0%	100%

Newport Water Division
Cost Of Service Analysis
CW B-5
Capital Functionalization

Page 1 of 2

Functional Break Down of Existing Fixed Assets

		Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	T&D Pump	Fire	Meters	Services	Billing	
TRANSMISSION/DISTRIBUTION	\$ 20,846,331					100%						100%
LAWTON VALLEY	\$ 7,116,282			100%								100%
STATION 1	\$ 22,516,441		100%									100%
TREATMENT BOTH	\$ 9,161,055				100%							100%
STORAGE	\$ 1,060,548					100%						100%
SOURCE OF SUPPLY	\$ 19,453,649	100%										100%
METERS/SERVICES	\$ 629,135								50%	50%		100%
T&D PUMPING	\$ 907,332						100%					100%
BILLING	\$ 2,902,066										100%	100%
FIRE	\$ 351,481							100%				100%
WORK IN PROGRESS	\$ -											
Total	\$ 84,944,321											
LABORATORY	\$ 80,000	100%	0%	0%	0%	0%	0%	0%	0%	0%	0%	100%
LAND AND ROW	\$ 3,594,491	23%	27%	8%	11%	26%	1%	0%	0%	0%	3%	100%
	\$ 3,674,491											

Total Fixed Assets \$ 88,618,812

		Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	T&D Pump	Fire	Meters	Services	Billing	Total
TRANSMISSION/DISTRIBUTION	\$ 20,846,331	\$ -	\$ -	\$ -	\$ -	\$ 20,846,331		\$ -	\$ -	\$ -	\$ -	\$ 20,846,331
LAWTON VALLEY	\$ 7,116,282	-	-	7,116,282	-	-	-	-	-	-	-	7,116,282
STATION 1	\$ 22,516,441	-	22,516,441	-	-	-	-	-	-	-	-	22,516,441
TREATMENT BOTH	\$ 9,161,055	-	-	-	9,161,055	-	-	-	-	-	-	9,161,055
STORAGE	\$ 1,060,548	-	-	-	-	1,060,548	-	-	-	-	-	1,060,548
SOURCE OF SUPPLY	\$ 19,453,649	19,453,649	-	-	-	-	-	-	-	-	-	19,453,649
METERS/SERVICES	\$ 629,135	-	-	-	-	-	-	-	314,568	314,568	-	629,135
T&D PUMPING	\$ 907,332	-	-	-	-	-	907,332	-	-	-	-	907,332
BILLING	\$ 2,902,066	-	-	-	-	-	-	-	-	-	2,902,066	2,902,066
FIRE	\$ 351,481	-	-	-	-	-	-	351,481	-	-	-	351,481
WORK IN PROGRESS	\$ -	-	-	-	-	-	-	-	-	-	-	-
Total	\$ 84,944,321	\$ 19,453,649	\$ 22,516,441	\$ 7,116,282	\$ 9,161,055	\$ 21,906,879	\$ 907,332	\$ 351,481	\$ 314,568	\$ 314,568	\$ 2,902,066	\$ 84,944,321
		22.90%	26.51%	8.38%	10.78%	25.79%	1.07%	0.41%	0.37%	0.37%	3.42%	
LABORATORY	\$ 80,000	80,000	-	-	-	-	-	-	-	-	-	80,000
LAND AND ROW	\$ 3,594,491	823,198	952,802	301,132	387,658	927,008	38,395	14,873	13,311	13,311	122,803	3,594,491
	\$ 3,674,491	25%	26%	8%	11%	25%	1%	0%	0%	0%	3%	
Total Allocated	\$ 20,356,847	\$ 23,469,243	\$ 7,417,413	\$ 9,548,713	\$ 22,833,887	\$ 945,727	\$ 366,354	\$ 327,879	\$ 327,879	\$ 3,024,870	\$ 88,618,812	
		22.97%	26.48%	8.37%	10.78%	25.77%	1.07%	0.41%	0.37%	0.37%	3.41%	

Newport Water Division
 Cost Of Service Analysis
 CW B-5
 Capital Functionalization

Page 2 of 2

Functionalization of Capital Costs

		Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	T&D Pumping	Fire	Meters	Services	Billing	
Capital Spending Restricted Account	\$ 2,500,000	23%	26%	8%	11%	26%	1%	0%	0%	0%	3%	100%
Debt Service	\$ 3,576,079	23%	26%	8%	11%	26%	1%	0%	0%	0%	3%	100%
	<u>\$ 6,076,079</u>											

		Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	T&D Pumping	Fire	Meters	Services	Billing	Total
Capital Spending Restricted Account	\$ 2,500,000	\$ 574,281	\$ 662,084	\$ 209,251	\$ 269,376	\$ 644,160	\$ 26,680	\$ 10,335	\$ 9,250	\$ 9,250	\$ 85,334	\$ 2,500,000
Debt Service	\$ 3,576,079	\$ 821,470	\$ 947,066	\$ 299,319	\$ 385,324	\$ 921,427	\$ 38,163	\$ 14,784	\$ 13,231	\$ 13,231	\$ 122,064	\$ 3,576,079
	<u>\$ 6,076,079</u>	<u>\$ 1,395,751</u>	<u>\$ 1,609,150</u>	<u>\$ 508,569</u>	<u>\$ 654,700</u>	<u>\$ 1,565,587</u>	<u>\$ 64,843</u>	<u>\$ 25,119</u>	<u>\$ 22,481</u>	<u>\$ 22,481</u>	<u>\$ 207,398</u>	<u>\$ 6,076,079</u>

Newport Water Division
Cost Of Service Analysis
CW B-6
Water Demand History

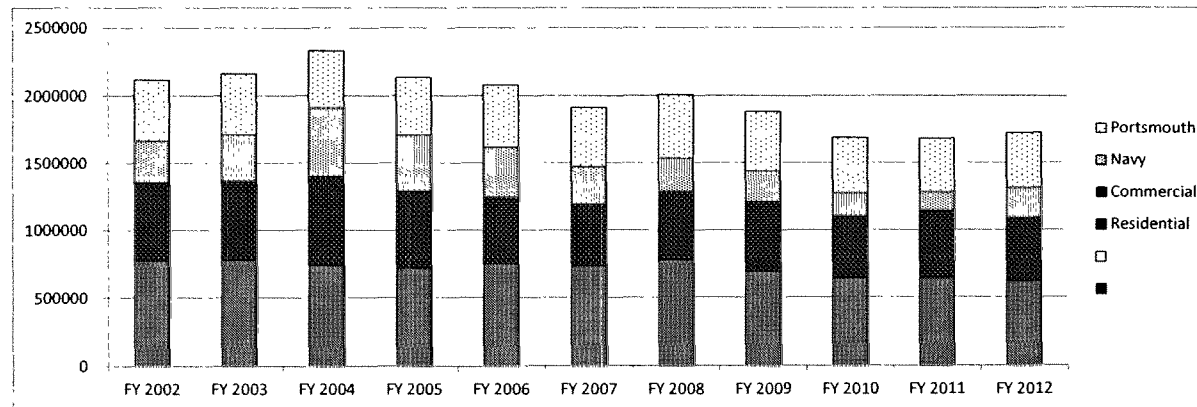
Docket No. 4355

Annual Demand by Class

Residential
Commercial
Navy
Portsmouth

Total (in 1000's Gallons)

Annual Demand in 1000s Gallons											Baseline	Rate Year
FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012	Use Doc 4025 Rate Year	Docket 4025
773,872	780,666	736,577	716,037	749,409	734,137	780,264	690,544	644,285	640,966	618,574	630,132	630,132
580,798	583,184	663,766	573,711	493,539	456,486	505,014	519,521	457,376	502,475	472,437	499,647	499,647
307,051	348,222	511,299	417,869	373,306	278,441	247,728	225,392	173,790	137,731	222,858	178,971	178,971
455,142	451,723	422,944	429,465	463,253	445,232	473,338	444,777	412,324	398,827	407,837	428,519	428,519
2,116,863	2,163,795	2,334,586	2,137,082	2,079,508	1,914,297	2,006,344	1,880,234	1,687,775	1,679,999	1,721,705	1,737,269	1,737,269
-5.2%	2.2%	7.9%	-8.5%	-2.7%	-7.9%	4.8%	-6.3%	-10.2%	-0.5%	2.5%		



Newport Water Division
 Cost Of Service Analysis
 CW B-7
 Water Production Peaking Analysis

Docket No. 4355

Combined Station #1 and LV WTP
Production Volumes in 1,000 gals

	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Annual Production	2,456,363	2,524,784	2,437,440	2,440,630	2,304,024	2,165,686
Average Day Production	6,730	6,917	6,678	6,687	6,312	5,933
Maximum Month Production	256,796	269,819	280,875	254,088	268,468	256,324
Maximum Day Production	10,165	10,724	12,100	9,800	10,163	10,118
Max Day Date	6-28-2007	8-4-2007	7-18-2008	8-2-2010	7-23-2011	7-7-2012
Maximum Day Peaking Factor	1.51	1.55	1.81	1.47	1.61	1.71
Max-Day to Avg. Day/Max-Month Ratio	1.19	1.23	1.34	1.20	1.17	1.22
Maximum Hour	13,800	15,200	13,250	10,700	12,100	12,500
Maximum Hour Peaking Factor	2.05	2.20	1.98	1.60	1.92	2.11
				Coincident	Noncoincident	
				Excluding Fire Protection		

(1) Calculated according to AWWA M-1 Guidelines

Peaking Comparison		
	Estimated	Diversity
Production Peaks		
2,303,447		
6,311		
259,626		
10,875		
1.71	1.99	1.23
1.22		
11,767		
2.11	2.77	1.45

between 1.1 and 1.4?

between 1.1 and 1.4?

Estimation of Each Customer Class' Peaking Factors

Customer Class	Max Day Demand Factor From Daily Read Demand Study	Max Hour Demand Factor From Daily Read Demand Study
Residential	1.82	2.43
Commercial	2.26	3.39
Navy	1.73	2.31
Portsmouth	1.99	2.65
Fire		
Estimated Systemwide Peaks	1.99	2.77

Newport Water Division
Cost Of Service Analysis
CW B-9
System Demands Imposed by Each Customer Class' Peaking Behavior

Docket No. 4355

Rate Year Demand (1,000 gallons)							
Customer Class	Annual Demand	Average Daily Demand	Lost Water Adjustment	Adjusted Average Daily Demand	% Average Demand by Class	% Average Demand Ex PWFD & 50% Navy	% Average Demand Ex PWFD
Residential	630,132	1,726	912	2,638	40.8%	53%	50%
Commercial	499,647	1,369	723	2,092	32.4%	42%	40%
Navy	178,971	490	65	555	8.6%	6%	11%
Portsmouth	428,519	1,174	-	1,174	18.2%	0%	0%
Fire					N/A	N/A	N/A
Total, w Fire Prot.	1,737,269	4,760	26%	6,460	100%	100%	100%
(1)							
<i>Production</i>	2,357,722	6,460	26.32%				

Max Day Calculations				% of Daily Peaks			Max Hour Calculations			% of Hourly Peaks			
Customer Class	Max Day Peaking Factor	Demand x Peaking Factor (3)	Incremental Peak Demand	% of Daily Peaks	With Full PWFD & Navy	Without PWFD & 50% Navy	Without PWFD	Max Hour Peaking Factor	Demand x Peaking Factor (3)	Incremental Peak Demand	With Full PWFD & Navy	Without PWFD & 50% Navy	Without PWFD
Residential	1.82	4,802	2,163	27.7%	27.7%	33.6%	32.6%	2.43	6,411	1,609	17.1%	19.0%	18.7%
Commercial	2.26	4,728	2,636	33.8%	33.8%	40.9%	39.7%	3.39	7,092	2,364	25.2%	28.0%	27.4%
Navy	1.73	960	405	5.2%	5.2%	3.1%	6.1%	2.31	1,282	322	3.4%	1.9%	3.7%
Portsmouth	1.99	2,336	1,162	14.9%	14.9%	0.0%	0.0%	2.65	3,111	775	8.3%	0.0%	0.0%
Fire	(2)	1,440	1,440	18.4%	18.4%	22.4%	21.7%		5,760	4,320	46.0%	51.1%	50.1%
Total, w Fire Prot.		14,266	7,807	100.0%	100.0%	100.0%	100.0%	23,657		9,390	100.0%	100.0%	100.0%
Total, without Fire Protection		12,826	6,367					17,897	5,070				
(demand is in thousands of gallons)													

- (1) From CW D-4. The lost water adjustment is made to the peaking analysis so that Portsmouth will not share in that portion of certain operating costs. Navy allocation is reduced to 25%.
- (2) From CW B-11, Fire Protection Demand Analysis'.

Summary of Peak Load Distributions (by Rate Class and Base/Extra-Capacity Categories)

EACH RATE CLASS' SHARE OF SYSTEM PEAKS

<u>Rate Class</u>	Average Demand	Daily Peaks	Hourly Peaks
Retail			
Residential	41%	28%	17%
Commercial	32%	34%	25%
Navy	9%	5%	3%
Portsmouth	18%	15%	8%
Fire	N/A	18%	46%
	100%	100%	100%

Percentages are from CW B-9, 'System Demands Imposed by Each Customer Class' Peaking Behavior '.

BASE/EXTRA-CAPACITY DISTRIBUTION OF SYSTEM PEAKS

	Incremental Demand	% Distribution for Max Day	% Distribution for Max Hour
Base	6,311	58.0%	53.6%
Extra Capacity			
Max Day	4,564	42.0%	38.8%
Max Hour	892		7.6%
Fire Protection			
Max Day	-	0.0%	0.0%
Max Hour	-		0.0%
Total%		100.0%	100.0%
Total 1000's Gallons		10,875	11,767

Incremental demand data is from CW B-11, Fire Protection Demand Analysis'.
and from CW B-9, 'System Demands Imposed by Each Customer Class' Peaking Behavior '.

FIRE PROTECTION ASSUMPTIONS

Fire Protection Flow	(gals per minute)	4,000
Hourly Fire Protection Flow (1000's of gallons)		240
Length of Fire Event (in hours)		6

Newport Water Division
 Cost Of Service Analysis
 CW D-1
 Water Accounts, by Size and Class

Connection Size	Meter Factors	COMMERCIAL				RESIDENTIAL				WHOLESALE (Monthly)			
		Meter Read Frequency		Equivalent Meters		Meter Read Frequency		Equivalent Meters		Navy		Portsmouth	
		Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Meters	Equivalents	Meters	Equivalents
5/8	1.0	98	576	98	576	12	10,079	12	10,079	0	0	0	0
3/4	1.1	53	173	58	190	10	2,241	11	2,465	1	1	0	0
1	1.4	141	42	197	59	24	349	34	489	0	0	0	0
1.5	1.8	145	29	261	52	30	157	54	283	3	5	0	0
2	2.9	173	16	502	46	42	43	122	125	0	0	0	0
3	11.0	38	6	418	66	12	11	132	121	0	0	0	0
4	14.0	10	3	140	42	1	0	14	0	0	0	1	14
5	18.0	1	0	18	0	0	0	0	0	0	0	0	0
6	21.0	11	1	231	21	1	3	21	63	8	168	0	0
8	29.0	0	0	0	0	1	0	29	0	0	0	0	0
10	43.5	0	0	0	0	0	0	0	0	1	44	0	0
Total	14,546	670	846	1,923	1,052	133	12,883	429	13,625	13	218	1	14

Billed Monthly
 Billed Quarterly
 Billed Annually

Equivalent Billing Units	
817	9,804
13,729	54,916
374	374
Total	65,094

Equivalent Meter Units	
2,584	31,008
14,677	176,124
N/A	N/A
Total	207,132

Newport Water Division
 Cost Of Service Analysis
 CW D-2
 Fire Protection Accounts

Docket 4025				
Connection Size	Existing Differential	Number of Connections	Equivalent Connections (2)	
Public Hydrants				
Newport	6	111.31	619	68,901
Middletown	6	111.31	408	45,415
Portsmouth	6	111.31	9	1,002
Subtotal: Public Hydrants		1036	115,318	72%
Private Fire Connections				
	2	6.19	4	25
	4	38.32	61	2,337
	6	111.31	245	27,271
	8	237.21	62	14,707
	10	426.58	0	-
	12	689.04	2	1,378
Subtotal: Private Fire Connections		374	45,718	28%
Total Fire Connections		1,410	161,036	100%

(1) Demand factors are based on the principles of the Hazen-Williams equation for flow through pressure conduits.
 For more information, see the AWWA M1 rate manual chapter on fire protection charges.

(2) Equivalent connections are arrived at by multiplying the number of connections by the demand factor.

General Water Service

Connection Size	Service Cost	No of Services	Equivalent Connections	
5/8	1.000	10,765	10,765	
3/4	1.000	2,478	2,478	
1	1.860	556	1,034	
1.5	4.630	364	1,685	
2	6.150	274	1,685	
3	11.060	67	741	
4	11.060	15	166	
5	11.060	1	11	
6	11.060	24	265	
8	11.060	1	11	
10	11.060	1	11	
		14,546	18,853	82%

Subtotal General Service

Private Fire Connections

2	6.150	4	25	
4	11.060	61	675	
6	11.060	245	2,710	
8	11.060	62	686	
10	11.060	0	-	
12	11.060	2	22	
		374	4,117	18%

Subtotal: Private Fire Connections

Annualized

Total Retail & Private Fire Connections

	12	
14,920	275,639	100%

Newport Water Division
 Cost Of Service Analysis
 CW D-3
 Production Summary

		Station #1				Lawton Valley				Combined	
		In Gallons	in 1000's			In Gallons	in 1000's			In Gallons	in 1000's
<u>FY 07 JULY 2006 - JUNE 2007</u>		1,176,356,210	1,176,356	August		1,280,006,852	1,280,007	August		2,456,363,062	2,456,363
Max. Month June		116,724,700	116,725			140,288,300	140,288			256,795,580	256,796
<u>FY 08 JULY 2007 - JUNE 2008</u>		1,268,356,660	1,268,357	July		1,256,427,700	1,256,428	July		2,524,784,360	2,524,784
Max. Month August		141,803,530	141,804			144,557,900	144,558			269,819,450	269,819
<u>FY 09 JULY 2008 - JUNE 2009</u>		1,152,697,400	1,152,697	July		1,284,742,500	1,284,743	July		2,437,439,900	2,437,440
Max. Month March		110,288,000	110,288			177,163,200	177,163			280,874,500	280,875
<u>FY 10 JULY 2009 - JUNE 2010</u>		1,333,422,150	1,333,422	August 2009		1,107,207,665	1,107,208	August 2009		2,440,629,815	2,440,630
Max. Month October		121,112,610	121,113			139,731,200	139,731			254,088,090	254,088
<u>FY 11 JULY 2010 - JUNE 2011</u>		1,242,460,000	1,242,460	August 2010		1,061,564,200	1,061,564	July 2010		2,304,024,200	2,304,024
Max. Month July		136,103,000	136,103			133,325,700	133,326			268,467,600	268,468
<u>FY 12 JULY 2011 - JUNE 2012</u>		981,876,000	981,876	July		1,183,810,000	1,183,810	July		2,165,685,750	2,165,686
Max. Month July		110,561,700	110,562			145,762,000	145,762			256,323,700	256,324

MAX DAY PRODUCTION AVAILABLE FOR SALE

	Station #1			Lawton Valley			Combined		
	Max Day Production			Max Day Production			Max Day Production		
	Date	In Gallons	in 1000's	Date	In Gallons	in 1000's	Date	In Gallons	in 1000's
<u>FY 07 JULY 2006 - JUNE 2007</u>	8/2/2006	5,114,940	5,115	8/14/2006	5,958,100	5,958	6/28/2007	10,165,100	10,165.100
	includes booster to LV at 1,256,000 Gallons								
<u>FY 08 JULY 2007 - JUNE 2008</u>	8/25/2007	6,179,670	6,180	6/10/2008	6,805,400	6,805	8/4/2007	10,723,620	10,723.620
	includes booster to LV at 2,251,000 Gallons								
<u>FY 09 JULY 2008 - JUNE 2009</u>	7/20/2008	4,341,000	4,341	7/18/2008	7,845,700	7,846	7/18/2008	12,100,100	12,100.100
	includes booster to LV at 324,000 Gallons								
<u>FY 10 JULY 2009 - JUNE 2010</u>	10/10/2009	4,664,000	4,664	8/27/2009	6,168,500	6,169	8/23/2010	9,800,400	9,800.400
<u>FY 11 JULY 2010 - JUNE 2011</u>	7/4/2011	5,729,355	5,729	8/3/2011	5,654,800	5,655	7/23/2011	10,162,555	10,162.555
<u>FY 12 JULY 2011 - JUNE 2012</u>	7/6/2012	4,624,292	4,624	7/7/2012	5,869,900	5,870	7/7/2012	10,118,190	10,118

PEAK HOURLY FLOW

	Date	Station #1		Date	Lawton Valley	
<u>FY 07 JULY 2006 - JUNE 2007</u>	7/6/2006	5.8	MGD	7/1/2006	8.0	MGD
<u>FY 08 JULY 2007 - JUNE 2008</u>	8/26/2007	7.2	MGD	6/18/2008	8.0	MGD
<u>FY 09 JULY 2008 - JUNE 2009</u>	7/18/2008	5.25	MGD	7/18/2008	8.0	MGD
<u>FY 10 JULY 2009 - JUNE 2010</u>	9/2/2009	4.70	MGD	9/2/2009	6.0	MGD
<u>FY 11 JULY 2010 - JUNE 2011</u>	10/15/2010	6.10	MGD	10/15/2010	6.0	MGD
<u>FY 12 JULY 2011 - JUNE 2012</u>	7/5/2011	6.50	MGD	7/7/2011	6.0	MGD

Newport Water Division
 Cost Of Service Analysis
 CW D-4
 Demand Summary

Fiscal Year Annual Demand

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Residential	718,022	734,137	780,264	690,544	644,285	640,966	618,574
Commercial (includes governmental)	505,804	456,486	505,014	519,521	457,376	502,475	472,437
Navy	373,306	278,441	247,728	225,392	173,790	137,731	222,858
Portsmouth	453,618	445,232	473,338	444,777	412,324	398,827	407,837
Total 1000's Gallons	2,050,751	1,914,297	2,006,344	1,880,234	1,687,775	1,679,999	1,721,705
		-6.7%	4.8%	-6.3%	-10.2%	-0.5%	2.5%

Unaccounted for Water Analysis

	FY 2007	FY 2008	FY 2009	FY 2009	FY 2010	FY 2011	FY 2012	Average
Billed Consumption (1,000 gals.)	1,914,297	2,006,344	1,880,234	1,880,234	1,687,775	1,679,999	1,721,705	1,696,493
Total Water Produced (1,000 gals.)	2,456,363	2,524,784	2,437,440	2,440,630	2,437,440	2,304,024	2,165,686	2,302,383
Unaccounted for Water (1,000 gals.)	542,066	518,440	557,206	560,396	749,665	624,026	443,980	605,890
Percent Unaccounted for Water	22.07%	20.53%	22.86%	22.96%	30.76%	27.08%	20.50%	26.32%

Newport Water Division
 Cost Of Service Analysis
 CW D-5
 Development of Pumping Costs

Pumping Labor and Benefits

Station One		Lawton Valley	
Labor hours per day pump	0.5000	Labor hours per day pump	0.2500
Days per year	365	Days per year	365
Total Hours	182.5000	Total Hours	91.2500
Average per hour pay	\$23.06	Average per hour pay	\$22.07
Average per hour benefits	\$10.82	Average per hour benefits	\$11.69
Pumping Salaries	\$4,208.45	Pumping Salaries	\$2,013.89
Pumping Benefits	\$1,974.65	Pumping Benefits	\$1,066.71

Pumping Repairs and Supplies

Station One		Lawton Valley	
50275 Repair & Maintenance - Equipment		Repair & Maintenance - Equipment	
None	\$0.00	Vendor	amount
Total Repair & Maintenance Pumping	\$0.00	NAPA Auto Partd	\$622.90
		Ralco Electric	\$328.83
		Total Repair & Maintenance Pumping	\$951.73
50311 Operating Supplies		Operating Supplies	
Vendor	amount	Vendor	amount
National Electric Testing	\$60.00	National Electric Testing	\$300.00
ABB Inc.	\$1,122.00	Ralco Electric	\$525.00
RE Erickson	\$1,140.00	Harbor Controls	\$1,000.00
Ralco	\$268.00		
Total - Operating Supplies - Pumping	\$2,590.00	Total Operating Supplies Pumping	\$1,825.00

Pumping Electricity

Station One		Lawton Valley	
Annual Pumping Power	\$13,655	Annual Pumping Power	\$25,789

Total Pumping Costs

Station One		Lawton Valley	
Pumping Salaries	\$4,208	Pumping Salaries	\$2,014
Pumping Benefits	\$1,975	Pumping Benefits	\$1,067
Total Repair & Maintenance Pumping	\$0	Total Repair & Maintenance Pumping	\$952
Total - Operating Supplies - Pumping	\$2,590	Total Operating Supplies Pumping	\$1,825
Annual Pumping Power	\$13,655	Annual Pumping Power	\$25,789
Total Annual Pumping Costs	\$22,428	Total Annual Pumping Costs	\$31,646

Newport Water Division
 Cost Of Service Analysis
 CW D-6
 Demand Factor Calculations

Demand Factors For COS Model	Non-Residential		Navy	PWFD
	Residential	Residential		
Summer 2011 Max. Day Demand Factor	1.78	2.18	1.49	1.91
Summer 2012 Max. Day Demand Factor	1.86	2.35	1.97	2.07
Two Year Average Max. Day Demand Factor	1.82	2.26	1.73	1.99
Summer 2011 Max. Hour Demand Factor	2.37	3.27	1.99	2.54
Summer 2012 Max. Hour Demand Factor	2.49	3.52	2.62	2.75
Two Year Average Max. Hour Demand Factor	2.43	3.39	2.31	2.65

Summer 2011

	Residential	Commercial	Navy	PWFD
Annual Average Day ¹	16,973	58,419	421,795	1,128,293
Daily Read Maximum Day ²	30,139	127,359	630,462	2,153,297
Maximum Day Demand Factor	1.78	2.18	1.49	1.91

1-Total Consumption by Daily Read Accounts for 12 Mo. Including Daily Sample Period/365

2 - Class maximum day from daily read data

Max Day Diversity Factor Calculation	Residential	Commercial	Navy	PWFD	
Class Average Day (mgd)	2.60	1.94	0.51	1.13	
Class MD Demand Factor	1.78	2.18	1.49	1.91	Total MD Demand
Max Day Demand (Avg. Day X MD Demand Factor)	4.62	4.23	0.76	2.15	11.8
System Average Day (mgd)	6.2				
System Maximum Day (mgd)	10.2				
System Maximum Hour (mgd)	12.1				
Noncoincident MD Capacity Factor	11.8	/	6.2	=	1.90
Coincident MD Capacity Factor	10.2	/	6.2	=	1.65
System MD Diversity	1.90	/	1.65	=	1.16

Maximum Hour Demand Factor Calculation

	Residential	Commercial	Navy	PWFD
MD Capacity Factor	1.78	2.18	1.49	1.91
Estimated Maximum-Hour (MH)/MD Ratio ³	1.33	1.50	1.33	1.33
Calculated MH Capacity Factor	2.37	3.27	1.99	2.54

Max Hour Diversity Factor Calculation	Residential	Commercial	Navy	PWFD	
Class Average Day (mgd)	2.60	1.94	0.51	1.13	
Class MH Demand Factor	2.37	3.27	1.99	2.54	Total MH Demand
Max Hour Demand (Avg. Day X MH Demand Factor)	6.2	6.3	1.0	2.9	16.38
System Average Day (mgd)	6.2				
System Maximum Day (mgd)	10.2				
System Maximum Hour (mgd)	12.1				
Noncoincident MH Capacity Factor	16.4	/	6.2	=	2.65
Coincident MH Capacity Factor	12.1	/	6.2	=	1.96
System MH Diversity	2.65	/	1.96	=	1.35

3- MH/MD Ratio Assumptions:

Residential =24 hr. / 18 hr.

Commercial =24 hr. / 16 hr.

Navy =24 hr. / 18 hr.

PWFD =24 hr. / 18 hr.

Summer 2012

	Residential	Commercial	Navy	PWFD
Annual Average Day ¹	16,366	57,808	616,576	1,127,654
Daily Read Maximum Day ²	30,513	135,620	1,213,663	2,329,051
Maximum Day Demand Factor	1.86	2.35	1.97	2.07

1-Total Consumption by Daily Read Accounts for 12 Mo. Including Daily Sample Period/365

2 - Class maximum day from daily read data

Max Day Diversity Factor Calculation	Residential	Commercial	Navy	PWFD	
Class Average Day (mgd)	2.37	1.76	0.66	1.13	
Class MD Demand Factor	1.86	2.35	1.97	2.07	Total MD Demand
Max Day Demand (Avg. Day X MD Demand Factor)	4.42	4.12	1.29	2.33	12.2
System Average Day (mgd)	5.91				
System Maximum Day (mgd)	10.12				
System Maximum Hour (mgd)	12.50				
Noncoincident MD Capacity Factor	12.17	/	5.91	=	2.06
Coincident MD Capacity Factor	10.12	/	5.91	=	1.71
System MD Diversity	2.06	/	1.71	=	1.20

Maximum Hour Demand Factor Calculation

	Residential	Commercial	Navy	PWFD
MD Capacity Factor	1.86	2.35	1.97	2.07
Estimated Maximum-Hour (MH)/MD Ratio ³	1.33	1.50	1.33	1.33
Calculated MH Capacity Factor	2.49	3.52	2.62	2.75

Max Hour Diversity Factor Calculation	Residential	Commercial	Navy	PWFD	
Class Average Day (mgd)	2.37	1.76	0.66	1.13	
Class MH Demand Factor	2.49	3.52	2.62	2.75	Total MH Demand
Max Hour Demand (Avg. Day X MH Demand Factor)	5.90	6.19	1.72	3.11	16.91
System Average Day (mgd)	5.9				
System Maximum Day (mgd)	10.1				
System Maximum Hour (mgd)	12.5				
Noncoincident MH Capacity Factor	16.91	/	5.9	=	2.86
Coincident MH Capacity Factor	12.5	/	5.9	=	2.11
System MH Diversity	2.86	/	2.11	=	1.35

3- MH/MD Ratio Assumptions:

Residential =24 hr. / 18 hr.

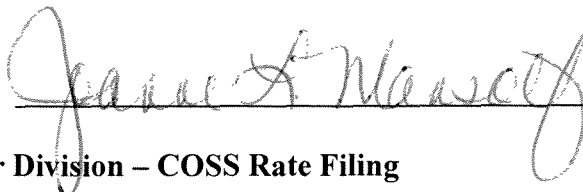
Commercial =24 hr. / 16 hr.

Navy =24 hr. / 18 hr.

PWFD =24 hr. / 18 hr.

CERTIFICATE OF SERVICE

I hereby certify that I mailed by electronic mail, a copy of the within document, to the Service List set for the below, as well as an original and nine copies to the Commission by first class mail, on the 7th day of December, 2012.



Docket No. 4355 - City of Newport Water Division – COSS Rate Filing
Updated 9/26/12

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