

Per- and Polyfluoroalkyl Substances (PFAS)

PFAS: What Are They?

PFAS are a group of man-made chemicals that were developed in the 1940s to be fire, oil, grease, water and stain resistant. The chemicals are found in a wide array of consumer and industrial products, including non-stick cookware, stain repellent, dental floss, cleaning products and cosmetics. According to the Centers for Disease Control and Prevention the potential for health effects from PFAS in humans is not well understood.

For more information about PFAS, check out the U.S. Environmental Protection Agency site: (EPA) <https://www.epa.gov/pfas>.

How do these compounds get in the environment?

Some of the most common means of PFAS entering the environment are discharges from PFAS manufacturing and processing facilities, and from facilities that use the product in large quantities, such as airports and military installations. Two of the most common compounds, PFOA and PFOS, have been the most extensively produced chemical and are very persistent in the human body and environment – meaning they don't break down and accumulate over time. Once discharged into the environment and into source water, PFAS compounds cannot be removed during the water treatment process. Fortunately, there are no known PFAS contaminated sites located upstream of WSSC Water drinking water sources.

Are these compounds regulated by state/federal governments?

While the EPA does not yet regulate PFAS compounds, they updated the interim health advisories for PFOA to 0.004 parts per trillion (ppt) and PFOS to 0.02 ppt. Additionally, EPA released final health advisories for two other PFAS compounds, GenX chemicals at 10 ppt and PFBS at 2,000 ppt. Health advisories are non-regulatory, non-enforceable values that are calculated from laboratory studies or epidemiological data. They are theoretical guidelines that include margin of safety, and do not consider available analytical and treatment technologies or related costs.

There are currently no analytical methods that can detect PFOA and PFOS to the interim health advisories published by EPA, which are 1,000 times and 200 times lower than the analytical reporting limit (Minimum Reporting Level, or MRL) of 4 ppt, respectively.

Additionally, there are currently no treatment processes capable of removing PFOA and PFOS to the interim health advisory levels announced by EPA. The only known methods to remove PFAS to some degree are activated carbon, ion exchange, and reverse osmosis. These treatment options are very costly and would involve significant treatment plant upgrades. Given the low levels of PFAS found in our drinking water, these processes are not expected to provide measurable public health benefit.

WSSC Water Actions

WSSC Water has always taken a proactive lead in protecting its drinking water supplies and testing for contaminants of emerging concern. For more than 104 years, our water has consistently met all strict federal Safe Drinking Water Act requirements. In fact, we have never had a single drinking water quality violation in our history. WSSC Water conducted extensive water quality testing for six PFAS compounds, from July 2013 through April 2014 and again from March 2015 through October 2017, and found no detectable levels of these contaminants in our drinking water supply. Results are posted at www.wsscwater.com/pfas.

On January 24, 2020, WSSC Water resumed testing its water for the presence of PFAS substances at its Potomac and Patuxent Water Filtration Plants using the latest EPA analytical methods. These two plants provide drinking water to 1.9 million residents in Montgomery and Prince George's counties. Our monitoring results are consistent with the findings of our State regulator, the Maryland Department of the Environment (MDE), which did not identify a PFAS-contaminated site that could affect our drinking water sources.

The low detected levels, combined with the absence of known contaminated sites in our watershed, show that the risk of PFAS in our drinking water remains very low.

Next Steps

WSSC Water will continue to closely monitor any federal actions concerning PFAS while supporting efforts to improve laboratory testing methodology, source water protection, and research on developing treatment processes to remove PFAS in drinking water and at contaminated sites.

Questions

If you have questions about drinking water quality, please call WSSC Water's Emergency Call Center: at 301-206-4002 or contact waterqualityinquiry@wsscwater.com. More information about EPA's action related to PFOA and PFOS is available at <https://www.epa.gov/sdwa/drinking-water-health-advisories-pfoa-and-pfos>. If you are concerned about potential health effects from exposure to PFAS at low levels, we encourage you to contact your doctor or health care professional.