

## PFAS in Water

### **Q: What are PFAS?**

Per- and polyfluoroalkyl substances (PFAS) (also known as “forever chemicals” and perfluorinated compounds) are a large group of human-made chemicals that do not occur naturally in the environment and are resistant to heat, water and oil. PFAS were first used in the 1940’s to create products with stain-, weather- and water-resistance. As a result, PFAS are in hundreds of consumer products, such as:

- Non-stick cookware
- Food packaging
- Stain-resistant carpets/furniture
- Waterproof Clothing/Accessories

There are thousands of different PFAS but only some are more widely used and studied which determines which PFAS are regulated. Some types of PFAS, specifically perfluorooctanoic acid (PFOA) and perfluorooctane sulfonic acid (PFOS) are no longer manufactured in the U.S., but these substances are still used in consumer goods produced internationally and imported into the U.S.

### **Q: How are PFAS getting into the drinking water?**

Production and usage of PFAS in the U.S. started in the 1940s. Areas where the substances were produced/manufactured have detected PFAS in the air, water and soil. PFAS are resistant to breaking down in the environment, which leads to contamination of soils and groundwater, at sites that produced, manufactured or used PFAS and in waste disposal areas, like landfills where consumer products are thrown away. PFAS can then be introduced into drinking water when products containing PFAS are used or spilled on the ground and percolate down into underground aquifers, or directly into surface waters.

### **Q: Has the City sampled for PFAS in the water?**

As part of required United States Environmental Protection Agency (US EPA) regulations under the Unregulated Contaminant Monitoring Rule, (UCMR3), the City of Davis sampled for PFAS twice in January and August of 2014 in wells and

sampling stations. The results were below the minimum reporting level (the lowest measurable concentration of a contaminant achievable by accredited labs) for PFAS. This sampling predates the Woodland Davis Clean Water Agency (WDCWA) providing surface water (treated Sacramento River water) to the City of Davis beginning in 2016. The City's water supply, from 2016 onward, is a conjunctive use system of surface water (Sacramento River) and groundwater (wells) sources.

In December 2020, the Sacramento River Watershed Sanitary Survey 2020 Update Report stated that PFAS monitoring in the Sacramento River was conducted in 2019 and all the results were below the detectable limit for PFAS. In 2023, WDCWA started sampling quarterly for 25 types of PFAS from the raw surface water entering the treatment plant and all results were below the minimum reporting level for PFAS.

For more information visit the WDCWA website (<https://www.wdcwa.com/project-history>)

**Q: I looked at the 2022 Water Quality Report, why wasn't PFOA and PFOS (or PFAS) mentioned?**

The 2022 annual water quality report is a state-mandated report that requires that only results above the detectable limit of the analyte/chemical can be included in this report. The last PFOA and PFOS sampling in Davis groundwater was conducted in January and August of 2014 as part of the U.S. EPA Unregulated Contaminant Monitoring Rule (UCMR3) and those results were below the minimum reporting level for all the PFAS chemicals sampled (see list below).

- perfluorooctanoic acid (PFOA)
- perfluorooctane sulfonic acid (PFOS)
- perfluorobutane sulfonic acid (PFBS)
- perfluorohexane sulfonic acid (PFHxS)
- perfluorohepatonic acid (PFHpA)
- perfluorononanoic acid (PFNA)

**Q: When is the next time the City will sample for PFAS in the water?**

The City of Davis started sampling for PFAS within the distribution system in 2024 (as part of the U.S. EPA Unregulated Contaminant Monitoring Rule, UCMR5). The groundwater (active wells) and the treated surface water will be sampled for 29

PFAS substances two times throughout 2024. WDCWA continues to sample the surface water supply from the Sacramento River for 25 types of PFAS and all samples continue to be below the minimum reporting level. All sampling (UCMR5 and Sacramento River via WDCWA) will be reported on the 2024 water quality report if the minimum reporting level of PFAS is exceeded.

**Q: What is the new PFAS drinking water regulation?**

On April 10, 2024, EPA announced the final National Primary Drinking Water Regulation (NPDWR) for six PFAS. PFOA, PFOS, PFHxS, PFNA, and HFPO-DA as contaminants with individual MCLs, and PFAS mixtures containing at least two or more of PFHxS, PFNA, HFPO-DA, and PFBS using a Hazard Index as a Maximum Contaminant Level (MCL) to account for the combined and co-occurring levels of these PFAS in drinking water.

Compound	Final MCLG	Final MCL (enforceable levels)
PFOA	Zero	4.0 parts per trillion (ppt) (also expressed as ng/L)
PFOS	Zero	4.0 ppt
PFHxS	10 ppt	10 ppt
PFNA	10 ppt	10 ppt
HFPO-DA (commonly known as GenX Chemicals)	10 ppt	10 ppt
Mixtures containing two or more of PFHxS, PFNA, HFPO-DA, and PFBS	1 (unitless) Hazard Index	1 (unitless) Hazard Index

For more information about the PFAS regulations, visit the EPA website, <https://www.epa.gov/sdwa/and-polyfluoroalkyl-substances-pfas>.

**Q: If PFAS are detected in the drinking water, what will the City do?**

The City will post all detected results above the minimum reporting levels in the annual Water Quality Report. If PFAS sampling results are above the minimum reporting level, residents will be sent notification that includes the concentration of PFAS detected and the associated health concerns for that specific substance.

Depending on the concentration of the PFAS detected, the City will determine if the source should be removed from producing water and/or consider possible treatment for PFAS at that source.

**Q: How can I remove PFAS in my water?**

The use of water filters is a personal decision for each individual based on their specific health concerns; the utilization of a filter is a consumer choice, and the City of Davis does not endorse any specific water treatment device. However, caution is advised when considering the use of a water filter specifically for the removal of a contaminant (such as PFAS) that has not been detected in the water. Currently, no at-home treatment devices can remove all PFAS, as the existing analytical methods (lab testing) cannot demonstrate complete removal of PFAS. Should you purchase a home treatment device or household filter, we do recommend that it be independently certified for the intended purpose (to reduce PFOA/PFOS) by American National Standards Institute (ANSI) and/or the National Sanitation Foundation International (NSF). The packaging of the device or product website should have in the description a statement, or mark, or emblem of NSF/ANSI 53 or NSF/ANSI 58 certification for PFAS reduction. Below is a link to the US EPA fact sheet on reducing PFAS in your drinking water with a home filter.

<https://www.epa.gov/system/files/documents/2024-04/water-filter-fact-sheet.pdf>

**If you would like further information about City of Davis water quality, please email [Water@CityofDavis.org](mailto:Water@CityofDavis.org).**