FREDERICK COUNTY GOVERNMENT

Jan H. Gardner
County Executive

DIVISION OF WATER AND SEWER UTILITIES
Department of Water Purification & Distribution

Mark A. Schweitzer, Director
Kenneth G. Orndorff, Superintendent

FACTS About PFAS

Overview:

PFAS are a group of over 6,000 man-made chemicals that have been manufactured and used in home consumer products such as carpets, clothing, food packaging, and cookware since the 1940s. Two of these compounds—Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonic acid (PFOS)—have been the most extensively produced and studied, and there is evidence that exposure to elevated levels of PFAS can lead to adverse health outcomes in humans.

Water utilities are "passive receivers" of PFAS. They do not produce or manufacture PFAS. Instead, these chemicals are present in source waters that are treated to produce drinking water.

Currently, there are no established federal water quality regulations for any PFAS compounds.

In 2016, the EPA established a Health Advisory (HA) of 70 parts per trillion (ppt) for PFOA and PFOS combined. Unlike EPA regulations, EPA Health Advisories are non-enforceable and non-regulatory.

In June 2022, EPA issued final HAs for perfluorobutanesulfonic acid (PFBS) and hexafluoropropylene oxide dimer acid (HPFO-DA or GenX) and interim HAs for PFOS and PFOA.

The EPA states that these interim health advisories will remain in place until EPA establishes a National Primary Drinking Water Regulation. The new HAs are listed in the table below.

Analyte	2022 HA Level	Type of HA
PFBS	2,000 ppt	Final
GenX	10 ppt	Final
PFOS	0.02 ppt*	Interim
PFOA	0.004 ppt*	Interim

* At this time, the minimum reporting level (the lowest level that instruments can detect) is 4 ppt (according to EPA), therefore results cannot be quantified down to the EPA's Interim HA for PFOS and PFOA.

Frederick County has been working with MDE as part of a state-wide effort to have all drinking water sources tested for PFAS and collected samples at the New Design Water Treatment Plant on both source water and treated water.

Frederick County PFAS Test Results

Analyte	System-wide Results Range	EPA's 2022 HA level
PFBS	non-detect to 17.1 ppt	2,000 ppt
GenX	all results were non-detect	10 ppt
PFOS	non-detect to 22.9 ppt	0.02 ppt
PFOA	non-detect to 15.9 ppt	0.004 ppt

Summary:

- PFBS – all results are less than the HA level.
- GenX (HPFO-DA) – all results are non-detect.
- PFOS and PFOA
  - Some results are above EPA's 2022 HA levels.
  - At this time, the lowest level that our laboratory contractor's instruments can detect is 1 ppt, therefore results cannot be quantified down to the EPA's Interim HA levels for PFOS and PFOA.
  - The County's largest water system, New Design, has non-detectable levels for all compounds listed, but current test methods are not sensitive enough to know if they are below the June 2022 Health Advisory set by EPA.

If results are above the 2022 HA level, what does that mean for customers?

- This is not an emergency or a regulatory violation. If it had been, customers would have been notified within 24 hours.
- If customers are concerned about potential health effects from exposure to these PFAS above the health advisory level, EPA encourages you to contact your doctor or health care professional.
- At this time, EPA is not recommending bottled water for communities based solely on concentrations of these chemicals in drinking water that exceed the health advisory levels.

Frederick County's Next Steps

- We are following the guidance of EPA and MDE.
- Our next round of voluntary annual testing at New Design will take place in 2022.

- Certain systems (New Design included) will be collecting PFAS samples in 2023 for the EPA's Unregulated Contaminant Monitoring Rule (UCMR5).
- We await further guidance and will take action if necessary to meet future state and federal regulations when they are established.

Advice for Customers to Reduce Exposure to PFAS - Drinking Water is just one pathway for exposure

- Support efforts to protect drinking water sources and keep PFAS out of water supplies.
- Cook with stainless steel, cast-iron, glass, or ceramics. Don't use nonstick cookware.
- Read ingredient lists and choose products without PTFE or perfluoro- or polyfluor-.
- Look for coats, hats, and boots labeled water-resistant. They're less likely to have PFAS than waterproof products.
- Make popcorn on the stove or in an air popper instead of microwave bags
- Avoid ordering food in grease-resistant wrappers or containers.

Additional Resources:

- EPA's PFAS Information: https://www.epa.gov/pfas
- EPA's Questions and Answers: Drinking Water Health Advisories for PFOA, PFOS, GenX Chemicals and PFBS: https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs#q9
- Maryland Department of Environment PFAS—Information on the Maryland Department of the Environment's efforts to address per- and polyfluoroalkyl substances (PFAS) in Maryland's Drinking Water Sources
- Center for Disease Control (CDC): https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html
- American Water Works Association (AWWA): https://drinktap.org/Water-Info/Whats-in-My-Water/Per-and-Polyfluoroalkyl-Substances