



Per- and Polyfluoroalkyl Substances (PFAS)

How the MWRD is working to address PFAS in our water environment



They are found in every American household, in food packaging, stain resistant carpets, cookware, waterproof apparel, personal care products, and as a result, they are in the water environment the Metropolitan Water Reclamation District of Greater Chicago (MWRD) strives to protect. Per- and polyfluoroalkyl substances (PFAS) are a group of manmade fluorinated compounds that are designed to be stable and have been in commercial use since the 1940s. The stability of the chemicals makes them difficult to degrade which is why they are often called "forever chemicals." PFAS are in countless commercial, consumer, and industrial products and are acknowledged by the U.S. Environmental Protection

Agency (EPA) to be widely present in the environment.

Like other water utilities across the U.S., the MWRD is addressing how best to manage PFAS in the water environment. The MWRD's seven water reclamation plants (WRPs) do not produce nor use PFAS but are passive receivers of these chemicals discharged to local sewers. Wastewater can contain trace amounts of these chemicals from industrial, commercial and household sources. The MWRD's WRPs were not designed to remove these chemicals during the treatment process. The use of nonstick cookware, cosmetics and sunscreens, washing clothes, and putting out fires

with certain foams can all introduce PFAS into the wastewater treatment process.

The MWRD is closely following and proceeding based on the developing science on the potential impacts of PFAS that end up at the MWRD's WRPs. The key to pollution prevention is addressing the source of PFAS. The MWRD is working to identify and reduce industrial discharges of PFAS, learning how the discharge from these sources can be reduced and encouraging federal and state regulators to focus on stopping these chemicals at the source. The MWRD's pretreatment program regulates industrial discharges to protect the treatment process and valuable resources the MWRD recovers.

Created by the Illinois General Assembly in 1889 as the Sanitary District of Chicago to protect Lake Michigan and the health and safety of citizens and area waterways, the MWRD is continuing that tradition of protecting the water environment and public health. The MWRD is responsible for treating wastewater and providing stormwater management for more than 5 million residents in Chicago and 128 suburban communities throughout Cook County. The MWRD has the capacity to transform more than 2 billion gallons of water in a day. In addition to water, the MWRD recovers energy, nutrients and biosolids that are used as sustainable soil amendments to improve the growth of plants.

Common Household Items Containing PFAS



Stain- + water-resistant treatments



Nonstick cookware



Waterproof apparel



Cleaning products



Fire-fighting foam



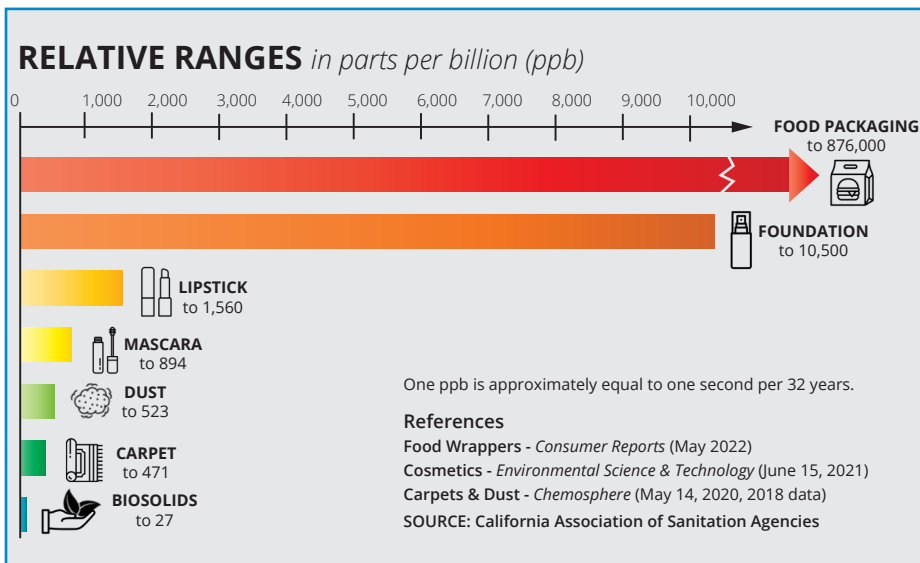
Takeout containers



Cosmetics



Carpets + textiles



Addressing PFAS

The MWRD is currently taking steps to determine the sources of PFAS in its wastewater system:

1. Surveying industrial use or discharge of PFAS in the MWRD service area.
2. Sampling and analyzing PFAS in select residential areas contributing to MWRD wastewater collection.
3. Providing in-kind support to national EPA and Water Research Foundation PFAS studies.

The MWRD is planning next steps including:

1. PFAS sampling in MWRD intercepting sewers that serve industrial areas.
2. Inspections and outreach to industries most likely to use/discharge PFAS.
3. Partnerships with industries to investigate processes and chemical substitutes for PFAS.
4. Direct regulation of industries under provisions of MWRD ordinances and federal law.

Biosolids Management:

Preliminary analysis of biosolids and compost samples showed that levels of PFAS in MWRD's biosolids are within the range of concentrations found in typical municipal biosolids that are not impacted by large discharges from industries. The science shows that biosolids enhance soil health, recycle nutrients, sequester carbon, reduce fertilizer and pesticide use, strengthen farm economies, restore vitality to degraded lands, and create a productive reuse for materials that every community must manage. Farmers and recreational areas voluntarily apply MWRD biosolids to improve plant growth and productivity. A Food and Drug Administration survey found no evidence of widespread occurrence of PFAS in food grown or produced in areas associated with environmental PFAS.

The MWRD will continue to follow the rules and regulations established by the EPA to protect the public as it has always done. The MWRD is also committed to working closely with federal and state agencies, universities, and national organizations to better understand how

PFAS may be entering the wastewater treatment process and help fill gaps in current PFAS knowledge to address the issue. The MWRD has engaged with the EPA and national research institutions and joined technical working groups, taskforces and industry associations to understand the latest science for developing best practices and regulatory approaches.

Call to Action: The MWRD was named a "Utility of the Future Today" for its forward-thinking, innovative model to protect local watersheds, engage with Cook County communities and recover valuable resources in the MWRD's quest to protect the regional water environment. The MWRD is proud to serve as an environmental leader for the Chicago region looking for solutions that can change the world and keep it safe and secure for future generations. But the MWRD cannot accomplish this on its own. The MWRD encourages citizens to empower themselves and protect their water environment by learning more about PFAS, investigating the products they rely on, and choosing PFAS-free materials.

