



State of Rhode Island and Providence Plantations

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Patrick C. Lynch, Attorney General

January 29, 2010

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

Re: Docket No. 4128

Dear Ms. Massaro,

Enclosed for filing with the Commission by the Division in the above-entitled matter, please find the Direct Testimony of Jerome D. Mierzwa.

Very truly yours,

Jon G. Hagopian
Special Assistant Attorney General

Enclosures
Service List (by e-mail only)

**BEFORE THE
PUBLIC UTILITIES COMMISSION
OF RHODE ISLAND**

CITY OF NEWPORT) DOCKET NO. 4128

**DIRECT TESTIMONY
OF
JEROME D. MIERZWA**

**ON BEHALF OF THE
DIVISION OF PUBLIC UTILITIES AND CARRIERS**

JANUARY 29, 2010

EXETER

**ASSOCIATES, INC.
5565 Sterrett Place
Suite 310
Columbia, Maryland 21044**

BEFORE THE
PUBLIC UTILITIES COMMISSION
OF RHODE ISLAND

CITY OF NEWPORT) DOCKET NO. 4128

DIRECT TESTIMONY OF JEROME D. MIERZWA

I. Introduction

1

2 Q. WOULD YOU PLEASE STATE YOUR NAME AND BUSINESS
3 ADDRESS?

4 A. My name is Jerome D. Mierzwa. I am a principal and President of Exeter Associates,
5 Inc. My business address is 5565 Sterrett Place, Suite 310, Columbia, Maryland 21044.
6 Exeter specializes in providing public utility-related consulting services.

7 Q. PLEASE DESCRIBE YOUR EDUCATIONAL BACKGROUND AND
8 EXPERIENCE.

9 A. I graduated from Canisius College in Buffalo, New York, in 1981 with a Bachelor of
10 Science Degree in Marketing. In 1985, I received a Masters Degree in Business
11 Administration with a concentration in finance, also from Canisius College. In July 1986,
12 I joined National Fuel Gas Distribution Corporation ("NFG Distribution") as a
13 Management Trainee in the Research and Statistical Services Department ("RSS").
14 I was promoted to Supervisor RSS in January 1987. While employed with NFG
15 Distribution, I conducted various financial and statistical analyses related to the
16 company's market research activity and state regulatory affairs. In April 1987, as part
17 of a corporate reorganization, I was transferred to National Fuel Gas Supply
18 Corporation's ("NFG Supply") rate department where my responsibilities included
19 utility cost of service and rate design analysis, expense and revenue requirement

1 forecasting and activities related to federal regulation. I was also responsible for
2 preparing NFG Supply's Purchase Gas Adjustment ("PGA") filings and developing
3 interstate pipeline and spot market supply gas price projections. These forecasts were
4 utilized for internal planning purposes as well as in NFG Distribution's purchased gas
5 cost proceedings.

6 In April 1990, I accepted a position as a Utility Analyst with Exeter
7 Associates, Inc. In December 1992, I was promoted to Senior Regulatory Analyst.
8 Effective April 1, 1996, I became a principal of Exeter Associates. Since joining
9 Exeter Associates, my assignments have included water utility class cost of service
10 and rate design analysis, evaluating the gas purchasing practices and policies of
11 natural gas utilities, sales and rate forecasting, performance-based incentive
12 regulation, revenue requirement analysis, the unbundling of utility services and the
13 evaluation of customer choice natural gas transportation programs.

14 Q. HAVE YOU PREVIOUSLY TESTIFIED IN REGULATORY
15 PROCEEDINGS ON UTILITY RATES?

16 A. Yes. I have provided testimony on more than 100 occasions in proceedings before the
17 Federal Energy Regulatory Commission ("FERC"), utility regulatory commissions in
18 Delaware, Georgia, Illinois, Indiana, Louisiana, Maine, Montana, Nevada, New
19 Jersey, Ohio, Pennsylvania, Texas and Virginia, as well as before this Commission.

20 Q. HAVE YOU PREVIOUSLY TESTIFIED ON WATER UTILITY ISSUES
21 BEFORE THIS COMMISSION?

22 A. Yes. I was asked by the Division of Public Utilities and Carriers ("the Division") to
23 testify on water utility issues in City of Newport-Water Division ("Newport") Docket
24 No. 2985. I was also asked by the Division to testify on cost allocation and rate design
25 issues in Pawtucket Water Supply Board Docket Nos. 2674 and 3945, Kent County

1 Water Authority Docket Nos. 2555 and 3311, and Providence Water Supply Board
2 Docket Nos. 2048, 3163 and 3832.

3 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

4 A. My testimony evaluates Newport's class cost of service study and rate design
5 proposals.

6 Q. HOW IS THE REMAINDER OF YOUR TESTIMONY ORGANIZED?

7 A. Following this introductory section, my testimony is divided into two additional
8 sections. The first section provides an overview of cost of service methodologies.
9 In the next section, I address Newport's cost of service study and rate design
10 proposals.

11 **II. Overview of Cost of Service Methodologies**

12 Q. WHAT IS THE OBJECTIVE OF A COST OF SERVICE STUDY?

13 A. A cost of service study is conducted to assist a utility or commission in determining
14 the level of costs properly recoverable from each of the various classes to which the
15 utility provides service. Allocation of recoverable costs to each class of service is
16 generally based on cost causation principles.

17 Q. WHAT ARE THE PRIMARY COST OF SERVICE STUDY
18 METHODOLOGIES UTILIZED FOR WATER UTILITIES?

19 A. The two most commonly used and widely recognized methods of allocating costs
20 to customer classes for water utilities are the base-extra capacity method and the
21 commodity-demand method. Both of these methods are set forth in the American
22 Water Works Association's ("AWWA") *Principles of Water Rates, Fees and Charges*
23 ("AWWA M1 Manual").

1 Q. PLEASE SUMMARIZE EACH OF THESE METHODS.

2 A. Under the base-extra capacity method, investment and costs are first classified into
3 four primary functional cost categories: base or average capacity, extra capacity,
4 customer, and direct fire protection. Customer costs are commonly further divided
5 between meter and service related and account or bill related costs. Extra capacity
6 costs may also be divided between maximum day and maximum hour costs. Once
7 investment and costs are classified to these functional categories, they are then
8 allocated to customer classes. Base costs are allocated according to average water use,
9 and extra capacity costs are allocated on the basis of the excess of peak demands over
10 average demands. Meter and service related customer costs are allocated on the basis
11 of relative meter and service investment or a proxy thereof. Account related customer
12 costs are allocated in proportion to the number of customers or the number of bills.

13 The commodity-demand method follows the same general procedures.
14 However, usage related costs are classified as commodity and demand related rather
15 than as base and extra capacity related. Commodity related costs are allocated to
16 customer classes on the basis of total water use (which is equivalent to average
17 demand), and demand related costs are allocated on the basis of each class'
18 contribution to peak demand rather than on the basis of class demands in excess
19 of average use.

20 **III. Evaluation of Newport's Cost of Service Study and Rate Design Proposals**

21 Q. WHAT COST OF SERVICE METHODOLOGY HAS BEEN UTILIZED BY
22 NEWPORT IN ITS STUDY?

23 A. The cost of service study presented by Newport utilizes the base extra-capacity
24 methodology.

1 Q. PLEASE IDENTIFY THE CUSTOMER CLASSES INCLUDED IN
2 NEWPORT'S STUDY.

3 A. The customer classes included in Newport's study are the residential and commercial
4 retail classes, the Navy and Portsmouth Water and Fire District ("PWFD") wholesale
5 classes, and the public and private fire protection classes.

6 Q. PLEASE SUMMARIZE THE CHANGES YOU ARE RECOMMENDING
7 TO NEWPORT'S COST OF SERVICE STUDY AND RATE DESIGN
8 PROPOSALS.

9 A. I am proposing the following modifications to Newport's cost of service study and rate
10 design proposals:

- 11
12 • Newport has not properly reflected the maximum hour demands associated
13 with fire protection service and Newport's study should be modified
14 accordingly;
- 15
16 • Newport's study improperly over-allocates maximum day and maximum
17 hour costs to fire protection service and this improper over-allocation
should be corrected;
- 18
19 • Newport's proposal to allocate none of the costs associated with
20 unaccounted-for water ("UFW") to the Navy is unreasonable, and I
21 recommend that the Navy be allocated UFW costs based on a 50 percent
weighting of base or average demands;
- 22
23 • Newport's allocation of transmission and distribution costs to the Navy
24 fails to reflect the unique service characteristic of the Navy, and I
25 recommend that the allocation of these costs to the Navy be reduced by 50
percent;
- 26
27 • The laboratory investment and chemical expenses included in Newport's
cost of service study should be allocated based on average demands;
- 28
29 • Newport's study fails to allocate service line investment to private fire
protection, and the study should be modified accordingly;

- Newport's allocation of administration wages, salaries and benefits solely to the base, metering and billing function is unreasonable, and these costs should be allocated to all functions;
- Water Quality Protection Fees should be allocated only to the residential and commercial retail classes; and
- Newport has proposed the same monthly and quarterly service charges for all general water service (non-fire protection) customers regardless of meter size. I recommend that service charges be designed based on meter size.

Q. HAVE YOU PREPARED A COST OF SERVICE STUDY REFLECTING YOUR RECOMMENDED MODIFICATIONS TO NEWPORT'S STUDY?

A. Yes, a revised cost of service study reflecting my recommended modifications is attached to my testimony. This revised study utilizes the same schedule number sequencing as Newport, with the exception that I have substituted the abbreviation "JDM" for the "RFC" utilized by Newport.

Q. PLEASE EXPLAIN HOW THE MAXIMUM HOUR DEMANDS ASSOCIATED WITH FIRE PROTECTION SERVICE WERE DEVELOPED IN NEWPORT'S COST OF SERVICE STUDY.

A. As shown on RFC Schedule B-11, Newport utilized an hourly fire protection flow of 240,000 gallons per hour (4,000 gallon per minute flow) in its cost of service study, and reflected this flow rate on RFC Schedule B-9 to develop percentages which were subsequently used to allocate maximum hour related costs to the various customer classes. That is, the rate used by Newport for fire protection represented the flow for a one-hour period. For all other classes included on RFC Schedule B-9, the maximum hour rate used by Newport represents flows at the maximum hour rate for a 24-hour period. Consistent with the approach used for all other customer classes, the maximum hour rate for fire protection should be stated on a 24-hour basis, and I have made this correction in my revised study.

1 Q. PLEASE EXPLAIN HOW NEWPORT OVER-ALLOCATED COSTS TO
2 FIRE PROTECTION SERVICE IN ITS COST OF SERVICE STUDY.

3 A. In its cost of service study, Newport allocates each cost item to the base (average),
4 maximum day, maximum hour, metering, billing, services and fire protection
5 functions. Maximum day and maximum hour costs are initially allocated to general
6 water service (retail and wholesale customers) and fire protection service based on
7 relative maximum day and maximum hour demands. After allocating maximum day
8 and maximum hour costs between general water service and fire protection service,
9 Newport's cost of service subsequently reallocates a portion of the maximum day and
10 maximum hour costs allocated to general service to fire protection service. This
11 "second" allocation of costs to fire protection service is improper and results in an
12 over-allocation of costs to fire protection service.

13 Q. COULD YOU PROVIDE ADDITIONAL DETAIL ON NEWPORT'S OVER-
14 ALLOCATION OF COSTS TO FIRE PROTECTION SERVICE?

15 A. Yes. The percentages utilized to allocate maximum day and maximum hour-related
16 costs to the various customer classes are shown on RFC Schedule B-10.¹ As shown
17 there in the "Base/Extra-Capacity Distribution of System Peaks" table, 11.9 percent
18 (subsequently rounded to 12 percent) of maximum day costs are to be allocated to fire
19 protection service, and 8.3 percent (7.1 percent plus 1.2 percent, subsequently rounded
20 to 8 percent) of maximum hour costs are to be allocated to fire protection service.
21 These rounded percentages carry over to RFC Schedule B-3, and subsequently are
22 used on RFC Schedule B-1, to allocate each cost item to each customer class. RFC
23 Schedule B-1 includes the allocation of maximum day and maximum hour costs to fire
24 protection service. The individual cost item allocations developed on RFC Schedule

¹ The percentages reflected on RFC Schedule B-10 are improperly identified as being related to Private Fire Protection Service. The percentages are actually applicable to Public and Private Fire Protection Service.

1 B-1 are then summarized on RFC Schedule B-2. On RFC Schedule B-2, Newport's
2 cost of service study again allocates a portion of the costs allocated to the maximum
3 day and maximum hour functions to fire protection service. Maximum day and
4 maximum hour costs have already been allocated to fire protection service on RFC
5 Schedule B-1, and the additional allocations on RFC Schedule B-2 result in an
6 overallocation of costs to fire protection service. I have corrected this misallocation in
7 my revised study by only allocating maximum day and maximum hour costs to fire
8 protection on JDM Schedule B-2.

9 Q. WHAT HAS NEWPORT PROPOSED WITH RESPECT TO THE
10 ALLOCATION OF THE COSTS ASSOCIATED WITH UNACCOUNTED-
11 FOR WATER?

12 A. Newport allocates the costs associated with UFW solely to the residential and
13 commercial retail customer classes based on consumption. None of the UFW costs
14 are allocated to the Navy or PWFD.

15 Q. ON WHAT BASIS DOES NEWPORT CLAIM THAT NONE OF THE
16 COSTS ASSOCIATED WITH UFW SHOULD BE ALLOCATED TO THE
17 NAVY OR PWFD?

18 A. The majority of UFW on Newport's system results from leaks which occur in the
19 transmission and distribution system, in hydrants and services. Newport claims that
20 the Navy and PWFD are wholesale customers and as such, should not pay for water
21 lost in Newport's transmission and distribution system, hydrants and services
22 (Response to Division 1-14.)

23 Q. WHAT IS THE UFW PERCENTAGE APPLICABLE TO RETAIL
24 CUSTOMERS UNDER NEWPORT'S UFW ALLOCATION?

1 A. The UFW percentage applicable to retail customers under Newport's proposed
2 allocation of UFW is 44 percent of total retail volumes.

3 Q. DO YOU AGREE WITH NEWPORT'S PROPOSED ALLOCATION OF
4 THE COSTS ASSOCIATED WITH UFW?

5 A. Not entirely. The PWFD receives service at the 4 million gallon reservoir at the
6 Lawton Valley Treatment plant prior to the water entering Newport's transmission and
7 distribution system. As such, the allocation of no UFW to PWFD does not appear
8 unreasonable.

9 The Navy, however, receives service from Newport at ten locations (Response
10 to Division 1-16.) Some of these locations are off transmission mains, some are off
11 distribution mains and at some locations, after receipt of water from Newport, the
12 Navy provides its own distribution service. Given these service arrangements, it
13 would appear that no allocation of UFW costs to the Navy is unreasonable because the
14 water delivered to the Navy travels through portions of Newport's transmission and
15 distribution system.

16 Q. WHAT DO YOU RECOMMEND WITH RESPECT TO THE ALLOCATION
17 OF UFW COSTS TO THE NAVY?

18 A. UFW costs have been allocated to the residential and commercial retail customer
19 classes based on the annual consumption of those classes. Because Newport does not
20 have any studies, documents or analysis specifically examining the causes of UFW on
21 its system (Division 1-12), and no allocation of UFW costs to the Navy would be
22 unreasonable, I recommend that UFW costs be allocated to the Navy based on a
23 50 percent weighting of annual consumption.

1 Q. HOW ARE TRANSMISSION AND DISTRIBUTION COSTS ALLOCATED
2 TO THE NAVY AND PWFD IN NEWPORT'S COST OF SERVICE
3 STUDY?

4 A. Transmission and distribution costs are allocated to residential and commercial retail
5 customers, the Navy and fire protection service based on relative maximum day and
6 maximum hour demands. No transmission and distribution costs are allocated to
7 PWFD for the same reason that UFW costs have not been allocated to PWFD. That is,
8 Newport's transmission and distribution system is not used to serve PWFD.

9 Q. DO YOU AGREE WITH NEWPORT'S PROPOSED ALLOCATIONS OF
10 TRANSMISSION AND DISTRIBUTION COSTS TO THE NAVY AND
11 PWFD?

12 A. Again, not entirely. Because Newport's transmission and distribution system is not
13 utilized to serve PWFD, Newport's proposal to exclude PWFD from an allocation of
14 these costs does not appear unreasonable. However, with respect to the Navy, as
15 previously indicated, in certain locations the Navy takes service off Newport's
16 transmission mains, and at some of these locations, operates and maintains its own
17 distribution system. Newport's cost of service study does not account for the Navy's
18 reduced reliance on Newport's transmission and distribution system.

19 Q. WHAT DO YOU PROPOSE WITH RESPECT TO THE ALLOCATION OF
20 TRANSMISSION AND DISTRIBUTION COSTS TO THE NAVY?

21 A. Consistent with my recommendation concerning the allocation of UFW costs,
22 I recommend that the allocation of transmission and distribution costs to the Navy
23 be weighted 50 percent.

1 Q. HOW HAVE LABORATORY INVESTMENT AND CHEMICALS
2 EXPENSES BEEN ALLOCATED IN NEWPORT'S COST OF SERVICE
3 STUDY?

4 A. Laboratory investment has been allocated based on the allocation of all other
5 investment excluding laboratory investment and land and rights of way. Source of
6 supply chemicals expenses have been allocated based on base or average demands,
7 while treatment-related chemicals expenses have been allocated based on average and
8 maximum day demands.

9 Q. DO YOU AGREE WITH THESE ALLOCATIONS?

10 A. No. Consistent with Newport's allocation of laboratory expenses, laboratory
11 investment should be allocated based on average demands because these costs are a
12 function of the quantity of water tested, not maximum day or hour demands. All
13 chemicals expenses should be allocated based on average demands because these costs
14 vary with the quantity of water treated and consumed. My recommendations
15 concerning laboratory investment and chemicals expenses have been incorporated in
16 my revised cost of service study.

17 Q. PLEASE EXPLAIN HOW SERVICE LINE INVESTMENT HAS BEEN
18 ALLOCATED IN NEWPORT'S COST OF SERVICE STUDY.

19 A. In Newport's fixed asset records, service line investment is combined with meter
20 investment and Newport is unable to segregate the two (Division 1-7). In Newport's
21 cost of service study, service line investment is included in the meter investment
22 shown on RFC Schedule B-5. Meter investment is assigned entirely to the meter
23 function for purposes of allocating Newport's capital costs. Meter related capital costs
24 are allocated to each general water service class (non-fire protection) based on the
25 number of meters in each class.

1 Q. DO YOU HAVE A CONCERN WITH NEWPORT'S ALLOCATION OF
2 SERVICE LINE INVESTMENT?

3 A. Yes. Private fire accounts require service lines similar to retail water accounts. Under
4 Newport's allocation procedures, no service line investment is allocated to private fire
5 protection service. I recommend that service line investment be allocated to private
6 fire service as well as general water service.

7 Q. HOW DO YOU PROPOSE TO IDENTIFY AND ALLOCATE SERVICE
8 LINE INVESTMENT TO PRIVATE FIRE SERVICE?

9 A. Because Newport's service line and meter investment is combined, it was first
10 necessary to separately identify each. To accomplish this, I reviewed the relative
11 service line and meter investment of the Pawtucket Water Supply Board ("PWSB"),
12 another Rhode Island water utility. This review suggested a 68/32 percent weighting
13 for service line and meter investment, respectively. To be conservative, I assumed a
14 50/50 percent weighting of service line and meter investment for Newport. I then
15 allocated service line investment between general water service and private fire
16 service based on the number of accounts weighted for relative investment (see JDM
17 Schedule D-2).

18 Q. PLEASE EXPLAIN HOW YOU DETERMINED THE RELATIVE
19 INVESTMENT OF EACH SERVICE SIZE.

20 A. Because no Newport specific data was available, relative investment for each service
21 size is based on quotes receive by Aqua Pennsylvania, Inc. for service installations for
22 a cost of service study presented in Pennsylvania Public Utility Commission
23 ("PAPUC") Docket No. R-00072711, a recent proceeding in which I participated.
24 In that proceeding, use of these quotes was accepted by the PAPUC. Another method
25 sometimes used to determine relative service investment is the relative capacity of

1 each service size. Following this approach would have allocated even more
2 investment to private fire service.

3 Q. PLEASE EXPLAIN HOW OPERATION AND MAINTENANCE
4 ADMINISTRATION COSTS WERE ALLOCATED IN NEWPORT'S COST
5 OF SERVICE STUDY.

6 A. Administration salaries, wages and benefits (collectively "salaries") were assigned 50
7 percent to the base function, 25 percent metering and 25 percent billing. All other
8 administration costs were allocated based on the allocation of all non-administration
9 operation and maintenance costs.

10 Q. DO YOU AGREE WITH NEWPORT'S ALLOCATION OF
11 ADMINISTRATION COSTS?

12 A. No. Newport's assignment of salaries to the base, metering and billing functions is
13 arbitrary. Like non-salary administration costs, and as recommended in the AWWA
14 M1 Manual, salary administration costs should be allocated based on the allocation of
15 all non-administration costs, excluding chemicals and electricity. In addition,
16 administration costs are generally allocated based on the allocation of non-
17 administration costs because they cannot be identified with a specific function
18 (e.g., base, meters, billing). Included in Newport's non-salary administration costs are
19 \$47,865 in collections costs which should be assigned to the billing function (Docket
20 No. 4025, RFC Schedule D Compliance). I have included these recommendations
21 concerning the allocation of administration costs in my revised cost of service study.

22 Q. WHAT ARE WATER QUALITY PROTECTION FEES?

23 A. Water quality protection fees are charges assessed to Newport for each gallon of water
24 sold which are collected and used to pay for the operations of the Water Resources
25 Board, as well as for the development and protection of water resources.

1 Q. HOW HAVE THESE FEES BEEN REFLECTED IN NEWPORT'S COST OF
2 SERVICE STUDY?

3 A. Water quality protection fees have been allocated based on the allocation of all non-
4 administration operation and maintenance costs to all general water service customer
5 classes.

6 Q. IS NEWPORT'S ALLOCATION OF THESE FEES REASONABLE?

7 A. No. Water quality protection fees are assessed to Newport for each gallon of water
8 sold. It is my understanding that the Navy and PWFD are excluded from assessment
9 of these fees. Therefore, these fees should be allocated based on base or average
10 demands to the residential and commercial retail customer classes. I have reflected
11 this recommendation in my revised cost of service study.

12 Q. WHAT HAS NEWPORT PROPOSED WITH RESPECT TO MONTHLY
13 AND QUARTERLY SERVICE CHARGES?

14 A. Newport has proposed a service charge of \$10.49 for all monthly read meters and a
15 service charge of \$17.51 for all quarterly read meters.

16 Q. WHAT IS YOUR CONCERN WITH NEWPORT'S PROPOSED SERVICE
17 CHARGES?

18 A. Service charges are designed, in part, to recover meter and service line related
19 investment. Meter and service line investment is a function of meter size. Newport's
20 service charges do not reflect these differences in meter investment.

21 Q. DOES YOUR REVISED COST OF SERVICE STUDY DEVELOP SERVICE
22 CHARGES BASED ON METER SIZE?

23 A. Yes. To develop these charges, I used the meter equivalent ratios found on page 67 of
24 the AWWA M1 Manual. These ratios have also been used by other Rhode Island

1 water utilities to allocate meter and service line investment. The resulting service
2 charges are presented on JDM Schedule A-2, Cost of Service Rates and Charges.

3 Q. SOME OF THE SERVICE CHARGES RESULTING FROM YOUR COST
4 OF SERVICE STUDY INCREASE SIGNIFICANTLY. DO YOU HAVE
5 ANY COMMENTS?

6 A. Yes. In order to lessen the significant changes in service charges which result from
7 my cost of service study, the Commission may wish to consider adopting mitigation
8 measures. One such measure would be to move current service charges half-way
9 towards the cost of service. On JDM Schedule A-2, Mitigated Rates and Charges,
10 I present service charges which reflect movement half-way towards the cost of service.

11 Q. DO YOU HAVE ANY OTHER COMMENTS WITH RESPECT TO
12 NEWPORT'S COST OF SERVICE STUDY?

13 A. Yes. In its cost of service study, treatment plant costs have been allocated based on
14 average and maximum day demands. It is my understanding that in Newport's
15 previous cost of service study, treatment plant costs were allocated based solely on
16 average demands. Newport should explain its rationale for this change in the
17 allocation of treatment plant costs.

18 Q. DO YOU HAVE ANY OTHER COMMENTS CONCERNING THE
19 CHARGES ASSESSED BY NEWPORT?

20 A. Yes. Newport has customers which request seasonal shut offs for the winter
21 (111 during fiscal 2008). These customers are not billed monthly or quarterly service
22 charges during the period they are shut off (Division 1-18). As a result, these
23 customers do not pay for their appropriate share of meter and service investment.

24 Q. WHAT DO YOU RECOMMEND?

1 A. I recommend that customers who request a shut off be required to pay the avoided
2 meter and service charges.

3 Q. DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?

4 A. Yes, it does.

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Newport Water Cost of Service Model

Index of Model Schedules

Summary Schedules

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

Core Model Schedules

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

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

O&M COSTS

Administration

	Rate Year Approved in Docket 4025
Salaries & Wages	\$ 265,000
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	96,500
Retiree Insurance Coverage	347,200
Workers Compensation	114,000
Annual Leave Buyback	2,400
Advertisement	9,000
Membership Dues & Subscriptions	2,500
Conferences & Training	2,500
Tuition Reimbursement	2,000
Consultant Fees	201,500
Postage	1,000
Fire & Liability Insurance	86,000
Telephone & Communication	8,300
Water	1,050
Electricity	8,000
Natural Gas	8,000
Property Taxes	229,000
Legal & Administrative	253,535
Data Processing	137,000
Mileage Allowance	2,000
Gasoline & Vehicle Allowance	8,481
Repairs & Maintenance	1,200
Regulatory Expense	10,000
Regulatory Assessment	46,770
Office Supplies	30,000
Self Insurance	10,000
Unemployment Claims	12,000
Subtotal:	\$ 2,082,436

	Rate Year Approved in Docket 4025
Customer Service	
Salaries & Wages	\$ 326,100
Overtime	21,218
Collections	47,865
Temp Salaries	22,800
Injury Pay	-
Employee Benefits	175,200
Annual Leave Buyback	4,950
Copying & binding	1,000
Conferences & Training	5,000
Support Services	21,000
Postage	34,300
Gasoline & Vehicle Allowance	27,852
Repairs & Maintenance	41,500
Meter Maintenance	11,000
Operating Supplies	9,000
Uniforms & protective Gear	1,000
Customer Service Supplies	15,000
Subtotal:	\$ 764,785
Source of Supply - Island	
Salaries & Wages	\$ 216,900
Overtime	28,200
Temp Salaries	10,000
Injury Pay	-
Employee Benefits	111,296
Annual Leave Buyback	6,300
Electricity	34,100
Gas Vehicle Maintenance	48,300
Repairs & Maintenance	8,300
Reservoir Maintenance	25,000
Operating Supplies	3,750
Uniforms & protective Gear	750
Chemicals	54,000
Subtotal:	\$ 546,896
Source of Supply - Mainland	
Overtime	\$ 4,500
Temp Salaries	15,300
Permanent Part time	13,000
Employee Benefits	2,600
Electricity	92,600
Repairs & Maintenance	8,800
Reservoir Maintenance	6,000
Operating Supplies	500
Subtotal:	\$ 143,300

	Rate Year Approved in Docket 4025
Station One	
Salaries & Wages	\$ 441,500
Overtime	58,100
Holiday Pay	19,100
Employee Benefits	237,000
Annual Leave Buyback	4,950
Conferences & Training	5,500
Fire & Liability Insurance	12,700
Electricity	247,500
Natural Gas	23,300
Rental of Equipment	1,000
Sewer Charge	184,000
Gas Vehicle Maintenance	8,100
Repairs & Maintenance	35,000
Operating Supplies	27,800
Uniforms & protective Gear	1,350
Chemicals	399,000
Subtotal:	\$ 1,705,900
Lawton Valley	
Salaries & Wages	\$ 500,100
Overtime	42,400
Holiday Pay	20,000
Employee Benefits	275,500
Annual Leave Buyback	3,850
Conferences & Training	3,500
Fire & Liability Insurance	13,600
Electricity	180,600
Natural Gas	28,900
Rental of Equipment	500
Sewer Charge	242,000
Gas Vehicle Maintenance	8,400
Repairs & Maintenance	43,400
Operating Supplies	22,000
Uniforms & protective Gear	1,000
Chemicals	216,000
Subtotal:	\$ 1,601,750
Laboratory	
Salaries & Wages	\$ 127,700
Employee Benefits	62,400
Annual Leave Buyback	2,750
Repairs & Maintenance	1,000
Regulatory Assessment	36,500
Laboratory Supplies	18,500
Subtotal:	\$ 248,850

	Rate Year Approved in Docket 4025
Transmission & Distribution	
Salaries & Wages	\$ 416,200
Overtime	52,000
Temp Salaries	10,000
Injury Pay	-
Employee Benefits	224,996
Annual Leave Buyback	5,900
Conferences & Training	4,000
Contract Services	12,500
Fire & Liability Insurance	2,400
Electricity	19,600
Heavy Equipment Rental	8,900
Gas Vehicle Maintenance	99,400
Repairs & Maintenance	32,000
Main Maintenance	84,800
Service Maintenance	33,500
Operating Supplies	11,000
Uniforms & protective Gear	1,500
Subtotal:	\$ 1,018,696
Fire Protection	
Repair & Maintenance - Equipment	\$ 14,500
Subtotal:	\$ 14,500
Total O&M Costs	\$ 8,127,113

CAPITAL COSTS

Contribution to Capital Spending Acct.	\$ 1,146,918
Existing Debt Service	
Revenue Bonds	\$ 910,552
SRF Loans	\$ 413,954
New Debt Service	
Revenue Bonds	\$ -
SRF Loans	\$ 686,317
Total Debt Service	2,010,823
	-
Total Capital Costs	\$ 3,157,741
Contribution to Repayment to City Account	
Operating Revenue Allowance	\$ 243,813
Total Costs before Offsets	\$ 11,528,667
<u>OFFSETS</u>	
Nonrate Revenues	
Sundry charges	\$ 140,016
WPC cost share on customer service	269,842
Middletown cost share on customer service	134,819
Rental of Property	81,000
Water Penalty	42,320
Miscellaneous	7,515
Investment Interest Income	39,191
Water Quality Protection Fees	25,676
Total Nonrate Revenues	\$ 740,378
Net Costs to Be Recovered through Rates	<u>\$ 10,788,289</u>

Rate Year costs are those approved in Docket No. 4025.

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

(1)						
		Docket 4025				
		Rates	Cost of Service	Proposed Rates	% Change	Projected Revenues
Base Charge (per bill)						
Monthly						
5.8	\$	15.31	\$ 7,345.2	\$ 7.35	-52%	\$8,996
3.4		15.31	7,527.0	7.53	-51%	5,241
1		15.31	8,272.4	8.28	-46%	17,587
1.5		15.31	9,644.1	9.65	-37%	18,296
2		15.31	11,997.0	12.00	-22%	30,960
3		15.31	27,860.4	27.87	82%	23,745
4		15.31	33,312.4	33.32	118%	5,198
5		15.31	46,033.8	46.04	201%	1,105
6		15.31	60,572.4	60.58	296%	14,539
8		15.31	73,839.0	73.84	382%	886
10		15.31	86,923.7	86.93	465%	1,043
Quarterly						
5.8	\$	15.31	\$ 11,445.5	\$ 11.45	-25%	493,495
3.4		15.31	11,990.7	12.00	-22%	116,016
1		15.31	14,226.9	14.23	-7%	22,199
1.5		15.31	18,342.2	18.35	20%	12,698
2		15.31	25,400.9	25.41	66%	10,062
3		15.31	72,991.1	73.00	377%	8,760
4		15.31	89,347.1	89.35	484%	1,430
5		15.31	127,511.1	127.52	733%	0
6		15.31	171,127.1	171.13	1018%	685
8		15.31	210,926.7	210.93	1278%	844
10		15.31	250,181.0	250.19	1534%	0
Volume Charge (per 1,000 gallons)						\$ 793,785
Retail						
Residential	\$	5.25	\$ 5,016.3	\$ 5.02	-4%	3,782,149
Commercial	\$	5.25	\$ 5,461.4	\$ 5.47	4%	2,663,800
						\$ 6,445,948
Wholesale						
Navy	\$	3,228.0	\$ 3,787.8	\$3,787.8	17%	1,054,103
Portsmouth Water & Fire District	\$	2,573	\$2,987.4	\$2,987.4	16%	1,349,229
						\$ 2,403,332
Fire Protection						
Public (per hydrant)	\$	869.00	\$ 809.81	\$ 809.82	-7%	\$ 809,010
Private (by Connection Size) (2)						
Connection Size	Existing Charge Differential					
2		\$17.05	\$ 14.73	\$ 14.74	-14%	
2	6.19	\$72.00	\$ 62.21	\$ 62.22	-14%	62
4	38.32	\$442.00	\$ 309.68	\$ 309.69	-30%	17,652
6	111.31	\$884.00	\$ 840.71	\$ 840.71	-5%	206,815
8	237.21	\$2,023.00	\$ 1,756.66	\$ 1,756.67	-13%	108,914
10	426.58	\$3,340.00	\$ 3,134.38	\$ 3,134.39	-6%	-
12	689.04	\$5,362.00	\$ 5,043.85	\$ 5,043.86	-6%	10,088
						\$ 343,530
Total Projected Rate Revenues						\$ 10,795,607

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

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

Newport Water
 Cost Of Service Analysis
 JDM Schedule A-2
 Mitigated Rates and Charges

(1)						
	Docket 4025	Cost of Service	Proposed Rates	% Change	Projected Revenues	
Base Charge (per bill)						
Monthly						
5.8	\$ 15.31	\$ 7,3452	\$ 10.00	-35%	\$12,240	
3.4	15.31	7,5270	11.00	-28%	7,656	
1	15.31	8,2724	11.00	-28%	23,364	
1.5	15.31	9,6441	12.00	-22%	22,752	
2	15.31	11,9970	13.00	-15%	33,540	
3	15.31	27,8604	21.00	37%	17,892	
4	15.31	33,3124	24.00	57%	3,744	
5	15.31	46,0338	30.00	96%	720	
6	15.31	60,5724	37.00	142%	8,880	
8	15.31	73,8390	44.00	187%	528	
10	15.31	86,9237	51.00	233%	612	
Quarterly						
5.8	\$ 15.31	\$ 11,4455	\$ 11.50	-25%	\$495,650	
3.4	15.31	11,9907	13.00	-15%	125,684	
1	15.31	14,2269	14.00	-9%	21,840	
1.5	15.31	18,3422	16.00	5%	11,072	
2	15.31	25,4009	20.00	31%	7,920	
3	15.31	72,9911	44.00	187%	5,280	
4	15.31	89,3471	52.00	240%	832	
5	15.31	127,5111	71.00	364%	0	
6	15.31	171,1271	93.00	507%	372	
8	15.31	210,9267	113.00	638%	452	
10	15.31	250,1810	132.00	762%	0	
Volume Charge (per 1,000 gallons)					\$ 801,030	
Retail						
Residential	\$ 5.25	\$ 5,0163	\$ 5.02	-4%	3,782,149	
Commercial	5.25	5,4614	5.47	4%	2,663,800	
					\$ 6,445,948	
Wholesale						
Navy	\$ 3,2280	\$ 3,7878	\$3,7878	17%	1,054,103	
Portsmouth Water & Fire District	2,573	2,9874	\$2,9874	16%	1,349,229	
					\$ 2,403,332	
Fire Protection						
Public (per hydrant)	\$ 869.00	\$ 809,8109	\$ 809.82	-7%	809,010	
Private (by Connection Size) (2)						
Connection Size	Existing Charge					
<2		\$17.05	\$ 14,7326	\$ 14.74	-14%	0
2	6.19	\$72.00	\$ 62,2139	\$ 62.22	-14%	62
4	38.32	\$442.00	\$ 309,6846	\$ 309.69	-30%	17,652
6	111.31	\$884.00	\$ 840,7069	\$ 840.71	-5%	206,815
8	237.21	\$2,023.00	\$ 1,756,6641	\$ 1,756.67	-13%	108,914
10	426.58	\$3,340.00	\$ 3,134,3829	\$ 3,134.39	-6%	0
12	689.04	\$5,362.00	\$ 5,043,8516	\$ 5,043.86	-6%	10,088
					\$ 343,530	
Total Projected Rate Revenues					\$ 10,802,851	

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

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

Customer Class	Monthly Consumption (gallons)	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	4 Inch Meter	5 Inch Meter	6 Inch Meter	8 Inch Meter	10 Inch Meter	12 Inch Meter	15 Inch Meter	20 Inch Meter	24 Inch Meter				
		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	\$20.56	\$12.37	-\$8.19	-39.8%	\$12.55	-\$8.01	-39.0%	\$13.30	-\$7.26	-35.3%	\$14.67	-\$5.89	-28.6%	\$17.02	-\$3.54	-17.2%	\$32.89	\$12.33	60.0%	
	2,000	\$25.81	\$17.39	-\$8.42	-32.6%	\$17.57	-\$8.24	-31.0%	\$18.32	-\$7.49	-29.0%	\$19.69	-\$6.12	-23.7%	\$22.04	-\$3.77	-14.6%	\$37.01	\$12.10	46.9%	
	4,000	\$36.31	\$27.43	-\$8.88	-24.5%	\$27.61	-\$8.70	-24.0%	\$28.36	-\$7.95	-21.9%	\$29.73	-\$6.58	-18.1%	\$32.08	-\$4.23	-11.6%	\$47.95	\$11.64	32.1%	
Avg. Monthly Bill	5,000	\$41.56	\$32.45	-\$9.11	-21.9%	\$32.63	-\$8.93	-21.5%	\$33.38	-\$8.18	-19.7%	\$34.75	-\$6.81	-16.4%	\$37.10	-\$4.46	-10.7%	\$52.97	\$11.41	27.5%	
	7,500	\$54.69	\$45.00	-\$9.69	-17.7%	\$45.18	-\$9.51	-17.4%	\$45.93	-\$8.76	-16.0%	\$47.30	-\$7.39	-15.5%	\$49.65	-\$5.04	-10.2%	\$65.52	\$10.84	19.8%	
	10,000	\$67.81	\$57.55	-\$10.26	-15.1%	\$57.73	-\$10.08	-14.9%	\$58.48	-\$9.33	-13.8%	\$59.85	-\$7.96	-11.7%	\$62.20	-\$5.61	-8.3%	\$78.07	\$10.26	15.1%	
	15,000	\$94.06	\$82.65	-\$11.41	-12.1%	\$82.83	-\$11.23	-11.9%	\$83.58	-\$10.48	-11.1%	\$84.95	-\$9.11	-9.7%	\$87.30	-\$6.76	-7.2%	\$103.17	\$9.11	9.7%	
	20,000	\$120.31	\$107.75	-\$12.56	-10.4%	\$107.93	-\$12.38	-10.3%	\$108.68	-\$11.63	-9.7%	\$110.05	-\$10.26	-8.5%	\$112.40	-\$7.91	-6.6%	\$128.27	\$7.91	6.6%	
	25,000	\$146.56	\$132.85	-\$13.71	-9.4%	\$133.03	-\$13.53	-9.2%	\$133.78	-\$12.78	-8.7%	\$135.15	-\$11.41	-7.8%	\$137.50	-\$9.06	-6.2%	\$153.37	\$6.81	4.6%	
	30,000	\$172.81	\$157.95	-\$14.86	-8.6%	\$158.13	-\$14.68	-8.5%	\$158.88	-\$13.93	-8.1%	\$160.25	-\$12.56	-7.3%	\$162.60	-\$10.21	-5.9%	\$178.47	\$5.66	3.3%	

Residential(Quarterly)	Avg. Quarterly Bill	Residential(Quarterly)																	
		\$36.31	\$31.53	-\$4.78	-13.2%	\$32.08	-\$4.23	-11.6%	\$34.31	-\$2.00	-5.5%	\$38.43	\$2.12	5.8%	\$45.40	\$9.18	25.3%	\$93.08	\$56.77
4,000	\$57.31	\$51.61	-\$5.70	-9.9%	\$52.16	-\$5.15	-9.0%	\$54.39	-\$2.92	-5.1%	\$58.51	\$1.20	2.1%	\$65.57	\$8.26	14.4%	\$113.16	\$55.85	97.5%
8,000	\$94.06	\$86.75	-\$7.31	-7.8%	\$87.30	-\$6.76	-7.2%	\$89.53	-\$4.53	-4.8%	\$93.65	-\$0.41	-0.4%	\$100.71	\$6.65	7.1%	\$148.30	\$54.24	57.7%
15,000	\$120.31	\$111.85	-\$8.46	-7.0%	\$112.40	-\$7.91	-6.6%	\$114.63	-\$5.68	-4.7%	\$118.75	-\$1.36	-1.3%	\$125.81	\$5.50	4.6%	\$173.40	\$53.09	44.1%
20,000	\$172.81	\$162.05	-\$10.76	-6.2%	\$162.60	-\$10.21	-5.9%	\$164.83	-\$5.98	-4.6%	\$168.95	-\$3.86	-2.2%	\$176.01	\$5.20	1.9%	\$223.60	\$50.70	29.4%
30,000	\$225.31	\$212.25	-\$13.06	-5.8%	\$212.80	-\$12.51	-5.6%	\$215.03	-\$10.28	-4.6%	\$219.15	-\$6.16	-2.7%	\$226.21	\$0.90	0.4%	\$273.80	\$45.40	21.5%
40,000	\$330.31	\$312.65	-\$17.66	-5.3%	\$313.20	-\$17.11	-5.2%	\$315.43	-\$14.88	-4.5%	\$319.55	-\$10.76	-3.3%	\$326.61	-\$5.70	-1.7%	\$374.20	\$43.80	13.3%
60,000	\$435.31	\$413.05	-\$22.26	-5.1%	\$413.60	-\$21.71	-5.0%	\$415.83	-\$19.48	-4.5%	\$419.95	-\$15.36	-3.5%	\$427.01	-\$8.30	-1.9%	\$474.60	\$36.20	9.0%
80,000	\$540.31	\$513.45	-\$26.86	-5.0%	\$514.00	-\$26.31	-4.9%	\$516.23	-\$24.08	-4.5%	\$520.35	-\$19.96	-3.7%	\$527.41	-\$12.90	-2.4%	\$575.00	\$34.69	6.4%
100,000	\$645.31	\$613.85	-\$31.46	-4.9%	\$614.40	-\$30.91	-4.8%	\$616.63	-\$28.68	-4.4%	\$620.75	-\$24.56	-3.8%	\$627.81	-\$17.50	-2.7%	\$675.40	\$30.00	4.7%
120,000																			

Customer Class	Monthly Consumption (gallons)	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						
All Meter	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	\$25.81	\$18.29	-\$7.52	-29.1%	\$18.47	-\$7.34	-28.4%	\$19.22	-\$6.59	-25.5%	\$20.59	-\$5.22	-20.2%	\$22.94	-\$2.87	-11.1%	\$38.81	\$13.00	50.4%	
	5,000	\$41.56	\$34.70	-\$6.86	-16.5%	\$34.88	-\$6.68	-16.1%	\$35.63	-\$5.93	-14.3%	\$37.00	-\$4.56	-11.0%	\$39.35	-\$2.21	-5.3%	\$55.22	\$13.66	32.0%	
	15,000	\$94.06	\$89.40	-\$4.66	-5.0%	\$89.58	-\$4.48	-4.8%	\$90.33	-\$3.73	-4.0%	\$91.70	-\$2.36	-2.5%	\$94.05	-\$0.01	0.0%	\$109.92	\$15.86	16.9%	
	20,000	\$120.31	\$116.75	-\$3.56	-3.0%	\$116.93	-\$3.38	-2.8%	\$117.68	-\$2.63	-2.2%	\$119.05	-\$1.26	-1.0%	\$121.40	\$1.09	0.9%	\$137.27	\$16.96	14.1%	
	30,000	\$172.81	\$171.45	-\$1.36	-0.8%	\$171.63	-\$1.18	-0.7%	\$172.38	-\$0.43	-0.2%	\$173.75	\$0.94	0.5%	\$176.10	\$3.29	1.9%	\$191.97	\$19.16	11.1%	
Avg. Monthly Bill	40,000	\$225.31	\$226.15	\$0.84	0.4%	\$226.33	\$1.02	0.5%	\$227.08	\$1.77	0.8%	\$228.45	\$3.14	1.4%	\$230.80	\$5.40	2.4%	\$246.67	\$21.36	9.5%	
	50,000	\$277.81	\$280.85	\$3.04	1.1%	\$281.03	\$3.22	1.2%	\$281.78	\$3.97	1.4%	\$283.15	\$5.34	1.9%	\$285.50	\$7.60	2.8%	\$301.37	\$23.56	8.5%	
	75,000	\$409.06	\$417.60	\$8.54	2.1%	\$417.78	\$8.72	2.1%	\$418.53	\$9.47	2.3%	\$419.90	\$10.84	2.6%	\$422.25	\$13.19	3.2%	\$438.12	\$29.06	7.1%	
	100,000	\$540.31	\$554.35	\$14.04	2.6%	\$554.53	\$14.22	2.6%	\$555.28	\$14.97	2.8%	\$556.65	\$16.34	3.0%	\$559.00	\$18.60	3.5%	\$574.87	\$34.56	6.4%	

	Monthly Consumption (gallons)	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	4 Inch Meter	5 Inch Meter	6 Inch Meter	8 Inch Meter	10 Inch Meter	12 Inch Meter	15 Inch Meter	20 Inch Meter					
		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	
Customer Class	180,000	\$1,128.72	\$1,072.80	-\$55.92	-5.0%	\$1,074.96	-\$53.76	-4.8%	\$1,083.96	-\$44.76	-4.0%	\$1,100.40	-\$28.32	-2.5%	\$1,128.60	-\$10.12	0.0%	\$1,319.04	\$190.32	16.9%	
Connection (Monthly Account)		\$884.00	\$840.71	-\$43.29	-4.9%	\$840.71	-\$43.29	-4.9%	\$840.71	-\$43.29	-4.9%	\$840.71	-\$43.29	-4.9%	\$840.71	-\$43.29	-4.9%	\$840.71	-\$43.29	-4.9%	
Base Charge and Commodity Charges		\$2,012.72	\$1,913.51	-\$99.21	-4.9%	\$1,915.67	-\$97.05	-4.8%	\$1,924.67	-\$88.05	-4.4%	\$1,941.11	-\$71.61	-3.6%	\$1,969.31	-\$43.41	-2.2%	\$2,159.75	\$147.03	7.3%	
Fire Protection Charge																					
Total Annual Charges																					

Newport Water
Cost Of Service Analysis
JDM Schedule 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	\$25,745	\$29,907	\$4,162	16.2%
	20,000,000	\$51,475	\$59,781	\$8,306	16.1%
	38,000,000	\$97,789	\$113,555	\$15,765	16.1%
	40,000,000	\$102,935	\$119,529	\$16,594	16.1%
	75,000,000	\$192,980	\$224,088	\$31,098	16.1%
	100,000,000	\$257,315	\$298,773	\$41,458	16.1%
Navy (Monthly)	10,000,000	\$385,965	\$448,143	\$62,178	16.1%
	20,000,000	\$771,930	\$916,286	\$144,356	18.7%
	38,000,000	\$1,371,694	\$1,629,516	\$257,822	18.8%
	40,000,000	\$1,411,415	\$1,689,969	\$278,554	19.7%
	75,000,000	\$2,421,115	\$2,846,664	\$425,549	17.6%
	100,000,000	\$3,228,815	\$3,793,359	\$564,544	17.5%

Navy (Monthly)
Avg. Monthly Bill (All Meters)

10,000,000	\$32,295	\$38,457	\$6,162	19.1%
20,000,000	\$64,575	\$76,355	\$11,760	18.2%
38,000,000	\$122,664	\$144,516	\$21,852	17.8%
40,000,000	\$161,415	\$189,969	\$28,554	17.7%
75,000,000	\$242,115	\$284,664	\$42,549	17.6%
100,000,000	\$322,815	\$379,359	\$56,544	17.5%

Customer Class		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)	All Meter 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			
Residential (Monthly)	1,000	\$20.56	\$15.02	-26.9%	\$16.02	\$5.44	-22.1%	\$16.02	-\$4.54	-22.1%	\$17.02	-\$3.54	-17.2%	\$18.02	-\$2.54	-12.4%	\$5.46	26.6%	
	2,000	\$25.81	\$20.04	-22.4%	\$21.04	-\$5.77	-18.5%	\$21.04	-\$4.77	-18.5%	\$22.04	-\$3.77	-16.9%	\$23.04	-\$2.77	-10.7%	\$5.23	20.3%	
	3,000	\$30.31	\$24.08	-17.2%	\$24.08	-\$6.23	-17.2%	\$24.08	-\$5.23	-14.4%	\$25.08	-\$5.23	-14.6%	\$26.08	-\$4.23	-8.9%	\$4.77	13.1%	
	4,000	\$34.56	\$28.10	-15.5%	\$28.10	-\$6.46	-14.4%	\$28.10	-\$5.46	-13.1%	\$29.10	-\$5.46	-13.1%	\$30.10	-\$4.46	-8.3%	\$4.08	11.1%	
	5,000	\$38.69	\$31.65	-12.9%	\$31.65	-\$7.04	-11.9%	\$31.65	-\$6.04	-11.9%	\$32.65	-\$6.04	-11.9%	\$33.65	-\$5.04	-7.4%	\$3.30	7.3%	
	6,000	\$42.81	\$35.80	-11.2%	\$35.80	-\$7.01	-9.7%	\$35.80	-\$6.01	-9.7%	\$36.80	-\$6.01	-9.7%	\$37.80	-\$5.01	-6.8%	\$2.54	5.0%	
	7,000	\$46.94	\$39.90	-9.3%	\$39.90	-\$7.04	-8.3%	\$39.90	-\$6.04	-7.7%	\$40.90	-\$6.04	-7.7%	\$41.90	-\$5.04	-6.1%	\$1.79	3.0%	
	8,000	\$51.06	\$43.90	-8.2%	\$43.90	-\$7.16	-7.4%	\$43.90	-\$6.16	-7.4%	\$44.90	-\$6.16	-7.4%	\$45.90	-\$5.16	-5.7%	\$1.00	2.4%	
	9,000	\$55.19	\$47.90	-7.5%	\$47.90	-\$7.29	-6.9%	\$47.90	-\$6.29	-6.9%	\$48.90	-\$6.29	-6.9%	\$49.90	-\$5.29	-5.5%	\$0.25	0.0%	
	10,000	\$59.31	\$51.90	-7.1%	\$51.90	-\$7.41	-6.5%	\$51.90	-\$6.41	-6.5%	\$52.90	-\$6.41	-6.5%	\$53.90	-\$5.41	-5.3%	\$0.50	-0.7%	
Residential(Quarterly)	4,000	\$30.31	\$31.58	-13.0%	\$33.08	-\$3.23	-8.9%	\$34.08	-\$3.23	-6.1%	\$36.08	-\$0.23	-0.6%	\$40.08	\$3.27	10.4%	\$27.77	76.5%	
	8,000	\$57.31	\$51.66	-9.9%	\$53.16	-\$5.15	-7.2%	\$54.16	-\$5.15	-5.9%	\$56.16	-\$2.15	-2.0%	\$60.16	\$4.00	5.0%	\$24.45	46.9%	
	12,000	\$84.06	\$76.26	-7.7%	\$78.30	-\$5.76	-6.1%	\$79.30	-\$5.76	-5.1%	\$81.30	-\$2.76	-2.9%	\$85.30	\$1.24	1.3%	\$119.30	26.8%	
	16,000	\$120.31	\$111.90	-7.0%	\$113.40	-\$6.91	-5.7%	\$114.40	-\$6.91	-4.9%	\$116.40	-\$3.91	-3.2%	\$120.40	\$0.09	0.1%	\$144.40	20.0%	
	20,000	\$172.81	\$162.10	-6.2%	\$163.60	-\$9.71	-5.6%	\$164.60	-\$8.71	-4.8%	\$166.60	-\$5.71	-3.6%	\$170.60	-\$2.21	-1.3%	\$194.60	12.6%	
	24,000	\$225.31	\$212.30	-5.8%	\$213.80	-\$11.51	-5.1%	\$214.80	-\$10.51	-4.7%	\$216.80	-\$8.51	-3.8%	\$220.80	-\$4.51	-2.0%	\$244.80	8.7%	
	28,000	\$330.31	\$312.70	-5.3%	\$314.20	-\$16.11	-4.9%	\$315.20	-\$15.11	-4.6%	\$317.20	-\$13.11	-4.0%	\$321.20	-\$9.11	-2.8%	\$345.20	4.5%	
	32,000	\$435.31	\$413.10	-5.1%	\$414.60	-\$20.71	-4.8%	\$415.60	-\$19.71	-4.5%	\$417.60	-\$17.71	-4.1%	\$421.60	-\$13.71	-3.1%	\$445.60	10.2%	
	36,000	\$540.31	\$513.50	-5.0%	\$515.00	-\$25.31	-4.7%	\$516.00	-\$24.31	-4.5%	\$518.00	-\$22.31	-4.1%	\$522.00	-\$18.31	-3.4%	\$546.00	5.6%	
	40,000	\$645.31	\$613.90	-4.9%	\$615.40	-\$28.91	-4.6%	\$616.40	-\$27.91	-4.5%	\$618.40	-\$25.91	-4.2%	\$622.40	-\$21.91	-3.6%	\$646.40	1.0%	
Commercial (Monthly)	2,000	\$25.81	\$20.94	-18.9%	\$21.94	-\$4.87	-15.0%	\$21.94	-\$3.87	-15.0%	\$22.94	-\$2.87	-11.1%	\$23.94	-\$1.87	-7.7%	\$3.04	23.8%	
	5,000	\$41.56	\$37.35	-10.1%	\$38.35	-\$4.21	-7.7%	\$38.35	-\$3.21	-7.7%	\$39.35	-\$2.21	-5.3%	\$40.35	-\$1.21	-2.9%	\$4.79	16.3%	
	15,000	\$94.06	\$92.05	-2.1%	\$93.05	-\$1.01	-1.1%	\$93.05	-\$0.01	-0.1%	\$94.05	-\$0.01	0.0%	\$95.05	\$0.09	0.1%	\$103.05	8.9%	
	20,000	\$120.31	\$119.40	-0.8%	\$120.40	\$0.09	0.1%	\$120.40	\$0.09	0.1%	\$121.40	\$1.09	0.9%	\$122.40	\$2.09	1.7%	\$130.40	10.0%	
	30,000	\$172.81	\$174.10	1.2%	\$175.10	\$1.29	1.3%	\$175.10	\$2.29	1.3%	\$176.10	\$3.29	1.9%	\$177.10	\$4.29	2.5%	\$185.10	7.1%	
	40,000	\$225.31	\$228.80	1.5%	\$229.80	\$3.49	1.5%	\$229.80	\$4.49	2.0%	\$230.80	\$5.49	2.4%	\$231.80	\$6.49	2.9%	\$239.80	6.4%	
	50,000	\$277.81	\$283.50	2.0%	\$284.50	\$5.69	2.4%	\$284.50	\$6.69	2.4%	\$285.50	\$7.69	2.8%	\$286.50	\$8.69	3.1%	\$294.50	6.0%	
	75,000	\$409.06	\$420.25	2.7%	\$421.25	\$12.19	3.0%	\$421.25	\$13.19	3.0%	\$422.25	\$14.19	3.3%	\$423.25	\$15.19	3.5%	\$431.25	5.4%	
	100,000	\$540.31	\$549.25	1.7%	\$558.00	\$17.69	3.3%	\$558.00	\$18.69	3.3%	\$559.00	\$19.69	3.5%	\$560.00	\$20.69	3.6%	\$568.00	5.1%	
	Customer Class	Monthly Consumption (gallons)	All Meter 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 (Monthly)		2,000	\$25.81	\$20.94	-18.9%	\$21.94	-\$4.87	-15.0%	\$21.94	-\$3.87	-15.0%	\$22.94	-\$2.87	-11.1%	\$23.94	-\$1.87	-7.7%	\$3.04	23.8%
		5,000	\$41.56	\$37.35	-10.1%	\$38.35	-\$4.21	-7.7%	\$38.35	-\$3.21	-7.7%	\$39.35	-\$2.21	-5.3%	\$40.35	-\$1.21	-2.9%	\$4.79	16.3%
		15,000	\$94.06	\$92.05	-2.1%	\$93.05	-\$1.01	-1.1%	\$93.05	-\$0.01	-0.1%	\$94.05	-\$0.01	0.0%	\$95.05	\$0.09	0.1%	\$103.05	8.9%
		20,000	\$120.31	\$119.40	-0.8%	\$120.40	\$0.09	0.1%	\$120.40	\$0.09	0.1%	\$121.40	\$1.09	0.9%	\$122.40	\$2.09	1.7%	\$130.40	10.0%
		30,000	\$172.81	\$174.10	1.2%	\$175.10	\$1.29	1.3%	\$175.10	\$2.29	1.3%	\$176.10	\$3.29	1.9%	\$177.10	\$4.29	2.5%	\$185.10	7.1%
		40,000	\$225.31	\$228.80	1.5%	\$229.80	\$3.49	1.5%	\$229.80	\$4.49	2.0%	\$230.80	\$5.49	2.4%	\$231.80	\$6.49	2.9%	\$239.80	6.4%
		50,000	\$277.81	\$283.50	2.0%	\$284.50	\$5.69	2.4%	\$284.50	\$6.69	2.4%	\$285.50	\$7.69	2.8%	\$286.50	\$8.69	3.1%	\$294.50	6.0%
		75,000	\$409.06	\$420.25	2.7%	\$421.25	\$12.19	3.0%	\$421.25	\$13.19	3.0%	\$422.25	\$14.19	3.3%	\$423.25	\$15.19	3.5%	\$431.25	5.4%
		100,000	\$540.31	\$549.25	1.7%	\$558.00	\$17.69	3.3%	\$558.00	\$18.69	3.3%	\$559.00	\$19.69	3.5%	\$560.00	\$20.69	3.6%	\$568.00	5.1%
	Customer Class	Monthly Consumption (gallons)	All Meter 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 (Monthly)		2,000	\$25.81	\$20.94	-18.9%	\$21.94	-\$4.87	-15.0%	\$21.94	-\$3.87	-15.0%	\$22.94	-\$2.87	-11.1%	\$23.94	-\$1.87	-7.7%	\$3.04	23.8%
		5,000	\$41.56	\$37.35	-10.1%	\$38.35	-\$4.21	-7.7%	\$38.35	-\$3.21	-7.7%	\$39.35	-\$2.21	-5.3%	\$40.35	-\$1.21	-2.9%	\$4.79	16.3%
		15,000	\$94.06	\$92.05	-2.1%	\$93.05	-\$1.01	-1.1%	\$93.05	-\$0.01	-0.1%	\$94.05	-\$0.01	0.0%	\$95.05	\$0.09	0.1%	\$103.05	8.9%
		20,000	\$120.31	\$119.40	-0.8%	\$120.40	\$0.09	0.1%	\$120.40	\$0.09	0.1%	\$121.40	\$1.09	0.9%	\$122.40	\$2.09	1.7%	\$130.40	10.0%
		30,000	\$172.81	\$174.10	1.2%	\$175.10	\$1.29	1.3%	\$175.10	\$2.29	1.3%	\$176.10	\$3.29	1.9%	\$177.10	\$4.29	2.5%	\$185.10	7.1%
		40,000	\$225.31	\$228.80	1.5%	\$229.80	\$3.49	1.5%	\$229.80	\$4.49	2.0%	\$230.80	\$5.49	2.4%	\$231.80	\$6.49	2.9%	\$239.80	6.4%
		50,000	\$277.81	\$283.50	2.0%	\$284.50	\$5.69	2.4%	\$284.50	\$6.69	2.4%	\$285.50	\$7.69	2.8%	\$286.50	\$8.69	3.1%	\$294.50	6.0%
		75,000	\$409.06	\$420.25	2.7%	\$421.25	\$12.19	3.0%	\$421.25	\$13.19	3.0%	\$422.25	\$14.19	3.3%	\$423.25	\$15.19	3.5%	\$431.25	5.4%
		100,000	\$540.31	\$549.25	1.7%	\$558.00	\$17.69	3.3%	\$558.00	\$18.69	3.3%	\$559.00	\$19.69	3.5%	\$560.00	\$20.69	3.6%	\$568.00	5.1%
	Customer Class	Monthly Consumption (gallons)	All Meter 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 (Monthly)		2,000	\$25.81	\$20.94	-18.9%	\$21.94	-\$4.87	-15.0%	\$21.94	-\$3.87	-15.0%	\$22.94	-\$2.87	-11.1%	\$23.94	-\$1.87	-7.7%	\$3.04	23.8%
		5,000	\$41.56	\$37.35	-10.1%	\$38.35	-\$4.21	-7.7%	\$38.35	-\$3.21	-7.7%	\$39.35	-\$2.21	-5.3%	\$40.35	-\$1.21	-2.9%	\$4.79	16.3%
		15,000	\$94.06	\$92.05	-2.1%	\$93.05	-\$1.01	-1.1%	\$93.05	-\$0.01	-0.1%	\$94.05	-\$0.01	0.0%	\$95.05	\$0.09	0.1%	\$103.05	8.9%
		20,000	\$120.31	\$119.40	-0.8%	\$120.40	\$0.09	0.1%	\$120.40	\$0.09	0.1%	\$121.40	\$1.09	0.9%	\$122.40	\$2.09	1.7%	\$130.40	10.0%
		30,000	\$172.81	\$174.10	1.2%	\$175.10	\$1.29	1.3%	\$175.10	\$2.29	1.3%	\$176.10	\$3.29	1.9%	\$177.10	\$4.29	2.5%	\$185.10	7.1%
		40,000	\$225.31	\$228.80	1.5%	\$229.80	\$3.49	1.5%	\$229.80	\$4.49	2.0%	\$230.80	\$5.49	2.4%	\$231.80	\$6.49	2.9%	\$239.80	6.4%
		50,000	\$277.81	\$283.50	2.0%	\$284.50	\$5.69	2.4%	\$284.50	\$6.69	2.4%	\$285.50	\$7.69	2.8%	\$286.50	\$8.69	3.1%	\$294.50	6.0%
		75,000	\$409.06	\$420.25	2.7%	\$421.25	\$12.19	3.0%	\$421.25	\$13.19	3.0%	\$422.25	\$14.19	3.3%	\$423.25	\$15.19	3.5%	\$431.25	5.4%
		100,000	\$540.31	\$549.25	1.7%	\$558.00	\$17.69	3.3%	\$558.00	\$18.69	3.3%	\$559.00	\$19.69	3.5%	\$560.00	\$20.69	3.6%	\$568.00	5.1%
	Customer Class																		

JDM Schedule A-3
 Bill Impacts - Cost of Service Rates
 JDM Schedule A-3
 Bill Impacts - Mitigated 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	\$25,745	\$29,598	\$4,153	16.1%
	20,000,000	\$51,475	\$59,772	\$8,297	16.1%
	38,000,000	\$97,789	\$113,545	\$15,756	16.1%
	40,000,000	\$102,935	\$119,520	\$16,585	16.1%
	75,000,000	\$192,990	\$224,079	\$31,089	16.1%
Avg. Monthly Bill	100,000,000	\$257,315	\$298,764	\$41,449	16.1%
	150,000,000	\$385,965	\$448,134	\$62,169	16.1%

Navy (Monthly)

Avg. Monthly Bill (All Meters)	10,000,000	\$32,295	\$38,236	\$5,941	18.4%
	20,000,000	\$64,575	\$76,114	\$11,539	17.9%
	38,000,000	\$122,664	\$144,294	\$21,630	17.6%
	50,000,000	\$161,415	\$189,748	\$28,333	17.6%
	75,000,000	\$242,115	\$284,443	\$42,328	17.5%
	100,000,000	\$322,815	\$379,138	\$56,323	17.4%

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

	Rate Year Revenue	
	Existing Rates	Proposed Rates
REVENUES		
Water Rates		
Base Charge (Billing Charge)	\$ 1,000,907	\$ 793,785
Volume Charge		
Residential	3,955,435	3,782,149
Commercial	2,556,663	2,663,800
Navy	898,317	1,054,103
Portsmouth Water & Fire District	1,162,070	1,349,229
Fire Protection		
Public	868,131	809,010
Private	378,880	343,530
Total Rate Revenues	\$ 10,820,402	\$ 10,795,607
Other Operating Revenues		
Sundry charges	\$ 140,016	140,016
WPC cost share on customer service	\$ 269,842	269,842
Middletown cost share on customer service	\$ 134,819	134,819
Rental of Property	\$ 81,000	81,000
Total Other Operating Revenues	\$ 625,676	625,676
Total Operating Revenues	\$ 11,446,078	\$ 11,421,283
Add: Non-Operating Revenues		
Water Penalty	42,320	42,320
Miscellaneous	7,515	7,515
Investment Interest Income	39,191	39,191
Water Quality Protection Fees	25,676	25,676
Total Non Operating Revenues	\$ 114,702	\$ 114,702
Total Revenues	\$ 11,560,780	\$ 11,535,985
COSTS		
Departmental O&M	\$ (8,127,113)	(8,127,113)
Capital Costs		
Contribution to Capital Spending Acct.	(1,146,918)	(1,146,918)
Existing Debt Service	(1,324,506)	(1,324,506)
New Debt Service	(686,317)	(686,317)
Total Capital Costs	\$ (3,157,741)	(3,157,741)
Operating Revenue Allowance	(243,813)	(243,813)
Total Costs	\$ (11,528,667)	\$ (11,528,667)
Revenue Surplus (Deficit)	\$ 32,113	\$ 7,318

Docket No. 4128

[illegible][illegible]

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

Docket No. 4128

CAPITAL COSTS

	Docket 4025 Rate Year
Water Supply	731,711
Treatment Station 1	994,352
Treatment Station Valves	216,326
Treatment Both Plants	120,392
T&D	888,921
Fire	22,550
Meters	65,726
Services	65,726
Billing	32,037
Total Capital Costs	3,157,741
Revenue Allowance	243,813
Total Costs before Offsets	11,528,667
OFFSETS	
Nonrate Revenues	
Sundry charges	140,016
WPC cost share on customer service	269,842
Middletown cost share on customer service	134,519
Rental of Property	81,000
Water Penalty	42,320
Miscellaneous	7,515
Investment Interest Income	39,191
Water Quality Protection Fees	25,676
Total Nonrate Revenues	740,378
Net Costs To Recover Through Rates	\$ 10,788,289

Allocation Notes	Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total % Allocated
Average Day Demand Patterns	100%	0%	0%	0%	0%	0%	0%	100%
Maximum Day Demand Patterns	46%	54%	0%	0%	0%	0%	0%	100%
Maximum Day Demand Patterns	46%	54%	0%	0%	0%	0%	0%	100%
Maximum Day Demand Patterns	46%	54%	0%	0%	0%	0%	0%	100%
Maximum Hour Demand Patterns	22%	26%	51%	0%	0%	0%	0%	100%
100% Fire	0%	0%	0%	100%	0%	0%	100%	100%
100% Meters	0%	0%	0%	0%	0%	100%	0%	100%
100% Services	0%	0%	0%	0%	0%	100%	0%	100%
100% Billing	0%	0%	0%	0%	100%	0%	0%	100%
100% base	100%							100%
Admin Non-Salary	42%	31%	11%	8%	8%	0%	0%	100%
50/50 Split between Metering and Billing	0%	0%	0%	50%	50%	0%	0%	100%
50/50 Split between Metering and Billing	42%	31%	11%	8%	8%	0%	0%	100%
Admin Non-Salary	42%	31%	11%	8%	8%	0%	0%	100%
Admin Non-Salary	42%	31%	11%	8%	8%	0%	0%	100%
Admin Non-Salary	42%	31%	11%	8%	8%	0%	0%	100%
100% Base	100%	0%	0%	0%	0%	0%	0%	100%

O&M COSTS

Administration
 Salaries, Wages, & Benefits
 All other admin costs
 Subtotal:

Customer Service
 Salaries, Wages, & Benefits
 Collections
 Copying & Binding
 Conferences & Training
 Support Services
 Postage
 Gasoline & Vehicle Allowance
 Repairs & Maintenance
 Meter Maintenance
 Operating Supplies
 Uniforms & protective gear
 Customer Service Supplies
 Subtotal:

Source of Supply - Island
 Station One (Excludes pumping and chemicals)
 Station One Pumping
 Station One Chemicals
 Lawton Valley (Excludes pumping and chemicals)
 Lawton Valley Pumping
 Lawton Valley Chemicals
 Laboratory
 Transmission and Distribution
 Fire Protection

Total O&M Costs

Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
423,626	310,452	114,837	81,320	70,319	-	3,046	1,012,600
447,571	328,000	121,328	85,916	83,803	-	3,218	1,069,836
-	-	-	309,015	241,253	-	-	550,268
-	-	-	-	47,865	-	-	47,865
-	-	-	-	1,000	-	-	1,000
-	-	-	-	5,000	-	-	5,000
-	-	-	-	21,000	-	-	21,000
-	-	-	-	34,300	-	-	34,300
-	-	-	15,641	12,211	-	-	27,852
-	-	-	41,500	-	-	-	41,500
-	-	-	11,000	-	-	-	11,000
-	-	-	9,000	-	-	-	9,000
-	-	-	1,000	-	-	-	1,000
-	-	-	-	15,000	-	-	15,000
546,896	-	-	-	-	-	-	546,896
143,300	-	-	-	-	-	-	143,300
595,360	699,218	-	-	-	-	-	1,294,577
2,752	3,232	6,340	-	-	-	-	12,323
399,000	-	-	-	-	-	-	399,000
622,715	731,345	-	-	-	-	-	1,354,061
7,076	8,310	16,303	-	-	-	-	31,689
216,000	-	-	-	-	-	-	216,000
248,850	-	-	-	-	-	-	248,850
227,466	267,147	524,083	-	-	-	-	1,018,696
-	-	-	-	-	-	14,500	14,500
3,880,611	2,347,704	782,891	554,392	540,751	-	20,763	\$8,127,113

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

Docket No 4128

CAPITAL COSTS

Water Supply
Treatment Station 1
Treatment Lawton Valley
Treatment Both Plants
T&D
Fire
Meter
Services
Billing

Base	Max Day	Max Hour	Metering	Billing	Services	Fire	Total \$ Allocated
731,711	-	-	-	-	-	-	731,711
457,200	537,062	-	-	-	-	-	994,352
108,683	127,643	-	-	-	-	-	236,326
55,367	65,025	-	-	-	-	-	120,392
198,458	233,114	457,319	-	-	-	-	888,921
-	-	-	-	-	-	22,550	22,550
-	-	-	65,726	-	-	-	65,726
-	-	-	-	-	65,726	-	65,726
-	-	-	-	32,037	-	-	32,037

Total Capital Costs

1,551,540	962,844	457,319	65,726	32,037	65,726	22,550	3,157,741
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Revenue Allowance

243,813	-	-	-	-	-	-	243,813
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Total Costs before Offsets

5,675,964	3,310,549	1,240,210	620,117	572,789	65,726	43,313	11,528,667
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OFFSETS

Nonrate Revenues

Sundry charge
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

58,576	42,927	15,879	11,244	10,968	-	421	140,016
-	-	-	134,921	134,921	-	-	269,842
-	-	-	67,409	67,409	-	-	134,819
33,887	24,834	9,186	6,505	6,345	-	244	81,000
17,705	12,975	4,799	3,399	3,315	-	127	42,320
3,144	2,304	852	604	589	-	23	7,515
16,396	12,016	4,445	3,147	3,070	-	118	39,191
25,676	-	-	-	-	-	-	25,676

Total Nonrate Revenues

155,383	95,056	35,161	227,229	226,616	-	933	740,378
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Net Costs To Recover Through Rates

\$ 5,520,580	\$ 3,215,493	\$ 1,205,049	\$ 392,888	\$ 346,172	\$ 65,726	\$ 42,381	\$ 10,788,289
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Other Departmental Costs
Less: Chemicals

Station One
Lawton Valley
Source Supply
Electronics
Source Supply
Station One
Lawton Valley
Costs Adjusted

\$ 3,009,414	\$ 1,709,252	\$ 546,726	\$ 387,155	\$ 377,630	\$ -	\$ 14,500	\$ 6,044,677
\$ (599,000)	-	-	-	-	-	-	\$ -
\$ (216,000)	-	-	-	-	-	-	\$ (369,000)
\$ (54,000)	-	-	-	-	-	-	\$ (216,000)
\$ (126,700)	-	-	-	-	-	-	\$ (126,700)
\$ (113,822)	\$ (133,678)	-	-	-	-	-	\$ (247,500)
\$ (53,056)	\$ (97,544)	-	-	-	-	-	\$ (150,600)
\$ 2,016,837	\$ 1,478,029	\$ 546,726	\$ 387,155	\$ 377,630	\$ -	\$ 14,500	\$ 4,820,877
42%	31%	11%	8%	8%	0%	0%	100%

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

Docket No. 4128

ALLOCATION PERCENTAGES

Cost Category	Allocation Basis	Commodity Charges					
		Base Charge	Retail		Navy	Portsmouth	Fire
			Residential	Commercial & Governmental			
Base	Average annual demand	42%	42%	27%	13%	18%	100%
Base Excluding PWED & 50% Navy		55%	55%	36%	9%	0%	
Max Day	Estimated customer peaking factors	32%	32%	25%	9%	15%	100%
Max Day Excluding PWED & 50% Navy		41%	41%	31%	6%	0%	
Max Hour	Estimated customer peaking factors	23%	23%	21%	8%	12%	100%
Max Hour Excluding PWED & 50% Navy		25%	25%	25%	5%	0%	
Metering	Direct Assignment	100%					100%
Billing	Direct Assignment	100%					100%
Services	Direct Assignment						100%
Fire	Direct Assignment						100%

ALLOCATION RESULTS

Cost Category	Docket 4025 Rate Year	Commodity Charges					
		Base Charge	Retail		Navy	Portsmouth	Fire
			Residential	Commercial			
Base							
Base Excluding T&D&H QFF	\$ 608,950	2,119,274	1,369,829	671,307	908,540		\$ 608,950
T&D to Base	425,954	276,019	152,555	37,351	-	-	425,954
Water Quality Protection Fees	25,676	15,595	10,050	-	-	-	25,676
Max Day							
Max Day Except T&D	2,715,232	878,823	678,800	255,897	419,413	482,240	2,715,232
Transmission & Distribution	500,261	202,798	156,655	29,526	-	111,282	500,261
Max Hour							
Max Hr. Except T&D & Pumping	179,634	-	42,084	37,548	13,684	21,267	179,634
Pumping	44,012	-	12,224	10,906	1,987	-	44,012
Transmission & Distribution	951,402	-	272,569	243,191	44,316	421,326	951,402
Metering	392,888	392,888	-	-	-	-	392,888
Services	65,726	65,726	-	-	-	-	65,726
Billing	346,172	346,172	-	-	-	-	346,172
Fire	42,381	-	-	-	-	-	42,381
Total To Recover through Rates	\$ 10,788,289	\$ 804,786	\$ 3,779,386	\$ 2,659,624	\$ 1,054,099	\$ 1,349,220	\$ 1,141,174

COST OF SERVICE PER UNIT

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

Metering						
(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
7,586	35,066	24,796	9,886	12,596	10,666	100,000
\$ 392,888	\$ 3,779,386	\$ 2,659,624	\$ 1,054,099	\$ 1,349,220	\$ 1,141,174	\$ 10,788,289
216,150	753,416	486,983	278,289	451,640	156,856	
\$1,8173 per equiv per month	\$5.02 per 1000 gallons	\$5.46 per 1000 gallons	\$3.79 per 1000 gallons	\$2.99 per 1000 gallons	\$7.28 Equivalent connections	

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

Billing		Services	
No. of bills per year	No. of bills per year	No. of bills per year	No. of bills per year
2 (0%)	7 (0%)		
\$ 346,172	\$ 65,726		
65,376	252,337		
\$5.2951 per bill	\$0.2328 per equiv		

- (1) From JDM Schedule D-1: "Water Accounts by Size and Class"
 (2) From JDM Schedule B-6: "Water Demand History"
 (3) From JDM Schedule D-2: "Fire Protection Accounts"

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

Docket No. 4128

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-1	46%	54%	0%					100%
Maximum Hour Demand Patterns	Pumping, Transmission/Distribution, Storage	B-1	22%	26%	51%					100%
Fire Protection	Public/Private Fire Protection Costs	D-2							100%	100%
Salary Costs	Administration Salaries, Wages, & Benefits	B-1	42%	31%	11%	8%	8%		0%	100%
Administration	Customer Service Salaries, Wages & Benefits	B-4	0%	0%	0%	56%	44%		0%	100%
Customer Service	Administration Non-Salary Costs	B-1	42%	31%	11%	8%	8%		0%	100%
Other Costs										

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

Allocation of Salary Costs							
Base	Max Day	Max Hour	Metering	Billing	Services	Direct Fire Protection	Total Allocated
42%	31%	11%	8%	8%		0%	100%
42%	31%	11%	8%	8%		0%	100%
42%	31%	11%	8%	8%		0%	100%
42%	31%	11%	8%	8%		0%	100%
42%	31%	11%	8%	8%		0%	100%
\$ 112,325	\$ 82,317	\$ 30,449	\$ 21,562	\$ 21,032	\$	\$ 808	\$ 268,492
42%	31%	11%	8%	8%		0%	100%

Salaries by Staff Position

50%	50%	50%	100%
50%	50%	50%	100%
100%	100%	100%	100%
50%	50%	50%	100%
100%	100%	100%	100%
50%	50%	50%	100%
Σ 183,004	Σ 142,945	Σ 326,938	Σ 100%
0%	0%	0%	0%
56%	44%	0%	0%

Newport Water Division
Cost of Service Analysis
JDM Schedule B-5
Capital Functionalization

Functional Break Down of Existing Fixed Assets

	Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	I&D	Fire	Meters	Services	Billing	
TRANSMISSION DISTRIBUTION	\$ 18,817,129				100%					100%
LAWTON VALLEY	\$ 5,351,452									100%
STATION 1	\$ 22,516,441	100%								100%
TREATMENT BOTH	\$ 2,726,208			100%						100%
STORAGE	\$ 1,311,908									100%
SOURCE OF SUPPLY	\$ 16,492,953									100%
METERS SERVICES	\$ 2,976,622						50%	50%		100%
BILLING	\$ 725,466									100%
FIRE	\$ 510,621					100%				100%
Total	\$ 71,428,801									
LABORATORY	\$ 80,000									100%
LAND AND ROW	\$ 3,594,491	23%	0%	0%	0%	0%	0%	0%	0%	100%
	\$ 3,674,491				28%	1%	2%	2%	1%	

Total Fixed Assets \$ 75,103,292

	Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	I&D	Fire	Meters	Services	Billing	Total
TRANSMISSION DISTRIBUTION	\$ 18,817,129				\$ 18,817,129	\$ -	\$ -	\$ -	\$ -	\$ 18,817,129
LAWTON VALLEY	\$ 5,351,452				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 5,351,452
STATION 1	\$ 22,516,441	22,516,441			\$ -	\$ -	\$ -	\$ -	\$ -	\$ 22,516,441
TREATMENT BOTH	\$ 2,726,208			2,726,208	\$ -	\$ -	\$ -	\$ -	\$ -	\$ 2,726,208
STORAGE	\$ 1,311,908				\$ 1,311,908	\$ -	\$ -	\$ -	\$ -	\$ 1,311,908
SOURCE OF SUPPLY	\$ 16,492,953				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 16,492,953
METERS SERVICES	\$ 2,976,622				\$ -	\$ -	\$ 1,488,311	\$ 1,488,311	\$ -	\$ 2,976,622
BILLING	\$ 725,466				\$ -	\$ -	\$ -	\$ -	\$ 725,466	\$ 725,466
FIRE	\$ 510,621				\$ -	\$ 510,621	\$ -	\$ -	\$ -	\$ 510,621
Total	\$ 71,428,801	\$ 22,516,441	\$ 5,351,452	\$ 2,726,208	\$ 20,129,037	\$ 510,621	\$ 1,488,311	\$ 1,488,311	\$ 725,466	\$ 71,428,801
	23%	32%	7%	4%	28%	1%	2%	2%	1%	
LABORATORY	\$ 80,000				\$ -	\$ -	\$ -	\$ -	\$ -	\$ 80,000
LAND AND ROW	\$ 3,594,491	\$ 1,133,088	\$ 269,300	\$ 137,190	\$ 1,012,048	\$ 25,696	\$ 74,896	\$ 74,896	\$ 36,507	\$ 3,594,491
	25%	31%	7%	4%	28%	1%	2%	2%	1%	
Total Allocated	\$ 17,402,924	\$ 23,640,520	\$ 5,620,752	\$ 3,863,398	\$ 21,141,085	\$ 536,317	\$ 1,563,207	\$ 1,563,207	\$ 761,973	\$ 75,103,292
	23%	31%	7%	4%	28%	1%	2%	2%	1%	

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

Page 2 of 2

Functionalization of Capital Costs

Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	E&D	Fire	Meters	Services	Billing	
23%	31%	7%	4%	28%	1%	2%	2%	1%	100%
23%	31%	7%	4%	28%	1%	2%	2%	1%	100%
Capital Spending Restricted Account	\$	1,146,918							
Debt Service	\$	2,010,823							
	\$	3,157,741							

Supply	Treatment Station 1	Treatment Lawton Valley	Treatment Both Plants	T&D	Fire	Meters	Services	Billing	Total
265,764	\$ 361,157	\$ 85,856	\$ 43,728	\$ 322,864	\$ 8,190	\$ 23,872	\$ 23,872	\$ 11,636	\$ 1,146,918
465,948	\$ 633,195	\$ 150,491	\$ 76,665	\$ 566,058	\$ 14,359	\$ 41,853	\$ 41,853	\$ 20,401	\$ 2,010,823
731,711	\$ 994,352	\$ 236,326	\$ 120,392	\$ 888,921	\$ 22,550	\$ 65,726	\$ 65,726	\$ 32,037	\$ 3,157,741

Docket No. 4128

Annual Demand by Class	Annual Demand in 1000's Gallons										Baseline	Rate Year
	FY 2000	FY 2001	FY 2002	FY 2003	FY 2004	FY 2005	FY 2006	FY 2007	FY 2008	FY 2009	3-Year Average	Docket 4025
Residential	682,937	698,765	773,872	780,666	736,577	716,037	749,409	734,137	780,264	690,544	734,982	753,416
Commercial	724,094	640,379	580,798	583,184	663,766	573,711	493,539	456,486	505,014	519,521	493,674	486,983
Navy	466,167	450,247	307,051	348,222	511,299	417,869	373,306	278,441	247,728	225,392	250,520	278,289
Portsmouth	438,179	442,582	455,142	451,723	422,944	429,465	463,253	445,232	473,338	444,777	454,449	451,640
Total (in 1000's Gallons)	2,311,377	2,231,973	2,116,863	2,163,795	2,334,586	2,137,082	2,079,508	1,914,297	2,006,344	1,880,234	1,933,625	1,970,329
	-3.2%	-3.6%	-5.2%	2.2%	-4.9%	-4.8%	-2.1%	-2.9%	4.8%	-6.3%		

	Combined Station #1 and LY WTP Production Volumes in Millions			Peaking Comparison		
	FY 2007	FY 2008	FY 2009	3 Year Average Production Peaks	System Peaks Estimated from Monthly Data	System Diversity Ratio (1)
Annual Production	2,456,363	2,524,784	2,437,440	2,472,862		
Average Day Production	6,750	6,917	6,678	6,775		
Maximum Month Production	256,796	269,819	280,875	269,163		
Maximum Day Production	10,165	10,724	12,100	10,996		
Max Day Date	6/28/2007	8/4/2007	7/18/2008			
Maximum Day Peaking Factor	1.51	1.55	1.81	1.62	1.97	1.21
Max-Day to Avg. Day Max-Month Ratio	1.19	1.19	1.29	1.23		
Maximum Hour	13,800	15,200	13,250			
Maximum Hour Peaking Factor	2.05	2.20	1.98	2.08	2.47	1.19

Concurrent
 Excluding Fire Protection

(1) Calculated according to 40 W 4 M-1 Guidelines

Docket No. 4128

Enter "A" to use all data or "B" to use monthly only data	A
Enter "B" to use billing data or "D" to use daily demand study data	B

Estimation of Each Customer Class' Peaking Factors

Customer Class	Max Month Water Demand (1000's gallons)				Average Daily Demand in Max Month (1,000 gals.)	Max Month Avg. Day to Avg. Day			Max Day Peaking			Max Hour Peaking	
	2007	2008	2009	Typical Max Month (1,000 gals.)		All Meters (QRI - Monthly)	Monthly Meters Only	Ratios Used in Rate Calculations	Monthly to Daily Peaking Multiplier	System Max Day Avg Month Ratio	Max Day Ratio	Daily to Hourly Peaking Multiplier	Max Hour Ratio
Residential	70,586	103,115	83,630	88,777	2,959	1.47	N/A	1.47	1.06	1.23	1.91	1.20	2.29
Commercial	51,545	66,684	61,978	60,069	2,002	1.48	N/A	1.48	1.15	1.23	2.09	1.33	2.78
Navy	29,771	30,475	24,640	28,295	943	1.37	1.37	1.37	1.09	1.23	1.84	1.27	2.33
Portsmouth	51,270	58,023	61,048	56,780	1,893	1.52	1.52	1.52	1.08	1.23	2.01	1.25	2.52
Fire											1.97		2.47
Estimated Systemwide Peaks													

(5)

(1)

(2)

(3)

(4)

- (1) These monthly peaking ratios was calculated using demand records from only those customers metered on a monthly basis
 (2) Daily Peaking Multipliers developed using data daily data collected during the summer of 2009
 (3) Max Day Avg. Day Max Month water production ratios are from JDM Schedule B-7, "Water Production Peaking Analysis"
 (4) Navy and Portsmouth demand peaking behavior is assumed to have both residential and nonresidential characteristics that resemble demand in the rest of the system
 As such, the following assumptions are used to weight residential and nonresidential peaking for Portsmouth and the Navy:

% Residential Demand	NonResidential Demand
50%	50%
60%	40%

Navy
 Portsmouth
 Used in Max Day and Max Hour calculations
 Used in Max Hour calculations only

- (5) Fire peaking behavior is estimated using a separate methodology demonstrated in JDM Schedule B-11, "Fire Protection Demand Analysis"

Rate Year Demand (1,000 gallons)					
Customer Class	Annual Demand	Average Daily Demand	Lost Water Adjustment	Adjusted Average Daily Demand	% Average Demand Ex PWFD & 50% Navy
Residential	753,416	2,064	822	2,886	55%
Commercial	486,983	1,334	557	1,866	36%
Navy	278,289	762	152	914	9%
Portsmouth	451,640	1,237	-	1,237	0%
Fire					N/A
Total, w Fire Prot.	1,970,329	5,398	22%	6,904	100%

(1)
 2,519,802 6,904 21 81%

Production

Max Hour Calculations									
Customer Class	Max Day Peaking Factor	Demand x Peaking Factor (3)	Incremental Peak Demand	% of Daily Peaks With Full PWFD & Navy	% of Daily Peaks Without PWFD & Navy	Max Hour Peaking Factor	Demand x Peaking Factor (3)	Incremental Peak Demand	% of Hourly Peaks With Full PWFD & Navy
Residential	1.91	5,511	2,024	32.4%	40.5%	2.26	6,613	3,726	23.4%
Commercial	2.09	3,893	2,027	25.0%	31.3%	2.78	5,190	3,325	20.9%
Navy	1.84	1,678	764	9.4%	5.9%	2.33	2,126	1,212	7.6%
Portsmouth	2.01	2,490	1,252	15.4%	15.4%	2.52	3,121	1,883	11.8%
Fire		1,440	1,440	17.8%	22.2%		5,760	5,760	36.2%
Total, w Fire Prot.		15,011	8,108	100.0%	100.0%		35,809	15,906	100.0%
Total, without Fire Protection		13,571	6,668				17,049	10,146	

(demand is in thousands of gallons)

(1) From JDM Schedule 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 reduced 50%.

(2) From JDM Schedule B-11. Fire Protection Demand Analysis

EACH RATE CLASS' SHARE OF SYSTEM PEAKS

Rate Class	Average Demand	Daily Peaks	Hourly Peaks
Retail	42%	32%	23%
Residential	27%	25%	21%
Commercial	13%	9%	8%
Navy	18%	15%	12%
Portsmouth	N/A	18%	36%
Fire	100%	100%	100%

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

BASE/EXTRA-CAPACITY DISTRIBUTION OF SYSTEM PEAKS

	Incremental Demand	% for Max Day	% Distribution for Max Hour
Base	6,904	46.0%	22.3%
Extra Capacity			
Max Day	6,668	44.4%	21.6%
Max Hour	10,146		32.8%
Fire Protection			
Max Day	1,440	9.6%	4.7%
Max Hour	5,760		18.6%
Total%		100.0%	100.0%
Total 1000's Gallons		15,011	30,917

Incremental demand data is from JDM Schedule B-11, 'Fire Protection Demand Analysis' and from JDM Schedule 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
JDM Schedule 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		Portsmonth	
		Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Monthly	Quarterly	Meters	Equivalents	Meters	Equivalents
5.8	1.0	97	559	97	559	10,216	5	10,216	5	0	0	0	0
3.4	1.1	52	179	57	197	2,238	6	2,462	6	1	1	0	0
1	1.4	157	29	220	41	361	28	505	28	0	0	0	0
1.5	1.8	137	27	247	49	146	38	263	38	0	0	0	0
2	2.9	180	30	522	87	69	102	200	102	0	0	0	0
3	11.0	59	14	154	154	16	132	176	132	0	0	0	0
4	14.0	11	3	154	42	1	14	14	14	0	0	1	14
5	21.0	2	0	42	0	0	0	0	0	0	0	0	0
6	29.0	12	0	348	0	1	0	29	29	8	222	0	0
8	36.3	0	0	0	0	1	36	36	36	0	0	0	0
10	43.5	0	0	0	0	0	0	0	0	1	44	0	0
Total	14,708	707	841	2,336	1,128	13,049	360	13,901	360	10	277	1	14

Equivalent Units	
Billed Monthly	818
Billed Quarterly	13,890
Total	65,376

Equivalent Units	
Billed Monthly	2,986
Billed Quarterly	15,030
Total	216,190

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

	Connection Size	Existing Differential	Docket 4025		
			Number of Connections	Equivalent Connections (2)	
Public Hydrants					
Newport	6	111.31	583	64,894	
Middletown	6	111.31	408	45,414	% of Liquid Connections
Portsmouth	6	111.31	8	890	
Subtotal: Public Hydrants			999	111,199	71%

Private Fire Connections				
2	6.19	1	6	
4	38.32	57	2,184	
6	111.31	246	27,382	
8	237.21	62	14,707	
10	426.58	0	-	
12	689.04	2	1,378	
Subtotal: Private Fire Connections		368	45,658	
Total Fire Connections		1,367	156,856	
				% of Liquid Connections 29%
				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	10,877	10,877
3.4	1,000	2,475	2,475
1	1,860	567	1,055
1.5	4,630	331	1,533
2	6,150	314	1,931
3	11,060	101	1,117
4	11,060	17	188
5	11,060	2	22
6	11,060	21	232
8	11,060	2	22
10	11,060	1	11
			% of Liquid Connections
		14,708	19,463
			83%

Subtotal General Service

Private Fire Connections

2	6,150	1	6	% of Liquid Connections
4	11,060	57	630	
6	11,060	246	2,721	
8	11,060	62	686	
10	11,060	0	-	
12	11,060	2	22	
Connections		368	4,065	17%

Subtotal: Private Fire Connections

Annualized	12
Total Retail & Private Fire Connections	15,076 282,337 100%

Newport Water Division
Cost Of Service Analysis
JDM Schedule 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>						
Max. Month June	1,176,356	1,176,356	1,280,006	1,280,007	2,456,362	2,456,363
	116,724,700	116,725	140,288,300	140,288	256,793,580	256,796
<u>FY 08 JULY 2007 - JUNE 2008</u>						
Max. Month August	1,268,356,660	1,268,357	1,256,427,700	1,256,428	2,524,784,360	2,524,784
	141,803,530	141,804	144,557,900	144,558	269,819,450	269,819
<u>FY 09 JULY 2008 - JUNE 2009</u>						
Max. Month March	1,152,697,400	1,152,697	1,284,742,500	1,284,743	2,437,439,900	2,437,440
	110,288,000	110,288	177,163,200	177,163	280,874,500	280,875

MAX DAY PRODUCTION AVAILABLE FOR SALE

Date	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>						
8/2/2006	5,114,940	5,115	5,958,100	5,958	10,165,100	10,165
	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	6,805,400	6,805	10,723,620	10,724
	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	7,845,700	7,846	12,100,100	12,100
	includes booster to LV at 324,000 Gallons					

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

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

Fiscal Year Annual Demand

	FY 2006	FY 2007	FY 2008	FY 2009
Residential	718,022	734,137	780,264	690,544
Commercial (includes governmental)	505,804	456,486	505,014	519,521
Navy	373,306	278,441	247,728	225,392
Portsmouth	453,618	445,232	473,338	444,777
Total 1000's Gallons	<u>2,050,751</u>	<u>1,914,297</u>	<u>2,006,344</u>	<u>1,880,234</u>
		-6.7%	4.8%	-6.3%

Max Month Demand

(1000's of gallons)

	FY 2007	FY 2008	FY 2009
Residential	79,586	103,115	83,630
Commercial	51,545	66,684	61,978
Navy	29,771	30,475	24,640
Portsmouth	51,270	58,023	61,048
NonCoincident Max Month	<u>212,172</u>	<u>258,296</u>	<u>231,296</u>
Coincident Max Month	196,132	221,941	201,008
Production Volume, Max Month	256,796	269,819	280,875

Unaccounted for Water Analysis

	FY 2007	FY 2008	FY 2009	Average
Billed Consumption (1,000 gals.)	1,914,297	2,006,344	1,880,234	1,933,625
Total Water Produced (1,000 gals.)	2,456,363	2,524,784	2,437,440	2,472,862
Unaccounted for Water (1,000 gals.)	542,066	518,440	557,206	539,237
Percent Unaccounted for Water	22.07%	20.53%	22.86%	21.81%

Newport Water Division
 Cost Of Service Analysis
 JDM Schedule 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	0.1667
Days per year	365	Days per year	365
Total Hours	182.5000	Total Hours	60.8455
Average per hour pay	\$21.78	Average per hour pay	\$22.10
Average per hour benefits	\$4.69	Average per hour benefits	\$4.82
Pumping Salaries	\$3,974.85	Pumping Salaries	\$1,344.69
Pumping Benefits	\$855.01	Pumping Benefits	\$293.15

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	Bristol County Machine	\$125.00
		Broadway Electric	\$160.00
50311 Operating Supplies		Bristol County Machine	\$128.00
Vendor	amount	Broadway Electric	\$85.10
National Electric Testing	\$300.00	Bristol County Machine	\$60.00
Total - Operating Supplies - Pumping	\$300.00	Raleo Electric	\$306.00
		Delta Electric Motor	\$496.00
		Industrial Pump Sales & Service	\$5,521.56
		Industrial Pump Sales & Service	\$1,152.00
		Total Repair & Maintenance Pumping	\$8,033.66
		Operating Supplies	
		Vendor	amount
		National Electric Testing	\$300.00
		Raleo Electric	\$499.00
		Total Operating Supplies Pumping	\$799.00

Pumping Electricity

Station One		Lawton Valley	
Annual Pumping Power	\$7,193	Annual Pumping Power	\$21,712

Total Pumping Costs

Station One		Lawton Valley	
Pumping Salaries	\$3,975	Pumping Salaries	\$1,345
Pumping Benefits	\$855	Pumping Benefits	\$293
Total Repair & Maintenance Pumping	\$0	Total Repair & Maintenance Pumping	\$8,034
Total - Operating Supplies - Pumping	\$300	Total Operating Supplies Pumping	\$306
Annual Pumping Power	\$7,193	Annual Pumping Power	\$21,712
Total Annual Pumping Costs	\$12,323	Total Annual Pumping Costs	\$31,689