

PFAS in Drinking Water – Cost of Compliance Outlook Feb 2024

WSSC Water's mission is to protect public health and safety by supplying safe and reliable water to our 1.9 million customers and return clean water back to the environment. We are the 8th largest water and wastewater utility in the country, serving Prince George's and Montgomery Counties, Maryland. We are proud of *our 105-year history of zero drinking water quality violations* and remain committed to continuing this exceptional level of excellence and quality.

We treat about 60 billion gallons of water each year. WSSC Water draws the water we treat from two sources: the Patuxent and Potomac rivers. On the Patuxent River, we operate and maintain two reservoirs -Triadelphia and T. Howard Duckett. Our Patuxent Water Filtration Plant (WFP) draws water from the Duckett Reservoir and produces approximately 60 million gallons per day (MGD). Our Potomac WFP draws water from the Potomac River, producing between 100 and 120 MGD.

Our PFAS Results

For several years, WSSC Water has been proactively testing for PFAS compounds in our drinking water, testing that went above and beyond federal and state requirements. In January of 2020, WSSC Water began monitoring for 18 PFAS compounds and expanded the monitoring in September of 2022 for 29 PFAS compounds that are included under the EPA's Fifth Unregulated Contaminant Monitoring Rule, also known as UCMR5. We post the results of our testing online (wsscwater.com/pfas).

	Potomac Tap		Patuxent Tap	
	Average (ppt)	Maximum (ppt)	Average (ppt)	Maximum (ppt)
PFOS	1.8	6.2	0.2	2.6
PFOA	1.5	5.3	0.8	2.4

SERVICE AREA MAP





Results indicate a definite presence of low levels of PFAS in our drinking water on average. Yet the results also illustrate *the narrow margin with respect to the proposed MCLs* and the *vulnerability to potential non-compliance* by source water variability, normal analytical error, or more stringent regulatory limits in the future.

The Cost of Maintaining Compliance

WSSC Water values our long-standing commitment to compliance. Thus, our utility and our customers are faced with significant capital and operational cost burden - not to meet compliance with proposed drinking water limits, but to maintain a safe margin of compliance into the future. PFAS chemicals in water require advanced treatment for removal, such as granular activated carbon (GAC), ion exchange (IX), or high-pressure membranes like nanofiltration (NF) or reverse osmosis (RO). Evaluation and testing of these treatment options are currently underway as part of our Water Quality and Treatment Master Plan, in which we are assessing treatment needs holistically to meet multiple and simultaneous compliance requirements as well as emerging water quality challenges. Initial estimates suggest that the capital cost of PFAS treatment at Potomac WFP could cost *from \$1.4 billion to \$2.9 billion*, and this does not include annual operating costs.

Capital cost for Potomac	GAC	IEX	NF/RO
WFP plant rated capacity	\$1.4 billion	\$1.4 billion	\$2.9 billion

For a sense of scale, without external funding, our customers would need to bear an estimated annual cost of \$108 million, or a rate increase of 11.6% to support the capital and operating costs of PFAS treatment alone by GAC, and at only one of our two water treatment plants. This is significantly higher than EPA's annualized cost estimate of \$16 to 67 million for an average Type 2 system. Compare this to the FY25 proposed 8.5% rate increase to support WSSC Water's water and wastewater capital programs and operations combined.

Any increase of costs hits heaviest on our lowest-income customers. The immense cost of PFAS treatment is no exception. Furthermore, compared to water suppliers treating higher PFAS levels, WSSC Water's public health benefit to cost ratio decreases dramatically if treating already low parts per trillion to lower parts per trillion levels.

A comprehensive holistic approach to rulemaking that balances science, affordability, efficiency and feasibility is critical to limiting the exponential escalation of costs to customers for both Safe Drinking Water Act and Clean Water Act compliance.

The Time Required

While WSSC Water shares many of the same PFAS management challenges that other utilities face, the scale of treating 60 billion gallons per year presents unique constraints. Large-scale sustainable solutions need time for planning, design, permitting and implementation to address land limitations, supply-chain constraints, complex liquid and solid waste disposal considerations, and preparing the workforce for advanced treatment operations.

Protecting Drinking Water Supplies by Eliminating at the Source

Given the magnitude of potential treatment costs by individual water suppliers serving around 5 million people in the DC metropolitan area and nearly 7 million people in the watershed, it makes sense in shared drinking water supplies to focus on controlling PFAS at the source. WSSC Water is working toward this end through our active role in the Potomac River Basin Drinking Water Source Protection Partnership and the Patuxent Reservoirs Watershed Protection Group. With PFAS still in use in commerce and industry, federal actions should also *prioritize regulatory tools to protect drinking water by eliminating PFAS sources into drinking water supplies*.

