PFAS Frequently Asked Questions (FAQ)

What are PFAS?

PFAS (Per- and Polyfluoroalkyl Substances) are a large class of synthetic chemicals that are designed to be resistant to heat, water and oil. PFAS are used in fire-fighting foams and a wide range of industrial and consumer products such as stain- and water-resistant clothing, carpets, cleaning products, non-stick cookware and food packaging.

PFAS are persistent in the environment, can accumulate within the human body over time, and are toxic at relatively low concentrations. Scientific studies have shown that exposure to some PFAS in the environment may be linked to harmful health effects in humans and animals. Although certain PFAS are no longer manufactured in the U.S., these chemicals are still produced internationally and imported into the U.S. in consumer goods.

PFAS are unregulated emerging contaminants of concern in drinking water due to a host of potential health impacts and the tendency of PFAS to accumulate in groundwater.

How do PFAS get into the drinking water?

Since PFAS are used in array of industrial and consumer products, there could be many sources of contamination in the water supplies. Common sources of PFAS include industrial facilities where PFAS are manufactured or used, wastewater, landfills and areas where fire-fighting foam was used. There are areas across the nation where PFAS have seeped into groundwater, lakes and rivers. These chemicals travel easily through the ground and may make their way into groundwater basins that supply drinking water.

What are limits for PFAS?

Over the past several years, the science on PFAS and its impacts to the environment and public health have prompted regulatory actions. In March 2023, the U.S. Environmental Protection Agency (EPA) released its proposed PFAS regulations which includes maximum contaminant levels (MCLs) for six PFAS. The proposed MCL for PFOA and PFOS is at 4 parts per trillion (ppt) for each compound due to its carcinogenic health effects. The proposed MCL for a mixture of 4 PFAS (PFHxS, GenX chemicals, PFNA, and PFBS) is a Hazard Index at 1.0 due to their toxicological endpoints. The Hazard Index is calculated as the sum of the four individual health-based water concentrations. EPA anticipates finalizing the regulations by the end of 2023. Once the rule is finalized, water systems would have three years to be in compliance with the MCLs.

EPA Proposed PFAS MCLs

Compounds	Proposed Maximum Contaminant Levels
PFOS	4 parts per trillion (4.0 ng/L)
PFOA	4 parts per trillion (4.0 ng/L)
PFHxS	Hazard Index = 1.0 (unitless)*
GenX Chemicals	
PFNA	
PFBS	

$$* \text{ Hazard Index} = \left(\frac{[\text{GenX}_{water}]}{[10\text{ ppt}]}\right) + \left(\frac{[\text{PFBS}_{water}]}{[2000\text{ ppt}]}\right) + \left(\frac{[\text{PFNA}_{water}]}{[10\text{ ppt}]}\right) + \left(\frac{[\text{PFHxS}_{water}]}{[9.0\text{ ppt}]}\right)$$

Setting limits for PFAS is also a high priority for California. The State has already issued drinking water notification and response levels for four PFAS so far and is evaluating other PFAS found throughout the state. Notification and response levels are nonregulatory-health based advisory levels established by the State for contaminants in drinking water for which MCLs have not been established. When a contaminant is found at concentrations greater than its advisory level, certain notification requirements and recommendations apply. In addition, the State is currently developing Public Health Goals (PHGs) for PFOA and PFOS, which is the first step in establishing MCLs for these PFAS.

CA Advisory Levels for PFAS

PFAS	Notification Level (ppt)	Response Level (ppt)	Issued Date/Status
PFOS	6.5	40	February 6, 2020
PFOA	5.1	10	February 6, 2020
PFBS	500	5,000	March 5, 2021
PFHxS	3*	20*	October 31, 2022*

*For monitoring starting in 2023

Notification level represents the concentration level of a contaminant in drinking water that does not pose a significant health risk but warrants notification.

Response level represents the concentration level of a contaminant in drinking water at which water systems should take additional actions such as taking a water source out of service or provide treatment.

What are available treatment technologies to remove PFAS?

Technologies with demonstrated effectiveness to remove PFAS from drinking water include granular activated carbon filters, ion exchange and high-pressure membranes such as nanofiltration and reverse osmosis (RO) filtration. Point-of-use water filters with similar technologies are also available on the market.

What is Zone 7 doing about PFAS?

Zone 7 has been actively monitoring for PFAS since late 2018. No PFAS has been detected above any Consumer Confidence Report Detection Level (CCRDL) in its treated surface water which made up majority of the total water delivered to its customers. Although PFAS have been detected in some Zone 7 groundwater wells, these wells are either below the response levels or are treated to levels below the response levels prior to entry into the distribution system. Typically, Zone 7 supplies approximately 60-80% treated surface water and 20-40% groundwater per year. The ratio of surface water to groundwater varies depending upon the season, hydrologic conditions and customer's location in the Tri-Valley.

Zone 7 is committed to delivering a safe and reliable water supply to our customers. All water supplied to our customers meets the regulatory standards set by the state and federal governments and, in almost all cases, the quality is significantly better than required.

Zone 7 is also actively investigating the extent of PFAS across its groundwater basin and is in the process of planning, designing, and constructing PFAS treatment facilities in anticipation of new regulations. Monitoring data, reports and project updates are available at www.zone7water.com/pfas-information

ADDITIONAL RESOURCES

State Water Board: www.waterboards.ca.gov/pfas/
U.S. Environmental Protection Agency: https://www.epa.gov/pfas
or contact Zone 7 at waterquality@zone7water.com