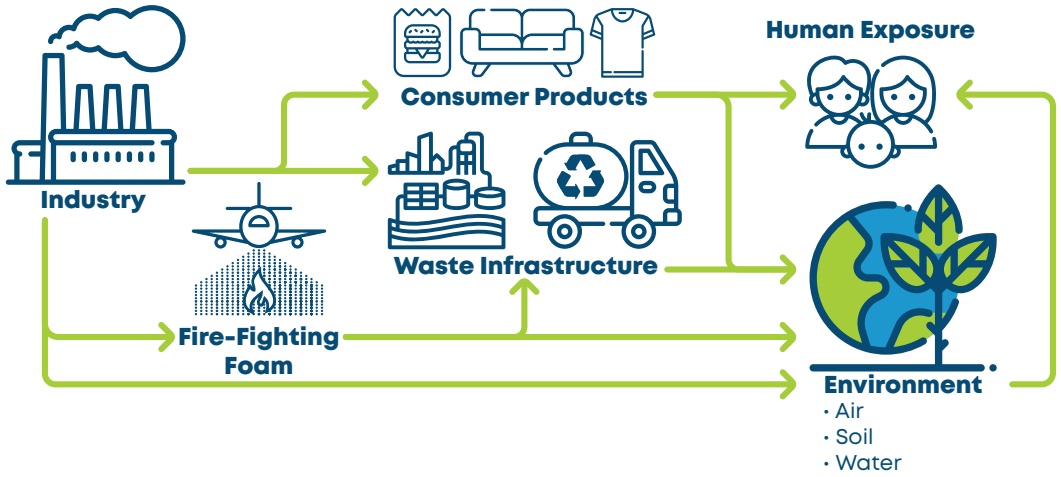
Addressing PFOA / PFOS in Orange County

What Are PFOA and PFOS?
Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) are chemicals that are prevalent in the environment and were once commonly used in many consumer products. They are part of a larger group referred to as per-and polyfluoroalkyl substances (PFAS). Although PFOA and PFOS are no longer manufactured in the United States, other countries still make products that contain these chemicals, which may be imported into the United States. [Note: other PFAS are still made and used in the US.]

What Are Ways People Are Exposed to PFOA and PFOS?
Water is just one of many ways that people come in contact with these substances. These chemicals are resistant to heat, water and oil and have been used for decades in hundreds of industrial applications and consumer products. PFAS have been found both in the environment and in blood samples of the general U.S. population. The U.S. Food and Drug Administration (FDA) has also detected PFAS chemicals in the U.S. food supply.

Due to the prolonged use of PFOA and PFOS in many common consumer products, the chemicals have been known to enter the water cycle through conventionally treated wastewater discharges from sewage treatment facilities, landfills and locations where the substances were used outdoors. Most people have been exposed to these chemicals through consumer products, but drinking water can be an additional source of exposure in communities where these chemicals have entered water supplies.



Common products that contain PFAS

August 2019

When Did OCWD First Detect PFOA and PFOS in the Groundwater?
From 2013-2015, the Orange County Water District (OCWD) performed testing for the local Orange County water retailers it serves as part of the Environmental Protection Agency (EPA) Third Unregulated Contaminant Monitoring Rule (UCMR3). The results of this testing were provided to the EPA, the State Water Resources Control Board (SWRCB) Division of Drinking Water (DDW) and individually to the 19 water retailers OCWD serves. The UCMR data serves as a primary source of occurrence and exposure information that EPA uses to develop regulations.

What is the EPA Doing About PFOA and PFOS?
In 2009, EPA published provisional health advisories for PFOA and PFOS. As science and technology advanced, in May 2016, it replaced the provisional advisories with a lifetime health advisory, including the most sensitive populations, of a combined 70 parts per trillion (ppt). Based on preliminary information from EPA, 63 water suppliers in the United States detected PFOA and PFOS in their drinking water supplies. Twenty-six of these water systems are located in California. EPA's health advisories are non-enforceable and non-regulatory and provide technical information to states' agencies and other public health officials on health effects, analytical methodologies and treatment technologies associated with drinking water contamination. EPA is moving forward with the enforceable Maximum Contaminant Level (MCL) process for PFOA and PFOS. It is also gathering and evaluating information to determine if regulation is appropriate for a broader class of PFAS. While EPA is responsible for the safety of drinking water, the FDA regulates bottled drinking water. EPA standards are more stringent regarding the regulation of public drinking water.

What is California Doing About PFOA and PFOS?
In July 2018, DDW established interim drinking water Notification and Response Levels for PFOA and PFOS. Results above the Notification Level require agencies to notify the governing body for the areas where the water has been served within 30 days of receiving the verifying test results. If the Response Level is exceeded in drinking water provided to consumers, DDW recommends that the water agency remove the water source from service or provide treatment.

In April 2019, DDW sent monitoring orders to more than 200 public water systems across the state to test for PFOA and PFOS, including 12 in OCWD's service area. The comprehensive list of monitoring orders included 612 drinking water supply wells in California; of which 53 were in OCWD's service area. Wells were selected on the basis of proximity to either landfills, municipal airports or past detections of PFAS in wells. The data provided by this testing will help DDW determine standards for PFOA and PFOS in drinking water.

In August 2019, DDW announced a new Notification Level for PFOA and PFOS, 5.1 parts per trillion (ppt) and 6.5 ppt, respectively. The Response Level for PFOA and PFOS will remain at the current level of 70 ppt for both contaminants. DDW announced they will update Response Levels in Fall 2019.

CA DDW Interim Notification Levels (NL)*

PFOA
5.1 parts-per-trillion (ppt)

PFOS
6.5 parts-per-trillion (ppt)

CA DDW Interim Response Levels (RL)*

PFOA + PFOS
70 parts-per-trillion (ppt)
(recommended to take out of service)

*At the time of printing

A "part-per-trillion" is the equivalent of four grains of sugar dissolved in an Olympic-sized swimming pool.

If the level of both PFOA and PFOS combined is 70 ppt or above, DDW recommends the agency stop using the well or provide treatment. This is known as the Response Level.

What is OCWD Doing About PFOA and PFOS?

We take seriously our duty to provide safe, reliable, and high-quality drinking water meeting all state and federal standards to cities throughout Orange County. OCWD's Philip L. Anthony Water Quality Laboratory is the first public agency laboratory in California to achieve state certification to analyze for PFAS in drinking water. OCWD invested more than $1 million in equipment to support the lab in performing this analysis.

All water agencies in OCWD's service area operate their water systems following all drinking water requirements for PFOA and PFOS established by the EPA and DDW. OCWD completed the first quarter testing for PFOA and PFOS, for 12 of the local water retailers it serves. There are nine retailers with one or more initial monitoring order results greater that DDW's Notification Levels for PFOA and PFOS and all have notified their governing bodies. While NLs are precautionary health-based advisory levels established by DDW to allow for further research and analysis to be conducted by the state to determine the necessity of setting an enforceable drinking water maximum contaminant level (MCL), agencies within OCWD's service areas are taking action to ensure safe water supplies are the top priority. Additional testing for PFOA and PFOS will be conducted by OCWD on a quarterly basis. To further support this issue, OCWD is doing the following:

- Assist water retailers it serves in compliance with DDW notification and testing requirements
- Pilot test potential treatment techniques for removal of PFAS in groundwater
- Work with the Regional Water Quality Control Board regulators and the Santa Ana Watershed Project Authority to identify potential sources of PFAS
- Obtain laboratory certification to test for more PFAS compounds
- Monitor to determine extent of compounds in the groundwater basin and in recharge water supplies
- Stay current with changing technology for both detection and treatment
- Be transparent and communicate regularly with stakeholders

Your Drinking Water Is Safe: OCWD's Commitment to Water Quality

OCWD and the water retailers it serves provide some of the cleanest drinking water in the world. OCWD is committed to ensuring that the community is knowledgeable and has the resources available to understand local water quality. To help achieve this, OCWD remains proactive in water quality investigation and ensures that all test results are publicly available. In addition, comprehensive water quality data files are provided annually to the cities and districts it serves. OCWD tests water from about 1,500 locations throughout the Orange County Groundwater Basin, taking more than 20,000 samples and conducting 400,000 analyses of these samples each year.

OCWD and Retail Agencies in Orange County are Committed to Public Health and Safety

To meet the state's recommended PFAS levels, water providers are taking actions such as:

- Removal of water supply sources from service
- Use of imported water that meets the state's recommended levels of PFAS
- Blending multiple water supply sources to meet the state's recommended levels of PFAS
- Pilot testing of water treatment processes for PFAS

How Can I Learn More?

OCWD: For more information about PFOA/PFOS or water quality testing, visit www.ocwd.com or contact your local water provider for information specific to your community.

EPA: www.epa.gov/pfas

DDW: www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/PFOA_PFOS

FDA: www.fda.gov/food/chemicals/and-polyfluoroalkyl-substances-pfas