

Testimony of Mr. Thomas P. Jacobus
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Performance Oversight Fiscal Years 2017 and 2018

Before the
Committee on Transportation and the Environment
Council of the District of Columbia

Friday, March 2, 2018

Chairperson Cheh and members of the Committee, thank you for inviting me today to testify on the performance of Washington Aqueduct.

I am Tom Jacobus, general manager of Washington Aqueduct. We have the responsibility to provide wholesale water service to DC Water for further distribution to the residents, businesses and other activities in the District of Columbia.

Engagement with Wholesale Customers

Washington Aqueduct has a highly-effective and valuable relationship with our largest wholesale customer: DC Water. There is daily interaction at the executive, manager and staff levels to address ongoing production operations to ensure DC Water is receiving the quality and quantity of water expected by its customers. Both DC Water and Washington Aqueduct have added individual expertise, engineering, and scientific capability, and we have shown ourselves to be very capable to respond to any unusual or unforeseen event. We share data and process information with DC Water, and we receive from them technical insight and innovative ideas.

Washington Aqueduct also serves two wholesale customers in Northern Virginia: Arlington County and Fairfax Water. Our three wholesale customers, acting under the provisions of the Memorandum of Understanding that established a Wholesale Customer Board, fund all operations and our capital improvements.

Water Quality and Water Supply Risk Reduction

Washington Aqueduct has approached our stewardship of the drinking water resource through the prism of risk reduction. Over ten years ago, the Wholesale Customer Board requested that we evaluate advanced treatment options, such as granular activated carbon adsorption, membrane treatment, ozone/biofiltration, and ultraviolet disinfection. The first step, completed in 2012, was a comprehensive evaluation of the universe of contaminants (chemical and biological) that could be threats to drinking water. The goal was to identify those that posed the greatest future risk to DC Water and the Virginia customers in terms of public health, aesthetics, or meeting future more

stringent regulatory standards. Since Washington Aqueduct complies with all Safe Drinking Water Act requirements, the advanced treatment options will improve upon the protections already afforded by the Safe Drinking Water Act. The next step was to match those high priority risks with the appropriate advanced treatment processes to identify the most cost-effective and robust opportunities for risk reduction. In 2016, we undertook a more detailed study of the two technologies selected to address the highest priority risks: ultraviolet disinfection (for pathogen disinfection) and ozone/biofiltration (for taste and odor control). In late 2017, we issued the first of two anticipated contracts to conduct a pilot test of these technologies to confirm their effectiveness in meeting the water quality goals and to develop design criteria for their future construction at the water treatment plants. Currently, acquisition of the pilot testing materials is underway, and testing is expected to begin later in 2018.

These advanced treatment processes are expected to improve the aesthetic quality of the water and greatly enhance public health protection. They will also improve the reliability and redundancy of the system by removing existing limitations on the amount of water that can be produced in the winter at the Dalecarlia water treatment plant, which is disinfection limited, and in the summer at the McMillan water treatment plant, which is filtration limited. They will also renew aging infrastructure, e.g., the McMillan water treatment plant north clearwell and the Dalecarlia water treatment plant west filters. But what these processes will not do, nor will any municipal water treatment process do, is to overcome petroleum spills that may occur in the Potomac River.

2016 and 2017 brought into focus concerns about Potomac River water supply reliability. For three weeks in late November and December 2016, we faced a very difficult situation when what is estimated to have been only a few hundred gallons of a petroleum product was released into the Potomac River by the NRG energy plant at Dickerson, Maryland.

We learned from this situation that a seemingly minor sheen on the surface of the water moved at a different pace from the bulk of the water flowing in the river and it could be affected by strong winds. The oily sheen did not move downstream quickly nor did it dissipate quickly.

Our river modeling and early warning systems, developed and maintained by the Interstate Commission on the Potomac River Basin, are very good at tracking plumes of well-mixed contaminants travelling downstream. Our response plan to a major plume is to close our upstream intake at Great Falls while pumping from Little Falls, and then when the plume passes, re-opening the Great Falls intakes and closing the Little Falls intakes. However, if both intakes have to be closed at the same time (which fortunately did not have to be done to deal with the aforementioned relatively minor spill), the water supply stored within the treatment operations and the customers' distribution systems could be depleted within 24 to 48 hours depending on the consumption rate.

A study to increase the redundancy of the metropolitan Washington area's water through interconnections between the water treatment plants operated by Washington Aqueduct, Washington Suburban Sanitary Commission and Fairfax Water has been completed and there are a few attractive opportunities, but no low-cost remedy to the overall concern of major Potomac River event. Additionally we continue to look for off-Potomac storage to protect Washington Aqueduct's customers should a major contamination event occur on the Potomac River.

On the Maryland side of the river we are considering the acquisition of a quarry in Montgomery County. The Travilah quarry is still active, but if it could be acquired and outfitted for off-stream use by Washington Aqueduct and the other utilities, it could at its current size provide about 14 days of uncontaminated water that could be sent directly to our treatment plants, and we would not have to depend on the Potomac River in a contamination event.

This will be expensive and beyond the ability of the utilities to fund from their current capital programs, but as a region we must protect ourselves against a localized contamination event. In the late 1960's the region realized it was vulnerable to water supply shortages, and significant steps were taken by utilities, states and the federal government to create upstream storage by building the Jennings Randolph Reservoir and Little Seneca Reservoir. We believe now is the time to consider a similar action in providing resiliency against river contamination as we did 50 years ago in addressing water supply concerns.

2017 and 2018 Performance

Let me turn now to our performance during fiscal year 2017 and our plans for fiscal year 2018.

For fiscal year 2017, all of the performance measures we set to assure quality service to the District of Columbia were met and exceeded. We have gone beyond basic requirements and set standards for ourselves that create an extra level of protection. Our laboratory continues to achieve top marks in its certification by EPA Region 3, and we use that laboratory talent and analytical capability to routinely evaluate more than 60,000 samples each year from our two treatment plants and from the customer service area. When asked, often on short notice, we provide special services necessary to address issues raised by DC Water, such as investigation of potential water quality problems in the distribution system. Working closely with DC Water, we can provide detailed analysis upon which operational decisions can be made.

Operating performance thus far in fiscal year 2018 has been excellent, and all established performance measures have been achieved.

In fiscal year 2017, Washington Aqueduct focused on completing the second round of compliance monitoring required under the Long Term 2 Enhanced Surface Water Treatment Rule known as LT2. We also evaluated the risk of cyanotoxins and performed research to demonstrate the effectiveness of our existing treatment systems in significantly lowering the risk of any cyanotoxins in finished water. Working closely with DC Water and the Virginia customers, we developed a hazardous algae bloom response plan to ensure that we have plans in place to protect public health and ensure business continuity in the event of significant algae blooms in the source water. We also prepared to assist DC Water in collecting samples for their compliance with the Fourth Unregulated Contaminant Monitoring Rule known as UCMR 4, for which sampling began in February 2018.

Major engineering projects underway during fiscal year 2017 included improvement of the quality of water available in the McMillan reservoir. We have begun design on an important project to avoid putting particles captured in the filters back to the reservoir. Instead, those particles will be routed to the DC Water sewer system in the vicinity of the McMillan plant. This has been a very

successful collaboration with DC Water to ensure that the project protects the sewer system from overload during rainy weather.

Financial Operations

Our fiscal year 2017 Operations and Maintenance costs equated to \$765 per million gallons. Our rates at the wholesale level continue to be among the lowest in the nation.

For several years we had been seeing a drop in individual consumption of water. During 2017 that trend has continued. There was a 1.7 percent decline in consumption from 2016 to 2017. But we do anticipate a bottoming-out of that trend as the low flow fixtures and appliances will be largely in place. We then expect to see an increase in production as the service area's population grows. Our production facilities have sufficient capacity to respond to this growth without the need to install greater capacity and without any limitation on the current level of service.

For fiscal year 2018, which we are currently executing, the Operations and Maintenance budget is \$44,173,363. This represents an increase of one percent compared to the fiscal year 2017. We work diligently to have very efficient processes in place. In addition to the Operations and Maintenance budget, the capital budget is \$16,200,000. Our capital construction projects for fiscal year 2018 are focused on rehabilitation of facilities to ensure their long-term serviceability.

We have budgeted 175 positions. All positions at Washington Aqueduct are federal civil service. Acquisition of services and materials is governed by the federal acquisition regulations.

The budget we prepared for fiscal year 2019 that was approved by our Wholesale Customer Board in September 2017 is 2.4 percent higher than our approved fiscal year 2018 budget. We will sustain the current high level of service while continuing to improve reliability of equipment and facilities.

Interaction with National and Regional Water Resource Groups

Washington Aqueduct continues to engage with groups such as the Water Research Foundation that promote research into best practices of water production. We are currently working on a project to quantify the benefits of existing forests to protect the Potomac River water supply. We are collaborating with DC Water and other local utilities to evaluate biostability of the water as it undergoes treatment and is subsequently delivered by the distribution system. This project may help us anticipate effects when we incorporate advanced treatment techniques into our production operations.

We continue to have a very close relationship with the Potomac River Basin Source Water Protection Partnership, and we work with the Interstate Commission on the Potomac River Basin and other regional utilities to consider improvements to regional and interstate compacts that are in place to assure coordination of the use of available water and to consider how new resources would be acquired.

Divestiture Proposal In President's Budget

In May 2017 in the President's 2018 budget presentation, Washington Aqueduct was identified for divestiture. On February 9, 2018, the Assistant Secretary of the Army (Civil Works) sent letters to the Speaker of the House of Representatives and the President of the Senate transmitting the proposed legislation to effect the divestiture. It directs the Secretary of the Army to sell Washington Aqueduct to a non-Federal public or private entity or entities. Washington Aqueduct will work with the Corps of Engineers and the office of the Assistant Secretary of the Army (Civil Works) to provide whatever information is needed as the Congress considers this proposal. Washington Aqueduct's Wholesale Customers are aware of this proposal. I can assure the Committee (and all others concerned) that the employees of Washington Aqueduct will continue to provide safe, reliable and cost effective water service to our customers as this initiative is evaluated.

Summary

Thank you again for the opportunity to be here today. In everything we do our focus is to work together to ensure safe, reliable and cost effective service for our customers. I look forward to responding to any questions from the Committee.

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