

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

**PAWTUCKET WATER            )  
SUPPLY BOARD                )           DOCKET NO. 4550**

**SURREBUTTAL TESTIMONY OF  
JEROME D. MIERZWA**

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

**August 27, 2015**

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**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 Vice President of Exeter  
5   Associates, Inc. (“Exeter”). My business address is 10480 Little Patuxent Parkway,  
6   Suite 300, Columbia, Maryland 21044. Exeter specializes in providing public  
7   utility-related consulting services.

8 Q.           HAVE YOU PREVIOUSLY PRESENTED TESTIMONY IN THIS  
9           PROCEEDING?

10 A.   Yes. My direct testimony was submitted on June 18, 2015.

11 Q.           WHAT IS THE PURPOSE OF YOUR SURREBUTTAL TESTIMONY?

12 A.   The purpose of my surrebuttal testimony is to respond to certain cost allocation and  
13   rate design issues raised in the direct testimony of David F. Russell presented on  
14   behalf of the Town of Cumberland, and the rebuttal testimony of Christopher P.N.  
15   Woodcock presented on behalf of the Pawtucket Water Supply Board (“PWSB”).

16 Summary of Division Direct Testimony

17 Q.           PLEASE SUMMARIZE THE RECOMMENDATION YOU PRESENTED  
18           IN YOUR DIRECT TESTIMONY.

1 A. In my direct testimony, I noted that many of the allocation factors included in the  
2 class cost of service (“CCOS”) study presented by PWSB in this proceeding are the  
3 same factors that have been used in prior proceedings. I recommended that PWSB  
4 evaluate updating several of these factors in future proceedings. This included the  
5 maximum-day and maximum-hour demand extra-capacity factors used in PWSB’s  
6 CCOS study and the factor used to allocate transmission and distribution (“T&D”)  
7 operations and maintenance (“O&M”) expenses (Factor O). With respect to updating  
8 its extra-capacity factors, I recommend that PWSB utilize the method presented in  
9 Appendix A of the AWWA M1 Manual. As evidence that PWSB’s extra-capacity  
10 demand factors should be updated for future proceedings, I noted that actual  
11 maximum-day usage data for the Town of Cumberland (“Cumberland”) suggested a  
12 maximum-day factor for Cumberland of 4.5 to 4.8, while PWSB had assigned  
13 Cumberland a maximum-day factor of 2.5 in its CCOS study. I further noted that it  
14 would not be appropriate to adjust only the Cumberland capacity demands factor in  
15 this proceeding. This was because the AWWA M1 Manual presents guidelines to  
16 assess the overall reasonableness of the extra-capacity demand factors assigned to the  
17 various customer classes, and assigning a maximum-day extra-capacity factor in the  
18 range of 4.5 to 4.8 to Cumberland would violate those guidelines.

19 Q. IS IT STILL YOUR POSITION THAT ASSIGNING A MAXIMUM-DAY  
20 EXTRA-CAPACITY FACTOR IN THE RANGE OF 4.5 TO 4.8 TO  
21 CUMBERLAND WOULD VIOLATE THE GUIDELINES FOR  
22 REASONABLENESS IDENTIFIED IN THE AWWA M1 MANUAL?

23 A. No. My direct testimony discussing the reasonableness of assigning a maximum-day  
24 extra-capacity factor of 4.5 to 4.8 to Cumberland was based on PWSB’s response to  
25 Cumb. 4-4. It has subsequently been determined based on conversations with Mr.

1 Woodcock that the calculations supporting Cumb. 4.4 were incorrect. I address the  
2 extra-capacity factors that should be reflected in PWSB's CCOS study later in my  
3 surrebuttal.

4 Q. PLEASE ELABORATE UPON THE GUIDELINES FOR  
5 REASONABLENESS DISCUSSED IN THE AWWA M1 MANUAL FOR  
6 ASSESSING THE REASONABLENESS OF EXTRA-CAPACITY  
7 FACTORS.

8 A. Appendix A of the AWWA M1 Manual, Fifth Edition, states at page 299:

9 In order to test the reasonableness of the maximum-day  
10 capacity factors, the non-coincidental demands resulting  
11 from the application of the above capacity factors to the  
12 annual average daily demands of each class must be summed  
13 and compared against the actual coincidental system  
14 demands. This relationship of the non-coincidental to  
15 coincidental demands is referred to as the measure of the  
16 system diversity of demand. The system diversity ratio  
17 could be in the range of 1.10 to 1.40 for many systems.

18 In an example analysis of the calculation of maximum-day extra-capacity  
19 factors, the AWWA M1 Manual goes on to state:

20 As indicated by the above analysis, the initial maximum-day  
21 capacity factors computed for the retail customer classes  
22 produce an overall maximum-day system diversity factor of  
23 1.31, which falls within an acceptable range of 1.10 to 1.40.  
24 This means that the maximum-day capacity factors selected  
25 for each of the classes, based upon the data available and the  
26 assumptions regarding variation in consumption throughout  
27 the week, likely result in reasonable approximations of the  
28 overall class maximum-day demands for cost allocation  
29 purposes.

30 Q. IN YOUR DIRECT TESTIMONY YOU INDICATED THAT  
31 INFORMATION WAS AVAILABLE TO UPDATE FACTOR O, BUT YOU  
32 RECOMMENDED THAT FACTOR O NOT BE UPDATED AT THIS

1 TIME. WHAT WAS THE BASIS FOR YOUR RECOMMENDATION TO  
2 DEFER UPDATING FACTOR O?

3 A. In my direct testimony, I noted that reflecting an updated Factor O in PWSB's CCOS  
4 study would result in significant decreases in monthly service charges and a  
5 significant increase in the monthly public fire service surcharge. On balance,  
6 however, there would be very little change in the total monthly customer charge for  
7 most customers. Therefore, I recommend that PWSB evaluate updating Factor O in  
8 future proceedings.

9 Summary of PWSB Rebuttal to the Division

10 Q. WHAT WAS MR. WOODCOCK'S RESPONSE TO THE DIVISION'S  
11 COST ALLOCATION RECOMMENDATIONS?

12 A. With respect to updating maximum-day and maximum-hour extra-capacity factors in  
13 future proceedings, Mr. Woodcock found it was unnecessary to wait until a future  
14 proceeding. Mr. Woodcock presents an analysis updating extra-capacity factors using  
15 the method described in the AWWA M1 Manual in Schedule 2.3 as I recommended.  
16 With respect to updating Factor O, Mr. Woodcock agrees with my recommendations  
17 and concurs that it is appropriate to re-examine Factor O in PWSB's next rate filing  
18 due to the significant increase that would result to public fire charges outside of  
19 Pawtucket.

20 Q. WHAT IS YOUR RESPONSE TO MR. WOODCOCK'S PROPOSAL TO  
21 UPDATE EXTRA-CAPACITY FACTORS IN THIS PROCEEDING?

22 A. In this proceeding, the PWSB initially requested an increase in rates of \$2,288,131, or  
23 12.5 percent. The increase proposed for the wholesale class (Cumberland) was 23.9  
24 percent. In its rebuttal testimony, the PWSB has reduced its requested increase to  
25 \$1,667,535, or 8.9 percent. However, the increase proposed for the wholesale class is

1 now 37.1 percent, or four times the system average increase. The significant increase  
2 for the wholesale class is attributable to the newly developed extra-capacity factors  
3 utilized by the PWSB in its rebuttal CCOS study.

4 The Division believes that the proposed increase for the wholesale class  
5 should be mitigated to provide for gradualism. To accomplish this, the Division  
6 recommends that the maximum-day extra-capacity factor for the wholesale class be  
7 set at 3.5, which is the midpoint between the factor reflected in the PWSB's initial  
8 filing and the factor utilized in PWSB's rebuttal CCOS study. The Division also  
9 recommends the maximum-hour to maximum-day ratio for the wholesale class be set  
10 at 1.10 rather than the 1.35 used by the PWSB for the wholesale class as well as all  
11 the other rate classes included in the PWSB rebuttal CCOS study. This reduced ratio  
12 provides for rate mitigation and recognizes that Cumberland has a number of on-  
13 system storage facilities that likely reduce the maximum-hour demands placed on the  
14 PWSB by Cumberland. Schedule JDM-1S summarizes the results of the PWSB  
15 CCOS study adjusted to reflect the Division's extra-capacity demand factors. As  
16 shown there, adopting these demand factors would result in an increase of 24.7  
17 percent for Cumberland at the PWSB's proposed revenue increase.

18 Summary of Cumberland Direct Testimony

19 Q. WHAT COST ALLOCATION RECOMMENDATIONS DID MR.  
20 RUSSELL INCLUDE IN HIS DIRECT TESTIMONY?

21 A. Mr. Russell proposed one cost allocation adjustment to PWSB's CCOS study. Mr.  
22 Russell observed that the costs associated with unbilled water were allocated to retail  
23 and wholesale customers, and the quantity of unbilled water included in the CCOS  
24 study was based on a five-year average (FY2010 – FY2014). Mr. Russell noted that  
25 during this five-year period, water production by PWSB was under-reported by about

1 10 percent, causing the level of unbilled water to be over-stated. Mr. Russell  
2 recommended that an adjustment be made to PWSB's CCOS study to correct for the  
3 over-statement of unbilled water. This adjustment resulted in a \$32,983 decrease to  
4 the allocated cost of service for the wholesale class.

5 Q. WHAT RATE DESIGN RECOMMENDATION DID MR. RUSSELL  
6 PROPOSE IN HIS DIRECT TESTIMONY?

7 A. Mr. Russell presented three rate design recommendations and certain mitigation  
8 measures in his direct testimony. With respect to rate design Mr. Russell  
9 recommended:

- 10 1. As means of increasing revenue stability consider increasing the level of fixed  
11 charges by assigning the debt service costs associated with projects/facilities  
12 (special benefit facilities) that are designed to serve and that only benefit retail  
13 distribution customers.
- 14 2. If sales continues to increase, as they have over the past few years, consider  
15 converting the uniform rate structure from class uniform rates to increasing  
16 block rates either by class or one increasing block rate structure to all  
17 customers.
- 18 3. PWSB should combine the medium and large size customer classes into a  
19 large user class (or call it a C&I class), leaving the small user class (or call it  
20 the residential class) as the only other retail class.

21 Q. WHAT MITIGATION INCREASES DID MR. RUSSELL RECOMMEND?

22 A. In an effort to maximize rate gradualism and to limit large price increases to any of  
23 PWSB's customers in any one year during the three-year phase-in period proposed in  
24 this proceeding, Mr. Russell recommended the following mitigation measures under  
25 certain circumstances:

- 26 • After all the adjustments are made, and if there are still significant differences  
27 between each annual rate increase, adjust capital programs and/or funding of  
28 reserves to make the annual percentage increases fairly close or uniform. For  
29 example, if the Commission approves annual increases of 10 percent,  
30 7 percent, and 2 percent, adjust the capital improvement plan and/or funding  
31 of reserve accounts so that the annual increases are more like 8 percent,

1 6 percent, and 5 percent. Ideally, the percentage difference between the  
2 smallest and largest increase should not exceed 2 percent or 3 percent. This  
3 will provide ratepayers with a more gradual or uniform annual increases for  
4 each of the 3-year in the phase-in period;

- 5 • If the increase to any customer class (except for the public fire protection class  
6 – considered in the next bullet) is greater than 10 percent in any of the 3 years,  
7 phase in the increase to that class by allowing some temporary departure from  
8 the COSS class allocations (allowing some cross-subsidization for one or two  
9 additional years). The reallocation should be just sufficient to bring that  
10 classes' rate increase to 9.9 percent in the year that such an adjustment  
11 becomes necessary; and
- 12 • If the increase to public fire protection class is greater than 50 percent in any  
13 of the 3 years, phase in the increase to that class by allowing some temporary  
14 departure from the COSS class allocations (allowing some cross-subsidization  
15 for one or two additional years). The reallocation should be just sufficient to  
16 bring that classes' rate increase to 49.9 percent in the year that such an  
17 adjustment becomes necessary.

18 Summary of PWSB Rebuttal to Cumberland

19 Q. WHAT IS PWSB'S RESPONSE TO MR. RUSSELL'S COST  
20 ALLOCATION PROPOSAL TO ADJUST UNBILLED WATER TO  
21 ACCOUNT FOR THE UNDER-REPORTING OF WATER PRODUCTION?

22 A. Mr. Russell noted that the under-reporting of water production occurred during the  
23 period FY2010 through FY2012, and PWSB had initially used a five-year average of  
24 unbilled water for the period FY2010 through FY2014 in its CCOS study. In its  
25 rebuttal CCOS study, the PWSB is proposing to use an average of unbilled water for  
26 the period FY2013 through FY2015. Therefore, unbilled water is no longer over-  
27 stated due to the under-reporting of production volumes. The Division agrees with  
28 PWSB's proposal to use an average of unbilled water for the most recent three-year  
29 period in its CCOS study, and doing so eliminates the need to adjust for the under-  
30 reporting of water production.

1 Q. WHAT IS PWSB’S RESPONSE TO MR. RUSSELL’S MITIGATION  
2 PROPOSAL TO RECOVER SOME OF PWSB’S DEBT SERVICE COSTS  
3 THROUGH INCREASED SERVICE CHARGES?

4 A. Mr. Woodcock contends there is no precedent or basis for Mr. Russell’s proposal, and  
5 claims that Mr. Russell has not provided any specific recommendation on how this  
6 would be accomplished. Mr. Woodcock noted that while Mr. Russell suggested  
7 adding the CL-6 debt service to the “meter and service costs,” he did not, and will  
8 not, be providing a rate model, or schedules, that demonstrate the results of his  
9 suggestion (Cumberland response to PWSB Data Request 1-2). Mr. Woodcock also  
10 notes that Mr. Russell does not indicate which component(s) the debt service would  
11 be added to, and later suggests that they could be in some “separate fixed-charge.”  
12 (See Cumberland response to PWSB Data Request 1-1).

13 Mr. Woodcock contends that Mr. Russell’s proposal is further compounded by  
14 the fact that there is no debt associated with CL-6 in the rate year that can be added to  
15 or made a separate charge. Mr. Woodcock contends that any subsequent step  
16 increase that would recover this debt would be an across the board increase to  
17 existing charges, and since there is no “new debt service fixed-charge” in the rate  
18 year, there would be nothing to which it can be added.

19 Finally, Mr. Woodcock contends that Mr. Russell’s suggests that some or all  
20 of this debt is specific to just retail customers. When asked, he could provide no  
21 example where he sought, or any other commission or authority allowed, a specific  
22 bond issue to be treated differently than other debt that is allocated based on the  
23 allocation of overall assets. (See Cumberland Response to PWSB Data Request  
24 1.33.)

1 Q. DOES THE DIVISION AGREE WITH MR. RUSSELL'S PROPOSAL TO  
2 RECOVER SOME DEBT SERVICE COSTS THROUGH INCREASED  
3 SERVICE CHARGES?

4 A. No. Mr. Russell has presented no detail on how his proposal would be implemented  
5 and has not presented any analysis demonstrating the results of his suggestion.  
6 Therefore, Mr. Russell's proposal cannot be evaluated and should not be adopted.

7 Q. DOES PWSB AGREE WITH MR. RUSSELL'S PROPOSAL TO  
8 CONSIDER ADOPTING AN INCREASING BLOCK RATE STRUCTURE?

9 A. No. Mr. Woodcock claims that there is no evidence of wasteful water use at this time  
10 and that, perhaps more importantly; PWSB needs to be more concerned with revenue  
11 stability. Mr. Woodcock believes that the change in rate structure that combines the  
12 medium and large meter sizes along with the proposed increase to those classes of  
13 customers will help encourage their efficient use of water.

14 Q. DOES THE DIVISION AGREE WITH MR. RUSSELL'S PROPOSAL  
15 THAT THE PWSB CONSIDER ADOPTING INCREASING BLOCK  
16 RATES?

17 A. The Division interprets Mr. Russell's suggestion to consider adopting an increasing  
18 block rate structure to be contingent upon continued increases in sales. It is uncertain  
19 whether sales will increase above present levels in the future. In addition, Mr.  
20 Russell has not recommended that the PWSB affirmatively adopt an increasing block  
21 rate structure if sales continue to increase in the future, but only to consider the  
22 possibility. The Division finds no reason to limit, at this time, the changes in rate  
23 structure which should be considered in the future.

24 Q. DOES THE PWSB AGREE WITH MR. RUSSELL'S PROPOSAL TO  
25 COMBINE THE MEDIUM AND LARGE METER CLASSES?

1 A. Yes. Mr. Woodcock notes that there are only 30 accounts remaining in the large  
2 meter class and, therefore, it would be appropriate to combine these classes. The  
3 Division agrees with the consolidation of the medium and large meter classes.

4 Q. WHAT IS MR. WOODCOCK'S RESPONSE TO MR. RUSSELL'S  
5 PROPOSED MITIGATION MEASURES?

6 A. Mr. Woodcock claims that Mr. Russell does not understand how step increases are  
7 implemented. Mr. Woodcock claims that while preliminary step increases may be  
8 "approved" they are subject to review by all the parties before they can be  
9 implemented. Mr. Woodcock believes that few (if any) of the step increases for water  
10 utilities approved by the Commission to date have actually been implemented as  
11 planned. He claims that in some cases, plans or programs have changed so that the  
12 "approved" step increases were not needed or not needed in the amounts initially  
13 requested, and that each step increase needs to be thoroughly understood and  
14 reviewed prior to adoption. Mr. Woodcock contends that the notion of smoothed out  
15 or gradual increases does not work with this uncertainty, and that equalizing the  
16 annual increases would not be workable given the uncertainty with the steps. Mr.  
17 Woodcock claims that this also causes problems with the second and third mitigation  
18 measures Mr. Russell has suggested, because the future steps are not fixed and the  
19 contemplated adjustments or subsidies may not be possible. Mr. Woodcock contends  
20 that step increases provided by the Commission will always be across-the-board or  
21 equal percentage changes to every rate and charge, and there is no reallocation or  
22 "correction" to various rates and charges provided under current Commission  
23 procedures.

24 Finally, Mr. Woodcock contends that Mr. Russell has determined that any  
25 increase to a class or customer in excess of 9.9 percent is unacceptable and must be

1 limited to this level of increase each year. Mr. Woodcock claims that this not only  
2 has the problem of different increases for different classes for the step increases, it  
3 essentially provides a cap of 9.9 percent on any overall rate increase, and that this is  
4 just not always possible. Mr. Woodcock contends that to put an artificial cap for an  
5 increase at 9.9 percent would put a stop to any major projects for Rhode Island water  
6 utilities and is just plain unworkable.

7 Q. WHAT IS THE DIVISION'S POSITION WITH RESPECT TO MR.  
8 RUSSELL'S MITIGATION MEASURES?

9 A. The Division concurs with Mr. Russell that at times, rate mitigation and gradualism  
10 are appropriate. However, the Division is in general agreement with Mr. Woodcock  
11 that Mr. Russell's proposals are inconsistent with the Commission's current practices  
12 and may not be workable. The Division's proposals for rate mitigation and  
13 gradualism were discussed earlier in my surrebuttal testimony addressing the  
14 adoption of the PWSB's newly developed extra-capacity demand factors.

15 Q. DOES THIS CONCLUDE YOUR SURREBUTTAL TESTIMONY?

16 A. Yes, it does.

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**COMPARISON OF CURRENT & PROPOSED RATES**

		<u>Current</u>	<u>Proposed</u>	<u>% Change</u>
<u>Metered Rates (\$/ccf)</u>				
Small (5/8 - 1")		\$3.900	\$4.052	3.9%
Medium (1.5 - 2" & By pass)		\$3.489	\$3.810	9.2%
Large (3" and up)		\$3.286	\$3.810	15.9%
Large (>1")			\$3.810	
Wholesale		\$2.726	\$3.400	24.7%
<u>Service Charges (Monthly)</u>				
	5/8	\$10.00	\$10.55	5.5%
	3/4	\$12.96	\$13.74	6.0%
	1	\$17.68	\$18.82	6.4%
	1 1/2	\$33.60	\$35.96	7.0%
	2	\$42.93	\$46.01	7.2%
	3	\$48.42	\$51.92	7.2%
	4	\$109.89	\$118.12	7.5%
	6	\$163.68	\$176.05	7.6%
	8	\$232.83	\$250.52	7.6%
<u>Fire Service (Monthly)</u>				
Public	/hydrant/month	\$29.51	\$55.24	87.2%
Pawtucket	\$/billing	\$2.57	\$4.81	87.2%
Private				
	2	\$16.76	\$16.98	1.4%
	4	\$35.67	\$36.60	2.6%
	6	\$89.21	\$91.85	3.0%
	8	\$161.72	\$167.07	3.3%
	10	\$240.07	\$249.10	3.8%
	12	\$348.65	\$362.80	4.1%