

Providence Water Docket 4994

Bristol County Water Authority Data Request – Set 5 April 23, 2020

BCWA 5-1: Providence's attachment to Division 2-8 provides the size of the service pipe for each wholesale customer. Please provide an updated schedule that also contains a column setting forth the length of each service pipe for each wholesale customer.

Response:

See attached Schedule BCWA 5-1 (a)

BCWA 5-1 (a)

Wholesale Accounts	Svc Pipe Size	Svc Length
Bristol County - Columbia Park	30"	8'
East Providence - Budlong Road	42"	7'
Greenville - George Waterman	12"	30.5'
Johnston - Capitol Street	8"	30'
Johnston - Everbloom Drive	8"	99'
Johnston - Green Hill Road	16"	48'
Johnston - Nardolillo Street	8"	7'
Johnston - Simmonsville Ave	8"	180'
Johnston - Taylor Road	8"	31'
Kent County - Clinton Ave	30"	25'
Kent County - Oaklawn Ave	12"	30'
Lincoln - Woodward Road	16"	5'
Lincoln - Charles Street	12"	30'
Smithfield - Smithfield Road	12"	18'
Warwick - Natick Road	42"	4'
Warwick - Pettaconsett	30"	4'

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BCWA 5-2: In Mr. Smith’s testimony, he states that Providence “anticipates adding Orthophosphate, beginning this year at pilot scale, then ramping up to full scale by FY20.”

- a. Has the piloting been completed?
- b. If the piloting has been completed, does Providence still anticipate the same dose, usage and costs set forth in Schedule HJs-8a?
- c. If the piloting has been completed, and the anticipated dose, usage and costs set forth in Schedule HJs-8a have changed, please provide an update to this schedule.
- d. If the piloting has not been completed, when does Providence anticipate finishing piloting?
- e. Has Providence begun adding Orthophosphate?
- f. If Providence has not begun adding Orthophosphate, when does Providence anticipate it will start?
- g. If Providence has begun adding Orthophosphate, does it still anticipate the same dose, usage and costs set forth in Schedule HJs-8a?
- h. If Providence has begun adding Orthophosphate, and the anticipated dose, usage and costs set forth in Schedule HJs-8a have changed, please provide an update to this schedule.

Response:

- a. Full scale piloting of orthophosphate in the Fruit Hill section of our distribution system will continue until construction of the orthophosphate chemical feed system at the Water Treatment Plant in Scituate is completed and orthophosphate is added to the water leaving the water treatment plant. The delay in completion of the orthophosphate feed system is due to a delay in regulatory approval and the COVID-19 pandemic. Providence Water anticipates adding orthophosphate by the end of August 2020. Providence Water anticipates the same dose, usage and costs.
- b. See the response to (a).
- c. See the attached updated Schedule BCWA 5-2(b).
- d. See the response to (a).
- e. See the response to (a).
- f. See the response to (a).

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- g. See response to (a).
- h. See the attached updated Schedule BCWA 5-2(b).

BCWA 5-2(a)

Schedule HJS-8a (update): Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Description	Ferric (gal)	Lime (ton)	Chlorine (ton)	Fluoride (gal)	Ascorbic Acid (25kg box)	Sodium Hydroxide (gal)*	Orthophosphate Pilot (gal)*	Orthophosphate Full Scale (gal)*	878-878-53305 ⁴ 878-878-53401 ⁵ 878-878-53500 ⁶		
									Professional Engineering	Sludge Maintenance	Project Insp. Pump Rentals
Dosing Unit	gpg	gpg	lbs	mg/L	kg	mg/L	mg/L	mg/L			
Avg Dose	1.20	1.02	2.16	0.55		3.40	3.00	3.00			
Estimated Chemical Usage	674,356	1,622	200	54,522	3,125	5,600	1,350	57,794			
Unit Price	\$1.41	\$235.00	\$2,000.00	\$1.40	\$16.75	\$2.34	\$8.31	\$6.80			
Approx. Cost	\$950,842.5	\$381,208.6	\$400,770.0	\$76,331.5	\$52,343.8		\$11,221.2	\$392,999.2			
FY2019 Budget	\$950,000.0	\$390,000.0	\$400,000.0	\$84,000.0	\$52,350.0	\$20,000.0	\$15,000.0				
FY2020 Budget	\$960,000.0	\$390,000.0	\$425,000.0	\$84,000.0	\$52,350.0	\$15,000.0	\$15,000.0	\$0.0			
Project Chemical QTY FY20:	673,759	1,660	200	60,000	3,125	8,547	1,805	0			
Project Chemical QTY FY21-23:						1,450	300	58,824			
(FY19 Budget/Unit Price)	\$ 1.41	\$ 235.00	\$ 2,000.00	\$ 1.40	\$ 16.75	\$ 2.34	\$ 8.31	\$ -			
(FY20 Budget/Unit Price)	\$ 1.46	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.25	\$ 2.34	\$ 8.31	\$ 6.80			
FY2020 spending ****	\$ 983,687.94	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 53,912.69	\$ 11,700.00	\$ 15,000.00	\$ -	\$ 75,000.00	\$ 1,608,918.00	\$ 200,000.00
(FY21 Budget/Unit Price)	\$ 1.50	\$ 235.00	\$ 2,000.00	\$ 1.55	\$ 17.75	\$ 2.32	\$ 8.84	\$ 5.79			
FY2021 spending ****	\$1,010,638.30	\$ 390,000.00	\$ 400,000.00	\$ 93,000.00	\$ 55,475.37	\$ 3,364.00	\$ 2,652.00	\$ 261,993.05		\$ 1,608,918.00	\$ 80,000.00
(FY22 Budget/Unit Price)***	\$ 1.55	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.25	\$ -	\$ -	\$ 6.08			
FY2022 spending ****	\$1,044,326.24	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 57,038.06	\$ -	\$ -	\$ 357,649.92		\$ 1,608,918.00	
(FY23 Budget/Unit Price)***	\$ 1.60	\$ 240.00	\$ 2,000.00	\$ 1.60	\$ 18.75	\$ -	\$ -	\$ 6.38			
FY2023 spending ****	\$1,078,014.18	\$ 398,297.87	\$ 400,000.00	\$ 96,000.00	\$ 58,600.75	\$ -	\$ -	\$ 375,532.42		\$ 1,608,918.00	

* Pilot scale. Average day = 1.41 MGD. Chemical projection and budget increased slightly to allow for increased demonstration area, if needed.

** Full scale orthophosphate at treatment plant tentatively scheduled for fall 2019. Budget pricing included herein based on initial dose (3 mg/L) at average day (61 MGD).

*** Estimated

**** Estimated - based on FY2019 quantities being constant

4 Engineering costs required to complete current study along with estimated engineering costs for future studies

5 Conservative estimated of 10,000 dry tons removed from south sedimentation basin at \$200/dry ton

6 FY20: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 12 months. FY21: Estimated \$13K/month for project inspection & \$7K/month for pump rental for 4 months.

Schedule HJS-8b: Adjustment to Chemicals and Sludge Maintenance Fund

Providence Water Supply Board
Docket # _____
Request for General Rate Relief
Direct Testimony of Harold J. Smith
Test Year Ending June 30, 2019
Rate Years Ending June 30, 2021 through 2023

Year	Total Chemicals	Professional Engineering	Sludge Maintenance	Project Insp Pump Rentals	Total C&S Maint
FY 2020	\$ 1,947,301	\$ 75,000	\$ 1,608,918	\$ 200,000	\$ 3,831,219
FY 2021	\$ 2,217,123	\$ -	\$ 1,608,918	\$ 80,000	\$ 3,906,041
FY 2022	\$ 2,353,312	\$ -	\$ 1,608,918	\$ -	\$ 3,962,230
FY 2023	\$ 2,406,445	\$ -	\$ 1,608,918	\$ -	\$ 4,015,363

Year	Funding Level	Total Uses	Funding Adjustment	Rate Year Funding
FY 2021	\$ 3,800,000	\$ 3,906,041	\$ (106,041)	\$ 3,800,000
FY 2022	\$ 3,800,000	\$ 3,962,230	\$ (162,230)	\$ 3,800,000
FY 2023	\$ 3,800,000	\$ 4,015,363	\$ (215,363)	\$ 3,800,000

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BCWA 5-3: Regarding Mr. Smith's allocation of transmission and distribution labor costs:

- a. What percentage of time did Providence's employees spend working on transmission mains in FY19.
- b. Please identify each contract and the amount of each contract for outside contractors who worked on transmission mains in FY19.
- c. How much did Providence spend from its own funds in FY19 on materials for transmission mains.
- d. How much did Providence pay to outside contractors in FY19 for transmission mains materials.

Response:

- a. The percentage of time employees spend working on transmission mains varies from year to year. In FY2019, Providence Water employees spent approximately 5% of their time working on transmission mains.
- b. In FY2019, the transmission project was the Rehabilitation of our 78" and 102" pipeline. There were \$6,785,195.45 in Contract costs.
- c. In FY2019, Providence Water spent \$5,232.72 transmission main materials.
- d. It is difficult to determine the amount of the contracts that were spent on materials because the costs aren't itemized to that level of detail. The costs for materials is included in the contract costs provided in response to (b).

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BCWA 5-4: Regarding the allocation of costs for the Central Operations Facility:

- a. How many square feet are used for storage of transmission mains components larger than 16”?

Response:

- a. Approximately 500 square feet are used for storage of transmission mains components 16-inch and larger.