

# Madison Sewer District: PFAS sampling results favorable, indicate expected levels for the service area

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**MADISON** — Madison Metropolitan Sewerage District presented the results of its testing for PFAS, or per- and polyfluoroalkyl substances, in the local wastewater cycle today. The results were as expected based on the characteristics of the District's 187-square-mile service area and fall below proposed standards and existing screening levels.

"The District plays a vital role in helping protect our region's valuable water resources," says Michael Mucha, the District's Chief Engineer and Director. "Our PFAS sampling plan demonstrates our holistic, proactive approach to understanding and addressing emerging contaminants, even though we aren't yet regulated for them. While the results of our initial sampling are favorable, they are just the first step in our investigation to ensure we remain good stewards of public health and the environment."

PFAS are a group of manmade compounds that have been in use for more than 70 years. They are broadly present throughout the environment, including in our homes and diets. Resistant to heat, water and oil, PFAS are found in a wide range of products used by consumers and industry, such as food packaging, dental floss, nonstick cookware and carpeting. Persistent exposure to high amounts of PFAS can negatively impact human and ecosystem health.

The District developed its [PFAS action plan](#) in June 2019. The first step in the action plan was a [fate and transport literature review](#), which identified knowledge gaps

regarding how PFAS moves inside and outside the plant. To close those gaps, a [phased sampling and analysis plan](#) was prepared.

The first phase of the plan tested for 33 PFAS compounds, as outlined by the Wisconsin Department of Natural Resources (WDNR). The District's influent (incoming wastewater), treated effluent (outgoing wastewater) and biosolids were tested. Struvite, a phosphorus-rich nutrient we recover from wastewater, and polymers, which are used in the treatment of biosolids, were also tested.

"As a receiver of wastewater, our system reflects the communities we serve," says Martye Griffin, director of ecosystem services for the District. "As such, it was critical for us to understand what kinds and how much PFAS is coming into and going out of the plant. With the first phase of our PFAS sampling plan complete, we now have concrete data available so we can make informed choices for our community and the environment."

The District's consultant, TRC, collected samples using lab-accepted collection methodologies. Eurofins|TestAmerica, which is certified by WNDNR to conduct PFAS testing, analyzed the samples.

A brief summary of the results follows; complete results are available on our dedicated PFAS website.

- **PFAS types as expected:** The types of PFAS found in local wastewater and biosolids are consistent with results from other municipal wastewater treatment plants in urbanized areas without significant industrial sources. The District tested influent from the five large sewer pipes, called forcemains, which aggregate wastewater from the service area and deliver it to the plant. The combined influent concentration of PFOA is 5.13 ppt, and PFOS is 6.86 ppt. By comparison, the influent median concentration from 42 wastewater treatment plants in Michigan is 4.6 ppt for PFOA and 7.5 ppt for PFOS.
- **No significant PFAS in polymer:** The polymer we add to the treatment process does not add any significant amount of PFAS to the waste stream.
- **No significant PFAS in struvite:** The struvite we create and send out of the watershed as a nutrient fertilizer does not contain any significant amounts of

PFAS compounds.

- **PFAS in effluent below state proposed standards:** The levels of PFOA and PFOS in the District's treated effluent are lower than the [currently proposed Wisconsin regulatory standards](#). Testing revealed a range of 9.7 of 11 ppt of PFOA in the District's effluent; the WDNR's proposed Surface Water Standard for Public Water Supply is 20 ppt, while the proposed standard for other surface waters is 95 ppt. For PFOS, District effluent is 3.7 ppt, the proposed standard for surface waters, both other public water supply and other waters, is 8 ppt.
- **PFAS in biosolids are the same as other utilities:** The amount of PFOA and PFOS in biosolids are similar to data from other municipal wastewater treatment plants that do not, like Madison, accept industrial waste from major PFAS sources.

"Our results overwhelming fall in line with what we expected based on our fate and transport review, as well as studies other wastewater utilities and states have conducted," says Griffin. "While we didn't find any surprises in the first set of data, we look forward to additional sampling to ensure we are doing everything we can as a wastewater utility to minimize the addition of PFAS to the environment."

The District's next testing phase will include sampling to examine processes within the plant that may add or transform PFAS compounds; a deeper dive into PFAS in the District's biosolids; and further testing to determine if certain areas of the collection system contribute more PFAS than other areas.

"PFAS are forever chemicals and will be with us for years to come," says Griffin. "Through sampling and analysis, we can determine if there are opportunities for reduction in the service area. However, it will take all of us working together — government, residents, businesses and more — to truly minimize the impact of PFAS on public health and the environment now and for future generations."

For more information on the District's PFAS work, including, [sampling highlights](#), the [full sampling report](#), and [tips for residents and businesses](#) for reducing their PFAS footprint, visit our dedicated PFAS website at [www.madsewerpfasinitiative.org](http://www.madsewerpfasinitiative.org).