



Water Production Bureau

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January 28, 2022

Mr. Kevin Lookis
Executive Director
Northwest Water Commission
1525 North Wolf Road
Des Plaines, IL 60016

Re: IL EPA Drinking Water Sampling (PFAS)

Dear Mr. Lookis,

PERFLUOROALKYLS AND WATER

Perfluoroalkyls (PFAS) are man-made chemicals that have been used in industrial and consumer products worldwide since the 1950s. Research on two kinds of PFAS forms the basis of our scientific understanding about this group of chemicals. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) were manufactured for the longest time, are the most widespread in the environment, and are the most well studied. They have been used in non-stick cookware, water-repellent clothing, stain-resistant fabrics, some cosmetics, some firefighting foams, as well as products that resist grease, water, and oil. While many PFAS have been phased out of use in the US, they are considered “forever chemicals” because they persist in the environment.

For more information: <https://www2.illinois.gov/epa/topics/water-quality/pfas/Pages/default.aspx>

HEALTH EFFECTS OF PFAS

PFAS can be found globally in the soil, air, and water, as well as in a wide range of consumer goods. PFAS do bio-accumulate which means they can build up over time.

PFAS are a highly researched group of chemicals but the studies do not show a direct causality between PFAS and health effects currently. Some studies have found PFAS associated with increased cholesterol levels, changes in liver enzymes, thyroid disruption, increased risk of kidney or testicular cancer, increased risk of high blood pressure or pre-eclampsia in pregnant women, small decreases in infant birth weights, and decreased vaccine response in children. Scientists are still learning about the health effects of exposures to mixtures of different PFAS.

PFAS GUIDANCE

In 2016, USEPA issued drinking water health advisories for PFOA and PFOS at 70 parts per trillion (ppt). These standards are non-binding, non-regulatory, and meant to provide technical information to state agencies and other public health officials on health effects, analytical methodologies, and treatment technologies associated with drinking water contamination.

In 2021, Illinois EPA issued statewide health advisories as well as started an ongoing sampling investigation of PFAS chemicals in community water supplies. As “forever chemicals,” trace amounts of PFAS are often detected in drinking water.

Both the US EPA Lifetime Health Advisory Levels and Illinois EPA Health-Based Guidance Levels are measured in parts per trillion (ppt), where many drinking water compounds are measured in parts per billion (ppb). As a frame of reference, one part per trillion is roughly the equivalent of one drop in 20 Olympic-sized swimming pools.

At this time, no enforceable federal or state drinking water standard, called a Maximum Contaminant Level or MCL, exists for any of the more than 5,000 known PFAS chemicals. Illinois EPA is in the process of collecting data in the PFAS Investigation Network to develop a state MCL. In 2021, The Illinois EPA established their own state health advisories.

On November 16, 2021 the U.S. Environmental Protection Agency (EPA) asked the agency’s Science Advisory Board to review draft scientific documents regarding the health effects of certain Per- and Polyfluoroalkyl Substances (PFAS). EPA is committed to science-based approaches to protect public health from exposure to PFOA and PFOS, including by quickly updating drinking water health advisories with new peer-reviewed approaches and expeditiously developing National Primary Drinking Water Regulations (NPDWRs) for these contaminants (proposed rule fall 2022, final rule fall 2023). NPDWRs are legally enforceable standards that apply to public water systems. Primary standards protect public health by limiting the levels of contaminants in drinking water.

PFAS IN EVANSTON

Illinois EPA testing has determined that one PFAS chemical was detected in the City’s drinking water just above the Illinois EPA Health-Based Guidance Level of 2.0 ppt for PFOA (The lowest concentration the laboratory can reliably detect is 2.0 ppt). The levels detected for PFOA were 2.2 ppt (9/2/2021), 2.3 ppt (11/16/2021), and 2.2 ppt (11/16/2021).

Communities along the west shore of Lake Michigan are seeing similar results at about 2 ppt on average.

City of Evanston PFAS Testing Results		
Date	City of Evanston Drinking Water	
	PFOS IEPA Guidance Level 14.0 (ppt) US EPA Guidance Level 70.0 (ppt)	PFOA IEPA Guidance Level 2.0 (ppt) US EPA Guidance Level 70.0 (ppt)
9/2/2021	2.4 ppt	2.2 ppt
11/16/2021	*2.3 ppt	*2.3 ppt
11/16/2021	**2.2 ppt	**2.2 ppt

*indicates confirmation sample results, **indicates duplicate confirmation sample results

The concentrations detected in City water are well below the US EPA published Lifetime Health Advisory Level of 70 parts per trillion (ppt). Notably, both the US EPA Lifetime Health Advisory Levels and Illinois EPA Health-Based Guidance Levels are measured in ppt, where many drinking water compounds are measured in parts per billion (ppb).

NEXT STEPS

The City is following recommendations from the Illinois EPA and closely monitoring the latest health-based guidance. We will continue monitoring PFAS values through quarterly sampling at the direction of the Illinois EPA. The most recent test results will be added to the above chart on the City's PFAS webpage once available.

We will begin evaluating treatment options to reduce public exposure to PFAS in potable water provided by the Evanston Water Utility. The City will continue to closely monitor the situation and ensure information is communicated with community members and wholesale water customers.

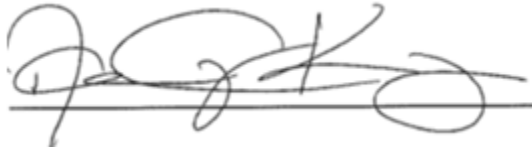
MORE INFORMATION

If you have questions for the Evanston Water Utility, please contact Darrell A. King, Water Production Bureau Chief, at dking@cityofevanston.org or 847.448.8212. The 2020 Annual Water Quality Report contains additional information about the City's water quality. Additional information regarding PFAS in Evanston is available on the City's website at: www.cityofevanston.org/pfas

The US Environmental Protection Agency and the Illinois Environmental Protection Agency provide information on PFAS and the latest research and

regulatory developments. The City is following the issue closely and will continue adhering to guidance from the Illinois EPA and US EPA.

Very Truly Yours,

A handwritten signature in black ink, appearing to be 'D. King', written over a horizontal line.

Darrell A. King
Water Production Bureau Chief