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August 27, 2015

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

Re: Pawtucket Water Supply Board – Docket No. 4550

Dear Luly:

This office represents the Town of Cumberland.

Enclosed are an original and nine copies of the Town of Cumberland's surrebuttal testimony of David Russell.

If you have any questions, please feel free to call.

Very truly yours,

Michael R. McElroy

MRMc:tmg
cc: Service List

*Cumberland/Pawtucket Water Supply Board 4550/Massaro2*

RHODE ISLAND AND PROVIDENCE PLANTATIONS

RHODE ISLAND PUBLIC UTILITIES COMMISSION

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# SURREBUTTAL TESTIMONY
*of*
DAVID F. RUSSELL, PE

FILED ON BEHALF OF THE TOWN OF CUMBERLAND, RHODE ISLAND

IN THE MATTER OF

PAWTUCKET WATER SUPPLY BOARD RATE CASE

DOCKET NO. 4550

August 27, 2015

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**Q. Are you the same David Russell that submitted prefiled direct testimony in this Docket on behalf of the Town of Cumberland, Rhode Island?**

A. Yes, I am.

**Q. How have you organized your surrebuttal testimony?**

A. I have addressed each of the topics/issues I raised in my direct testimony in the same order as they appeared in my prefiled testimony with one exception. That one exception is the addition of a new topic/issue that I didn't address in my prefiled testimony. That new topic is Peak Use Allocation Factors and it is inserted just before the Summary section near the end of this testimony.

<u>**Decreasing Billable Sales**</u>

**Q. Would you change or modify your recommendations relative to PWSB's projected billable sales in the rate year based on the rebuttal testimony of Mr. Woodcock?**

A. No, I would not. However, I would modify my recommendation, based on the total actual sales for FY2015 that is now available (but was not at the time of my prefiled testimony). In my prefiled testimony I recommended that this revision be made if the actual FY2015 sales turned out to be significantly different from the estimated levels used for FY2015.

**Q. Did Mr. Woodcock also change his projections of total sales for the rate year based on actual data for FY2015?**

A. Yes he did, but he also completely changed the approach he had used to estimate the level of sales in that year. Instead of using the average rate of change for the 3 years prior to the rate year and applying a multiplier of 1 plus the average increase in the 3 prior historic years to the actual sales in FY2015 to estimate the sales in FY2016, he simply used actual sales in

FY2015 for his new estimate of sales in FY2016. This new approach may have been appropriate if retail sales had continued to decline (as he had projected for FY2015), but the reverse is now known to be the case (all of the classes had significant increases above Mr. Woodcock's estimates for FY2015, except the Large Retail class where actual sales were only slightly below the level (174,635 HCF vs: 175,764 HCF) he had estimated). Actual sales (in HCF) for FY2015 are compared below with Mr. Woodcock's estimates for that year contained in his prefiled testimony that he used to project future declining sales in FY2016.

| | Mr. Woodock's Estimates for FY2015 as filed | Actual FY2015 Sales | Difference Percent |
|---|---|---|---|
| Small Retail | 2,537,919 | 2,625,061 | +3.4% |
| Medium Retail | 638,555 | 651,720 | +2.1% |
| Large Retail | 175,764 | 174,635 | -0.6% |
| Subtotal | 3,352,238 | 3,451,416 | +3.0% |
| Wholesale | 244,431 | 302,733 | +23.9% |
| Total Sales | 3,596,669 | 3,754,149 | +4.4% |

It is clear from this table that Mr. Woodcock's estimates of water sales in FY2015 were significantly under estimated for 3 of the 4 customer classes. For the one class (Large Retail) for which his estimate was close, that class's sales only amounts to about 4.6% of total sales. Actual Total Retail sales were 3% higher than his estimates, and wholesale sales were 24% higher than his estimates.

Mr. Woodcock's new estimates for sales in FY2016 result in total sales that are very close to the estimates I provided in my prefiled testimony (as corrected) based on my use of his original methodology updated by one year. He confirms this in his rebuttal testimony at page 10 where he states, "As shown in this comparison [one in his testimony, not the one above], our rate year sales estimates for the retail customers are quite similar to Mr., Russell's, and we adopted Mr. Russell's estimates for Cumberland's FY2016 wholesale purchases." For example, his new estimate of total retail sales (3,446,311 HCF) in FY2016 is only 0.04% (1,402 HCF) lower than my estimate (3,447,713 HCF - provided in my prefiled testimony) for those sales in FY2016. I would, therefore, have to assume that he has also accepted a reduction in rate year revenue requirements of about $520,000 due to this one factor. However, because actual total sales in FY2015 turned out to be significantly higher than the sales I estimated for FY2015 based on 11 months of actual data and 1 month of estimated data (which was used to estimate FY2016 sales), it is entirely appropriate and reasonable to re-estimate FY2016 sales using actual sales from FY2015 and the same methodology used by Mr. Woodcock, which I updated by one year, to determine the level of sales to be used in the rate year. In my prefiled testimony, I recommended that such a re-estimate of FY2016 sales be accepted by all parties, if actual sales in FY2015 turned out to be significantly lower (or higher) than the totals based on 11 months of actual data and one month of estimated sales (for June 2015).

Q. **What did you find when you substitute actual FY2015 sales data into the approach used by Mr. Woodcock to estimate FY2016 sales, which you update by one year (looking at the average rate of change in sales over the period of FY2013 through FY2015, instead of FY2012 through FY2014)?**

A. By substituting actual levels of sales for the completed fiscal year 2015 (provided by PW about 4 weeks ago) into the estimating approach used by PWSB, which I updated by one year in my prefiled testimony, estimated sales for the large retail class decreases to 177,429 HCF (from 181,237

HCF). However, estimated sales for each of the other 2 retail classes results in significantly higher estimated sales, and total estimated retail sales in FY2016 increased to 3,496,122 HCF (from 3,447,731 HCF that I had initially estimated). The following table shows the differences for each class along with totals for retail customers and total system sales.

| | My Estimates of Sales in FY 2016 as initially Filed (11 mo.+1 Est.) | My Estimates of Sales in FY2016 using Actual Sales in FY2015 |
|---|---|---|
| Small Retail | 2,608,868 | 2,643,436 |
| Medium Retail | 657,626 | 674,530 |
| Large Retail | 181,237 | 177,429 |
| Subtotal | 3,447,731 | 3,495,395 |
| | | |
| Wholesale | 274,064 | 274,064 |
| Total Sales | 3,721,795 | 3,770,186 |

[Note - The wholesale sales estimates in both cases were assumed to equal Cumberland's estimated purchases from PWSB in FY2016.]

The net impact on my recommendation relative to just the decreasing sales issue would be a reduction in total revenue requirements of $699,798 (see the note below for the detailed calculation of this amount) (instead of $518,518 as recommended in my corrected testimony – page 17, line 12). Thus, PWSB's proposed increase in total revenue requirements due to this issue of $1,702,210 should be reduced to $1,002,412. Also, note that the level for wholesale sales used in calculating this larger reduction in total revenue requirements was maintained at 274,064 HCF in FY 2016 even though the actual sales to Cumberland increased to 302,733 HCF in FY2015 (nearly a 30% increase over FY2014 sales to Cumberland).

[Note – see Attachment DFR –S1 for the complete analysis and calculations used to derive the revised sales projections for FY2016 using my approach (Mr. Woodcock's approach updated one year), and my estimate of the reduction in total rate year revenue requirements using 12 months of actual data for all of FY2015.]

<u>**Under-estimated Non-Operating Revenues**</u>

Q. **Would you modify your adjustment to Non-Operating Revenues after reading the rebuttal testimony of PWSB's witnesses, or due to additional information that you may have become aware of since you filed your prefiled testimony?**

A. No, I would not. Mr. Benson in his rebuttal testimony accepted this adjustment proffered by both the Division's witness (Mr. Morgan) and myself. I had estimated that this adjustment would result in a reduction in rate year revenue requirements of approximately $49,000. I accept the Division's detailed estimate of $48,865.

<u>**Corrected Cost Estimate for the WTP Operating Contract**</u>

Q. **Would you modify your adjustment to the Cost of the Operating Contract for the WTP after reading the rebuttal testimony of PWSB's witnesses, or due to additional information that you may have become aware of since you filed your prefiled testimony?**

A. No, I would not. Mr. Benson in his rebuttal testimony accepted in principle this adjustment proffered by both the Division's witness (Mr. Morgan) and myself. I had estimated that this adjustment would result in a reduction in rate year revenue requirements of $159,163. In both a response to an information request and later in his rebuttal testimony Mr. Benson adjusted his earlier estimate and settled on the cost of this operating contact in FY2106 to be $1,889,092. This results in a reduction of $193,192 in FY2016 revenue requirements as originally proposed by PWSB. I accept this cost estimate and level of adjustment testified to by PWSB's witness Mr. Benson.

**<u>Escalation rate applied to the Cost of the Contract to Operate the WTP</u>**

**Q. Does your response to the issue of the cost of the operating contract (in the prior section) affect your recommendation relative to the escalation rate applied to that contract?**

A. Yes, it has a direct impact. While the escalation rate used by Mr. Benson in his rebuttal testimony (2.24%) is somewhat higher than the rate I recommended (2.04%), it is fairly close, and it appears to be derived by the method/source that is prescribed in the contract. Therefore, I accept the escalation rate he used for this specific purpose, and the impact it has in reducing the rate year revenue requirements is captured in the reduction ($193,192) specified in the prior section.

**<u>Escalation Rate Applied to Many Expenses</u>**

**Q. Would you modify your adjustment to the escalation rate applied to many expenses (all expenses that were not specifically adjusted elsewhere) after reading the rebuttal testimony of PWSB's witnesses and the Division's witnesses?**

A. Yes, I would. Mr. Woodcock in his prefiled testimony used a 2 year compound rate of 6.24% to escalate those expenses over 2 years from FY2014 to FY2016 The Division's witness (Mr. Morgan) recommended a 2 year compounded rate of 2.6% based on what he considered more relevant and appropriate indexes for estimating the escalation rate to be applied. In my prefiled testimony I recommended a compound rate of 4.1% as the escalation rate that should be used for this purpose. I also based my recommendation on what I considered to be more relevant and appropriate indexes for estimating the escalation rate to be applied. In his rebuttal testimony Mr. Woodcock disagreed with Mr. Morgan and myself and essentially attempted to defend the rate he proposed initially. Based on my review of all related testimonies and further considerations, I accept Mr. Morgan's analysis as being the most persuasive and reasonable. Therefore, I also accept the use of his 2 year compound escalation rate to be used for this purpose and his estimate of the impact that application of his recommendation would have on Rate Year revenue requirements (a reduction of $38,241 from the level proposed by PWSB). In reaching this decision I considered all of the arguments posed by Mr. Woodcock, but did not find them persuasive. I have outlined below my reasoning for each of the points raised by Mr. Woodcock in his rebuttal testimony:

- While I did co-author a paper with Mr. Woodcock that did address the level of price escalation for water service, it was written nearly 25 years ago, and therefore has absolutely no relevance with respect to the escalation of expenses incurred by water systems in recent years or over the past two decades for that matter.

- While the other documents he referred to do show trends for the selected water systems, they include very few systems in or near Rhode Island. Thus, the general trends reported for those particular systems have little relevance for water systems in Southern New England, Rhode Island, or the PWSB system in particular.

- His reference to the cost escalation for combined water and sewer systems should be discounted because costs for sewer systems have for many years experienced greater cost increases than water systems.

## Normalization of Rate Case Expenses

**Q. Have you changed your recommendation relative to Normalization of Rate Case Expenses?**

A. No, I have not. PWSB proposes to normalize expected rate case expenses currently expected to be about $200,000 over 2 years resulting in an annual cost of $100,000. This might be reasonable, if PW hadn't proposed a 3 year rate plan with 2 subsequent annual rate increases (in FY2017 and FY2018) following the initial increase to be effective in FY2016. Should the Commission approve the 3 year rate plan at the proposed levels or at reduced levels in one or more of the three years, there should be an implicit understanding that short of extraordinary circumstances, PWSB would not apply for another base rate increase any time before the end of the three years for which rates have been approved in advance. Therefore, assuming some increases will be approved for all 3 years, a normalization period of 3 years coinciding with the proposed plan is the most appropriate number of years to recover this expense over. Thus, it is recommended that the annual allowed expense for rate case expenses be set at $66,666 ($200,000/3 years) or one-third of the total allowed by the Commission in this case. At the currently proposed level the recommended normalization would lower PWSB's proposed increase related to this expense by $33,333 ($100,000 - $66,666) in the rate year and the 2 subsequent years.

## Higher Electric Power Costs

**Q. Would you modify your adjustment to Power Costs after reading the rebuttal testimony of PWSB's witnesses, or due to additional information that you may have become aware of since you filed your prefiled testimony?**

A. Yes, but only to the extent that I would increase it because of my acceptance of Mr. Morgan's escalation rate (2.6% for two years) instead of the escalation rate (4.1%) I initially proposed in my prefiled testimony. My acceptance of Mr. Morgan's escalation rate was explained above in the preceding section. This one change would increase the recommended reduction relative to power costs in total revenue requirements in FY2016 by another $6,375 ($15,505 - $9,130), resulting in a total reduction of $50,155 (43,780 + $6,375). While I applaud PWSB for providing some information relative to the measures they have implemented in the past, that does not mean that there are no significant additional measures/programs that they could take advantage of going forward. The level of savings I propose is just 5% of PWSB's projected power supply costs. When the local electric company's costs are added, the proposed adjustment is only 3% of their total electricity costs, and less than 1% of their total O&M costs. This is a very doable and reasonable goal, particularly given the more than $220,000 (24%) increase in this one cost factor in just one year. I find their arguments opposing this adjustment proffered by PWSB"s witnesses to be weak and unpersuasive. I have outlined below my responses to the arguments they provided in rebuttal testimony:

- "Mr. Russell does not offer any concrete actions the PWSB can take to achieve this goal." (Mr. DeCelles, page 1, lines 23-24).

  To the contrary, I offered the following measures:
  - Target ongoing infrastructure improvements that will reduce energy usage.
  - Use the National Grid Grant ($67,037) to reduce energy use or peak demands to lower energy use and/or demand charges.
  - Increase use of Public programs designed to conserve/reduce energy use and improve efficiency of energy use.
  - Hire an energy efficiency expert to identify additional measures to reduce energy usage or peak demands.
  - Accept the challenge of reducing energy costs by at least 5% in order to keep the net income at the proposed level.

Additionally, PWSB should consider one or more of the following measures to reduce its power costs:

- Negotiate an Energy Savings Performance Contract with a certified Energy Services Company (ESCO).
- Install one or more solar farms on buildings or vacant land owned by PWSB.
- Request an energy audit from the local distribution company and take advantage of their expertise.

Lastly, in response to Data Request COMM 2-7 Mr. DeCelles described the demand monitoring equipment PWSB just installed at their WTP. Its purpose is to collect real time power usage data at the plant, which in a few months or so will allow PWSB to adjust the operation of the plant so that peak power demands of the plant can be lowered or delayed in such a way as to lower the peak billing demand measured by the electricity supplier. Lower peak power demands translate directly to lower demand costs which comprise a large portion of the total electricity bill. PWSB should be commended for its efforts to reduce peak demands. However, even though this technology should lead to significant reductions in their power bills, it doesn't appear that PWSB has included any reductions in their projected power costs for FY2016 due to the expected benefit of this technology. This one measure could produce most, if not all, of the 5% savings/reduction in power costs that I have recommended be applied to PWSB's estimated power cost for FY2016. Therefore, I add the following measure to the list of eight others provided above.

- Peak demand monitoring and demand management of PWSB's Water Treatment Plant.

On page 3 (line 1) of his rebuttal testimony Mr. Decelles states, "the PWSB will continue to identify cost savings strategies, and where viable implement them." That's all well and good, but no specifics are given. It appears that he and PWSB are satisfied that there are no additional savings that can be realized (resulting in lowering their electricity bills). I seriously doubt that is the case, and challenge PWSB to prove me wrong by instituting at least a few of the measures/programs I've outlined here and in my prefiled testimony.

## IFR Funding Level

**Q. Have you reviewed PWSB's rebuttal testimony with respect to the IFR Funding level, and if you have, do you have comments relative to that testimony?**

A. Yes, and I do. I am not persuaded by Mr. DeCelles rebuttal testimony that a relatively small decrease (10% or less) in the level of IFR funding for one to three years will adversely impact their infrastructure renewal program. First, this is a long term program spanning a couple of decades. As Mr. DeCelles states in his testimony (both prefiled and rebuttal), the PWSB is in final stages of a system-wide rehabilitation of his transmission and distribution system that began approximately fifteen years ago. Second, a maximum 10% decrease over three years when compared to the whole program is a very small portion, probably one percent or less. Furthermore, if under PWSB's proposed funding level, they planned to replace 25,000 feet of water mains each year (average cost of $100.00 per foot), over the next 3 years they would have replaced 75,000 feet of mains over the rate plan period. Under my recommended funding level (90% of the proposed level), PWSB would still be able to replace 22,500 feet of mains per year for a total of 67,500 feet of mains over the 3 years. If the replacements were prioritized and replaced in order of their condition (replace poorest condition pipe first) or likelihood of failure (replace pipe with the highest likelihood of failure first) but only at 90% of the proposed funding level, would the 7,500 feet (about 1.5 miles out of nearly 300 miles of water main) of mains that were not replaced (but could be replaced beginning in FY 2019) adversely impact

PWSB's multi-decade renewal program? I submit that the impact would be very minor, if any.

My responses to the other points raised by Mr. DeCelles in his rebuttal testimony are summarized below:

- Regardless of how he attempted to minimize the impact to customers, a $750,000 reduction in revenue requirements, and thus lower costs to ratepayers, is not "insignificant." Furthermore, the larger point here is that it is not the reduction in revenue requirements due to one issue or factor that should be evaluated in isolation. What is important in determining the level of financial impacts to customers is the cumulative effect of the sum of all reductions on lowering total revenue requirements and how that translates to the rates charged to all customers.

- Both Mr. DeCelles and I agree that it is next to impossible to accurately estimate the effect a relatively short delay in the scheduling of a project would have on its cost. While I agree a delay could cause the cost to increase, because of the short delays I have proposed, in my opinion it is more likely than not that if there is an increase it will be small. Because Mr. Decelles also could not quantify the magnitude of such costs, the issue is essentially moot.

- As indicated in the next section I would, in the spirit of compromise, be willing to withdraw my recommendation to delay Project CL-6, if PWSB agreed to limit its IFR funding level for the next three years to 90% of the level it has proposed in this case.

Lastly, If the Commission agrees with my recommendation in principle, but would prefer a smaller reduction, one option would be to limit the reduction to two years (FY2016 and FY2017), or to just FY2016.

<u>Delay Project CL-6</u>

**Q. Do you have comments relative to PWSB's rebuttal testimony addressing the delay of Project CL-6?**

A. Yes. I am not persuaded by Mr. DeCelles rebuttal testimony that a short delay in the timing of project CL-6 would adversely impact the "final stages of a system-wide rehabilitation of our transmission and distribution system that began approximately fifteen years ago," or significantly increase the cost of this project. However, because PWSB has already agreed to major adjustments in its total revenue requirements in FY2016, and in the spirit of compromise, I would be willing to consider withdrawing my recommendation relative to this project, particularly if PWSB would agree to adjusting its requested IFR funding levels as I have recommend above and in my prefiled testimony.

<u>Funding of the Revenue Stabilization/Operating Revenue Allowance</u>

**Q. Have you reviewed PWSB's rebuttal testimony with respect to the funding the Revenue Stabilization/Operating Allowance, and if you have, do you have comments relative to that testimony?**

A. Yes, and I do. I am not persuaded by Mr. Woodcock's rebuttal testimony that a relatively minor decrease (from 1.5% of revenues to 0.75%) in the level of funding the revenue stabilization account in the first two years of the three rate plan, while agreeing to the PWSB's full level of funding (3.0%) of this account in the third year of the plan, would significantly diminish the financial well-being of PWSB over those first 2 years. My proposed adjustment in the first two years of the rate plan would only lower PWSB's total reserves in each of those years by about 2/3rds of 1.0% ($150,000/$22,600,000). And, as indicated, my proposal is exactly the same as PWSB's for the third year of the rate plan. Furthermore, the account would continue to grow in total reserve funds each year by 3% of total revenues until the allowed rate is either lowered, or quite possibly increased to a higher percentage beyond FY2018. Lastly, as I indicated in my prefiled testimony, this adjustment would, by lowering the increase in total revenue requirements in each of the first two years of the rate plan, have the effect of levelizing or equalizing the annual increases over the three years of the plan.

<u>**Allocation of Unaccounted for Water to Cumberland**</u>

**Q. Would you like to address Mr. Woodcock's rebuttal testimony related to the allocation of unaccounted for water?**

A. Yes. Mr. Woodcock in his rebuttal testimony agreed that he should not have used the five year average percentage of un-accounted-for water (UAW - 5.4%) to estimate total production, and unbilled water for the rate year. Because of this he modified his model by applying a UAW rate of 10.7% in the rate year to estimate total production, sales and losses in the rate year. He based the use of 10.7% UAW on the average level over the 3 years FY2013 to FY2015. The resulting level of losses are then allocated between retail and wholesale losses, which impacts the total costs allocated to both retail and wholesale customers. In my prefiled testimony I estimated the resulting impact to the wholesale customer class by simply increasing the average production level in the model until the total unbilled losses equaled 9.7%. This was the level reported in FY 2014, which was the first full year that reliable data was available after the metering error was corrected. The result was a decrease of $32,983 allocated to the wholesale class and a corresponding increase in the allocation to the retail classes. Again in his revised model he used 10.7% for UAW, which is a full percent higher than the 9.7% I substituted in his model to estimate the shift in revenue requirements between wholesale and retail customers. Because his revised model incorporates several other changes, I couldn't directly estimate the impact due only to the higher UAW.

However, I could test the impact relative to PWSB's initial filing by making the same adjustments to the rate model that I had reported in my prefiled testimony, but using 10.7% for UAW (instead of 9.7%). Making this one change to the initially filed model results in a decrease of $40,595 allocated to the wholesale class and a corresponding increase in the allocation to the retail classes. However, his use of the 3 year average in his revised model is also flawed. This is the case because for part of FY2013 the production meter was still incorrectly measuring total water supplied to the system. It was not until FY2014 that metered production for the full year could be relied on. Thus, in the revised model he should have used the average UAW for just 2 years – FY2014 and FY2015, which is 12% (9.7% + 14.3%)/2. Making this one change to the initially filed model results in a decrease of $50,997 allocated to the wholesale class and a corresponding increase in the allocation to the retail classes. With this surrebuttal testimony I modify my prefiled recommendation so that the shift in revenue requirements between wholesale and retail classes should be increased to $50,997 (instead of $32,983) with respect to PWSB's initially filed proposal. This also means that along with whatever other adjustments are ultimately accepted by the Commission, the final model that is used to compute the approved rates should be based on using the level of 12% UAW in the rate year to compute plant production, unbilled water and the cost allocations between wholesale and retail customer classes.

## Rate Design

**Q. Do you agree with Mr. Woodcock's rebuttal testimony that addresses your recommendations that PWSB consider three modifications to the design of their rates?**

A. I agree with some of his points, but disagree with others. First, I would point out that my recommendations with respect to rate design were not necessarily meant to be rigid take it or leave it changes that must be adopted as part of this case. Instead my intention was to suggest reasonable design modifications to PWSB's rates for service that they could consider making as part of this case or that they should consider more fully (among others) as part of future rate cases. It is my belief that these or similar modifications to PWSB's rates could not only benefit customers in Cumberland, but also customers in Pawtucket. While Mr. Woodcock disagrees with the first two suggestions (recover some fixed charges through fixed rates, and consider implementing an increasing block rate structure) provided in my prefiled testimony, he not only agreed with my third suggestion (combine the medium and large retail customer classes), he has incorporated it in his rate design as part of this case. I stand by my reasons for recommending consideration of all three rate design modifications provided in my prefiled testimony, but withdraw my suggestion that the two that PWSB is opposed to be considered further as part of this case. However, I continue to recommend that PWSB consider adopting declining block rates and additional fixed charges among other rate design options as part of their next base rate case.

## MITIGATION MEASURES

**Q. Do you agree with Mr. Woodcock's rebuttal testimony that addresses your recommendations to mitigate some of impact to some customers due to the wide variances in the percentage increases to some customer classes?**

A. I agree with some of his points, but disagree with others. First, I would point out that my recommendations with respect to mitigation measures were not intended to complicate the three step rate plan or in any way to limit the total increase in rate revenues that is approved by the Commission over the whole three year rate plan. My mitigation measures were designed to simply phase in the increases to those two customer classes that would receive much higher rate increases than the average increase, if PWSB's proposed rates were approved. Based largely on changes that have occurred in the case since my prefiled testimony was prepared, further consideration and analysis, and partly due to the prefiled testimony of the Division's witnesses and the rebuttal testimony of PWSB's witnesses, I withdraw the mitigation measures I proposed in my prefiled testimony and substitute the following recommendation in place of them. I herein recommend , for several reasons given below, that for this case the Commission not accept the COSS and the class allocation resulting therefrom proposed by PWSB, and instead adopt Across-The-Board (A-T-B) rate increases for the initial rate increase and the two subsequent rate increases. This recommendation is based on all of the following considerations:

- PWSB's revised annual increases are much closer to equalized annual increases than those resulting from their initial proposal.

- PWSB's overall increase in revenue requirements for the 3 year rate plan is considerably lower than originally proposed, and I believe after the Commission has considered all of the evidence their approved level of rate increases will be considerably lower than PWSB's revised proposal.

- PWSB dramatically revised its COSS in the middle of this case which resulted in even larger variances in impacts to different rate classes.

For example, PWSB's initial proposal would result in a 23.9% increase (almost 2 times the average increase) in the rates charged to the wholesale customer, which even under that proposal was much higher than the average increase of 13.0%. With their current proposal (in PWSB's rebuttal testimony) the rates charged to the wholesale customer class would increase by 36.9% (over 4 times the average increase), and the average increase would decrease to 9.0%.

- PWSB has not proposed any measures that would mitigate some of the impact to the two customer classes [the wholesale class (Cumberland) and public fire protection customers not in Pawtucket (primarily the Town of Cumberland)] whose rate increases could be considered to result in "rate shock," if PWSB's proposed rates were approved.

- The major change in the COSS (use of new peak allocation factors) was specifically opposed by the Division's expert witness. I agree with that opposition.

- The COSS study relies largely on industry data to allocate costs that more likely than not do not match the particular circumstances of PWSB's customer classes.

- Monthly peak data will be available for each of PWSB's customer classes for several years when the next COSS is prepared.

- PWSB has made a major change in the number and makeup of its customer classes mid-way through this case. Actual monthly peak data will not be available for the new customer class until a new COSS is needed.

- The peaking factors currently used in the COSS for the wholesale class as of this month are no longer representative or appropriately applied for this customer. As specified in the next section, peak to average ratios will change dramatically (much lower than in prior years) for the wholesale class in each year of the 3 year rate plan. This new peaking data specific to this class will not be available until the next COSS is needed.

- The principles of rate gradualism and rate continuity have been completely ignored in this case.

**<u>Peak Use Allocation Factors</u>**

**Q. Has Mr. Woodcock proposed the use of new peak allocation factors to be applied in this case?**

A. Yes, he has. However, he did not propose the use of these new factors in his initial prefiled testimony. Instead he waited until he filed his rebuttal testimony in this case. Because of this there was no need for me to address this in my prefiled testimony. It is not clear why he waited until the case was well along in the process, but it may have resulted from the prefiled testimony of the Division's expert – Mr. Mierzwa - on COS studies.

**Q. Did Mr. Mierzwa recommend the application of new peak demand factors in this case?**

A. No, he specifically did not. In fact, he recommended that these factors not be changed as part of this preceding. He also stated that the application of the demand factors now proposed by Mr. Woodcock would violate the guidelines of the AWWA M1 "Rates" Manual.

**Q. Do you agree with Mr. Mierzwa?**

A. Yes, I do, for many of the reasons outlined above in the section headed, "Mitigation Measures." The critical reason I agree with him is in the bullet reason (second to last bullet reason in the list of 10 reasons) addressing the issue of Cumberland's recent capability and plans to reduce the peak demands it has in relation to its wholesale purchases from PWSB. Specifically, prior to this month (Aug., 2105) Cumberland Water (CW) (PWSB's wholesale customer) could not purchase water from Woonsocket Water (WW), and therefore, prior to this interconnection (all prior summers) CW could not lower its summer peak purchases from Pawtucket Water (PW) because it had no other supply options. However, going forward CW will be able to greatly reduce its summer peak purchases from PW by purchasing water from WW, and CW intends to do so (which will have the effect of significantly reducing CW's peak to average day demand ratio directly related to its annual purchases from PWSB). Thus, while CW's peak ratio may have been relatively high in the past, going forward it will be much lower than the new level estimated by Mr. Woodcock, and could be less than the value used by Mr. Woodcock in his original filing. Mr. Woodcock's proposed new peak allocation factors would have the greatest impact on the wholesale class (Cumberland), just at a time when CW has instituted measures (at considerable expense) that will greatly reduce those very peak factors that Mr. Woodcock proposes to increase.

**Q. What then is the best way to handle this late proposal to change the peaking factors proposed by PWSB?**

A. Primarily because of CW's efforts to reduce its peak demands from PWSB, but also because of all of the other reasons specified above, the best solution would be for the Commission to Order for this case that any allowed increases be applied to user rates on an A-T-B basis. This is my recommendation as stated above. If the Commission prefers an alternative approach, I would recommend that the peak factors be kept at the levels initially proposed by PWSB, or if the Commission favors some increase in those factors, they should be phased in over time.

**Summary of Surrebuttal Testimony**

The following Table summarizes my estimates of reductions to PWSB's initial proposed increase (prefiled case in chief) in the rate year that would result from each of the recommendations provided above. Most of these estimates depend on many variables that will only be known near the end of the hearing process. Thus, each will need to be re-estimated as those variables become known. However, using the estimates provided below, PWSB's initial proposed increase in rate revenues ($2,288,131) for the rate year should be reduced by $1,463,584 down to $824,547. Additionally, the total increase allocated to wholesale customers should be reduced by $50,997 and a compensating increase of $50,997 should be added to the total increase allocated to the retail classes.

Table summarizing the impacts of the recommendations on the proposed Revenue Requirements based on my Surrebuttal testimony

| **Reason for Recommended Adjustment** | **Change in Rate Year Revenue Increase** |
|---|---|
| Under-estimated Rate Year Sales | -$699,798 |
| Under-estimated Non-Operating Revenues | -$48,865 |
| Corrected Cost of the WTP Operating Contract | -$193,192 |
| Escalation Rate Applied to Many Expenses | -38,241 |
| Normalization of Rate Case Exps. | -$33,333 |
| High Electric Power Costs | -$50,155 |
| IFS Funding Level | (a) -$250,000 all 3 years<br>(b) FY16 -$250K, FY17 -$250K<br>(c) FY2016 only -$250K |
| Funding the Revenue Stabilization/ Operating Revenue Allowance | FY16 and F17 only -$150,000 |
| Allocation of UAW to Cumberland | ($50,997) (Shift in Rev. Reqts. from Wholesale to Retail) |
| **TOTAL (Rate Year) Reduction** | **$1,463,584** |

**Q. Mr. Russell, do you anticipate having to file or provide supplemental testimony in this case?**

A. Possibly. My testimony provided herein may require supplementation or modification after review of surrebuttal testimony submitted by other parties in this Docket. Also, I reserve my rights to present additional testimony during the hearing phase of this case.

**Q. Mr. Russell, does that conclude your testimony at this time?**

A. Yes, it does.

**ATTACHMENT DFR-S1**

This attachment contains David Russell's corrected prefiled testimony modified to estimate the level of sales that should be used by PWSB in deriving the increase in rate revenues needed in the rate year. It is based on 12 months of actual sales in FY2015 and the updated method used by PWSB to determine those sales and the needed rate revenue increase.

Based on the forgoing and in an effort to be more realistic about what levels of sales PWSB is likely to realize in the rate year, it is recommended that the Commission adopt sales projections based on a methodology similar to Mr. Woodcock's used in the filing, but that it be modified as follows:

- When actual sales levels are available for all 12 months of FY2015 use those levels instead of estimated levels before FY2015 has been completed. [Note – this re-computation is being performed in this Attachment because those actual sales levels are now available and will be used in the analysis that follows.]

- FY2016 class projections should be based on the average increase/decrease over the average increase between FY2013 to FY2015. Thus, the projected levels will be more reflective of the three most recent years, which have shown a clear departure from decreasing sales prior to FY2013.

The actual sales levels in FY2015 compared with the sales levels of FY2014 by customer class results in the following percentage increases/(decreases) by class:

- Small Retail -------- plus 2.3%
- Medium Retail ------- plus 5.5%
- Large Retail -------- minus (12.3%)
- Wholesale ---------- plus 28.6%

The increases/(decreases) in percentage of FY2014 sales over FY2013 sales are as follows:

- Small Retail -------- minus (0.90%)
- Medium Retail ------- plus 1.4%
- Large Retail -------- plus 9.2%
- Wholesale ---------- plus 15.3%

Thus, the average increase from FY2013 through FY2015 equals the sum of the two annual percentage levels above by class divided by 2. The resulting average annual changes are as follows:

- Small Retail -------- (2.3% - 0.9%)/2 = 0.7%
- Medium Retail ------- (5.5% +1.4%)/2 = 3.5%
- Large Retail -------- (9.2% - 12.3%)/2 = 1.6%
- Wholesale ---------- (28.6% + 15.3%)/2 = 22.0%

The actual levels of sales by class in FY2015 are as follows:

- Small Retail --- 2,625,061 HCF
- Medium Retail --- 651,720 HCF
- Large Retail ---- 174,635 HCF
- Wholesale ------ 302,733 HCF

Multiplying the average increase above (FY2013 – FY2015) by the projected sales in FY2015 results in the recommended sales levels by class in the rate year (FY2016). These calculations are summarized below:

- Small Retail - - 2,625,061 HCF x (1+ 0.007) = 2,643,436 HCF
- Medium Retail - - 651,720 HCF x (1 + 0.035) = 674,530 HCF
- Large Retail - - - - 174,635 HCF x (1 + 0.016) = 177,429 HCF
- Wholesale - - - - - 302,733 HCF x (1 + 0.22) = 369,334 HCF

Except for Wholesale sales my recommended sales levels for FY2016 are higher than those PWSB now proposes to use as testified in their rebuttal testimony. This is the case because Mr. Woodcock seems to have arbitrarily decided to use FY2015 actual sales levels[1] for FY2016, instead of continuing to use the method he proposed in his prefiled testimony, whereas I continued to apply his updated approach to estimate FY2016 sales levels. We both agreed to use Cumberland Water's budgeted purchases (274,064 HCF) from PWSB in FY2016 as the level of sales to CW in FY2016. The comparison of my estimates for sales in FY2016 using actual sales for FY2015 versus the levels now (post rebuttal testimony) recommended by Mr. Woodcock is provided below.

| | My FY2016 Sales Estimates (HCF) | PW's FY2016 Sales Estimates (HCF) |
|---|---|---|
| Small Retail Class | 2,643,436 | 2,624,381 |
| Other Retail Classes | 851,959 | 821,930 |
| Wholesale Class | 274,064 | 274,064 |
| TOTAL | 3,769,459 | 3,720,375 |

Using these estimates and actual sales levels the progression over the 3 historic years and the forecasted rate year results in the following:

Table 1 - Annual Sales in HCF

| | FY2013 | FY2014 | FY2015 | FY2016 |
|---|---|---|---|---|
| Small Retail | 2,590,436 | 2,566,432 | 2,625,061 | 2,643,436 |
| Medium Retail | 609,138 | 617,496 | 651,720 | 674,530 |
| Large Retail | 182,344 | 199,161 | 174,635 | 177,429 |
| Subtotal-Retail | 3,381,916 | 3,383,069 | 3,451,416 | 3,495,395 |
| Wholesale | 204,308 | 235,483 | 302,733 | 274,064 |
| Total System | 3,586,224 | 3,618,572 | 3,754,149 | 3,769,459 |
| % Change | | 0.90% | 3.75% | 0.41% |

Given actual results for FY2015 (significant growth), and continued economic recovery projected for FY2016, the recommended sales projections for the rate year are more reflective of short term trends than the projections included in PWSB's filing. Yet, they still allow for a significant boost in rate revenues by basing the unit consumption rates on lower expected sales than those approved by the Commission in the last rate case. PWSB's projected sales (rebuttal testimony) are a reduction of 9.4% from the level approved by the Commission in Docket 4171. My recommended rate year sales (surrebuttal testimony) are a reduction of 8.2% from the level approved by the Commission in Docket 4171. Additionally, my recommended total level of sales in the rate year are only 1.3% [(3,769,459 HCF – 3,720,375 HCF)/(3,720,375 HCF)] higher than the total proposed by the PWSB.

With these recommended projections in sales the need for increased rate revenues are decreased by the following amounts for each rate class:

- Small Retail - (2,643,436 – 2,509,723) HCF x ($3.90/HCF) = $521,481
- Medium Retail - (674,530 – 660,333) HCF x ($3.489/HCF) = $49,533
- Large Retail - (177,429 – 155,115) HCF x ($3.286/HCF) = $73,324
- Wholesale - - - (274,064 – 253,719) HCF x ($2.726/HCF) = $55,460

- Total - $699,798

Thus, PWSB's proposed increase (initial filing) of $1,702,210 due to decreasing sales, is lowered by $699,798 to $1,002,412 (a 41% reduction), because of higher estimated sales in FY2016. And, the total proposed increase of $2,289,253 is reduced by $699,798 to $1,589,455 (a reduction of 30.6%). In summary, while it is clear that decreased sales have affected PWSB's realized rate revenues, going forward their projection of future sales levels are far too pessimistic resulting in the need to raise rate revenues by about $1.7 million. Relying more heavily on recent trends (FY2013 through FY2015) in actual sales, economic conditions that continue to improve, and a less pessimistic and a more likely projection of rate year sales, lowers the need to increase rate revenues from $1.7 million down to about $1.0 Million. In their rebuttal testimony PWSB has already agreed to increase its projected sales level in FY2016 to 3,720,375 HCF (from 3,578,890 HCF), an increase of 141,485 HCF. My recommended level using PWSB's updated approach and actual data for FY 2015 is 3,769,459 HCF, which is only another 49,084 HCF above PWSB's currently proposed level (3,720,375 HCF). Thus, in percentage terms, PWSB's projected sales level has come from their original proposal nearly 3 quarters (74%) of the way to the level I am now recommending be approved by the Commission. If the recommended sales levels are approved, and after the fact actual levels (in FY2016 and succeeding years) turn out to be significantly lower than these modified (and recommended) levels, then PWSB has the option of petitioning the Commission for additional relief.

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[1] In his rebuttal testimony Mr. Woodcock listed actual sales to the small retail class in FY2015 as 2,624,381 HCF whereas PWSB reported those sales to equal 2,625,061 HCF (in Schedule RB – DR1-9 and 10 Revised). Similarly Mr. Woodcock listed actual sales to the other retail classes in FY2015 as 821,930 HCF whereas PWSB reported those sales to equal 826,355 on the same schedule.

**DOCKET NO. 4550 - Pawtucket Water Supply Board – Multi-Year Rate Filing**
**Service List updated 3/12/15**

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