

PER- AND POLYFLUOROALKYL SUBSTANCES (PFAS) FACT SHEET

WHAT ARE PFAS?

Per- and polyfluoroalkyl substances (PFAS) are a group of man-made chemicals including Perfluorooctanoic Acid (PFOA) and Perfluorooctanesulfonate (PFOS). PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940's. PFOA and PFOS are two of the most extensively produced and studied of these chemicals. Due to their chemical structure, they are very persistent in the environment and in the human body. They take a long time to break down and can accumulate over time.



PFAS can be found in:

- ▶ Workplace, including production facilities or industries (e.g., chrome plating, electronics manufacturing or oil recovery) that use PFAS.
- ▶ Drinking water, typically localized and associated with a specific facility (e.g., manufacturer, landfill, wastewater treatment plant, firefighter training facility).
- ▶ Living organisms, including fish, animals and humans, where PFAS can build up and persist over time.

Certain PFAS chemicals have been phased out of manufacturing in the United States. Although PFOA and PFOS are no longer manufactured in the United States, they are still produced internationally and can be imported in consumer goods such as carpet, leather and apparel, textiles, paper and packaging, coatings, rubber, and plastics.

(Source: United States Environmental Protection Agency)

HOW ARE PEOPLE EXPOSED TO PFAS?

There are a variety of ways that people can be exposed to these chemicals and at different levels of exposure. For example, people can be exposed to low levels of PFAS through food, which can become contaminated through: contaminated soil and water used to grow the food, food packaging containing PFAS, and equipment that used PFAS during food processing.



People can also be exposed to PFAS chemicals if they are released during normal use, biodegradation, or disposal of consumer products that contain PFAS.

Drinking water can be a source of exposure in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example, an industrial facility where PFAS were produced or used to manufacture other products, or an oil refinery, airfield or other location at which PFAS were used for firefighting.

(Source: United States Environmental Protection Agency)

DOES RECYCLED WATER CONTAIN THESE CHEMICALS?

There are no state or federal regulatory levels for wastewater or recycled water with respect to PFAS. In some wastewater treatment plants, the current running annual average detected are between the current Notification Levels and Response Levels set by the State Water Resource Control Board's Division of Drinking Water (DDW). Concentrations have stabilized due to the phasing out of PFOA and PFOS.

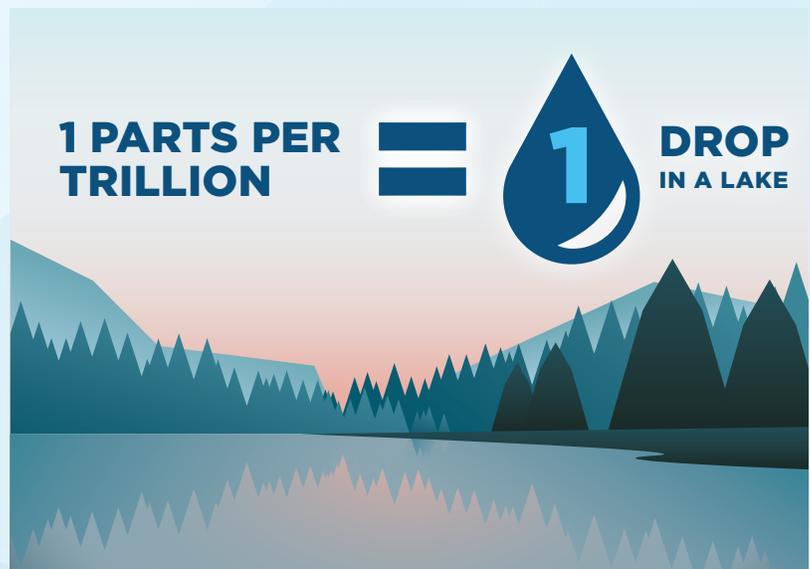
HOW IS WRD ADDRESSING PFAS?

The WRD Board of Directors has approved a \$34 million PFAS Remediation Program which provides grants for pumpers to build treatment systems. In addition, WRD continues to monitor groundwater quality using a network of over 300 wells as we have done for over 50 years. The district continues to work with our state and federal partners to secure funding to provide treatment programs when necessary.

WHAT HAPPENS IF THESE CHEMICALS ARE FOUND IN MY WATER SUPPLY?

Water purveyors are currently serving water that meets all regulations mandated by the Division of Drinking Water and is safe to drink. If your water supply contains these chemicals and the concentrations get much higher than the Notification Level, the State recommends the water be removed from service as a precaution. In these cases, the water can be treated or blended to reduce or eliminate concentrations.

The current response levels are 10 parts per trillion for PFOA and 40 parts per trillion for PFOS. 1 parts per trillion is equivalent to 1 drop in a lake full of water.



CAN YOU TREAT PFAS?

PFAS can be treated by various methods with the most common ones being reverse osmosis (RO), ion exchange (IX), and granular activated carbon (GAC). These technologies have been fully studied and are considered “best available technologies” (or BATs) approved by the DDW. WRD and others are currently treating recycled water using fully advanced treatment technologies (including RO) at the three seawater injection barriers along the coast and inland areas located in the Montebello Forebay, including the Albert Robles Center for Water Recycling and Environmental Learning. Water treated using these technologies will be non-detect for PFOA/PFOS.

IS GROUNDWATER IMPACTED BY PFAS?

WRD and others are currently gathering data in response to the phased sampling program initiated by the DDW. The first phase of sampling began in the Central Basin, generally in and around the Montebello Forebay. Additional sampling is anticipated for other areas of the basin including the West Coast Basin. PFAS constituents have been detected in a few active production wells; however, the concentrations are below the safe drinking water standards established for PFOA / PFOS. In addition, WRD has proactively implemented two rounds of groundwater sampling from our regional groundwater monitoring well network and will continue to monitor the basins for these and other contaminants.

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