



552 Academy Avenue  
Providence, RI 02908

**401-521-6300**  
[www.provwater.com](http://www.provwater.com)

August 19, 2013

The Hon. Angel Taveras  
*Mayor*

Boyce Spinelli  
*General Manager*

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

RE: Dk 4406 Bristol County Water Authority; Set 2

BOARD OF DIRECTORS

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William E. O'Gara, Esq.  
*Legal Advisor*

Dear Mrs. Massaro:

Enclosed is an original and seven copies of Providence Water's responses to the second set of data request from Bristol County.

If you have any questions you can contact me at extension 7217.

Sincerely,

Mary L. Deignan-White  
Senior Manager of Regulatory

cc: service list

Member

Rhode Island Water Works Assn.  
New England Water Works Assn.  
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Water Research Foundation

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**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS  
PUBLIC UTILITIES COMMISSION  
IN RE: PROVIDENCE WATER SUPPLY BOARD:  
DOCKET NO. 4406  
THE BRISTOL COUNTY WATER AUTHORITY'S SECOND SET OF DATA  
REQUESTS  
DIRECTED TO PROVIDENCE WATER SUPPLY BOARD  
(Issued July 26, 2013)**

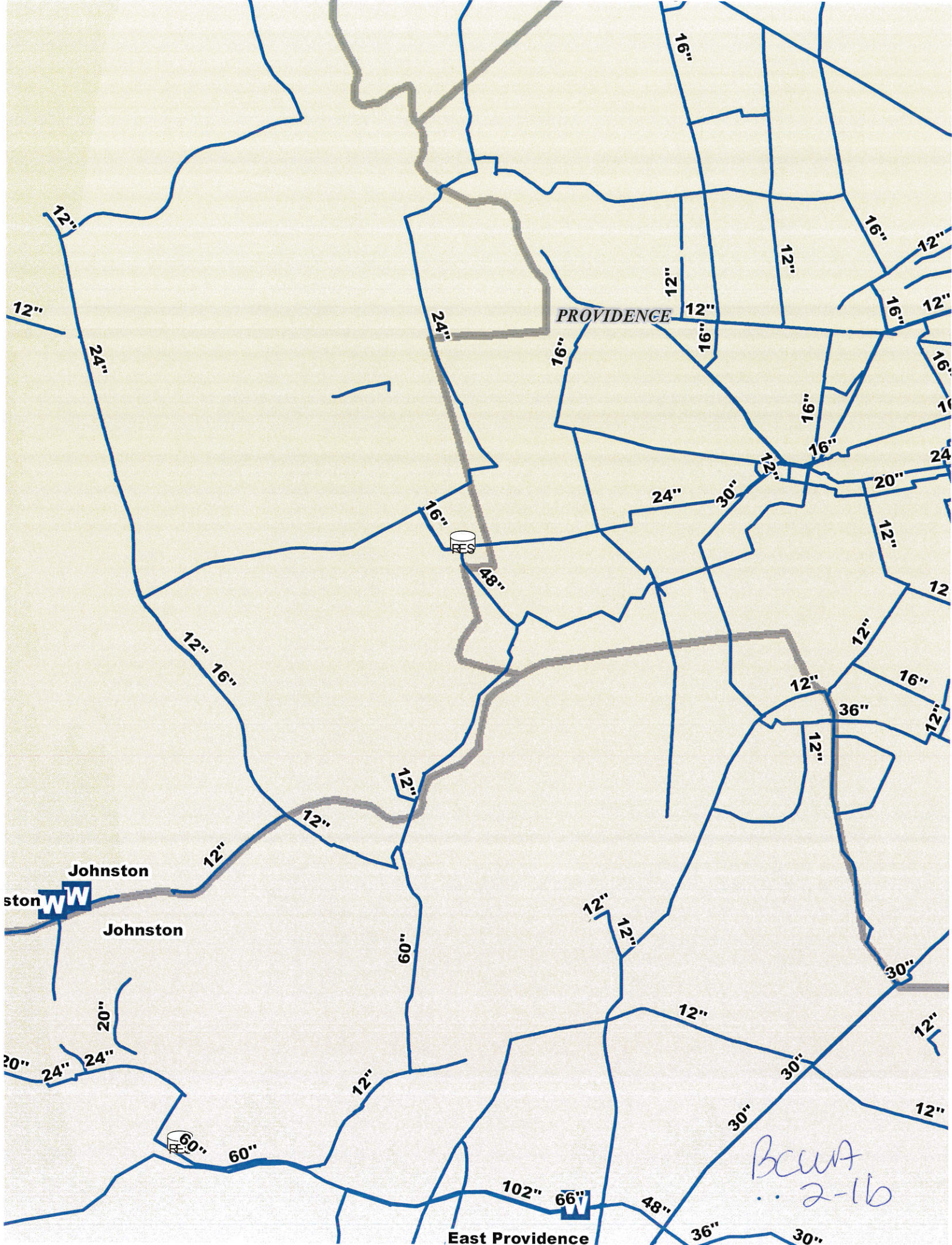
BCWA 2-1. With regard to Providence's response to BCWA 1-2 (d):

- a. Please provide the length of any service connection to a wholesale customer 12" or less.
- b. Please provide a scalable GIS or CAD map of all mains 12" and larger, including locations of wholesale connections and water storage tanks.

Response: The requested information is attached.

### Data Request for BCWA 2-1a

Wholesale Accounts	Svc Pipe Size	Svc Pipe Length	PW Main Size
East Smithfield - Dean Ave	8"	10'	8"
East Smithfield - Waterman Ave	12"	70'	12"
Greenville - George Waterman Rd	12"	30'	24"
Johnston - Capitol Street	8"	30'	12"
Johnston - Everbloom Drive	8"	86'	24"
Johnston - Nardolillo Street	8"	6'	12"
Johnston - Simmonsville	8"	180'	20"
Johnston - Taylor Road	8"	30'	24"
Kent County - Oaklawn Ave	12"	30'	12"
Smithfield - Smithfield Road	12"	420'	30" & 16"



**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**  
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**(Issued July 26, 2013)**

BCWA 2-2. With regard to Providence's leakage calculations:

- a. Please provide all calculations as to how the leakage amount was determined.
- b. Please include any calculations or estimates of water used for flushing, running bleeders or blow-offs, and fire department use.

Response:

- a. Assuming that what is termed "leakage" above is referring to Providence Water's non-account water, this volume represents the difference between the volume of water leaving the treatment plant and the volume of metered water consumption.

For example, in FY2012, the volume of water leaving the plant was 3,012,006,700 cubic feet and the metered customer consumption was 2,629,494,800 cubic feet. This leaves a non-account volume of 382,511,900 cubic feet.

- b. Such information is not available.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

BCWA 2-3: With regard to the response to KCWA 2-15:

- a. The Pro-Forma Amount of Schedule HJS-9 for CY 2014 is listed as \$2,450,000 for the Capital Fund. Exhibit PG-5 lists the Capital Fund as \$4,180,000, \$3,055,000, \$2,655,000, \$2,555,000, \$2,425,000 for FY 2013 through FY 2017, respectively, including \$2,400,000 per year for New PW Central Operations Facility.

The response to KCWA 2-15 supplied a memo dated November 15, 2010, that the existing Capital Fund had sufficient funds to pay for the annual cost of obtaining a new facility. Please clarify the amount requested for the Capital Fund.

- b. Please describe any progress Providence Water has made in obtaining a new Central Operations Facility since 2010.
- c. Please provide all information Providence has regarding a new Central Operations facility, including location, estimates on cost of purchase or cost of lease, construction costs, and operation costs.

Response: a. The amount requested for the Capital Fund is \$2,450,000.

- b. & c. Objection. This is not public information per R.I.G.L. 38-2-2 (4) (B), (I), (K), and (N). Without waiving this objection, Providence Water has been actively looking for locations that provide easy access to all of our assets. Providence Water also has worked with Dimeo Construction Company to thoroughly analyze our current and future operations. From this analysis, Dimeo developed an opinion of probable construction cost for the Central Operations Facility of \$36 million (in 2013 dollars). This cost is a comprehensive construction cost that includes all expenses required to make the Central Operations Facility “move-in” ready. This cost does not include yearly operational costs, land purchase or lease costs, and any site remediation costs that may be required.

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(Issued July 26, 2013)**

BCWA 2-4. Please refer to Mr. Gadoury's response to BCWA 1-2 regarding the distinction between transmission and distribution mains.

- a. Please identify how many of Providence's wholesale customers are served by 12 inch pipes.
- b. Please identify how many of Providence's wholesale customers are served by pipes that are 24 inches and greater in diameter.
- c. Would Providence agree that the vast majority of its 12 inch mains are used largely, if not totally, to convey water to the six, eight and ten inch pipes that serve retail customers.
- d. If your response to subsection c is in the affirmative, please explain why 12 inch mains should in any way be considered transmission mains?
- e. If Providence's response to subsection c is in the negative, please explain in detail why Providence disagrees.

Response:

- a. If the question refers simply to the size of the actual service connection of the wholesale customer, this information can be found in the response to BCWA 2-1. This, however, simply identifies the size of the wholesaler's pipe connection to the Providence Water piping network, and is not representative of the PW pipes functioning to serve that customer. With rare exceptions, customers cannot be categorized as being served just from any single pipe. The water reaching service connections in our system is jointly fed through the system of networked and interconnected pipe loops, of various water main sizes, all reinforcing each other and synergistically working together to move water throughout the entire system.
- b. Once again, if the question refers simply to the size of the actual service connections of the wholesale customers, those that have at least one connection to the Providence Water system that is 24" or greater in size include East Providence, Warwick, Bristol County, and Kent County. As explained above, these are the sizes of the customer service line connections to the Providence Water piping network, and are not representative of the PW pipes functioning to serve those customers. The water reaching service connections in our system is jointly fed through the system of networked and interconnected pipe loops, of various water main sizes, all reinforcing each other and synergistically working together to move water throughout the entire system.
- c. No.

**STATE OF RHODE ISLAND AND PROVIDENCE PLANTATIONS**  
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**(Issued July 26, 2013)**

- d. Not applicable.
- e. As explained above, and previously in the response to Data Request BCWA 1-2, Providence Water's water delivery system is a looped network system, where virtually all its water mains function together, in concert, to transport water throughout all areas of the system. It is not a simple system of dead-ended or skeletonized pipe branches that can be considered to exclusively serve specific customers. Attempting to categorize certain main sizes as exclusively benefitting retail customers or wholesale customers represents a simplified and unrealistic view of how a networked system of pipes functions. All mains, with the exception of some dead-ended branches or isolated pockets, are part of an intertwined network of interconnected pipe loops that all function together. The smaller 6" and 8" mains are generally categorized as distribution mains distributing water to individual customers, while 12" and larger mains all reinforce each other in the larger transmission network delivering water widely throughout the system.

It is important to note, however, that 6" and 8" mains do also provide a transmission function within the Providence Water system. While 6" and 8" mains are generally labeled as distribution mains that deliver water to individual customer service connections, this is by no means a clear cut or exclusive function of even these smaller mains, and they do also often function in the transmission mode of conveying the water to wider and more distant parts of the system. In reality, 6" and 8" mains are sized as such not for meeting customer consumption, but rather to be able to deliver substantial flows to hydrants in the event of a fire. Indeed, 2" to 4" diameter mains are generally all that would be required for customer consumption purposes, and the 6" and 8" mains have significant surplus flow capacity beyond consumption needs. Multiple 6" and 8" mains, configured in parallel, as very commonly occurs in the Providence Water system, often provide more flow capacity than individual larger mains, thus also collectively providing a significant transmission function within the system, equivalent to that of larger water mains.

In summary, while 12" and larger mains provide a distinct transmission function, all water mains in a looped pipe network, including 6" and 8" mains, work together to provide a combined transmission capacity through that pipe network.



## Providence Water Docket 4406

### **Data Requests of the Bristol County Water Authority Set 2 (Issued July 26, 2013/Received July 29, 2013)**

BCWA 2-5. Please refer to Mr. Gadoury's response to BCWA 1-7. In Mr. Gadoury's response he identified 6 pump stations and four emergency power stations that are only used by and only benefit retail customers.

- a. Are any of the capital costs or O&M costs associated with these facilities being allocated to wholesale customers?
- b. If they are, should they be, and fully explain your rationale for not excluding them?
- c. If they are not being so allocated, please identify in the filing where any such exclusions are present.
- d. Also, to the extent they are not being excluded, please provide your estimate of the magnitude of each of these costs, both the total amount and the amount allocated to wholesale customers.

Answer: a. Yes. O&M costs are allocated to wholesale. They are charged a portion of total pumping expenses using Allocator NP and NO. Capital (IFR) costs would be allocated to wholesale as well.

b. Yes, they should be. No additional exclusion or adjustment would be needed as Providence Water followed the Allocation methodology approved by the Commission in many past dockets, including Docket 3832. The use of an appropriate Allocator should take this into consideration. No additional exclusion should be necessary.

c. N/a

d. The total amount listed in the 20 year IFR Plan is \$3,700,000 for Dean Estates, Greenville Ave., and Cranston Commons pump stations. This is .76% of the total IFR of \$485,665,000. Of the \$24,000,000 rate year IFR cost, \$6,206,351 is allocated to Wholesale (Per model filed in response to KCWA 4-4). The Wholesale portion attributable to the Pump Stations is estimated at \$47,168 ( $\$6,206,351 \times .76\%$ ).

The estimated total amount of rate year Purchased Power costs attributable to the pump stations is  $\$283,289.24 \times 44.03\%$  (Allocator NP wholesale portion, per KCWA 4-4 model) = \$124,732.25. The estimated total amount of rate year Contractual Service costs attributable to the pump stations is  $\$6,473.85 \times 39.94\%$  (Allocator NO wholesale portion, per KCWA 4-4 model) = \$2,585.66.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

BCWA 2-6. Please refer to Mr. Gadoury's response to BCWA 1-21. Please provide the filing dates for PW's last three abbreviated rate case filings.

Response. The dates for Providence Water's three most recent abbreviated filings are as follows:

- a. Docket 4061: Filed on April 30, 2009, Rates Effective on April 27, 2010
- b. Docket 3684: Filed on June 30, 2005, Rates Effective on January 1, 2006
- c. Docket 3446: Filed on July 1, 2002 Rates Effective on January 1, 2003

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

- BCWA 2-7. Please refer to Mr. Smith's response to BCWA 1-26. Mr. Smith indicates that Providence has the data to allocate demand costs to wholesale customers based on their relative peak contributions to peak demands. As such, please provide the following using the data Providence possesses:
- a. The total amount of costs that would be recovered from all wholesale customers using this data; and
  - b. The amount of costs that would be recovered from each individual wholesale customer using this data?

Response.

- a. The current Cost of Service (COS) methodology, which has been developed and refined over many previous Dockets, and approved by this Commission, should not be modified to account for individual wholesale contributions to peak demand. Any such modifications would require an extensive reevaluation of the allocation factors, the costs to which they are applied, and the extent to which—under BCWA's methodology—they would continue to reflect an equitable distribution of costs that result in just and reasonable rates, without rate shock. It is not Providence Water's obligation to propose or prepare a new COS study for BCWA. However, Providence Water is willing to provide the data BCWA feels is necessary in order for BCWA to make such a proposal.
- b. Please see the response to a.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

- BCWA 2-8. Refer to Mr. Smith's response to BCWA 1-28. The demand factors referenced in BCWA 1-28, and that were used in Docket 3832, were derived in a particular manner. To that end:
- a. Please provide all source data, assumptions, calculations and work papers used to derive the 8 "Demand Factors" listed on Schedule HJS-16.
  - b. Was the derivation of any of the 8 "Demand Factors" based data after the completion of Docket 3832?
  - c. If not, isn't it likely that circumstances have changed significantly making the use of those factors for this case inappropriate?
  - d. If you disagree, please explain in detail the rational for this disagreement.

Response.

- a. The factors employed and accepted by the Commission in Docket 3832 were based on demand factors from Docket 3163 (the preceding full rate filing), which were themselves estimated based on 88 other similar water systems. Please see the attached "Docket 3163 Division Data Request #1", "Response 61," and "Exhibit A" which give insight into the provenance of these factors.
- b. No.
- c. While it is possible that some circumstances may have changed, Providence Water is not aware of significant changes that would make the use of these factors inappropriate.
- d. Please see c.

BCWA 2-8a

Docket 3163 Division Data Request # 1

61. Please provide any other supporting documentation which was relied upon in selecting the max hour and max day demand factors by class.

Response: Exhibit A presents demand factors from 88 other systems. These were taken into account when we developed our estimate.

JUL 31 2000 4:44PM

NO. 3055 - P. 2

*Ephraim*

Page 3

COMPARISON OF WATER UTILITIES  
DEMAND AND DIVERSIFICATION RATIOS

*OK*

Location	State	Water Ref.	Test Year	Water Sales Mgd	System		Nonincidental Demand Ratios by Customer Class					
					Incidental Demand Ratios		RES/AD			COM/AD		
					RES/AD	COM/AD	Res.	Com.	Ind.	Res.	Com.	Ind.
Aberdeen	SD	(a)	2.65		2.50	5.00	1.40	2.50	1.75	3.30	4.00	3.50
Arvada	CO	(a)	12.43		3.14	5.79	1.60	3.00	--	5.50	4.50	--
Asheboro	NC		3.17		1.70	2.25	1.75	2.25	1.90	4.50	3.50	2.75
Austin	TX		57.58		3.25	5.70	2.75	--2.50--	--	3.00	--4.25--	--
Bartlesville	OK		6.00		2.10	3.45	3.00	2.20	2.00	3.25	4.00	2.75
Bettie Creek	MI		5.84		2.30	3.30	3.30	2.55	1.45	3.50	4.00	2.20
Bismarck	ND		13.14		1.70	2.50	2.30	1.40	1.70	3.50	2.15	2.25
Billings	MT		13.76		2.30	4.00	3.30	2.30	1.75	3.20	4.00	2.75
Bloomington	IN		10.47		1.40	2.22	2.25	1.75	1.40	3.00	2.75	1.80
Bloomington	IL	(a)	8.25		3.00	6.00	3.25	--2.75--	--	3.70	--5.30--	--
Bloomington	IL		6.60		1.47	2.30	--2.25--	1.30	--	--3.35--	--	1.80
Bondar	OH	(a)	16.66		2.60	4.30	3.30	2.60	1.90	3.30	3.50	2.75
Brooklyn Park	MN	(a)	2.38		1.30	5.00	4.00	3.00	--	4.50	4.50	--
Casper	WY		7.06		1.00	6.00	3.75	2.75	--	7.75	4.75	--
Charleston	SC		45.51		1.40	1.40	2.00	1.30	1.25	3.20	2.40	1.75
Chapone	NY	(a)	3.08		2.20	5.00	3.25	2.00	1.50	4.00	1.75	1.55
Cincinnati	OH		104.40		1.45	2.42	2.25	2.00	1.30	4.00	3.00	2.25
Cloquet	MN		0.81		1.00	2.00	2.50	1.25	1.50	4.00	2.50	1.75
Columbus	OH		87.00		1.30	2.25	2.25	1.30	1.25	3.50	2.75	1.75
Corbis	MI		2.01		2.00	3.00	2.50	2.25	2.00	4.00	3.50	2.90
Corpus Christi	TX		49.72		1.50	2.00	2.00	1.00	1.25	3.00	2.25	1.60
Cortez	CO		1.23		3.00	5.00	3.75	2.75	--	3.25	4.50	--
Delaware County	CA	(a)	18.30		2.30	4.00	3.20	2.50	2.25	3.10	4.00	3.00
Dallas	TX		148.00		2.50	4.00	--2.85--	1.60	--	--3.25--	--	2.60
Dearville	IL		7.88		1.35	1.37	2.25	1.00	1.65	2.75	3.00	2.25
Denver	CO		189.25		2.04	4.76	3.30	2.20	1.40	4.00	4.20	2.25
Dunwoody	GA		1.46		2.40	6.00	3.00	--2.00--	--	4.00	--4.00--	--
Evansville	IN		0.25		2.75	3.00	3.50	2.00	--	4.50	3.50	--
Flagstaff	AZ	(c)	5.44		1.50	2.00	2.95	2.75	2.25	3.25	5.50	3.50
Flint	MI		33.04		1.56	2.03	--2.25--	--	1.30	--3.00--	--	1.70
Fort Collins	CO	(a)	10.13		2.70	3.40	3.75	2.75	--	7.50	5.50	--
Fort Worth	TX		44.73		2.30	3.30	3.20	3.20	1.60	4.40	4.00	2.50
Georgetown	TX		2.55		2.40	2.25	3.00	2.00	2.00	5.00	3.50	3.50
Glasgow	NY		0.52		2.50	4.00	1.00	2.00	--	3.00	3.50	--
Grasley	CO		12.10		2.40	3.67	3.25	2.20	1.50	3.50	3.50	3.30
Greenville	SC	(a)	32.24		1.50	2.25	2.25	1.50	1.10	4.00	3.25	2.00
Harro	MI		1.38		3.00	5.00	2.75	2.25	1.75	7.75	4.25	3.25
Harrison County	VA		22.73		1.60	2.40	3.10	1.75	1.50	3.25	2.50	2.25
Indianapolis	IN		81.10		1.60	2.00	2.50	2.00	1.40	3.50	3.00	1.80
Jacksonville	FL	(d)	39.06		1.25	1.70	2.00	1.70	1.20	3.50	2.70	2.30
Jasper	AL		4.30		1.60	2.40	2.75	2.00	1.25	4.00	3.25	1.75
Jefferson Parish	LA	(a)	34.00		2.00	2.20	1.45	--1.75--	--	2.95	--3.00--	--
Johnson County	KS	(c) (d)	22.97		2.40	4.00	2.80	3.15	--	3.55	4.20	--
Kalamazoo	MI		16.64		2.50	3.30	3.50	2.55	1.55	5.50	4.00	2.25
Kansas City	MO	(d)	81.67		1.50	2.00	2.40	2.00	1.55	4.50	3.75	2.00
Lakehead	FL		14.35		2.00	3.50	2.70	2.25	1.70	5.00	3.50	2.50
Lawrence	KS	(a)	4.60		2.00	3.30	2.85	2.25	--	4.65	2.50	--

8-23-2000 9:26AM FROM SCHACHT AND MCELROY, 1 401 421 5696

P. 16

8-22-00: 4:24PM;BLACK & VEACH LLP.

7037494197

JUL 31, 2000 4:45PM

NO. 3055 P. 3  
*Ephraim A*

Location		Notes	Total Year Water Sales	System Consolidated Demand Region			Consolidated Demand Region by Customer Class				
City	State			MS/AD	MS/AD	MS/AD	Res.	Com.	Ind.	Res.	Com.
Leavenworth	KS		3.15	1.85	2.78	2.75	3.00	1.75	4.50	3.00	2.25
Lee's Summit	MO		6.56	2.25	3.35	2.90	2.40	1.60	4.40	4.00	2.10
Lewistown	CO		1.30	2.00	4.75	2.60	2.10	2.10	5.25	3.50	3.50
Lincoln County	TX	(a)	26.74	1.80	2.40	1.90	1.75	1.25	5.25	2.70	2.50
Manhattan	KS		4.47	2.50	3.75	3.00	2.25	---	3.00	3.50	---
Maplewood	MO		2.77	1.80	2.90	3.00	2.00	1.60	3.50	3.50	2.00
Miami	OK		1.18	2.74	4.01	3.25	2.25	1.70	3.00	3.30	2.00
Millersburg	WI	(d)	152.42	1.85	2.70	2.10	2.15	1.40	3.20	3.65	2.10
Minneapolis	MN		2.09	1.75	2.90	2.50	1.90	1.75	3.50	2.50	2.15
New Orleans	LA	(c)	89.72	2.39	2.20	2.45	1.90	1.50	3.45	2.25	1.75
Newton	KS		1.85	3.14	5.01	3.75	3.00	---	6.00	4.50	---
Northfield	VA	(a)	63.75	1.59	2.00	2.50	2.10	1.60	3.75	3.15	2.20
Orangeburg	SC		4.78	---	---	3.00	2.25	1.60	3.00	3.50	2.00
Ocala	FL		48.25	1.60	2.40	2.25	2.40	1.50	4.00	3.00	2.25
OKM&A	MO		7.30	1.42	2.60	3.00	1.50	1.50	3.50	2.50	2.50
Park Forest	IL		1.97	3.00	5.00	3.50	3.00	---	6.00	4.00	---
Parktonburg	NY		5.99	1.40	2.00	2.25	1.30	1.25	5.00	3.25	2.00
Pawnee	KS		1.73	3.70	3.50	2.75	2.00	1.75	3.50	3.50	2.00
Peoria	IL		7.01	2.25	4.00	3.20	2.20	---	4.25	3.50	---
Philadelphia	PA		119.84	1.34	2.40	2.50	2.00	1.50	4.50	3.00	2.00
Phoenix	AZ		304.11	1.50	1.80	2.05	2.65	2.25	4.50	3.65	3.00
Pocahontas	VA	(c)	11.76	2.52	3.64	3.10	2.50	1.50	5.20	3.50	2.00
Port Arthur	TX		6.87	1.81	2.20	2.50	2.00	1.75	3.50	2.75	2.25
Provo	UT		15.93	2.10	3.60	3.00	2.25	2.10	3.25	4.00	3.75
Rapid City	SD	(a)	7.02	3.30	5.50	3.90	3.00	2.25	7.15	5.50	3.50
Rock Island	IL		5.44	1.60	2.00	2.25	2.00	---	3.25	3.75	---
San Antonio	TX	(a)	98.60	---	3.20	---	---	---	4.25	3.00	2.50
Sarasota	FL	(a)	3.13	2.50	3.20	3.10	2.25	2.00	7.40	4.50	3.20
Siouxport	LA		30.33	2.06	3.15	3.40	2.25	1.75	4.75	3.50	2.75
Spartanburg	SC		25.92	1.40	2.10	2.30	1.30	1.25	3.75	2.75	1.75
Springfield	OH		9.74	1.50	2.30	2.25	2.00	1.75	4.80	3.00	2.50
St. Louis	MO	(b)	113.44	2.14	3.05	3.25	2.40	1.90	5.80	4.20	2.45
St. Louis Park	MN	(a)	6.19	2.00	4.00	3.20	2.00	---	6.30	3.50	---
Thurston	CO	(a)	9.79	---	---	1.50	2.60	---	3.50	5.50	---
Topeka	KS	(a)	16.70	1.95	2.80	2.50	1.70	1.70	4.50	3.00	3.00
Tucson	AZ		65.00	1.70	2.35	2.10	2.10	1.50	3.60	3.50	2.00
Tulsa	OK		86.58	1.57	3.00	2.40	2.00	2.00	4.20	3.20	3.20
Tyler	TX		10.72	2.17	3.05	3.00	2.00	1.50	3.00	3.00	1.80
Waco	TX		14.45	---	2.10	---	---	---	4.50	3.00	2.00
Wichita	KS		17.44	1.75	2.65	2.50	2.25	1.50	4.50	3.50	1.75
Windsor	KS		1.84	1.80	3.50	2.75	1.25	1.60	3.00	2.30	2.40

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

- BCWA 2-9. Refer to Mr. Smith's response to BCWA 1-30, part c and the attachment thereto.
- a. If Mr. Smith calculated the retail share of UAW using only the length of pipe sizes to determine the percentage of local distribution pipe (10" or less) (1) and transmission pipe (12" and greater) (9) (which in turn are used to derive the shares of UAW assigned to retail and wholesale), with no other changes in his calculations, how would the percentages assigned to retail and wholesale change?
  - b. If these percentages were used in the COS model in all places where current percentages are used, how would the total revenue requirement (and percentage) allocated to the wholesale customer class change?

Response.

- a. Please see then attached "PSWB Response to BCWA 2-9a," (3 pages) which maintains the calculations from PWSB Response to BCWA 1-30, taking into account only length of pipe (in miles) rather than length and diameter (inch-miles). This would increase the retail share of unaccounted for water (UAW) by 474,422 HCF or 13.67 percentage points. Providence Water does not agree that pipe diameter should be ignored in making this calculation.
- b. Please see the attached "PWSB Response to BCWA 2-9b." Applying these percentages to the COS mode would *decrease* the total wholesale cost of service allocation by \$358,187 or .49 percentage points.



**PWSB Response to BCWA 2-9a**

	Retail HCF	Wholesale HCF	Retail %	Wholesale %
Original Methodology	2,629,060	843,993	75.70%	24.30%
<b>BCWA 2-9</b>	<b>3,103,782</b>	<b>369,270</b>	<b>89.37%</b>	<b>10.63%</b>
Difference	474,722	(474,722)	13.67%	-13.67%

**Inch-Mile Calculations**  
Year Ending June 20, 2012

Pipe Size (inches)	Length (miles)	Inch-Miles
6	482.44	2,894.64
8	290.25	2,322.00
10	3.06	30.60
12	93.99	1,127.88
16	40.97	655.52
20	5.89	117.80
24	24.09	578.16
30	16.09	482.70
36	1.93	69.48
42	4.88	204.96
48	2.42	116.16
60	4.19	251.40
66	1.60	105.60
78	4.39	342.42
90	4.47	402.30
102	5.18	528.36
<b>Totals</b>	<b>985.84</b>	<b>10,229.98</b>

**PWSB Response to BCWA 2-9a**

ORIGINAL METHODOLOGY

Local Distribution (10" or less)	775.75	5,247.24	51% (1)
Transmission (12" and greater)	210.09	4,982.74	49% (9)

Retail Customer Share of Lost Water

Retail Share of Local Distribution		51.29% (1)
Retail Consumption Pro-Forma (2)	13,147,187	50.11% (5)=(2/3)
Total Consumption Pro-Forma (3)	26,237,874	

Retail Share of Transmission		24.41% (6)=5*1
Total Retail Share of Unaccounted for Water		75.70% (7)=1+6

Wholesale Customer Share of Lost Water

Retail Share of Local Distribution		0.00% (8)
Wholesale Consumption Pro-Forma (9)	13,090,687	49.89% (11)=(9/10)
Total Consumption Pro-Forma (10)	26,237,874	

Retail Share of Transmission		24.30%
Total Wholesale Share of Unaccounted for Water		24.30% (12)=11*9

Total Wholesale and Retail Share 100.00% (13)=(7+12)

Lost Water

2009	3,114,862	HCF
2010	3,572,170	HCF
2011	3,380,059	HCF
2012	3,825,119	HCF
Four Year Average	3,473,053	(14)

Retail Share	2,629,060	HCF	(15)=14*7
Wholesale Share	843,993	HCF	(16)=14*12

**PWSB Response to BCWA 2-9a**

BCWA 2-9 METHODOLOGY

Local Distribution (10" or less)	<b>775.75</b>	5,247.24	<b>79% (1)</b>
Transmission (12" and greater)	<b>210.09</b>	4,982.74	<b>21% (9)</b>

Retail Customer Share of Lost Water

Retail Share of Local Distribution			78.69% (1)
Retail Consumption Pro-Forma (2)	13,147,187		50.11% (5)=(2/3)
Total Consumption Pro-Forma (3)	26,237,874		

Retail Share of Transmission			10.68% (6)=5*1
Total Retail Share of Unaccounted for Water			89.37% (7)=1+6

Wholesale Customer Share of Lost Water

Retail Share of Local Distribution			0.00% (8)
Wholesale Consumption Pro-Forma (9)	13,090,687		49.89% (11)=(9/10)
Total Consumption Pro-Forma (10)	26,237,874		

Retail Share of Transmission			10.63%
Total Wholesale Share of Unaccounted for Water			10.63% (12)=11*9

Total Wholesale and Retail Share 100.00% (13)=(7+12)

2009	3,114,862	HCF
2010	3,572,170	HCF
2011	3,380,059	HCF
2012	3,825,119	HCF

Four Year Average 3,473,053 (14)

Retail Share	3,103,782	HCF	(15)=14*7
Wholesale Share	369,270	HCF	(16)=14*12

PWSB Response to BCWA 2-9b

**Revenue Proof**  
Rate Year Ending December 31, 2014

	DIV 3-1 v6		BCWA 2-9b		Difference
Wholesale Allocation (\$)	\$	20,544,760	\$	20,186,573	\$ (358,187)
Wholesale Allocation (%)		27.95%		27.47%	-0.49%
Total Wholesale	\$	20,544,760	\$	20,186,573	
Total Rate Revenues	\$	73,497,818	\$	73,493,570	

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2 (Issued July 26, 2013/Received July 29, 2013)**

BCWA 2-10. Refer to Ms. Bondarevskis's response to BCWA 1-39.

- a. Based on this response, will Providence remove the two tax amounts (\$6,684 - Cranston and \$3,188 - Johnston) listed in this response from any calculations involving allocations of property taxes to wholesale customers?
- b. If not, please explain in detail why not.
- c. For all water pipes that were installed in Cranston prior to April 27, 1931, what is their taxable value and what is the level of property tax on these facilities during the test year?
- d. What is the value of those pipes that serve only retail customers?

Answer:

- a. No.
- b. Property taxes are allocated using a methodology that has been in place for many years. The allocation process assumes that some assets benefit retail only, some benefit retail and wholesale, and some benefit wholesale only. To only deduct for the taxes that have no benefit to wholesale customers would not be appropriate. We would have to analyze each asset and also add to the wholesale customers for any assets that only benefited wholesale.

Providence Water is using the same methodology for the allocation of Property Taxes as we have in prior filings that were approved by the Commission.

- c. Test year Taxable Value = \$1,038,331, Property taxes = \$31,554.89.
- d. Unknown.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

BCWA 2-11. Refer to Mr. Smith's response to BCWA 1-40.

- a. For both Salaries and Wages Accounts (a. and b.) listed in BCWA 1-40, provide the percentage of labor time spent on work solely related to transmission facilities. If you cannot provide the exact percentage, please provide your best estimate.
- b. Similarly, for each of the Contractual Services Accounts (c. through g.) listed in BCWA 1-40 provide the percentage of contract expenses that were for work solely related to transmission facilities. If you cannot provide the exact percentage, please provide your best estimate.

Answer. See below.

- a. The percentage of salaries and wages related solely to transmission facilities is unknown. There is no practical way to estimate percentage; that is why allocators were developed for T& D expenses.
- b. The percentage of contractual services related solely to transmission facilities is unknown. There is no practical way to estimate percentage; that is why allocators were developed for T& D expenses.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

BCWA 2-12. Refer to Mr. Smith's response to BCWA 1-41.

- a. For each of the Salaries and Wages Accounts (a. and b.) listed in BCWA 1-41, please provide the percentage of labor time spent on work solely related to transmission facilities. If you cannot provide the exact percentage, please provide your best estimate.
- b. Similarly, for each of the Contractual Services Accounts (e. through i.), please provide the percentage of contract expenses that were for work solely related to transmission facilities. If you cannot provide the exact percentage, please provide your best estimate.

Answer: See below.

- a. Please see response BCWA 2-11a.
- b. Please see response BCWA 2-11b.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2 (Issued July 26, 2013/Received July 29, 2013)**

BCWA 2-13: With regard to Providence's response to BCWA 1-4:

- a. Please explain how Providence Water's banking fees to process wholesale customer payments will increase if Providence switches to monthly billing.
- b. Please provide all source data, assumptions, calculations and work papers used to support Providence's contention that it must give more personal attention to wholesale customers "than other customer accounts."
- c. Please include an identification of those wholesale customers that have manual reads and bills and the amount of time Providence spends each month on these manual reads and bills.

Answer:

- a. Providence Water's banking fees in total will increase. It is an administrative expense that should be allocated accordingly.
- b. Providence Water stated that Wholesale accounts "are" given more personal attention. Please see attached from our Commercial Services Department which describes the monthly effort.
- c. Please see attached from our Commercial Services Department.



## MONTHLY WHOLESALE ACCOUNTS PREPARATION

1. ALL WHOLESALE CUSTOMERS HAVE MANUAL READS, SOME REQUIRING AN APPOINTMENT, ON A MONTHLY BASIS. IT TAKES A METER READER TECH. APPROXIMATELY ½ HOUR PER MONTH TO BOOK THE APPOINTMENTS. IT TAKES APPROXIMATELY 1 DAY PER MONTH FOR 2 METER READER TECHS TO GATHER THE READS.
2. READS ARE ENTERED MANUALLY IN EACH ACCOUNT EVEN THOUGH THEY MAY BE AMR, TO VIEW AND COMPARE THE READS FROM THE YEAR BEFORE FOR THAT PARTICULAR MONTH.
3. IF READ APPEARS VERY HIGH OR LOW, WE HAVE THE METER READER TECH GATHER ANOTHER READ.
4. IF THE SECOND READ IS STILL OFF, A CALL IS MADE TO CHRIS LABOSSIERE OR PETER PALLOZZI IN ENGINEERING FOR THEIR ASSISTANCE.
5. READS ARE SENT TO CHRIS LABOSSIERE AND PETER PALLOZZI FOR REVIEW. CHRIS HAS SET UP A SPREADSHEET THAT GIVES A PERCENTAGE EACH WHOLESALER READ MUST MEET.
6. AFTER ENGINEERING CHECKS THE READS I RECEIVE An E-MAIL THAT IT IS OK TO BILL (EXAMPLE):  
(We don't see any issue. The overall usage per day average is about 14% lower than normal across the board but it is consistent from one wholesaler to the next and is probably due to all of the rain we have had recently )
7. ALL WHOLESALE ACCOUNTS ARE THEN CALCULATED AND INDIVIDUAL BILLS ARE PRINTED. AFTER THAT A SPREADSHEET IS UPDATED TO MAKE SURE THAT THE CALCULATION IS CORRECT.
8. A SPECIAL SPREADSHEET IS REQUIRED FOR JOHNSTON TO CONVERT ALL OF THEIR READINGS TO HCF. ANOTHER SPREADSHEET IS ALSO DONE FOR JOHNSTON, TO OFFSET THE RETAIL CUSTOMERS THAT ARE AFTER 1 OF THEIR METERS. THESE SPREADSHEETS ARE SENT WITH THEIR BILLS.
9. ALL READS AND CHARGES GO INTO A WHOLESALE RECONCILIATION SPREADSHEET WITH THE PRIOR YEAR CONSUMPTION FOR OUR FINANCE DEPT.
10. ALONG WITH THE BILL, A WATER QUALITY PROTECTION CHARGE WHOLESALE FORM IS TYPED UP, PRINTED AND ATTACHED WITH THE INFORMATION FROM THEIR BILLING AND THE ESTIMATED REMITTANCE AMOUNT.
11. THE BILLS ARE THEN PACKAGED AND PUT IN ENVELOPES FOR MAILING.

THIS PROCESS TAKES THE BILLING AREA ONE TO TWO DAYS PER MONTH, IN ADDITION TO THE METER READING TIME.

# Providence Water Docket 4406

## **Data Requests of the Bristol County Water Authority Set 2 (Issued July 26, 2013/Received July 29, 2013)**

BCWA 2-14: With regard to Providence's response to BCWA 1-42, please provide the following for each "existing position" that Providence is "backfilling":

- a. A description of the position Providence is "backfilling".
- b. The group each "backfilled" employee will report to (e.g., Administration, an Operations function, Customer service, etc.);
- c. Why Providence needs to backfill each position it is "backfilling" (i.e. the justification for "backfilling" each position); and
- d. The known or estimated salaries of each employee who will be "backfilling" each of the positions.

Answer: a. See the response to Div 4-1 d, Line 4.

b.

Database Manager	MIS
Engineering Proj Coord.	Engineering
Principal Engineer	Engineering
Scheduler/Dispatcher	Operations
Sr. Admin Clerk	Customer Service
Sr. Draftsman	Engineering
Staff Accountant	Finance
Utility Worker in Training	Operations
Utility Worker in Training	Operations
Utility Worker in Training	Operations
Utility Worker in Training	Operations

c. Providence Water continually evaluates its manpower needs to determine what positions are necessary and what the appropriate educational, certification, licensing and experience credentials are required for each position. This ongoing process is necessitated by changing technology, changing mandates from EPA, DEM and RI Health, and also by new programs and initiatives instituted by Providence Water to improve water quality and reliability. Providence Water does not merely replace every vacated position with an employee possessing identical capabilities. Providence Water has made the determination that filling the positions in question is essential to fulfilling its mission.

d. See the response to Div 4-1 d, Line 4.

Providence Water Docket 4406

**Data Requests of the  
Bristol County Water Authority  
Set 2**

BCWA 2-15: With regard to Providence's response to BCWA 1-44:

- a. Please explain how Providence updated information and data used in the current cost of service study to reflect changes in economic conditions, customer demographics and systems facilities since its last cost of service study in Docket 3832.
- b. Please provide all source data, assumptions, calculations and work papers used in updating the information.

Response.

- a. Please see Providence Water's initial rate application and supplemental testimony, which describe all of the updates that have been made to the COS study since Docket 3832, keeping in mind that further updates have been proposed since the initial filing in responses to data requests.
- b. All of the calculations are contained within the electronic spreadsheets provided. The raw data used in the Cost of Service Study are also contained within the electronic spreadsheets and have been provided—in almost all cases—in their original form as responses to data requests, which have been made available to all parties. In the event that the electronic version of the COS model and provided data are insufficient, Providence Water is willing to provide additional information in responses to specific data requests.