



Information about PFAS Testing of Your Drinking Water

WHAT ARE PFAS?

Per- and polyfluoroalkyl substances, also called “PFAS,” are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s. PFAS have heat, water, and stain-resistant characteristics that make them useful in a variety of consumer products, including food packaging, cookware, clothing, cosmetics, carpet and furniture treatments, even dental floss and toilet paper. It is also a key ingredient in firefighting foam, as well as major manufacturing processes.

There are thousands of different PFAS in use today, and while domestic production or use of some PFAS (most notably PFOA and PFOS) has been phased out, the vast majority of PFAS continue to be used. Because of their widespread use, the EPA estimates that 80% of a person’s PFAS exposure comes from consumer products.

Because they are completely man-made, PFAS tend to break down extremely slowly in the environment and can build up in people, animals, and nature over time. PFAS have been found in water, air, and soil throughout the U.S. and around the world and, as a result, they can end up in drinking water sources. Scientific studies show links between certain levels of PFAS exposure over time and harmful health effects in humans and animals. Additional information on PFAS from the United States Environmental Protection Agency (EPA) can be found at <https://www.epa.gov/pfas>.

WHAT IS KNOWN ABOUT PFAS IN MY DRINKING WATER?

It is important to note that PFAS are not used in drinking water treatment processes, and they are not produced during drinking water treatment processes. If PFAS are found in drinking water, it is because it is present in the source water(s). To better understand the existence of PFAS in Kentucky’s drinking water, the Kentucky Energy and Environment Cabinet (EEC) collected and analyzed drinking water samples from 81 community public drinking water treatment plants (WTPs) for PFAS in 2019 and have extended the study to include 113 WTPs in 2023.

Initial samples were collected from the plant taps at each of the North Marshall Water District water treatment plants on February 9, 2023. The results of this sample event for PFAS proposed National Primary Drinking Water Regulation (NPDWR) Maximum Contaminant Level (MCL) are provided in the table at the top of the following page.

PFAS	Proposed NPDWR MCL ¹	Tatumsville WTP Sample Results (ppt)	Carter Brien WTP Sample Results (ppt)	Tatumsville Hazard Index Calculation	Carter Brien Hazard Index Calculation
perfluorooctanoic acid (PFOA)	4.0 ppt ²	ND	11.8		
perfluorooctanesulfonic acid (PFOS)	4.0 ppt	ND	1.77		
hexafluoropropylene oxide dimer acid (HFPO-DA) (GenX chemicals)	1.0 Hazard Index ³ (unitless)	ND	ND	0	0.31
perfluorobutanesulfonic acid (PFBS)		ND	7.05		
perfluorohexane sulfonic acid (PFHxS)		ND	2.73		
perfluorononanoic acid (PFNA)		ND	ND		

¹MCL – maximum contaminant level.

²ppt - parts per trillion (ppt). A part per trillion is equal to one drop in 13.2 million gallons of water.

³Hazard Index - This calculation evaluates the potential increased health risk from mixtures of PFAS that may be found together in water.

Based on the test results, NMWD completed additional sampling and testing to confirm the presence of PFAS at levels above the EPA’s proposed drinking water standards. While these standards are not in effect, and will not be for several years, NMWD removed the one well with concentrations above the proposed EPA MCL from service. This well provided water for the Carter Brien WTP pressure zone which serves approximately 650 of the district’s 5,650 customers located in the northern portion of the district. All customers are being currently served by our Tatumsville WTP and our water currently meets with the proposed regulatory limits per the monitoring completed to date.

This month, NMWD will also start testing our drinking water for 29 PFAS by participating in the EPA Fifth Unregulated Contaminant Monitoring Rule program, or UCMR 5. UCMR 5 requires sample collection for 30 chemical contaminants between 2023 and 2025 using certified analytical methods.

Consistent with EPA’s PFAS Strategic Roadmap, UCMR 5 will provide EEC with new data that is critically needed to improve understanding of the frequency and levels that 29 PFAS (and lithium) are found in drinking water systems. This data will ensure science-based decision-making and help prioritize protection of disadvantaged communities. NMWD will publicly report our data share the results in subsequent Consumer Confidence Report.

More information on the UCMR 5 can be found at <https://www.epa.gov/system/files/documents/2022-02/ucmr5-factsheet.pdf>.

WHAT IS BEING DONE ABOUT PFAS IN DRINKING WATER?

On March 29, 2023, EPA proposed new drinking water regulations to establish legally enforceable limits for six PFAS known to occur in drinking water. The six PFAS are PFOA, PFOS, GenX, PFBS, PFHxS, and PFNA. No action is required for drinking water systems until EPA finalizes the standards, which is expected around the end of 2023. After the standards are finalized, they will become enforceable in three years to five years.

Specifically, EPA is proposing:

- **An enforceable limit for PFOA and PFOS.** EPA is proposing to regulate PFOA and PFOS at a level they can be reliably measured, which is 4.0 parts per trillion (ppt). A part per trillion is equal to one drop of water in approximately 13.2 million gallons of water.

- **An enforceable limit on a combination of GenX chemicals, PFBS, PFHxS, and PFNA.** The proposed rule also would place limits on any mixture containing one or more of GenX chemicals, PFBS, PFHxS, and/or PFNA. For these PFAS, water systems would use an approach called a hazard index. This approach protects communities from the additive effects of multiple PFAS when they occur together.
- **Monitoring.** EPA is proposing requirements for monitoring for the six PFAS that build upon EPA's long established monitoring framework.
- **Public notification.** Public water systems would be required to notify the public if monitoring detects these PFAS at levels that exceed the proposed limits.
- **Treatment.** Public water systems would be required to take actions to reduce the levels of these PFAS in drinking water if they exceed the proposed limits. This could include removing these chemicals through various types of treatment or switching to an alternative water supply that meets the standard.

More information on EPA's proposed PFAS drinking water regulation is available at <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

EPA issued interim drinking water health advisories for PFOA and PFOS, and final health advisories for PFBS and GenX, in June of 2022. It is important to note EPA health advisories are non-enforceable and non-regulatory.

More information on EPA's health advisory levels is available at <https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs>.

CAN I STILL DRINK MY TAP WATER?

Yes. Except for locations where state agencies have determined that PFAS levels are high enough to raise public health concerns, water with detections for trace levels of PFAS remains safe to drink. The EPA is not recommending bottled water for communities based solely on concentrations of PFAS chemicals in drinking water that exceed the health advisory levels. They also highlight that PFAS cannot be removed by heating or boiling water. If you choose to test your water yourself, it is important to use a state-certified laboratory using EPA-developed testing methods.

If you remain concerned about the level of PFAS in your drinking water, you may consider installing an in-home water treatment device that is certified by an independent party, currently available for PFAS (NSF P473), and maintained to ensure that the treatment remains effective over time.

More information is available below and at <https://www.epa.gov/sdwa/questions-and-answers-drinking-water-health-advisories-pfoa-pfos-genx-chemicals-and-pfbs#q6>.

WHAT CAN I DO TO REDUCE MY OVERALL EXPOSURE TO PFAS?

It is estimated that 80% of your exposure of PFAS comes from consumer goods. Because certain PFAS are known to cause risks to human health, and due to their pervasiveness, the most important steps you and your family can take to protect your health is to understand how to limit your exposure.

- People who eat food cooked at home more often may have lower levels of PFAS in their blood than people who frequently eat out because PFAS has been found in burger wrappers, salad containers, and cookie bags.
- Avoided microwave popcorn is recommended because the bags tend to have high levels of PFAS.
- When purchasing carpets, furniture, and clothing, favor retailers that restrict the use of PFAS.
- Cosmetics frequently contain PFAS. Avoid water-resistant products and products with PTFE or "fluoro-" in the ingredients.

- Most nonstick cookware is made with PTFE, a type of PFAS. Consumers should consider a more traditional cast iron or carbon steel pan. Nonstick products are less likely to release PFAS if they are used properly. They should not be scraped with metal cooking utensils or abrasive cleaners or be overheated while cooking.

Learn more at <https://www.epa.gov/pfas/meaningful-and-achievable-steps-you-can-take-reduce-your-risk>.

WHERE CAN I FIND ADDITIONAL INFORMATION ABOUT PFAS?

More information on PFAS is on the NMWD website through our homepage at www.northmarshallwater.com.

Learn more about PFAS in Kentucky at <https://eec.ky.gov/PFAS>.

Read EPA's PFAS Strategic Roadmap at <https://www.epa.gov/pfas/pfas-strategic-roadmap-epas-commitments-action-2021-2024>.

EPA explains PFAS at <https://www.epa.gov/pfas/pfas-explained>.

PFAS health effect information can also be found on the U.S. Centers for Disease Control and Prevention (CDC) website at <https://www.atsdr.cdc.gov/pfas/health-effects/index.html>.