

Independent Review of the Proposed Backwash Rate for 2022

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Background – Discharge & Impacts

- The Washington Aqueduct (“WA”) approached DC Water in 2016 regarding the possibility of sending filter backwash to Blue Plains to meet the U.S. Environmental Protection Agency’s (“USEPA’s”) Filter Backwash Rule. DC Water agreed to accept the discharge at a nominal rate that would recover the costs of conveyance, treatment and disposal
- DC Water authorized Raftelis to study the cost of handling the discharge: based on that study, a new retail rate class and Backwash Rate is proposed beginning in FY 2022
- The filter backwash has relatively weak waste characteristics; DC Water anticipates no significant impact on treatment and disposal expenses
- Filter backwash would be discharged to the combined sewer on the east side of McMillan Reservoir. That sewer flows by gravity and discharges to the Northeast Boundary Sewer; dry weather flows are then diverted to Main Pumping Station for conveyance to Blue Plains
- Based on the proposal above, there is no material incremental capital or operating expense for DC Water to convey/treat/dispose of the discharge

Background – Interruptible Classification

- The McMillian Backwash Equalization Basin has a total working volume of 660,000 gallons to provide short-term equalization storage of the filter backwash flow. If the Equalization Basin capacity is reached, backwash flow will be diverted to the existing discharge location at the Reservoir.
- WA will monitor the flow based on real-time SCADA sewer elevations provided by DC Water. Operating protocol will establish a certain number of minutes for WA to close valve upon receiving stop signal from DC Water. The process is monitored by SCADA and reported to DC Water pretreatment staff for confirmation of compliance
- No wet weather discharges are authorized under the proposal

Backwash Rate Proposal

- New retail rate class proposed for all high flow filter backwash discharges that meet the following criteria:
 - Low strength (below 10mg/L for total suspended solids and biological oxygen demand on average)
 - High volume (above 1 MGD)
 - Moderated through use of an equalization basin
 - Interruptible during wet weather events
 - Metered and monitored
 - Governed by a discharge permit issued by DC Water
- Proposed Backwash Rate for FY 2022 is \$3.03/Ccf or \$4.05/Kgal; discharges are expected to begin in 2Q of FY 2022
- Reflects a cost of service-based rate that is consistent in methodology with Board Rate-Setting Policy and with all existing retail rates
- Rate will be re-evaluated every two years beginning with upcoming Cost of Service Study starting in October 2021 for FY 2023 and FY 2024

Our Methodology

- Reviewed background information including the Discharge Rate Calculation memo and the 2020 Cost of Service Study Report
- Made inquiries regarding the support for a new retail rate class
- Examined the basis for the “Interruptible” designation
- Reviewed the expectation for minimal incremental operating and capital costs for DC Water
- Estimated the financial impacts of the proposed rate on DC Water and its customers
- Examined the inclusion and exclusion of certain revenue requirements and offsets
- Confirmed the potential customer(s) for the proposed new rate

Amawalk Findings & Conclusions

- A new retail rate class is appropriate; the flow characteristics differ significantly from existing classes
- The Interruptible designation is reasonable; DC Water is in control to avoid situations where the discharge could add to overflows or flooding
- Minimal incremental operating expenses and no capital improvements needed for DC Water to convey, treat and dispose of the discharge: no staffing changes, modest incremental energy costs for pumping
- On a full year basis, projected revenues would increase by \$4.24 million based on estimated flow of 2.87 MGD and a rate of \$4.05 per Kgal
- DC Water's share of WA expenses is expected to increase by 75% of the expected revenues or \$3.18 million, to reflect DC Water's share of the water produced by the WA
- Amawalk recommends adoption of the rate proposal for FY 2022; an important first step to address a need of the WA and enable DC Water to charge for services provided
- The proposed rate would be subject to change in FY 2023 following the upcoming Cost of Service Study

Estimated Impact on DC Water and Its Customers

		FY 2022
Proposed WA Discharge Rate (\$/Kgal)	\$	4.05
Estimated Flow (MGD)		2.87
Estimated Annual Flow (Gallons)		1,047,550,000
Estimated Annual Revenue	\$	4,243,418
Estimated WA Share of Cost	\$	1,060,854
Estimated DC Water Share of Cost	\$	3,182,563

- Net positive annual cash flow impact of \$1.06 million for a full year
- Net impact of the cash flow improvement represents about 0.14% of DC Water's projected total revenues in FY 2022
- Estimated impact of the proposal on a SFR customer is about \$0.17 per month in FY 2022.

Recommended Areas of Focus in the Upcoming Cost of Service Study

- Update the revenue requirements
- Re-examine the offsets to the cost of service for applicability to the costs and rate
- Consider assigning a portion of cash-financed construction/defeasance to the cost of service
- Update sewer usage projections based on recent experience and DC Water expectations



Questions?

Thank you!