RHODE ISLAND PUBLIC UTILITIES COMMISSION

DOCKET NO. 4355

CITY OF NEWPORT WATER DIVISION

PREFILED SURREBUTTAL TESTIMONY OF

CHRISTOPHER P.N. WOODCOCK
ON BEHALF OF
PORTSMOUTH WATER & FIRE DISTRICT

PREFILED SURREBUTTAL TESTIMONY OF
CHRISTOPHER P.N. WOODCOCK

Q: Are you the same Christopher Woodcock that submitted prefiled direct testimony in this docket?

A: Yes I am.

Q: What is the purpose of your testimony today?

A: This surrebuttal testimony replies to the rebuttal testimony submitted on behalf of the City of Newport, Utilities Division, Water Department (NWD) and a matter raised in the direct testimony of Jerome D. Mierzwa submitted by the Rhode Island Division of Public Utilities and Carriers (the "Division").

Q: What matters does this surrebuttal testimony respond to?

A: There are two matters:

1. The time period NWD used for treatment plant production data and water use or demand data; and
2. The revised asset listing provided by NWD.

Q: Can you describe your concerns regarding the time periods to be used for production and demand data.

A: The parties disagree about which year or years should be used within the model to determine the system-wide average, maximum day and peak hour demands. The parties also disagree as to the years that should be used for determining the projected water sales, number of accounts, and number of hydrants and private fire services.

Q: What is the importance of the time periods used for determining system-wide average, maximum day and peak hour demands?

A: The system-wide average, maximum day and peak hour demand data are the basis for the determination of the cost allocators for items that are allocated to maximum day and/or peak hour costs. This data, therefore, has a significant impact on the allocation of costs and the resulting rates.

Q: What is your position on the time periods that should be used for determining system-wide average, maximum day and peak hour demands?

A: The system demands or production peaks are presented on the versions of Schedule B-7 submitted by the parties. The Division advocates for using values for FY 2008 – FY 2010. NWD argues for use of the most recent fiscal years: FY 2011 – FY 2012. I agree with NWD and believe we should be using the most recent information (FY 2011 – FY 2012). This most recent data corresponds better with the period of the customer class demand study.

Q: What is the disagreement among the parties regarding the years that should be used for determining the projected water sales, number of accounts, and number of hydrants and private fire services?

A: The Division recommends using the values from Docket 4243, which were generally based on data from 2009 through 2011. Harold Smith, on behalf of NWD agrees with using the water sales data from Docket 4243, but has updated the number of accounts, hydrants and private fire services to reflect more recent data. Both of these positions are incorrect and should be rejected.

Q: Why are the Division and NWD incorrect regarding the time periods to use regarding water sales, number of accounts, and number of hydrants and private fire services?

A: There is an inconsistency between using costs that are prospective (or at least contemporary), production and sales data from another period, and customer demand data from still another period. The time periods used for each of these determinations should be the same, and the most current data should be used to ensure accuracy, consistency and fairness. Accordingly, the water sales data in Schedule B-6 should reflect sales in the most recent two years (FY 2011 and FY 2012); the production data in Schedule B-7 should reflect the production data from those same two years; and the number of accounts, hydrants and meters should reflect the most up-to-date values provided by NWD.

This proposal is consistent with my position regarding the periods we should use for production and sales because the demand study that formed the basis for the customer demand factors encompassed the summers of 2011 and 2012.

Q: Are there any other reasons why is it necessary to use the most current production and sales data?

A: Yes. NWD updated the assets used to allocate capital costs (Schedule 5) through May 31, 2012 (see response to PWFD 1-7). The demand data also is based on new, updated information from the summer of 2012. The production and sales data should be updated as well to avoid violating the matching principle.

Q: What is the matching principle?

A. In ratemaking, the matching principle is often considered a process that involves a matching of revenues, expenses, and consumption. In this case the other parties

have proposed using sales and production values that do not correspond with and do not match the period of expenses we are looking at (i.e., sales from 2009-2011 and debt for 2014). Further, they have advocated the use of older production data to allocate more contemporary costs, which are to be recovered from various classes of customers using demand data from a still different period.

Q: Can you explain how NWD's and the Division's proposals violate the matching principle?

A: Their proposals violate the matching principal in numerous ways. First, the old sales data from Docket 4243 do not match the period for which the demand data is derived. The customer class maximum day and peak hour demands are based on 2011 and 2012 data. In Docket 4243 the sales data was based on information from 2009 through 2011.

Second, the Division's argument that it is appropriate to use production data from 2008-2010 would violate the matching principle because it is used to allocate costs from a different period.

These methodologies are not what was contemplated for the spreadsheet created in the settlement in Docket 4128. That cost of service model used a constant average of the most recent three years. For this case I have proposed using the most recent two years to match the period of the demand study.

Q: What is your recommendation regarding sales and production data?

A: The Commission should use the best and most recent sales data and estimate rate year sales using the average of FY 2011, and FY 2012 sales. This recommendation comports with recent Commission decisions.

Q: How does using this method affect sales estimates?

A: Using these averages, the overall sales are somewhat less than those proposed by NWD and the Division. However, over the past three fiscal years, the overall sales have been less than those used in Docket 4025 and proposed by NWD and the Division. Using lower sales estimates makes it less likely that NWD will be faced with insufficient revenues because of overly optimistic sales estimates.

Q: NWD has updated the asset data that is used to allocate the capital costs. Are you satisfied that the new asset listing properly reflects all of NWD's assets?

A: No. Based on my limited review of the recently received updated listing, I have noted that there are no listings for service pipes in the updated response to PWFD 2-1. The NWD annual report for 1992 shows an end of year value of service pipes of $2,032,744. Presumably there have been additions to this category over the past 20 years, and additional inquiry is necessary to assess the completeness and accuracy of the updated asset data.

Q: Why is a complete and accurate asset listing important?

A: The asset listing is of critical importance in the cost allocation study. Nearly half the costs are allocated based on the assets. The Commission should require NWD to provide a complete and current asset listing with appropriate values to ensure accurate and fair cost allocation.

Q: Have you prepared updated schedules to reflect this surrebuttal testimony?

A: Yes. They are attached.

DOCKET NO. 4355

CITY OF NEWPORT WATER DIVISION

SURREBUTTAL SCHEDULES TO THE PREFILED SURREBUTTAL TESTIMONY OF

CHRISTOPHER P.N. WOODCOCK
ON BEHALF OF
PORTSMOUTH WATER & FIRE DISTRICT

Newport Water Cost of Service Model

Index of Model Schedules

Summary Schedules

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CW A-2	Cost of Service Rates and Charges
CW A-3	Bill Impacts
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Core Model Schedules

CW B-1	Base Extra Capacity Cost Allocations
CW B-2	Allocation of Costs to Water Rate Classes
CW B-3	Cost Allocation Bases
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CW B-5	Capital Functionalization
CW B-6	Water Demand History
CW B-7	Water Production Peaking Analysis
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CW B-9	System Demands Imposed by Each Customer Class' Peaking Behavior
CW B-10	Summary of Peak Load Distributions (by Rate Class and Base/Extra-Capacity Categories)
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Supporting Data

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

Newport Water Division
Cost Of Service Analysis
CW A-1
Revenue Requirements

Docket No 4355

	Rate Year Approved in Docket 4243
O&M COSTS	
Administration	
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**

Newport Water Division
Cost Of Service Analysis
CW A-1
Revenue Requirements

Docket No 4355

	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**

Newport Water Division
Cost Of Service Analysis
CW A-1
Revenue Requirements

Docket No 4355

	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**

Newport Water Division
Cost Of Service Analysis
CW A-1
Revenue Requirements

Docket No 4355

		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**

Newport Water Division
Cost Of Service Analysis
CW A-1
Revenue Requirements

Docket No 4355

	Rate Year Approved in Docket 4243
CAPITAL COSTS	
Contribution to Capital Spending Acct	$ 2,500,000
Existing Debt Service	
Revenue Bonds	$3,735,016
SRF Loans	$ -
New Debt Service	
Revenue Bonds	$ -
SRF Loans	$ -
Total Debt Service	3,735,016
	-
Total Capital Costs	**$ 6,235,016**
Contribution to Repayment to City Account	
Operating Revenue Allowance	$ 254,733
Total Costs before Offsets	**$ 14,980,846**
OFFSETS	
Nonrate Revenues	
Sundry charges	$ 104,000
WPC cost share on customer service	$ 296,856
Middletown cost share on customer service	$ 143,506
Rental of Property	$ 108,167
Water Penalty	$ 47,500
Miscellaneous	$ 8,600
Investment Interest Income	$ 3,900
Water Quality Protection Fees	$ 22,500
Total Nonrate Revenues	**$ 735,029**
Net Costs to Be Recovered through Rates	**$ 14,245,817**

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

	Docket 4243Current Rates	Revenue w/Current	(1) Cost of Service	Calculated Rates	Revenue w/ New	Change in Rev
Base Charge (per bill)						
Monthly						
5/8	$ 18 75	$ 24,750	$ 7 8117	**$ 7.81**	$10,311	($14,439)
3/4	$ 18 75	$ 14,400	7 8996	**7.90**	6,067	($8,333)
1	$ 18 75	$ 37,125	8 6277	**8.63**	17,083	($20,042)
1 5	$ 18 75	$ 40,050	10 4750	**10.47**	22,375	($17,675)
2	$ 18 75	$ 48,375	12 2629	**12.26**	31,638	($16,737)
3	$ 18 75	$ 11,250	22 0366	**22.04**	13,222	$1,972
4	$ 18 75	$ 2,700	24 6747	**24.67**	3,553	$853
5	$ 18 75	$ 225	28 1922	**28.19**	338	$113
6	$ 18 75	$ 4,500	30 8303	**30.83**	7,399	$2,899
8	$ 18 75	$ 225	37 8652	**37.87**	454	$229
10	$ 18 75	$ 225	50 6160	**50.62**	607	$382
Quarterly						
5/8	$ 18 75	$ 799,125	$ 10 6502	**$ 10.65**	453,912	($345,213)
3/4	$ 18 75	$ 181,050	10 9140	**10.91**	105,386	($75,664)
1	$ 18 75	$ 29,325	13 0983	**13.10**	20,486	($8,839)
1 5	$ 18 75	$ 13,950	18 6400	**18.64**	13,868	($82)
2	$ 18 75	$ 4,425	24 0038	**24.00**	5,665	$1,240
3	$ 18 75	$ 1,275	53 3249	**53.32**	3,626	$2,351
4	$ 18 75	$ 225	61 2392	**61.24**	735	$510
5	$ 18 75	$ -	71 7916	**71.79**	0	$0
6	$ 18 75	$ 300	79 7059	**79.71**	1,275	$975
8	$ 18 75	$ -	100 8107	**100.81**	0	$0
10	$ 18 75	$ -	139 0631	**139.06**	0	$0
		$ 1,213,500			$ 718,001	$ (495,499)
Volume Charge (per 1,000 gallons)						
Retail						
Residential	$ 6 43	$ 4,049,421	$ 8 3464	**$ 8.35**	5,256,337	$1,206,916
Commercial	$ 6 43	$ 3,134,342	$ 9 3011	**$ 9.30**	4,533,866	$1,399,524
		$ 7,183,763			9,790,203	$ 2,606,440
Wholesale						
Navy	$ 3 9540	$ 712,883	$ 5 3873	**$5.3873**	971,291	$258,408
Portsmouth Water & Fire District	**$ 3.152**	**$ 1,271,302**	**$4.295**	**$4.2946**	**1,732,159**	**$460,857**
		$ 1,984,185			$ 2,703,450	$ 719,265
Fire Protection						
Public (per hydrant)	$ 1,065 00	$ 1,103,340	$ 717 99	**$ 717.99**	$ 743,840	($359,500)
Private (by Connection Size) (2)						
Connection Size / Existing Charge Differential						
<2	$21 00		$ 19 48	**$ 19.48**		$0
2 / 6 19	$88 00	$ 352	$ 81 61	**$ 81.61**	326	($26)
4 / 38 32	$541 00	$ 33,001	$ 297 02	**$ 297.02**	18,118	($14,883)
6 / 111 31	$1,083 00	$ 265,335	$ 714 13	**$ 714.13**	174,961	($90,374)
8 / 237 21	$2,478 00	$ 153,636	$ 1,433 55	**$ 1,433.55**	88,880	($64,756)
10 / 426 58	$4,091 00	$ -	$ 2,515 71	**$ 2,515.71**	-	$0
12 / 689 04	$6,568 00	$ 13,136	$ 4,015 55	**$ 4,015.55**	8,031	($5,105)
		$ 465,460			$ 290,317	$ (175,143)
Total Projected Rate Revenues		**$ 11,950,248**			**$ 14,245,812**	**$ 2,295,563**

(1) From CW B-2, 'Allocation of Costs to Water Rate Classes'
(2) From CW D-2, 'Fire Protection Accounts'

Newport Water
Cost Of Service Analysis
CW Schedule A-3
Bill Impacts - Cost of Service Rates
Page 1 of 2

Customer Class		All Meter	Proposed 5/8 Inch Meter			Proposed 3/4 Inch Meter			Proposed 1 Inch Meter			Proposed 1.5 Inch Meter			Proposed 2 Inch Meter			Proposed 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)																				
	1,000	$25 18	$16 16	-$9 02	-35 8%	$16 25	-$8 93	-35 5%	$16 97	-$8 21	-32 6%	$18 82	-$6 36	-25 3%	$20 61	-$4 57	-18 2%	$30 38	$5 20	20 7%
	2,000	$31 61	$24 50	-$7 11	-22 5%	$24 59	-$7 02	-22 2%	$25 32	-$6 29	-19 9%	$27 17	-$4 44	-14 1%	$28 96	-$2 65	-8 4%	$38 73	$7 12	22 5%
	4,000	$44 47	$41 20	-$3 27	-7 4%	$41 29	-$3 18	-7 2%	$42 01	-$2 46	-5 5%	$43 86	-$0 61	-1 4%	$45 65	$1 18	2 7%	$55 42	$10 95	24 6%
Avg Monthly Bill	5,000	$50 90	$49 54	-$1 36	-2 7%	$49 63	-$1 27	-2 5%	$50 36	-$0 54	-1 1%	$52 21	$1 31	2 6%	$54 00	$3 10	6 1%	$63 77	$12 87	25 3%
	7,500	$66 98	$70 41	$3 43	5 1%	$70 50	$3 52	5 3%	$71 23	$4 25	6 3%	$73 07	$6 10	9 1%	$74 86	$7 89	11 8%	$84 63	$17 66	26 4%
	10,000	$83 05	$91 28	$8 23	9 9%	$91 36	$8 31	10 0%	$92 09	$9 04	10 9%	$93 94	$10 89	13 1%	$95 73	$12 68	15 3%	$105 50	$22 45	27 0%
	15,000	$115 20	$133 01	$17 81	15 5%	$133 10	$17 90	15 5%	$133 82	$18 62	16 2%	$135 67	$20 47	17 8%	$137 46	$22 26	19 3%	$147 23	$32 03	27 8%
	20,000	$147 35	$174 74	$27 39	18 6%	$174 83	$27 48	18 6%	$175 56	$28 21	19 1%	$177 40	$30 05	20.4%	$179 19	$31 84	21 6%	$188 97	$41 62	28 2%
	25,000	$179 50	$216 47	$36 97	20 6%	$216 56	$37 06	20 6%	$217 29	$37 79	21 1%	$219 14	$39 64	22 1%	$220 92	$41 42	23 1%	$230 70	$51 20	28 5%
	30,000	$211 65	$258 20	$46 55	22 0%	$258 29	$46 64	22 0%	$259 02	$47 37	22 4%	$260 87	$49 22	23 3%	$262 66	$51 01	24 1%	$272 43	$60 78	28 7%
Residential(Quarterly)																				
	4,000	$44 47	$44 04	-$0 43	-1 0%	$44 30	-$0 17	-0 4%	$46 48	$2 01	4 5%	$52 03	$7 56	17 0%	$57 39	$12 92	29 1%	$86 71	$42 24	95 0%
	8,000	$70 19	$77 42	$7 23	10 3%	$77 69	$7 50	10 7%	$79 87	$9 68	13 8%	$85 41	$15 22	21.7%	$90 78	$20 59	29 3%	$120 10	$49 91	71 1%
Avg Quarterly Bill	15,000	$115 20	$135 85	$20 65	17 9%	$136 11	$20 91	18 2%	$138 29	$23 09	20 0%	$143 84	$28 64	24 9%	$149 20	$34 00	29 5%	$178 52	$63 32	55 0%
	20,000	$147 35	$177 58	$30 23	20 5%	$177 84	$30 49	20 7%	$180 03	$32 68	22 2%	$185 57	$38 22	25 9%	$190 93	$43 58	29 6%	$220 25	$72 90	49 5%
	30,000	$211 65	$261 04	$49 39	23 3%	$261 31	$49 66	23 5%	$263 49	$51 84	24 5%	$269 03	$57 38	27 1%	$274 40	$62 75	29 6%	$303 72	$92 07	43 5%
	40,000	$275 95	$344 51	$68 56	24 8%	$344 77	$68 82	24 9%	$346 96	$71 01	25 7%	$352 50	$76 55	27 7%	$357 86	$81 91	29 7%	$387 18	$111 23	40 3%
	60,000	$404 55	$511 44	$106 89	26 4%	$511 70	$107 15	26 5%	$513 88	$109 33	27 0%	$519 43	$114 88	28 4%	$524 79	$120 24	29 7%	$554 11	$149 56	37 0%
	80,000	$533 15	$678 37	$145 22	27 2%	$678 63	$145 48	27 3%	$680 81	$147 66	27 7%	$686 36	$153 21	28 7%	$691 72	$158 57	29 7%	$721 04	$187 89	35 2%
	100,000	$661 75	$845 29	$183 54	27 7%	$845 56	$183 81	27 8%	$847 74	$185 99	28 1%	$853 28	$191 53	28 9%	$858 65	$196 90	29 8%	$887 97	$226 22	34 2%
	120,000	$790 35	$1,012 22	$221 87	28 1%	$1,012 49	$222 14	28 1%	$1,014 67	$224 32	28 4%	$1,020 21	$229 86	29 1%	$1,025 58	$235 23	29 8%	$1,054 90	$264 55	33 5%

Customer Class		All Meter	Proposed 5/8 Inch Meter			Proposed 3/4 Inch Meter			Proposed 1 Inch Meter			Proposed 1.5 Inch Meter			Proposed 2 Inch Meter			Proposed 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
Commercial (Monthly)																				
	2,000	$31 61	$26 41	-$5 20	-16 4%	$26 50	-$5 11	-16 2%	$27 23	-$4 38	-13 9%	$29 08	-$2 53	-8 0%	$30 87	-$0 74	-2 4%	$40 64	$9 03	28 6%
	5,000	$50 90	$54 32	$3 42	6 7%	$54 41	$3 51	6 9%	$55 13	$4 23	8 3%	$56 98	$6 08	11 9%	$58 77	$7 87	15 5%	$68 54	$17 64	34 7%
Avg Monthly Bill	15,000	$115 20	$147 33	$32 13	27 9%	$147 42	$32 22	28 0%	$148 14	$32 94	28 6%	$149 99	$34 79	30 2%	$151 78	$36 58	31 8%	$161 55	$46 35	40 2%
	20,000	$147.35	$193 83	$46 48	31 5%	$193 92	$46 57	31 6%	$194 65	$47 30	32 1%	$196 50	$49 15	33 4%	$198 28	$50 93	34 6%	$208 06	$60 71	41 2%
	30,000	$211 65	$286 84	$75 19	35 5%	$286 93	$75 28	35 6%	$287 66	$76 01	35 9%	$289 51	$77 86	36 8%	$291 30	$79 65	37 6%	$301 07	$89 42	42 2%
	40,000	$275 95	$379 85	$103 90	37 7%	$379 94	$103 99	37 7%	$380 67	$104 72	37 9%	$382 52	$106 57	38 6%	$384 31	$108 36	39 3%	$394 08	$118 13	42 8%
	50,000	$340 25	$472 87	$132 62	39 0%	$472 95	$132 70	39 0%	$473 68	$133 43	39 2%	$475 53	$135 28	39 8%	$477 32	$137 07	40 3%	$487 09	$146 84	43 2%
	75,000	$501 00	$705 39	$204 39	40 8%	$705 48	$204 48	40 8%	$706 21	$205 21	41 0%	$708 06	$207 06	41 3%	$709 84	$208 84	41 7%	$719 62	$218 62	43 6%
	100,000	$661 75	$937 92	$276 17	41 7%	$938 01	$276 26	41 7%	$938 74	$276 99	41 9%	$940 58	$278 83	42 1%	$942 37	$280 62	42 4%	$952 14	$290 39	43 9%

Customer Class	Monthly Consumption (gallons)	All Meter Bill at Current Rates	Proposed 5/8 Inch Meter Bill at Proposed Rates	Dollar Change	Percent Change	Proposed 3/4 Inch Meter Bill at Proposed Rates	Dollar Change	Percent Change	Proposed 1 Inch Meter Bill at Proposed Rates	Dollar Change	Percent Change	Proposed 1.5 Inch Meter Bill at Proposed Rates	Dollar Change	Percent Change	Proposed 2 Inch Meter Bill at Proposed Rates	Dollar Change	Percent Change	Proposed 3 Inch Meter 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	$1,767 93	$385 53	27 9%	$1,768 99	$386 59	28 0%	$1,777 73	$395 33	28 6%	$1,799 89	$417 49	30 2%	$1,821 35	$438 95	31 8%	$1,938 63	$556 23	40 2%
Fire Protection Charge		$1,083 00	$714 13	-$368 87	-34.1%	$714 13	-$368 87	-34 1%	$714 13	-$368 87	-34 1%	$714 13	-$368 87	-34 1%	$714 13	######	-34 1%	$714 13	######	-34 1%
Total Annual Charges		$2,465 40	$2,482 06	$16 66	0 7%	$2,483 12	$17 72	0 7%	$2,491 85	$26 45	1 1%	$2,514 02	$48 62	2 0%	$2,535 48	$70 08	2 8%	$2,652 76	$187 36	7 6%

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)					
	10,000,000	$31,539	$42,971	$11,432	36 2%
	20,000,000	$63,059	$85,917	$22,858	36 2%
Avg Monthly Bill	38,000,000	$119,795	$163,220	$43,426	36 3%
	40,000,000	$126,099	$171,810	$45,711	36 3%
	75,000,000	$236,419	$322,122	$85,703	36 3%
	100,000,000	$315,219	$429,487	$114,268	36 3%
	150,000,000	$472,819	$644,218	$171,400	36 3%
Navy (Monthly)					
	10,000,000	$39,559	$54,178	$14,619	37 0%
Avg Monthly Bill (All Meters)	20,000,000	$79,099	$108,050	$28,952	36 6%
	38,000,000	$150,252	$205,021	$54,769	36 5%
	50,000,000	$197,719	$269,668	$71,949	36 4%
	75,000,000	$296,569	$404,349	$107,781	36 3%
	100,000,000	$395,419	$539,031	$143,612	36 3%

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	$ 718,001
Volume Charge		
Residential	4,049,421	5,256,337
Commercial	3,134,342	4,533,866
Navy	712,883	971,291
Portsmouth Water & Fire District	1,271,302	1,732,159
Fire Protection		
Public	1,103,340	743,840
Private	465,460	290,317
Total Rate Revenues	$ 11,950,248	$ 14,245,812
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	**$ 12,602,777**	**$ 14,898,341**
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	**$ 12,685,277**	**$ 14,980,841**
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	(3,735,016)	(3,735,016)
New Debt Service	-	-
Total Capital Costs	$ (6,235,016)	**(6,235,016)**
Operating Revenue Allowance	(254,733)	(254,733)
Total Costs	**$ (14,980,846)**	**$ (14,980,846)**
Revenue Surplus (Deficit)	**$ (2,295,568)**	**$ (5)**

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
Operation & Maintenance Costs										
Administration										
Salaries, Wages, & Benefits										
Salaries & Wages	$ 273,889	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
AFSCME retro	$ -	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
NEA retro	$ -	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
AFSCME benefits on retro pay	$ -	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
NEA benefits on retro pay	$ -	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Standby Salaries	$ 12,500	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Accrued Benefits Buyout	$ 175,000	O&M Labor	59%	25%	4%	6%	5%	2%	0%	**100%**
Employee Benefits	$ 128,202	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Retiree Insurance Coverage	$ 514,000	O&M Labor	59%	25%	4%	6%	5%	2%	0%	**100%**
Workers Compensation	$ 85,000	O&M Labor	59%	25%	4%	6%	5%	2%	0%	**100%**
Annual Leave Buyback	$ 2,400	Non-Administrative O&M costs	64%	20%	3%	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%	20%	3%	5%	5%	2%	1%	**100%**
Membership Dues & Subscriptions	2,500	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Conferences & Training	4,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Tuition Reimbursement	2,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Consultant Fees	233,033	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Postage	1,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Fire & Liability Insurance	76,468	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Telephone & Communication	5,500	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Water	1,942	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Electricity	5,805	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Natural Gas	7,252	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Property Taxes	226,774	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Legal & Administrative	-									
Audit Fees	5,389	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
OPEB Contribution	-	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
City Counsel	4,529	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Citizens Survey	-	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
City Clerk	3,285	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
City Manager	56,725	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Human Resources	31,357	Non-Administrative Wages & Salaries	59%	25%	4%	6%	5%	2%	0%	**100%**
City Solicitor	19,616	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Finance Adimistrative 80%	20,294	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Finance Adimistrative 5%	7,108	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Purchasing	17,222	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Assessment	5,828	Capital Costs	64%	27%	5%	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%	22%	4%	2%	4%	1%	1%	**100%**
Accounting	66,675	Non-Administrative Wages & Salaries	59%	25%	4%	6%	5%	2%	0%	**100%**
Public Safety	-	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Facilities Maintenance	12,438	Total Non-Admin Costs Before Offsets	67%	22%	4%	2%	4%	1%	1%	**100%**
Data Processing	143,888	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Mileage Allowance	2,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Gasoline & Vehicle Allowance	7,508	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Repairs & Maintenance	1,200	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Regulatory Expense	10,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Regulatory Assessment	48,096	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Office Supplies	20,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Self Insurance	10,000	Non-Administrative O&M costs	64%	20%	3%	5%	5%	2%	1%	**100%**
Unemployment Claims	12,000	Non-Administrative O&M costs	64%	20%	3%	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/mailing)					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 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	60%	40%	0%	0%	0%	0%	0%	**100%**
Overtime	$ 60,021	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Holiday Pay	$ 17,045	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Employee Benefits	$ 278,523	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Annual Leave Buyback	$ 5,000	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Conferences & Training	$ 4,500	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Fire & Liability Insurance	$ 12,687	Maximum Day Demand Patterns	60%	40%	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	60%	40%	0%	0%	0%	0%	0%	**100%**
Rental of Equipment	$ 600	Maximum Day Demand Patterns	60%	40%	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	60%	40%	0%	0%	0%	0%	0%	**100%**
Repairs & Maintenance	$ 25,000	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Operating Supplies	$ 25,210	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Uniforms & protective Gear	$ 1,062	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Station One Pumping	$ 22,428	Maximum Hour Demand Patterns	50%	33%	18%	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	60%	40%	0%	0%	0%	0%	0%	**100%**
Overtime	$37,657	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Holiday Pay	$16,760	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Employee Benefits	$287,143	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Annual Leave Buyback	$3,966	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Conferences & Training	$3,000	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Fire & Liability Insurance	$18,614	Maximum Day Demand Patterns	60%	40%	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	60%	40%	0%	0%	0%	0%	0%	**100%**
Rental of Equipment	$500	Maximum Day Demand Patterns	60%	40%	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	60%	40%	0%	0%	0%	0%	0%	**100%**
Repairs & Maintenance	$34,048	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Operating Supplies	$18,475	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Uniforms & protective Gear	$1,542	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Lawton Valley Pumping	$31,646	Maximum Hour Demand Patterns	50%	33%	18%	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 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	50%	33%	18%	0%	0%	0%	0%	**100%**
Overtime	$ 52,364	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Temp Salaries	$ 10,000	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Injury Pay	$ -	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Employee Benefits	$ 251,514	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Annual Leave Buyback	$ 10,943	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Conferences & Training	$ 4,000	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Contract Services	$ 12,430	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Fire & Liability Insurance	$ 18,748	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Electricity	$ 18,762	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Heavy Equipment Rental	$ 8,260	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Gas/Vehicle Maintenance	$ 110,305	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Repairs & Maintenance	$ 26,000	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Main Maintenance	$ 35,000	Maximum Hour Demand Patterns	50%	33%	18%	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	50%	33%	18%	0%	0%	0%	0%	**100%**
Uniforms & protective Gear	$ 1,761	Maximum Hour Demand Patterns	50%	33%	18%	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**									

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

	Docket 4025 Rate Year	Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
CAPITAL COSTS	**Docket 4025 Rate Year**	Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Water Supply	1,432,261	100% Base	100%	0%	0%	0%	0%	0%	0%	**100%**
Treatment Station 1	1,651,242	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Treatment Lawton Valley	521,872	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
Treatment Both Plants	671,826	Maximum Day Demand Patterns	60%	40%	0%	0%	0%	0%	0%	**100%**
T&D Pumping	66,539	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
T&D	1,606,540	Maximum Hour Demand Patterns	50%	33%	18%	0%	0%	0%	0%	**100%**
Fire	25,776	100% Fire	0%	0%	0%	0%	0%	0%	100%	**100%**
Meters	23,069	100% Meters	0%	0%	0%	100%	0%	0%	0%	**100%**
Services	23,069	100 % Services	0%	0%	0%	0%	0%	100%	0%	**100%**
Billing	212,823	100% Billing	0%	0%	0%	0%	100%	0%	0%	**100%**
Total Capital Costs	**6,235,016**									
Revenue Allowance	254,733	100% base	100%							**100%**
Total Costs before Offsets	**14,980,846**									
OFFSETS										
Nonrate Revenues										
Sundry charges	104,000	Non Admin less electricity & chemicals	64%	20%	3%	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%	20%	3%	5%	5%	2%	1%	**100%**
Water Penalty	47,500	Non Admin less electricity & chemicals	64%	20%	3%	5%	5%	2%	1%	**100%**
Miscellaneous	8,600	Non Admin less electricity & chemicals	64%	20%	3%	5%	5%	2%	1%	**100%**
Investment Interest Income	3,900	Non Admin less electricity & chemicals	64%	20%	3%	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	**$ 14,245,817**									

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
Operation & Maintenance Costs								
Administration								
Salaries, Wages, & Benefits								
Salaries & Wages	175,537	53,981	9,280	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	8,011	2,464	424	640	634	216	112	12,500
Accrued Benefits Buyout	103,052	43,446	6,601	9,839	9,014	2,869	178	175,000
Employee Benefits	82,166	25,268	4,344	6,565	6,498	2,211	1,151	128,202
Retiree Insurance Coverage	302,679	127,607	19,389	28,900	26,474	8,427	523	514,000
Workers Compensation	50,054	21,102	3,206	4,779	4,378	1,394	87	85,000
Annual Leave Buyback	1,538	473	81	123	122	41	22	2,400
Subtotal	723,038	274,341	43,326	64,871	61,000	19,883	4,532	1,190,991

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total $ Allocated
All Other Administrative Costs								
Advertisement	5,768	1,774	305	461	456	155	81	9,000
Membership Dues & Subscriptions	1,602	493	85	128	127	43	22	2,500
Conferences & Training	2,564	788	136	205	203	69	36	4,000
Tuition Reimbursement	1,282	394	68	102	101	34	18	2,000
Consultant Fees	149,353	45,929	7,896	11,933	11,811	4,020	2,092	233,033
Postage	641	197	34	51	51	17	9	1,000
Fire & Liability Insurance	49,009	15,071	2,591	3,916	3,876	1,319	687	76,468
Telephone & Communication	3,525	1,084	186	282	279	95	49	5,500
Water	1,244	383	66	99	98	33	17	1,942
Electricity	3,721	1,144	197	297	294	100	52	5,805
Natural Gas	4,648	1,429	246	371	368	125	65	7,252
Property Taxes	145,341	44,695	7,684	11,612	11,493	3,912	2,036	226,774
Legal & Administrative								
Audit Fees	3,603	1,166	203	128	207	50	32	5,389
OPEB Contribution	-	-	-	-	-	-	-	-
City Counsel	3,028	980	171	107	174	42	27	4,529
Citizens Survey	-	-	-	-	-	-	-	-
City Clerk	2,196	711	124	78	126	30	19	3,285
City Manager	37,929	12,278	2,138	1,344	2,182	521	333	56,725
Human Resources	18,465	7,785	1,183	1,763	1,615	514	32	31,357
City Solicitor	13,116	4,246	739	465	755	180	115	19,616
Finance Adimistrative 80%	13,570	4,393	765	481	781	186	119	20,294
Finance Adimistrative 5%	4,752	1,538	268	168	273	65	42	7,108
Purchasing	11,516	3,728	649	408	662	158	101	17,222
Assessment	3,723	1,564	275	22	199	22	24	5,828
Collections	-	-	-	-	49,176	-	-	49,176
Accounting 5%	6,697	2,168	377	237	385	92	59	10,016
Accounting	39,263	16,553	2,515	3,749	3,434	1,093	68	66,675
Public Safety	-	-	-	-	-	-	-	-
Facilities Maintenance	8,316	2,692	469	295	478	114	73	12,438
Data Processing	92,219	28,359	4,875	7,368	7,293	2,482	1,292	143,888
Mileage Allowance	1,282	394	68	102	101	34	18	2,000
Gasoline & Vehicle Allowance	4,812	1,480	254	384	381	130	67	7,508
Repairs & Maintenance	769	237	41	61	61	21	11	1,200
Regulatory Expense	6,409	1,971	339	512	507	172	90	10,000
Regulatory Assessment	30,825	9,479	1,630	2,463	2,438	830	432	48,096
Office Supplies	12,818	3,942	678	1,024	1,014	345	180	20,000
Self Insurance	6,409	1,971	339	512	507	172	90	10,000
Unemployment Claims	7,691	2,365	407	614	608	207	108	12,000
Subtotal	698,106	223,382	37,997	51,743	102,513	17,385	8,496	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
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

	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total $ Allocated
Station One (Excludes pumping and chemicals)								
Salaries & Wages	269,894	177,089	-	-	-	-	-	446,983
Overtime	36,241	23,780	-	-	-	-	-	60,021
Holiday Pay	10,292	6,753	-	-	-	-	-	17,045
Employee Benefits	168,176	110,347	-	-	-	-	-	278,523
Annual Leave Buyback	3,019	1,981	-	-	-	-	-	5,000
Conferences & Training	2,717	1,783	-	-	-	-	-	4,500
Fire & Liability Insurance	7,661	5,026	-	-	-	-	-	12,687
Electricity	252,674	-	-	-	-	-	-	252,674
Natural Gas	14,642	9,608	-	-	-	-	-	24,250
Rental of Equipment	362	238	-	-	-	-	-	600
Sewer Charge	293,020	-	-	-	-	-	-	293,020
Gas/Vehicle Maintenance	4,579	3,004	-	-	-	-	-	7,583
Repairs & Maintenance	15,095	9,905	-	-	-	-	-	25,000
Operating Supplies	15,222	9,988	-	-	-	-	-	25,210
Uniforms & protective Gear	641	421	-	-	-	-	-	1,062
Station One Pumping	11,165	7,326	3,938	-	-	-	-	22,428
Station One Chemicals	354,210	-	-	-	-	-	-	354,210
Subtotal								
Lawton Valley (Excludes pumping and chemicals)								
Salaries & Wages	277,575	182,129	-	-	-	-	-	459,704
Overtime	22,738	14,919	-	-	-	-	-	37,657
Holiday Pay	10,120	6,640	-	-	-	-	-	16,760
Employee Benefits	173,381	113,762	-	-	-	-	-	287,143
Annual Leave Buyback	2,395	1,571	-	-	-	-	-	3,966
Conferences & Training	1,811	1,189	-	-	-	-	-	3,000
Fire & Liability Insurance	11,239	7,375	-	-	-	-	-	18,614
Electricity	132,551	-	-	-	-	-	-	132,551
Natural Gas	18,059	11,850	-	-	-	-	-	29,909
Rental of Equipment	302	198	-	-	-	-	-	500
Sewer Charge	360,640	-	-	-	-	-	-	360,640
Gas/Vehicle Maintenance	4,759	3,123	-	-	-	-	-	7,882
Repairs & Maintenance	20,559	13,489	-	-	-	-	-	34,048
Operating Supplies	11,155	7,320	-	-	-	-	-	18,475
Uniforms & protective Gear	931	611	-	-	-	-	-	1,542
Lawton Valley Pumping	15,753	10,336	5,556	-	-	-	-	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		208,159	136,581	73,420	-	-	-	-	418,161
Overtime		26,067	17,103	9,194	-	-	-	-	52,364
Temp Salaries		4,978	3,266	1,756	-	-	-	-	10,000
Injury Pay		-	-	-	-	-	-	-	-
Employee Benefits		125,203	82,151	44,161	-	-	-	-	251,514
Annual Leave Buyback		5,447	3,574	1,921	-	-	-	-	10,943
Conferences & Training		1,991	1,306	702	-	-	-	-	4,000
Contract Services		6,188	4,060	2,182	-	-	-	-	12,430
Fire & Liability Insurance		9,333	6,124	3,292	-	-	-	-	18,748
Electricity		9,340	6,128	3,294	-	-	-	-	18,762
Heavy Equipment Rental		4,112	2,698	1,450	-	-	-	-	8,260
Gas/Vehicle Maintenance		54,909	36,028	19,367	-	-	-	-	110,305
Repairs & Maintenance		12,943	8,492	4,565	-	-	-	-	26,000
Main Maintenance		17,423	11,432	6,145	-	-	-	-	35,000
Hydrant Maintenance			-	-	-	-	-	35,000	35,000
Service Maintenance		-	-	-	-	-	30,000	-	30,000
Operating Supplies		4,978	3,266	1,756	-	-	-	-	10,000
Uniforms & protective Gear		877	575	309	-	-	-	-	1,761
Subtotal									
Fire Protection		-	-	-	-	-	-	13,500	13,500
Total O&M Costs	Non-Administrative O&M	**4,220,928**	**1,064,544**	**183,010**	**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
CAPITAL COSTS		Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total $ Allocated
Water Supply		1,432,261	-	-	-	-	-	-	1,432,261
Treatment Station 1		997,042	654,200	-	-	-	-	-	1,651,242
Treatment Lawton Valley		315,113	206,759	-	-	-	-	-	521,872
Treatment Both Plants		405,657	266,168	-	-	-	-	-	671,826
T&D Pumping		33,123	21,733	11,683	-	-	-	-	66,539
T&D		799,729	524,735	282,075	-	-	-	-	1,606,540
Fire		-	-	-	-	-	-	25,776	25,776
Meters		-	-	-	23,069	-	-	-	23,069
Services		-	-	-	-	-	23,069	-	23,069
Billing		-	-	-	-	212,823	-	-	212,823
Total Capital Costs		**3,982,925**	**1,673,596**	**293,758**	**23,069**	**212,823**	**23,069**	**25,776**	**6,235,016**
		64%	27%	5%	0%	3%	0%	0%	100%
Revenue Allowance		254,733	-	-	-	-		-	254,733
Total Costs before Offsets	Total Non-Admin Costs	**8,458,586**	**2,738,141**	**476,769**	**299,649**	**486,572**	**116,240**	**74,276**	**12,650,232**
		67%	22%	4%	2%	4%	1%	1%	100%
OFFSETS									
Nonrate Revenues									
Sundry charges		66,654	20,498	3,524	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		69,325	21,319	3,665	5,539	5,482	1,866	971	108,167
Water Penalty		30,443	9,362	1,609	2,432	2,407	819	427	47,500
Miscellaneous		5,512	1,695	291	440	436	148	77	8,600
Investment Interest Income		2,500	769	132	200	198	67	35	3,900
Water Quality Protection Fees		22,500	-	-	-	-	-	-	22,500
Total Nonrate Revenues		**196,934**	**53,642**	**9,222**	**234,118**	**233,975**	**4,695**	**2,444**	**735,029**
Net Costs To Recover Through Rates		**$ 8,261,652**	**$ 2,684,499**	**$ 467,547**	**$ 65,531**	**$ 252,597**	**$ 111,545**	**$ 71,832**	**$ 11,915,203**
	Non-Admin O&M Costs	$ 4,220,928	$ 1,064,544	$ 183,010	$ 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	$ 3,461,709	$ 1,064,544	$ 183,010	$ 276,580	$ 273,749	$ 93,171	$ 48,500	$ 5,401,264
		64%	**20%**	**3%**	**5%**	**5%**	**2%**	**1%**	100%

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

ALLOCATION PERCENTAGES

Cost Category	Allocation Basis	Base Charge	Commodity Charges: Retail Residential	Retail Commercial & Governmental	Navy	Portsmouth	Fire	Total % Allocated
Base	*Average annual demand*		42%	32%	9%	17%	0%	100%
Base Excluding PWFD			50%	39%	11%	0%	0%	100%
Base Excluding PWFD & 50% Navy			53%	41%	6%	0%	0%	100%
Water Quality Protection Fees			56%	44%	0%	0%	0%	100%
Total Base to Class			43%	34%	8%	15%	0%	100%
Max Day	*Estimated customer peaking factors*		28%	33%	5%	14%	19%	100%
Base Excluding PWFD			33%	39%	6%	0%	22%	100%
Max Day Excluding PWFD & 50% Navy			34%	40%	3%	0%	23%	100%
Total Max Day to Class			30%	36%	5%	10%	20%	100%
Max Hour	*Estimated customer peaking factors*		17%	25%	3%	8%	47%	100%
Base Excluding PWFD			19%	27%	4%	0%	51%	100%
Max Hour Excluding PWFD & 50% Navy			19%	27%	2%	0%	52%	100%
Total Max Hour to Class			19%	27%	2%	0%	51%	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	Base Charge	Commodity Charges: Retail Residential	Retail Commercial	Navy	Portsmouth	Fire	Total $ Allocated
Base								
Base excluding T&D&WQPF & Pumping	7,106,871		2,952,306	2,285,151	627,623	1,241,792		7,106,871
Transmission & Distribution	1,291,675		686,946	531,711	73,018	-		1,291,675
Pumping	60,041		30,223	23,393	6,425	-		60,041
Water Quality Protection Fees	(22,500)		(12,683)	(9,817)	-	-		(22,500)
Revenue Offsets	(174,434)		(75,672)	(58,572)	(14,581)	(25,608)	-	(174,434)
Administrative Charges	1,421,144		616,516	477,197	118,796	208,636	-	1,421,144
Max Day								
Max Day Except T&D & Pumping	1,851,224		520,757	619,363	98,556	264,450	348,098	1,851,224
Transmission & Distribution	847,521		287,059	341,414	27,164	-	191,884	847,521
Pumping	39,395		12,929	15,377	2,447	-	8,642	39,395
Revenue Offsets	(53,642)		(16,079)	(19,123)	(2,511)	(5,181)	(10,748)	(53,642)
Administrative Charges	497,723		149,190	177,440	23,297	48,070	99,726	497,723
Max Hour								
Max Hr Except T&D & Pumping	-	-	-	-	-	-	-	-
Transmission & Distribution	455,591	-	87,101	124,889	8,803	-	234,798	455,591
Pumping	21,177	-	3,972	5,695	803	-	10,707	21,177
Revenue Offsets	(9,222)		(1,762)	(2,526)	(186)	-	(4,749)	(9,222)
Administrative Charges	81,323		15,534	22,274	1,638	-	41,876	81,323
Metering	299,649	299,649	-	-	-	-	-	299,649
Revenue Offsets	(234,118)	(234,118)						(234,118)
Administrative Charges	116,614	116,614						116,614
Services	116,240	116,240						116,240
Revenue Offsets	(4,695)	(4,695)						(4,695)
Administrative Charges	37,268	37,268						37,268
Billing	486,572	486,572	-	-	-	-	-	486,572
Revenue Offsets	(233,975)	(233,975)						(233,975)
Administrative Charges	163,514	163,514						163,514
Fire	74,276						74,276	74,276
Revenue Offsets	(2,444)						(2,444)	(2,444)
Administrative Charges	13,028						13,028	13,028
Total To Recover through Rates	**$ 14,245,817**	**$ 747,068**	**$ 5,256,337**	**$ 4,533,866**	**$ 971,291**	**$ 1,732,159**	**$ 1,005,095**	**$ 14,245,817**

COST OF SERVICE PER UNIT

	Metering (1) # of accounts x 12 months	(2) 1000's of gallons annually	(2) 1000's of gallons annually	(2) 1000's of gallons annually	(2) 1000's of gallons annually	(3) Equivalent Connections	Total
Description of Billing Units							
Percentage of Dollars Allocated	1.3%	36.9%	31.8%	6.8%	12.2%	6.5%	100.0%
Allocated Cost	$ 182,145	$ 5,256,337	$ 4,533,866	$ 971,291	$ 1,732,159	$ 920,235	$ 14,245,817
Divided by Number of Units	207,132	629,770	487,456	180,294	403,332	161,036	
Unit Cost of Service	**$0.8794** *per equiv per month*	**$8.35** *per 1000 gallons*	**$9.30** *per 1000 gallons*	**$5.39** *per 1000 gallons*	**$4.29** *per 1000 gallons*	**$5.71** *Equivalent connections*	

	Billing No of bills per year	Services No of bills per year	Hydrants No of Hydrants
Description of Billing Units			
Percentage of Dollars Allocated	2.9%	1.0%	0.6%
Allocated Cost	$ 416,110	$ 148,813	$ 84,860
Divided by Number of Units	65,094	275,639	1,036
Unit Cost of Service	**$6.3925** *per bill*	**$0.5399** *per equiv*	**$81.9116** *per Hydrant*

(1)

(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 apprpriate amount of labor and materials costs are allocated to service pipes and meters.

Allocation Basis	Used to allocate the following cost categories	Source Schedule	Base	Max Day	Max Hour	Metering	Billing	Services	Direct Fire Protection	**Total % Allocated**
Average Day Demand Patterns	*Supply, Laboratory*	N/A	100%							100%
Maximum Day Demand Patterns	*Treatment*	B-10	60%	40%	0%					100%
Maximum Hour Demand Patterns	*Pumping, Transmission/Distribution, Storage*	B-10	50%	33%	18%					100%
Fire Protection	*Public/Private Fire Protection Costs*	D-2							100%	100%
Salary Costs										
Administration	*Administration Salaries, Wages, & Benefits*	B-1	64%	20%	3%	5%	5%	2%	1%	100%
Customer Service	*Customer Service Salaries, Wages, & Benefits*	B-4	0%	0%	0%	46%	41%	13%	0%	100%
Non-Administrative Wages & Salaries	*Administrative Labor Related*	B-1	59%	25%	4%	6%	5%	2%	0%	100%
Capital Costs	*Certain Legal and Administrative*	B-1	64%	27%	5%	0%	3%	0%	0%	0%
Total Non-Admin Costs before Offsets	*Certain Legal and Administrative*	B-1	67%	22%	4%	2%	4%	1%	1%	100%
Other Costs	*Administration Non-Salary Costs*	B-1	64%	20%	3%	5%	5%	2%	1%	100%

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

	FY 2010 Salary	Allocation of Salary Costs							
		Base	Max Day	Max Hour	Metering	Billing	Services	Direct Fire Protection	Total Allocated
Administration 15-500-2200									
Salaries by Staff Position									
Director of Utilities	$ 63,851	64%	20%	3%	5%	5%	2%	1%	100%
Administrative Secretary	$ 27,753	64%	20%	3%	5%	5%	2%	1%	100%
Deputy Director - Finance	$ 58,372	64%	20%	3%	5%	5%	2%	1%	100%
Deputy Director - Engineering	$ 55,027	64%	20%	3%	5%	5%	2%	1%	100%
Financial Analyst	$ 68,886	64%	20%	3%	5%	5%	2%	1%	100%
Salary $ Allocation Results	$ 273,889	$ 175,537	$ 53,981	$ 9,280	$ 14,025	$ 13,881	$ 4,725	$ 2,459	**$ 273,889**
Resulting % Allocation of Administration Salaries, Wages, & Benefits		**64%**	**20%**	**3%**	**5%**	**5%**	**2%**	**1%**	**100%**
Customer Service 15-500-2209									
Salaries by Staff Position									
Meter Repairman/Reader	$ 36,757				50%	50%			100%
Meter Repairman/Reader	$ 38,996				50%	50%			100%
Principal Account Clerk	$ 35,687					100%			100%
Meter Repairman/Reader	46,483				100%				100%
Maintenance Mechanic	$ 45,889				33%	33%	34%		100%
SAE - Sr. Maintenance Mechanic	$ -				100%				100%
Water Meter Foreman	$ 52,523				33%	33%	34%		100%
Salary $ Allocation Results	$ 256,335				$ 116,835	$ 106,039	$ 33,460		**$ 256,335**
Resulting % Allocation of Customer Service Salaries, Wages, & Benefits		**0%**	**0%**	**0%**	**46%**	**41%**	**13%**	**0%**	**100%**

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

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	$ [illegible]					100%						100%
LAWTON VALLEY	[illegible]			100%								100%
STATION 1	[illegible]		100%									100%
TREATMENT BOTH	$ [illegible]				100%							100%
STORAGE	$ [illegible]					100%						100%
SOURCE OF SUPPLY	$ [illegible]	100%										100%
METERS/SERVICES	$ [illegible]								50%	50%		100%
T&D PUMPING	$ [illegible]						100%					100%
BILLING	$ [illegible]										100%	100%
FIRE	$ [illegible]							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	$ 903,198	$ 952,802	$ 301,132	$ 387,658	$ 927,008	$ 38,395	$ 14,873	$ 13,311	$ 13,311	$ 122,803	$ 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

Functionalization of Capital Costs

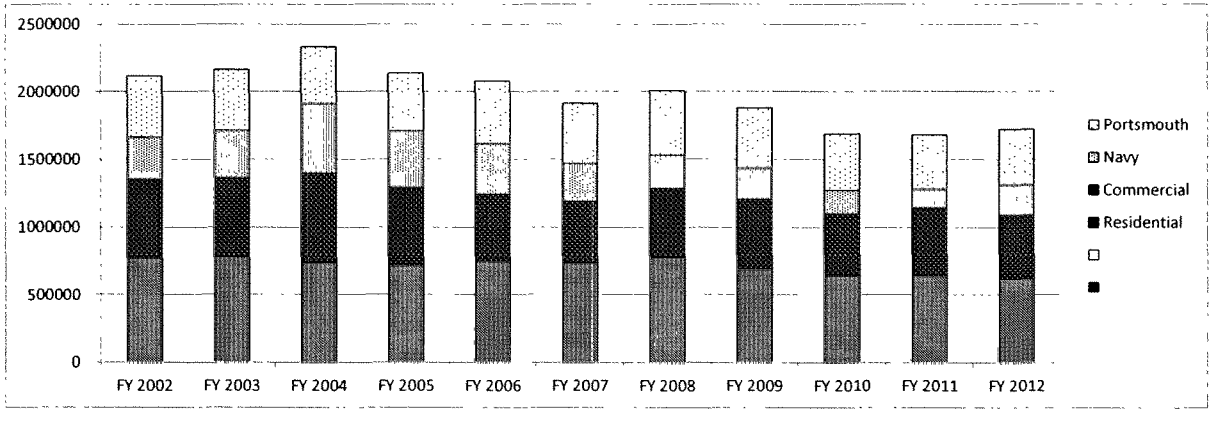
		Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	T&D Pumping	Fire	Meters	Services	Billing	
Capital Spending Restricted Account	$ 2,500,000	23%	26%	8%	11%	26%	1%	0%	0%	0%	3%	100%
Debt Service	$ 3,735,016	23%	26%	8%	11%	26%	1%	0%	0%	0%	3%	100%
	$ 6,235,016											

		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	$ 3,735,016	857,980	989,158	312,622	402,450	962,380	39,860	15,441	13,819	13,819	127,489	$ 3,735,016
	$ 6,235,016	$ 1,432,261	$ 1,651,242	$ 521,872	$ 671,826	$ 1,606,540	$ 66,539	$ 25,776	$ 23,069	$ 23,069	$ 212,823	$ 6,235,016

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

Docket No. 4355

	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	Avg 2011-2012	Docket 4025
Annual Demand by Class													
Residential	773,872	780,666	736,577	716,037	749,409	734,137	780,264	690,544	644,285	640,966	618,574	629,770	**630,132**
Commercial	580,798	583,184	663,766	573,711	493,539	456,486	505,014	519,521	457,376	502,475	472,437	487,456	**499,647**
Navy	307,051	348,222	511,299	417,869	373,306	278,441	247,728	225,392	173,790	137,731	222,858	180,294	**178,971**
Portsmouth	455,142	451,723	422,944	429,465	463,253	445,232	473,338	444,777	412,324	398,827	407,837	403,332	**428,519**
Total (in 1000's Gallons)	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	1,700,852	**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	Production Peaks	Peaking Comparison: Estimated	Peaking Comparison: Diversity	
Annual Production	2,456,363	2,524,784	2,437,440	2,440,630	2,304,024	2,165,686	2,234,855			
Average Day Production	6,730	6,917	6,678	6,687	6,312	5,933	6,123			
Maximum Month Production	256,796	269,819	280,875	254,088	268,468	256,324	262,396			
Maximum Day Production	10,165	10,724	12,100	9,800	10,163	10,118	10,140			
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	**1.66**	**1.98**	1.23	between 1.1 and 1.4?
Max-Day to Avg. Day/Max-Month Ratio	1.19	1.23	1.34	1.20	1.17	1.22	**1.20**			
Maximum Hour	13,800	15,200	13,250	10,700	12,100	12,500	**12,300**			
Maximum Hour Peaking Factor	2.05	2.20	1.98	1.60	1.92	2.11	**2.01**	**2.77**	1.44	between 1.1 and 1.4?
				Coincident	Noncoincident					
				Excluding Fire Protection						

(1) Calculated according to AWWA M-1 Guidelines

Newport Water Division
Cost Of Service Analysis
CW B-8 Docket No. 4355
Billed Demand Peaking Analysis: Determination of Customer Class Peaking Factors

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	1.98	2.77

Newport Water Division
Cost Of Service Analysis
CW B-9 Docket No. 4355
System Demands Imposed by Each Customer Class' Peaking Behavior

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	
	Rate Year Demand (1,000 gallons)							
Residential	629,770	1,725	*902*	2,627	**41.5%**	**53%**	**50%**	54%
Commercial	487,456	1,335	*698*	2,033	**32.2%**	**41%**	**39%**	42%
Navy	180,294	494	*65*	558	**8.8%**	**6%**	**11%**	4%
Portsmouth	403,332	1,105	-	1,105	**17.5%**	**0%**	**0%**	
Fire					**N/A**	**N/A**	**N/A**	
Total, w Fire Prot.	**1,700,852**	4,660	26%	**6,324**	**100%**	**100%**	**100%**	
			(1)					
Production	2,308,299	6,324	26.32%					

Customer Class		Max Day Peaking Factor	Max Day Calculations: Demand x Peaking Factor (3)	Max Day Calculations: Incremental Peak Demand	Max Day Calculations: % of Daily Peaks	% of Daily Peaks: With Full PWFD & Navy	% of Daily Peaks: Without PWFD & 50% Navy	% of Daily Peaks: Without PWFD	Max Hour Peaking Factor	Max Hour Calculations: Demand x Peaking Factor (3)	Max Hour Calculations: Incremental Peak Demand	% of Hourly Peaks: With Full PWFD & Navy	% of Hourly Peaks: Without PWFD & 50% Navy	% of Hourly Peaks: Without PWFD
Residential		1.82	4,781	2,154	**28.1%**	**28.1%**	**33.9%**	**32.8%**	2.43	6,384	1,603	**17.3%**	**19.1%**	**18.8%**
Commercial		2.26	4,596	2,562	**33.5%**	**33.5%**	**40.3%**	**39.0%**	3.39	6,893	2,298	**24.8%**	**27.4%**	**26.9%**
Navy		1.73	966	408	**5.3%**	**5.3%**	**3.2%**	**6.2%**	2.31	1,290	324	**3.5%**	**1.9%**	**3.8%**
Portsmouth		1.99	2,199	1,094	**14.3%**	**14.3%**	**0.0%**	**0.0%**	2.65	2,928	729	**7.9%**	**0.0%**	**0.0%**
Fire	(2)		1,440	1,440	**18.8%**	**18.8%**	**22.6%**	**21.9%**		5,760	4,320	**46.6%**	**51.5%**	**50.6%**
Total, w Fire Prot.			13,982	7,658	100.0%	100.0%	100.0%	100.0%		23,256	9,274	100.0%	100.0%	100.0%
Total, without Fire Protection			**12,542**	**6,218**						**17,496**	**4,954**			

(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'.

Newport Water Division
Cost Of Service Analysis
CW B-10
Summary of Peak Load Distributions (by Rate Class and Base/Extra-Capacity Categories)

Docket No. 4355

EACH RATE CLASS' SHARE OF SYSTEM PEAKS

Rate Class	Average Demand	Daily Peaks	Hourly Peaks
Retail			
Residential	42%	28%	17%
Commercial	32%	33%	25%
Navy	9%	5%	3%
Portsmouth	17%	14%	8%
Fire	N/A	19%	47%
	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	6,123	**60.4%**	**49.8%**
Extra Capacity			
Max Day	4,017	**39.6%**	**32.7%**
Max Hour	2,160		**17.6%**
Fire Protection			
Max Day	-	**0.0%**	**0.0%**
Max Hour	-		**0.0%**
Total%		**100.0%**	**100.0%**
Total 1000's Gallons		**10,140**	**12,300**

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 '.

Newport Water Division
Cost Of Service Analysis
CW B-11
Fire Protection Demand Analysis

Docket No. 4355

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

		COMMERCIAL				RESIDENTIAL				WHOLESALE (Monthly)			
Connection	Meter	Meter Read Frequency		Equivalent Meters		Meter Read Frequency		Equivalent Meters		Navy		Portsmouth	
Size	Factors	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

	Equivalent Billing Units	
Billed Monthly	**817**	**9,804**
Billed Quarterly	**13,729**	**54,916**
Billed Annually	**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	% of Equiv
Portsmouth	6	111.31	9	1,002	Connections
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	% of Equiv Connections
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	% of Equiv Connections
	10	11.060	1	11	
Subtotal General Servcie			**14,546**	**18,853**	**82%**
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	-	% of Equiv
	12	11.060	2	22	Connections
Subtotal: Private Fire Connections			**374**	**4,117**	**18%**
Annualized				**12**	
Total Retail & Private Fire Connections			**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
FY 07 JULY 2006 - JUNE 2007		1,176,356,210	1,176,356		1,280,006,852	1,280,007		2,456,363,062	2,456,363
	Max. Month June	116,724,700	116,725	August	140,288,300	140,288	August	256,795,580	256,796
FY 08 JULY 2007 - JUNE 2008		1,268,356,660	1,268,357		1,256,427,700	1,256,428		2,524,784,360	2,524,784
	Max. Month August	141,803,530	141,804	July	144,557,900	144,558	July	269,819,450	269,819
FY 09 JULY 2008 - JUNE 2009		1,152,697,400	1,152,697		1,284,742,500	1,284,743		2,437,439,900	2,437,440
	Max. Month March	110,288,000	110,288	July	177,163,200	177,163	July	280,874,500	280,875
FY 10 JULY 2009 - JUNE 2010		1,333,422,150	1,333,422		1,107,207,665	1,107,208		2,440,629,815	2,440,630
	Max. Month October	121,112,610	121,113	August 2009	139,731,200	139,731	August 2009	254,088,090	254,088
FY 11 JULY 2010 - JUNE 2011		1,242,460,000	1,242,460		1,061,564,200	1,061,564		2,304,024,200	2,304,024
	Max. Month July	136,103,000	136,103	August 2010	133,325,700	133,326	July 2010	268,467,600	268,468
FY 12 JULY 2011 - JUNE 2012		981,876,000	981,876		1,183,810,000	1,183,810		2,165,685,750	2,165,686
	Max. Month July	110,561,700	110,562	July	145,762,000	145,762	July	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
FY 07 JULY 2006 - JUNE 2007	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								
FY 08 JULY 2007 - JUNE 2008	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								
FY 09 JULY 2008 - JUNE 2009	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								
FY 10 JULY 2009 - JUNE 2010	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
FY 11 JULY 2010 - JUNE 2011	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
FY 12 JULY 2011 - JUNE 2012	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	
FY 07 JULY 2006 - JUNE 2007	7/6/2006	5.8	MGD	7/1/2006	8.0	MGD
FY 08 JULY 2007 - JUNE 2008	8/26/2007	7.2	MGD	6/18/2008	8.0	MGD
FY 09 JULY 2008 - JUNE 2009	7/18/2008	5.25	MGD	7/18/2008	8.0	MGD
FY 10 JULY 2009 - JUNE 2010	9/2/2009	4.70	MGD	9/2/2009	6.0	MGD
FY 11 JULY 2010 - JUNE 2011	10/15/2010	6.10	MGD	10/15/2010	6.0	MGD
FY 12 JULY 2011 - JUNE 2012	7/5/2011	6.50	MGD	7/7/2011	6.0	MGD

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

	FY 2006	FY 2007	FY 2008	FY 2009	FY 2010	FY 2011	FY 2012
Fiscal Year Annual Demand							
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	Residential	Non-Residential	Navy	PWFD
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 Ratio3	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.

Docket No. 4355 - City of Newport Water Division – COSS Rate Filing
Updated 9/27/12

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I hereby certify that a copy of the within was electronically mailed to the above-named individuals on February 7, 2013. Paper copies were also sent to Luly E. Massaro by U.S. First Class Mail.

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