

STATE OF RHODE ISLAND
AND PROVIDENCE PLANTATIONS
PUBLIC UTILITIES COMMISSION

TESTIMONY

of

PAMELA M. MARCHAND, P.E.
EXECUTIVE DIRECTOR & CHIEF ENGINEER
BRISTOL COUNTY WATER AUTHORITY

IN RE:

PROVIDENCE WATER SUPPLY BOARD

Docket 4406

AUGUST 23, 2013

1 **Introduction**

2 **Q. Please state your full name and by whom you are employed?**

3 A. Pamela M. Marchand, P.E., and since February, 2012 I have been the Executive
4 Director and Chief Engineer of the Bristol County Water Authority ("BCWA").

5

6 **Q. Would you please state your education, work history, and professional
7 associations?**

8 A. I have a MS in Environmental Engineering and Public Administration and a BS in
9 Environmental Engineering from Syracuse University, and an AAS in Chemical
10 Technology from Onondaga County Community College.

11

12 I have been General Manager and Chief Engineer for the Pawtucket Water Supply
13 Board and the Providence Water Supply Board, and Executive Engineer for the
14 Onondaga County Water Authority in Syracuse, NY.

15

16 I am Past-President of the Rhode Island Water Works Association, past Director-at-
17 Large of the American Water Works Association (AWWA), former member of the
18 AWWA Standards Council, and serve, and have served, on a number of committees of
19 the AWWA and the New England Water Works Association.

20

21 **Q. Have you testified before any regulatory agencies in your current or previous
22 positions?**

23 A. Yes, I have testified before the Rhode Island Public Utilities Commission and the
24 Rhode Island Division Of Public Utilities And Carriers ("Division") in numerous dockets
25 for both the Pawtucket Water Supply Board and the Providence Water Supply Board.

26

27

1 **Q. Have you reviewed the filings to date in this Docket?**

2 A. Yes, in my role as Executive Director and Chief Engineer of the BCWA, I reviewed the
3 filings in this Docket with a focus on how Providence's proposed increase will affect
4 wholesale customers in general, and the BCWA and its customers in particular.

5

6 **Q. Please provide an overview of your observations after reviewing the filings to date
7 in this Docket.**

8 A. The BCWA purchases all of its water supply from Providence Water and will be
9 significantly impacted by Providence's requested rate increase. Providence's original
10 filing requested a 32.8% increase for wholesale customers, which was considerably
11 higher than the proposed increase for retail customers. This would have resulted in
12 an approximate 6% increase in the BCWA's rates just for water supply. Furthermore,
13 considering most of the new funds being sought by Providence are for distribution
14 work, an increase in wholesale rates in excess of retail rates did not appear to be
15 logical.

16

17 After Providence filed its original rate application, the Division, the Kent County
18 Water Authority ("KCWA") and the BCWA issued a number of data requests. Many of
19 these questioned a number of allocation factors between retail and wholesale
20 customers. After responding to these data requests, Providence indicated it would
21 make a number of corrections to its rate filing when it submitted rebuttal testimony.
22 In response, the Division requested that Mr. Smith provide an updated rate model
23 before the deadline for rebuttal testimony (See Div. 3-1). Providence complied and
24 submitted its updated rate model on June 26, 2013.

25

26 As Mr. Spinelli acknowledged in BCWA 1-1a, this revised rate model lowered the
27 wholesale increase to 23.6%. This still represents a 4% rate increase to pass onto

1 Providence's wholesale customers. The BCWA's ten year finance plan required a 4%
2 rate increase for our next fiscal year for all expenses, which assumed a Providence
3 Water rate increase of 12%.

4
5 Upon reviewing the docket filings, I have a number of concerns regarding the
6 calculation of wholesale rates. The areas of concern, which are addressed in more
7 detail below, are as follows:

- 8 1. Providence's allocation of water mains attributed to wholesale use.
- 9 2. Providence's Unaccounted For Water ("UFW") calculation.
- 10 3. Providence's T&D allocations.
- 11 4. Providence's allocation of Unidirectional Flushing costs to wholesale
12 customers.
- 13 5. Providence's request for costs related to a new Administration and
14 Operations Building.
- 15 6. Providence's conservation rates. (Although Providence is not advocating for
16 these rates, I still have some concerns that I would like to address.)

17
18 **Water Mains Allocated to Wholesale Use**

19 **Q. What is your concern regarding the water mains used for allocation to wholesale**
20 **rates?**

21 A. The largest wholesale customers – the City of Warwick, KCWA, the City of East
22 Providence and the BCWA – represent 81% of Providence's wholesale consumption.
23 According to Providence's response to BCWA 1-14, all of these customers are served
24 directly or indirectly (in the case of one connection) from transmission mains 30" and
25 larger. However, in Providence's response to BCWA 1-2d, Mr. Spinelli states that
26 water mains 12" and greater in size are considered part of the transmission system.
27 Further, according to Providence's response to BCWA 1-6c, there are 94 miles of 12"

1 water main in the system. Therefore, without further information at this time, only
2 19% of the wholesale water supply *may share some* of the 12" water main with retail
3 customers. Thus, since the 12" water mains are used primarily for distribution and
4 should be reclassified as such.

5
6 **UFW Calculations**

7 **Q. Do you have an issue with the Unaccounted For Water allocation?**

8 A. Yes. First, Providence's 12" water mains should be classified as distribution not
9 transmission as set forth above. Second, I am concerned about the amount of water
10 utilized by Providence Water for continuous running of blow-offs and the flushing of
11 the distribution system for water quality, summer open hydrants, construction,
12 meter error and unauthorized usage in the distribution system. In response to
13 BCWA2-2, Providence Water has not deducted any of these non-metered, but
14 accountable uses of water. The AWWA provides a methodology for calculating actual
15 leakage taking these factors into account. In fact, the State Water Resources Board,
16 under the State Water Efficiency Act, requires that these factors be reported
17 annually. Since these amounts of water use were not deducted, the proportionate
18 share of leakage attributed to transmission pipes is significantly overstated.

19
20 In addition, Mr. Russell has raised some issues regarding the UFW calculation in his
21 testimony.

22
23 **T&D Allocations**

24 **Q. What issues did you wish to discuss regarding T&D allocations?**

25 A. Again, I am concerned with the allotment of time and expense to wholesale
26 customers versus retail customers relative to employee costs, operation,
27 maintenance, and contractor costs of the transmission infrastructure versus

1 distribution infrastructure. The proportion of T&D expense allocated to the 12”
2 mains classified as distribution becomes an important factor in the wholesale
3 allocation of these expenses.
4

5 **Unidirectional Flushing Program**

6 **Q. Why is unidirectional flushing an issue with the BCWA?**

7 A. Flushing programs, including unidirectional flushing, are only effective in the
8 distribution system. It is not possible to develop enough velocity in the larger mains
9 to flush any sediment. Since the transmission system is a constant supply, and does
10 not have static periods, there is no need to flush for water quality. Any contractor,
11 operational, employee, overhead, or other expense related to flushing should be
12 removed from the wholesale allocation.
13

14 **Administration and Operations Building**

15 **Q. You indicate that you have concerns with the new Administration and Operations**
16 **Building proposed by Providence Water, but didn't you advocate for a new facility**
17 **when you were General Manager at Providence?**

18 A. There is no question that a new facility is needed. However, I am concerned with the
19 lack of information regarding any updated research or specific proposals for the new
20 facility, and the amount of funding allocated to the wholesale customers. The
21 documents Providence attached to its response to KCWA 2-15 are from 2009 and
22 2010. As set forth in these documents, Providence was considering a number of
23 options. It is unclear from Providence's filing in this Docket which option it is
24 pursuing. If the administration of the water treatment plant and watershed continue
25 to reside at the Hope St. facilities, the allocation to wholesale customers for the new
26 facility should be minimal.
27

1 **Conservation Rates**

2 **Q. What concerns do you have regarding conservation rates?**

3 A. Even though Providence is not requesting conservation rates in this Docket, I would
4 like to state that the BCWA opposes the implementation of conservation rates.
5 Presently, the BCWA's average retail customer use is 41 gallons per person per day.
6 At this low usage we are seeing water quality issues resulting from extended
7 residence time in the distribution system. The water systems in the northeast were
8 designed with large mains for industrial use. Over the last 50 years, most industry has
9 closed or left the state. The loss of the large industrial customers, the push for water
10 conservation, and the water distribution systems designed for industrial use have had
11 a significant impact on water quality. The increased residence time has resulted in
12 higher chlorine demand. With the longer contact time with the water, higher levels
13 of disinfection by-products such as trihalomethanes (THMs) are formed when natural
14 organics present in the water react with the chlorine. In the last year, the EPA has
15 modified the THM regulations such that removal treatment is being installed in the
16 BCWA system in order to remain in compliance. More extensive flushing of the
17 distribution system is also required to reduce water age and flush accumulated
18 sediment from cast iron pipes, requiring more use of water, especially in the warmer
19 months. Since the BCWA has a very effective conservation program, additional
20 incentives are not helpful, but detrimental.

21

22 **Conclusion**

23 **Q. Do you have any additional issues you would like to address?**

24 A. Yes, in Providence's response to Division 3-1, it reserved the right to make any
25 further changes to its rate model "as necessary" in its rebuttal testimony "in an effort
26 to mitigate rate shock that may result" from the changes it made to its original rate
27 model. Thus, I also reserve the right, to address any further changes Providence

1 makes. In addition, I expect that the Division and KCWA will raise certain issues in
2 their respective testimonies, and I will examine and comment on these issues in my
3 surrebuttal testimony. Also, to the extent that any further issues are raised through
4 ongoing data requests, I will address these issues as well in my surrebuttal testimony.

5

6 **Q. With these exceptions, does this conclude your direct testimony?**

7 **A.** Yes. It does.

CERTIFICATION

I hereby certify that on August 23, 2013, I sent a copy of the within to all parties set forth on the attached Service List by electronic mail and copies to Luly Massaro, Commission Clerk, Robert A. Watson, Esquire and Peter D. Ruggiero by electronic mail and regular mail.

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