PFAS Briefing Sheet

PFAS are a category of manufactured chemicals that have been used in industry and consumer products since the 1940s. PFAS have characteristics that make them useful in a variety of products, including nonstick cookware, waterproof clothing, and firefighting foam, as well as in certain manufacturing processes.

People can be exposed to PFAS in several ways. Exposure to PFAS over a long time, and during certain critical life stages, like during pregnancy and in developing babies, may lead to negative health effects. Current research has shown that people can be exposed to PFAS by:

- Working in occupations such as firefighting or chemicals manufacturing and processing
- Drinking water contaminated with PFAS
- Eating certain foods that may contain PFAS, including fish
- Swallowing contaminated soil or dust
- Breathing air containing PFAS
- Using products made with PFAS or that are packaged in materials containing PFAS

PFAS can enter the environment from multiple sources, and because they tend to break down very slowly in the environment, PFAS can end up in the water sources that many communities rely on for drinking water. Reducing PFAS in drinking water helps reduce PFAS health risks. Prior to 2023, EPA did not regulate PFAS as part of a primary drinking water regulation, but rather established a non-regulated health advisory level.

The original EPA health advisory level (non-regulatory limit) was 70 parts per trillion and the World Health Organization has an advisory limit of 100 parts per trillion. In June of 2022, the EPA changed the health advisory limits to decrease that by more than a thousandfold. The new EPA health advisory limit for PFOS is 0.02 parts per trillion and for PFOA, it's 0.004 parts per trillion. Note that both of these limits are well below current detectable testing limits.

On Dec. 27, 2021, the U.S. Environmental Protection Agency (EPA) published the fifth Unregulated Contaminant Monitoring Rule (UCMR 5) which requires all public water systems that serve more than 10,000 people to sample and analyze for the presence of 29 PFAS components and the heavy metal, lithium, in a set interval between **2023 and 2025**. This rule requires testing to a minimum detectable level of 4.0 parts per trillion for PFAS. The EPA has assigned our testing dates and we will be sampling for UCMR 5 for 29 PFAS and 1 Metal as per the schedule listed below for our (4) service areas:

- 1A - April 2024 and October 2024
- 2A - September 2024 and March 2025

- 3A - October 2024 and April 2025
- 3BC – June 2024 and December 2024

On March 14, 2023, the EPA proposed new national primary drinking water regulation for two PFAS — perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) contaminants including establishing a new maximum contaminant level (MCL). The proposed maximum contaminant level is 4.0 parts per trillion for each contaminant PFOS and PFOA. This is the lowest that can be detected by current standard testing methods. Water and Wastewater Services (WWS) tested their water between 2013 and 2015 as part of the unregulated contaminant monitoring rule (UCMR3), and the level of PFAS was undetectable. The UCMR3 minimum reporting limits for PFOA was 20 parts per trillion and limits for PFOS was 40 parts per trillion. Our test results were below detection limits so the results were below the UCMR3 limits at that time. It is not possible to say how the results would compare to the proposed limits of 4.0 parts per trillion.

Water and Wastewater Services is closely monitoring this rule making process and the impacts to the County and expects the EPA to finish the comment period by the end of May 2023. EPA is then expected to finalize the rule by December 2023. Once the rule is finalized, under the current proposal, utilities will have three years to implement the necessary treatment to address the PFAS removal. Treatment methods to address the removal of PFAS includes activated carbon, anion exchange and reverse osmosis. Current estimates to replace or modify Broward County's two treatment plants are approaching $150 to $250 million.

This rule will have a significant financial impact on water treatment utilities and many utilities may have a difficult time to achieve the three years timeframe to address the PFAS removal. Staff believes many of these utilities will ask for a time extension.