### 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.

### 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 t

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 move easily through the ground, getting into groundwater that may be used for water supplies or for private drinking water wells.

### What are limits for PFAS?

The U.S. Environmental Protection Agency (EPA) is developing a proposed National Drinking Water Regulation for two most common PFAS (PFOA and PFOS) for publication by the end of 2022. EPA anticipates finalizing the rule by the end of 2023. As EPA undertakes this action, the agency is also evaluating additional PFAS and considering regulatory actions to address groups of PFAS.

California also is in the process of establishing regulatory standards for these chemicals. Currently, California has drinking water notification and response levels for four PFAS and is evaluating five other PFAS found throughout the state. When a contaminant is found at concentrations greater than its notification/response level, certain notification requirements and actions apply.

#### State Advisory Levels for PFAS\* (parts per trillion or ppt)

PFAS	Notification Level	Response Level
Perfluorooctanesulfonic acid (PFOS)	6.5	40
Perfluorooctanoic acid (PFOA)	5.1	10
Perfluorohexane sulfonic acid (PFHxS)	3	20
Perfluorobutanesulfonic acid (PFBS)	500	5,000
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\*\* When a contaminant is found at concentrations greater than its advisory level, certain notification requirements and recommendations apply.

# 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 2018 and **all water delivered by Zone 7 had been below the response levels (RLs) for PFAS**.

No PFAS has been detected in its treated surface water which makes up majority of the total water delivered to its customers. Although some PFAS have been detected in Zone 7 groundwater wells, these wells are either below the RLs or are treated to levels below the RLs prior to entry into the distribution system. Typically, Zone 7 supplies approximately 80% treated surface water and 20% groundwater. This ratio of surface water to groundwater varies depending upon the season, hydrologic conditions and customer's location in the Tri-Valley. Zone 7 is also actively investigating the extent of PFAS across its groundwater basin and is in the process of constructing two new 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 waterguality@zone7water.com



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

**PFAS** are unregulated

