



## DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND  
1322 PATTERSON AVENUE, SE, SUITE 1000  
WASHINGTON NAVY YARD, DC 20374-5065

### VIA FIRST CLASS MAIL AND ELECTRONIC MAIL

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

April 14, 2016

Re: Docket #4595 Newport Water Division - Rate Application  
to Collect Additional Revenues of \$1,304,595 for a Total  
Cost of Service of \$20,151,440 (filed 12/23/15)

Dear Ms. Massaro:

On behalf of the Department of the Navy (DON), I enclose an original and nine (9) copies of the Direct Testimony and Exhibits of Brian C. Collins.

Please call me at (202) 685-9122 if you have any questions concerning this filing. Thank you for your assistance.

Sincerely,

A handwritten signature in black ink, appearing to read "Allison M. Genco", is written over a faint, larger signature.

Allison M. Genco, Esq.  
Department of the Navy  
Filing on Behalf of the  
Federal Executive Agencies

cc: Service List for Docket No. 4568

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**

**BEFORE THE  
RHODE ISLAND PUBLIC UTILITIES COMMISSION**

---

**Newport Water Division - Rate  
Application to Collect Additional  
Revenues of \$1,304,595 for a Total  
Cost of Service of \$20,151,440  
(filed 12/23/15)**

---

)  
)  
)  
)  
)  
)  
)

**Docket No. 4595**

Direct Testimony and Schedules of

**Brian C. Collins**

On behalf of

**The United States Department of the Navy**

April 14, 2016



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**

**BEFORE THE  
RHODE ISLAND PUBLIC UTILITIES COMMISSION**

---

**Newport Water Division - Rate  
Application to Collect Additional  
Revenues of \$1,304,595 for a Total  
Cost of Service of \$20,151,440  
(filed 12/23/15)**

---

)  
)  
)  
)  
)  
)  
)

**Docket No. 4595**

**Direct Testimony of Brian C. Collins**

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

2    A     Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,  
3           Chesterfield, MO 63017.

4    **Q     WHAT IS YOUR OCCUPATION?**

5    A     I am a consultant in the field of public utility regulation and a Principal of Brubaker &  
6           Associates, Inc., energy, economic and regulatory consultants.

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

8    A     This information is included in Appendix A to my testimony.

9    **Q     ON WHOSE BEHALF ARE YOU APPEARING IN THIS PROCEEDING?**

10   A     I am appearing on behalf of the United States Department of the Navy ("Navy"). Our  
11        firm is under contract with Navy to perform cost of service, rate design and related  
12        studies. Naval Station Newport in Newport, Rhode Island purchases large volumes  
13        of water from the Water Division of the City of Newport ("Newport Water"). Thus,

1 Navy has a direct economic interest in how the cost of providing water service to it is  
2 determined.

3 **Q WHAT IS THE PURPOSE OF YOUR TESTIMONY?**

4 A I address Newport Water's proposed class cost of service study, class revenue  
5 allocation, and rate design. The fact that I do not address Newport Water's position  
6 of a particular issue should not be construed as tacit agreement with Newport Water's  
7 position.

8 **Newport Water's Proposed Cost of Service Study**

9 **Q HAVE YOU REVIEWED NEWPORT WATER'S PROPOSED CLASS COST OF**  
10 **SERVICE STUDY SPONSORED BY NEWPORT WATER WITNESS HAROLD**  
11 **SMITH?**

12 A Yes.

13 **Q DO YOU HAVE ANY SPECIFIC CONCERN WITH NEWPORT WATER'S**  
14 **PROPOSED CLASS COST OF SERVICE STUDY?**

15 A Yes. I have a concern with the Maximum Day Demand factor for Navy calculated by  
16 Newport Water in its cost of service study which is used to allocate to Navy the costs  
17 incurred to meet system peak water demand. My concern is that the Maximum Day  
18 Demand factor for Navy in this rate case is overstated as a result of Newport Water  
19 using Navy usage data that is not reflective of its operations in a typical or normal test  
20 year.

**Q WHAT IS A PARTICULAR CLASS'S MAXIMUM DAY DEMAND FACTOR?**

A It is the ratio of that class's maximum day of water usage to its average day usage, where the average day usage is the class's total annual water consumption divided by 365 days. The class maximum day demand factors are used to develop class allocation factors that are then used to allocate costs that Newport Water incurs to meet the system maximum day of water usage and the system maximum hour of water usage to various classes.

**Q WHY IS IT IMPORTANT THAT NORMALIZED CUSTOMER WATER USAGE BE USED WHEN DETERMINING MAXIMUM DAY DEMAND FACTORS FOR THE TEST YEAR?**

A If a utility does not use data reflective of a normal test year to calculate proposed class Maximum Day Demand factors used in allocating costs to classes and setting rates, its rates likely will not reflect cost causation since the atypical usage could introduce rate subsidies among customer classes.

**Q HOW DOES NAVY'S MAXIMUM DAY FACTOR FROM THIS RATE CASE COMPARE TO THAT USED IN THE PREVIOUS RATE CASE?**

A The Maximum Day Demand factor for Navy as proposed by Newport is 2.93. In the last rate case, Navy's factor was 1.73. This is an increase of approximately 70%. As a result of this large increase in Navy's Maximum Day Demand factor since the previous rate case, it is prudent to examine Navy's specific water usage used by Newport Water to calculate Navy's Maximum Day Demand factor.

**Q HAVE YOU REVIEWED NAVY'S ACTUAL USAGE FOR FISCAL YEAR 2015 USED TO CALCULATE NAVY'S MAXIMUM DAY DEMAND FACTOR IN NEWPORT WATER'S COST OF SERVICE STUDY FOR THIS RATE CASE?**

A Yes. I have reviewed Navy's water usage (provided in Newport Water's response to FEA Request 1-7) that Newport Water utilized in calculating Navy's Maximum Day Demand factor.

**Q HAVE YOU FOUND ANY NAVY WATER USAGE IN THAT RESPONSE THAT IS NOT REPRESENTATIVE OF A NORMAL TEST YEAR?**

A Yes. Water usage for Navy that occurred during the period March 6 -18, 2015 is not representative of Navy's operations in a normal test year. It is my understanding that during this time Navy experienced a water main break that was difficult to repair and the subsequent water loss created Navy's Maximum Day Demand factor for Fiscal Year 2015 used for the instant rate case.

**Q DO YOU HAVE ANY CONCERN WITH NEWPORT WATER USING USAGE DATA THAT INCLUDES WATER USAGE RELATED TO MAIN BREAKS WHEN CALCULATING CLASS DEMAND FACTORS?**

A Yes. Using such abnormal data will not result in appropriate cost allocation to various classes. As a result, rates will not reflect class cost causation.

For example, excluding the excess water usage resulting from the main break during the March 2015 period, Navy's Maximum Day Demand factor would have been approximately 1.99. Using this Maximum Day Demand factor in Newport Water's cost of service model would have resulted in a cost of service rate increase of approximately 17% to Navy instead of Newport Water's proposed 26% rate increase.

1 Removing extraordinary events, such as water loss resulting from main  
2 breaks, to normalize a utility's test year is reasonable. It is my understanding that in  
3 past rates cases, Newport Water has excluded usage due to main breaks when  
4 calculating peaking demand factors for its classes. Basing allocations on usage that  
5 is not representative of normal operations would result in a class that experiences  
6 such a main break paying more than its fair rates based on it's cost of service  
7 calculated with the usage data reflective of its normal operations.

8 **Q ARE YOU RECOMMENDING ANY CHANGES TO NAVY'S MAXIMUM DAY**  
9 **DEMAND FACTORS IN THIS RATE CASE?**

10 A No, not at this time. However, I would recommend that Newport Water in future rate  
11 cases remove water usage associated with main breaks consistent with treatment in  
12 past rate cases not only for Navy but all customer classes. This will normalize test  
13 year water usage that is used to calculate peaking factors used in the allocation of  
14 costs to rate classes. It is appropriate to set rates reflective of normal conditions, and  
15 a main break that created the maximum day demand for a customer class is not a  
16 normal condition.

17 **Revenue Allocation**

18 **Q HAVE YOU REVIEWED THE NEWPORT WATER'S PROPOSED CLASS**  
19 **REVENUE ALLOCATION?**

20 A Yes. This is summarized in my Schedule BCC-1.

**Q DO YOU HAVE ANY CONCERNS WITH NEWPORT WATER'S PROPOSED REVENUE ALLOCATION?**

A Yes. Newport Water's proposed rate revenues compared to present rates under proposed billing determinants results in a system average increase of 6.6% in rate revenues. However, three classes see large increases relative to the system average increase in rate revenues. The Navy, Portsmouth and Private Fire classes see increases of 26%, 28%, and 12% respectively. These increases are more than 1.5 times the system average increase.

**Q DO LARGE CLASS RATE REVENUE INCREASES AS COMPARED TO THE SYSTEM AVERAGE INCREASE SUCH AS THOSE PROPOSED FOR THE NAVY, PORTSMOUTH AND PRIVATE FIRE CLASSES CAUSE CONCERN?**

A Yes. It is important to establish rates on cost of service, but gradualism and mitigating rate shock are also important considerations when setting rates for customers. Rate shock can adversely affect customers with respect to budgeting and consumption decisions, as well as impact their contribution to the economy of Rhode Island.

Considering the fact that the cost of service study presented in this case is not reflective of Navy's normal operation, it is imperative that the principle of gradualism be applied until a cost of service study based on normal operation is developed in a future case.

**Q WHAT IS THE PRINCIPLE OF GRADUALISM?**

A The principle of gradualism provides protection to customers against sudden large increases in their utility rates or "rate shock", which would adversely affect their budgeting and level of consumption. Gradualism can give consumers sufficient time



1 to make desired budgeting and consumption decisions based on price signals  
2 contained within the respective rate class's rate structure.

3 Gradualism applied to the revenue allocation approach constrains movement to full  
4 class cost of service. This is done to limit bill impacts on any one class. Movement  
5 toward cost-based rates should be considered in conjunction with mitigating undue  
6 customer bill impacts.

7 **Q DO YOU PROPOSE GRADUALISM BE RECOGNIZED IN THIS CASE?**

8 A Yes. In determining the revenue allocation in this proceeding, the Commission  
9 should recognize the harm that large water rate increases can inflict on customers as  
10 well as on the economic base in the state of Rhode Island. Large increases have the  
11 potential to adversely impact the economic contributions of customers by making it  
12 more costly for customers to operate in Rhode Island. For these reasons, the  
13 Commission should restrict the size of the rate increase proposed by Newport Water.  
14 I recommend that no one class experience an increase greater than 1.5 times the  
15 system average rate increase of 6.6%, or 10.02%.

16 **Q ARE YOU AWARE OF ANY INSTANCE IN WHICH THIS COMMISSION HAS**  
17 **APPLIED THE PRINCIPLE OF GRADUALISM IN A UTILITY RATE CASE?**

18 A Yes. In its Order in RIPUC Docket No. 4065, the Commission determined that it was  
19 appropriate to limit the distribution of the rate increase for certain customer classes to  
20 150% of the average overall rate increase approved by the Commission.

1    **Q     WHAT IS YOUR RECOMMENDATION?**

2    A     I recommend that the Navy, Portsmouth and Private Fire rate class increases all be  
3           capped at 1.5 times the system average increase in rate revenues, or 10.02%. The  
4           remainder of Newport Water's proposed revenue increase not provided by these  
5           classes would be spread among the remaining classes based on their revenues at  
6           present rates. My proposed revenue allocation is shown in Schedule BCC-1.

7    **Rate Design**

8    **Q     WHAT RATES WOULD RESULT FROM YOUR PROPOSED REVENUE**  
9           **ALLOCATION?**

10   A     Using Newport Water's proposed base charges and the volumetric charges and  
11           Private Fire protection charges resulting from my proposed revenue allocation  
12           produces the rates shown in Schedule BCC-2, page 1. These rates compare to  
13           Newport Water's rates summarized on Schedule BCC-2, page 2.

14   **Q     HAVE YOU PREPARED A PROOF OF REVENUE RESULTING FROM THE RATES**  
15           **SET BY YOUR PROPOSED REVENUE ALLOCATION?**

16   A     Yes. The proof of revenue resulting from my proposed rates is shown in Schedule  
17           BCC-3.

18   **Q     DOES THIS CONCLUDE YOUR DIRECT TESTIMONY?**

19   A     Yes, it does.

**Qualifications of Brian C. Collins**

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

2    A     Brian C. Collins. My business address is 16690 Swingley Ridge Road, Suite 140,  
3           Chesterfield, MO 63017.

4    **Q     WHAT IS YOUR OCCUPATION AND BY WHOM ARE YOU EMPLOYED?**

5    A     I am a consultant in the field of public utility regulation and a Principal with the firm of  
6           Brubaker & Associates, Inc. ("BAI"), energy, economic and regulatory consultants.

7    **Q     PLEASE STATE YOUR EDUCATIONAL BACKGROUND AND EXPERIENCE.**

8    A     I graduated from Southern Illinois University Carbondale with a Bachelor of Science  
9           degree in Electrical Engineering. I also graduated from the University of Illinois at  
10          Springfield with a Master of Business Administration degree. Prior to joining BAI, I  
11          was employed by the Illinois Commerce Commission and City Water Light & Power  
12          ("CWLP") in Springfield, Illinois.

13                My responsibilities at the Illinois Commerce Commission included the review  
14                of the prudence of utilities' fuel costs in fuel adjustment reconciliation cases before  
15                the Commission as well as the review of utilities' requests for certificates of public  
16                convenience and necessity for new electric transmission lines. My responsibilities at  
17                CWLP included generation and transmission system planning. While at CWLP, I  
18                completed several thermal and voltage studies in support of CWLP's operating and  
19                planning decisions. I also performed duties for CWLP's Operations Department,  
20                including calculating CWLP's monthly cost of production. I also determined CWLP's

1 allocation of wholesale purchased power costs to retail and wholesale customers for  
2 use in the monthly fuel adjustment.

3 In June 2001, I joined BAI as a Consultant. Since that time, I have  
4 participated in the analysis of various utility rate and other matters in several states  
5 and before the Federal Energy Regulatory Commission ("FERC"). I have filed or  
6 presented testimony before the Arkansas Public Service Commission, the Delaware  
7 Public Service Commission, the Florida Public Service Commission, the Idaho Public  
8 Utilities Commission, the Illinois Commerce Commission, the Indiana Utility  
9 Regulatory Commission, the Minnesota Public Utilities Commission, the Missouri  
10 Public Service Commission, the North Dakota Public Service Commission, the Public  
11 Utilities Commission of Ohio, the Oregon Public Utility Commission, the Rhode Island  
12 Public Utilities Commission, the Virginia State Corporation Commission, the Public  
13 Service Commission of Wisconsin, the Washington Utilities and Transportation  
14 Commission, and the Wyoming Public Service Commission. I have also assisted in  
15 the analysis of transmission line routes proposed in certificate of convenience and  
16 necessity proceedings before the Public Utility Commission of Texas.

17 In 2009, I completed the University of Wisconsin – Madison High Voltage  
18 Direct Current ("HVDC") Transmission Course for Planners that was sponsored by  
19 the Midwest Independent Transmission System Operator, Inc. ("MISO").

20 BAI was formed in April 1995. BAI and its predecessor firm has participated in  
21 more than 700 regulatory proceeding in forty states and Canada.

22 BAI provides consulting services in the economic, technical, accounting, and  
23 financial aspects of public utility rates and in the acquisition of utility and energy  
24 services through RFPs and negotiations, in both regulated and unregulated markets.  
25 Our clients include large industrial and institutional customers, some utilities and, on

1 occasion, state regulatory agencies. We also prepare special studies and reports,  
2 forecasts, surveys and siting studies, and present seminars on utility-related issues.

3 In general, we are engaged in energy and regulatory consulting, economic  
4 analysis and contract negotiation. In addition to our main office in St. Louis, the firm  
5 also has branch offices in Phoenix, Arizona and Corpus Christi, Texas.

\\doc\shares\prolawdocs\sdw\10205\testimony-bai\296877.doc

## Class Revenue Allocation

### Navy Proposed Class Revenues

<u>Line</u>	<u>Class</u>	<u>Revenues at Current Rates (1)</u>	<u>Proposed Revenues (2)</u>	<u>Increase (3)</u>	<u>% Increase (4)</u>
1	Residential	\$ 7,747,429	\$ 8,186,450	\$ 439,021	5.7%
2	Non-Residential	5,283,387	5,582,779	299,392	5.7%
3	Navy	1,615,724	1,777,710	161,987	10.0%
4	Portsmouth	2,229,164	2,452,652	223,488	10.0%
5	Public Fire	981,045	1,036,637	55,593	5.7%
6	Private Fire	419,598	461,665	42,067	10.0%
7	Total	<u>\$ 18,276,346</u>	<u>\$ 19,497,894</u>	<u>\$ 1,221,548</u>	<u>6.7%</u>

### Newport Water Proposed Class Revenues

<u>Line</u>	<u>Class</u>	<u>Revenues at Current Rates (1)</u>	<u>Proposed Revenues (2)</u>	<u>Increase (3)</u>	<u>% Increase (4)</u>
8	Residential	\$ 7,747,429	\$ 8,041,371	\$ 293,943	3.8%
9	Non-Residential	5,283,387	\$ 5,107,045	(176,342)	-3.3%
10	Navy	1,615,724	\$ 2,028,696	412,972	25.6%
11	Portsmouth	2,229,164	\$ 2,860,242	631,078	28.3%
12	Public Fire	981,045	990,157	9,112	0.9%
13	Private Fire	419,598	470,384	50,786	12.1%
14	Total	<u>\$ 18,276,346</u>	<u>\$ 19,497,894</u>	<u>\$ 1,221,548</u>	<u>6.7%</u>

## Navy Proposed Rates

<u>Line</u>	<u>Description of Charges</u>	<u>Current Rates</u> (1)	<u>Navy Proposed Rates</u> (2)	<u>% Change</u> (3)
<b><u>Base Monthly Charge (per bill)</u></b>				
1	5/8	\$ 4.89	\$ 5.78	18.2%
2	3/4	5.01	5.98	19.4%
3	1	6.07	7.67	26.4%
4	1.5	8.78	11.97	36.3%
5	2	11.35	16.12	42.0%
6	3	25.22	38.74	53.6%
7	4	28.90	44.83	55.1%
8	5	33.80	52.95	56.7%
9	6	37.48	59.03	57.5%
10	8	47.29	75.27	59.2%
11	10	65.07	104.70	60.9%
12	Portsmouth Base Charge (4")	2.86	2.49	-12.9%
<b><u>Volume Charge (per 1,000 gallons)</u></b>				
Retail				
13	Residential	\$ 10.02	\$ 10.43	4.1%
14	Non-Residential	11.22	11.77	4.9%
Wholesale				
15	Navy	\$ 6.5189	\$ 7.1635	9.9%
16	Portsmouth Water & Fire District	5.1507	5.6671	10.0%
<b><u>Fire Protection</u></b>				
17	Public (per hydrant)	\$ 944.22	\$ 997.73	5.7%
Private (by Connection Size)				
18	<2	\$ 25.99	\$ 34.76	33.7%
19	2	108.85	145.57	33.7%
20	4	399.08	471.30	18.1%
21	6	951.11	1,052.08	10.6%
22	8	1,903.25	2,053.81	7.9%
23	10	3,335.46	3,560.59	6.7%
24	12	5,320.45	5,648.96	6.2%

## Newport Water Proposed Rates

<u>Line</u>	<u>Description of Charges</u>	<u>Current Rates</u>	<u>Newport Water Proposed Rates</u>	<u>% Change</u>
		(1)	(2)	(3)
	<b><u>Base Monthly Charge (per bill)</u></b>			
1	5/8	\$ 4.89	\$ 5.78	18.2%
2	3/4	5.01	5.98	19.4%
3	1	6.07	7.67	26.4%
4	1.5	8.78	11.97	36.3%
5	2	11.35	16.12	42.0%
6	3	25.22	38.74	53.6%
7	4	28.90	44.83	55.1%
8	5	33.80	52.95	56.7%
9	6	37.48	59.03	57.5%
10	8	47.29	75.27	59.2%
11	10	65.07	104.70	60.9%
12	Portsmouth Base Charge (4")	2.86	2.49	-12.9%
	<b><u>Volume Charge (per 1,000 gallons)</u></b>			
	Retail			
13	Residential	\$ 10.02	\$ 10.22	2.0%
14	Non-Residential	11.22	10.73	-4.4%
	Wholesale			
15	Navy	\$ 6.5189	\$ 8.1793	25.5%
16	Portsmouth Water & Fire District	5.1507	6.6089	28.3%
	<b><u>Fire Protection</u></b>			
17	Public (per hydrant)	\$ 944.22	\$ 952.99	0.9%
	Private (by Connection Size)			
18	<2	\$ 25.99	\$ 34.76	33.7%
19	2	108.85	145.57	33.7%
20	4	399.08	480.21	20.3%
21	6	951.11	1,071.95	12.7%
22	8	1,903.25	2,092.59	9.9%
23	10	3,335.46	3,627.84	8.8%
24	12	5,320.45	5,755.64	8.2%



## Navy Proof of Revenue at Proposed Rates

Line		Monthly Base Charges													
1	Meter Size	<u>5/8"</u>	<u>3/4"</u>	<u>1"</u>	<u>1.5"</u>	<u>2"</u>	<u>3"</u>	<u>4"</u>	<u>5"</u>	<u>6"</u>	<u>8"</u>	<u>10"</u>	<u>12"</u>		
2	Base Charge	\$5.78	\$5.98	\$7.67	\$11.97	\$16.12	\$38.74	\$44.83	\$52.95	\$59.03	\$75.27	\$104.70	\$2.49		
		Number of Meters													
	<u>Class</u>	<u>Meter Size</u>	(1) <u>5/8"</u>	(2) <u>3/4"</u>	(3) <u>1"</u>	(4) <u>1.5"</u>	(5) <u>2"</u>	(6) <u>3"</u>	(7) <u>4"</u>	(8) <u>5"</u>	(9) <u>6"</u>	(10) <u>8"</u>	(11) <u>10"</u>	(12) <u>12"</u>	(13) <u>Total</u>
3	Residential		9,844	2,171	342	175	97	17	2	0	8	1	0	0	12,657
4	Non-Residential		875	302	221	193	170	41	14	0	16	0	0	0	1,832
5	Navy		5	1	1	1	1	0	0	0	8	0	1	0	18
6	Portsmouth		0	0	0	0	0	0	0	0	0	0	0	1	1
		Annual Base Revenues = Monthly Base Charge x Number of Meters x 12													
7	Residential		682,780	155,791	31,478	25,137	18,764	7,903	1,076	0	5,667	903	0	0	\$ 929,498
8	Non-Residential		60,690	21,672	20,341	27,723	32,885	19,060	7,531	0	11,334	0	0	0	\$ 201,235
9	Navy		347	72	92	144	193	0	0	0	5,667	0	1,256	0	\$ 7,771
10	Portsmouth		0	0	0	0	0	0	0	0	0	0	0	30	\$ 30
11	Total Base Revenues		\$ 743,817	\$ 177,534	\$ 51,911	\$ 53,003	\$ 51,842	\$ 26,963	\$ 8,607	\$ -	\$ 22,668	\$ 903	\$ 1,256	\$ 30	\$1,138,534

## Navy Proof of Revenue at Proposed Rates

<u>Line</u>	<u>Base Revenues</u> <u>(Schedule BCC-3, p.1)</u>	<u>Annual Volume</u> <u>('000 Gallons)</u>	<u>Volumetric Rate</u> <u>\$ per '000 Gallons</u>	<u>Volumetric Revenues</u>	<u>Total Revenues</u>
	(1)	(2)	(3)	(4) = 2 x 3	(5) = (1) + (4)
1 Residential	\$ 929,498	\$ 695,878	\$ 10.4285	\$ 7,256,952	\$ 8,186,450
2 Non-Residential	\$ 201,235	\$ 457,205	\$ 11.7705	\$ 5,381,544	\$ 5,582,779
3 Navy	\$ 7,771	\$ 247,078	\$ 7.1635	\$ 1,769,939	\$ 1,777,710
4 Portsmouth	\$ 30	\$ 432,782	\$ 5.6671	\$ 2,452,623	\$ 2,452,653
5 Subtotal	\$ 1,138,534			\$ 16,861,058	\$ 17,999,592
	<u>Hydrants</u>	<u>Charge</u>			<u>Revenues</u>
	(1)	(2)			(5) = 1 x 2
6 Public Fire	1,039	\$ 997.73			\$ 1,036,637
	<u>Connections</u>	<u>Charge</u>			<u>Revenues</u>
	(1)	(2)			(5) = 1 x 2
7 Private Fire					
8 1.5"	-	\$ 34.76			\$ -
9 2"	-	\$ 145.57			\$ -
10 4"	70	\$ 471.30			\$ 32,991
11 6"	249	\$ 1,052.08			\$ 261,969
12 8"	67	\$ 2,053.81			\$ 137,605
13 10"	5	\$ 3,560.59			\$ 17,803
14 12"	2	\$ 5,648.96			\$ 11,298
15					\$ 461,665
16				Grand Total	\$ 19,497,895