Metro Water Services (MWS) is committed to protecting public health and delivering clean, safe, reliable drinking water to our community. We go above and beyond to ensure you can trust your tap. This means making sure our water meets or exceeds all federal and state standards for drinking water and following current research and developments on contaminants of emerging concern.

What Are PFAS?

PFAS is a general term for a large and diverse group of manufactured chemicals known as polyfluoroalkyl substances. PFAS are widely utilized for their unique properties, such as resistance to high and low temperatures, non-stick characteristics, waterproofing, and as a fire retardant

PFAS are resistant to degradation. They are known as "forever chemicals" because they persist indefinitely within humans and the environment.

Where Are PFAS Found

PFAS have a widespread presence in the world. PFOA and PFOS are two PFAS compounds that were widely used to make household materials and products resistant to water, grease, or stains. PFAS can be found in clothing, food packaging, non-stick cookware, shampoos, and other daily items. It is even found in rainwater!

A recent study found that levels of PFOA and PFOS in rainwater often exceeds US Environment Protection Agency Lifetime Drinking Water Health Advisory levels, even in remote areas.

(Environ. Sci. Technol. 2022, 56, 16, 11172-11179)

What is Metro Water Services Doing About PFAS?

Certain technologies effectively remove PFAS from drinking water, especially PFOA and PFOS. One of these technologies, activated carbon adsorption, has been used in the MWS water treatment process to remove taste and odor compounds and synthetic organic chemicals. MWS began using powder-activated carbon (PAC) before 2013. Additionally, MWS began voluntarily testing for PFAS in 2015. Tests on drinking water leaving our treatment plants conducted in 2015, 2019, and 2021 found no detectible levels or minute levels of PFAS. well below the previous 70 parts per trillion (ppt) advisory value released in 2016.

Our latest testing was done in August 2022, results of the analysis are available on the website at: nashville.gov/departments/water/water-quality/pfas

The US EPA is currently performing a risk assessment for PFOA and PFOS in biosolids. The assessment is expected to be completed by 2024, and limits and monitoring/reporting requirements will be established if there is sufficient evidence of harm to human health or environment.

What about Nashville's Biosolids?

There are currently no established standards for PFAS in biosolids.

MWS Voluntarily tests fresh, unbagged, representative samples of our Class A Exceptional Quality Biosolids using a third-party. Results are posted on the website at: nashville.gov/departments/water/water-quality/pfas

MWS is committed to learning more about PFAS through research and ongoing studies to determine strategies to reduce levels of PFAS further. Although removing PFAS from drinking water and biosolids is extremely challenging and expensive, it is a challenge MWS is willing to meet to uphold our commitment to public health and safety.

Future Improvements

In 2018, MWS initiated a 2 year water treatment pilot plant research project to explore emerging technologies to best provide safe and reliable drinking water to our customers. Two different water treatment technologies were selected for piloting - ozone and granular activated carbon (GAC).

Results from the pilot plant project best determine that GAC Post Filter Adsorbers achieved MWS' water quality and process enhancement goals.

GAC Post Filtration Adsorbers have proven effective in addressing a wide range of emerging contaminants including, but not limited to, PFAS.

MWS will begin installing GAC Post Filter Adsorbers, among other improvements at both water treatment plants, K.R. Harrington and Omohundro, in the near future.