

## PFAS Overview



PFAS, short for per- and polyfluoroalkyl substances, are a group of more than 4,700 synthetic chemicals created to repel water, oil, grease and stains. The chemicals, dating to the 1940s and nearly indestructible over time, appear in a range of industrial and everyday consumer products, including makeup, food wrappers, nonstick cookware, carpets, stain repellents, and firefighting foams.

Because PFAS have been so widely used, most Americans have been exposed to them.

Based on research cited by the State Water Resources Control Board, PFAS is able to enter the body through various routes, including the consumption of contaminated food or liquids (including water), inhalation of PFAS particles, and contact with products treated with PFAS, such as carpets or clothing.

Over time, PFAS also have accumulated in land near airports, industrial sites, military bases, and landfills. Once PFAS leach into the land, the chemicals can, in some cases, seep into groundwater.

Testing has confirmed that Western Water's drinking water, most of which is imported Northern California snowmelt, is safe and does not contain PFAS above response levels.

## Ensuring Safe Drinking Water

Providing safe, reliable water is Western Water's top priority. Testing has confirmed that Western Water's drinking water does not contain PFAS above state mandated response levels. Most of Western's water comes from Northern California snowmelt, which yields the purest water available.

In addition, Western Water often can treat locally sourced groundwater at regional desalters. The Arlington and Chino desalters use reverse osmosis, a method proven to remove the most common PFAS—perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS)—from the drinking water.

## Reducing PFAS Nationwide

According to the U.S. Environmental Protection Agency (EPA), "Scientists have found PFOA and PFOS in the blood of nearly all the people they tested, but these studies show that the levels of PFOA and PFOS in blood have been decreasing."

The EPA has implemented a range of regulatory actions to address PFAS substances, including reviewing alternatives for PFAS related chemicals, developing a global stewardship program, proposing a significant new use rule to regulate inactive PFAS, and issuing rules to strengthen regulation on PFAS importation and use. These actions are part of the EPA's efforts to mitigate the risks associated with PFAS and protect human health and the environment. Additionally, the EPA has been working on developing regulatory standards for PFAS in drinking water.

## New Testing Technologies

Regulators and stakeholders, including water agencies, have monitored PFAS for years. But only recently have technologies been developed to detect extremely low amounts of PFAS in food and water—down to the level of parts per trillion. One parts per trillion (ppt) is akin to one grain of sand in an Olympic-size swimming pool, or a pinch of salt in ten tons of potato chips.

## Emerging Regulations

While water is not the primary source of PFAS, new testing methods have raised awareness, and concerns, about trace levels of PFAS in some drinking water.

In response, legislators and regulators in California have stepped up oversight of PFAS. The state's Division of Drinking Water has set the following guidelines:

- In August 2019, California regulators set the Notification Levels of 5.1 ppt for perfluorooctanoic acid (PFOA) and 6.5 ppt for perfluorooctanesulfonic acid (PFOS), down from 14 ppt and 13 ppt, respectively. This is equivalent to five to seven grains of sand in an Olympic-size swimming pool.
- In 2020, state regulators set new Response Levels at 10 ppt for PFOA and 40 ppt for PFOS. Previously, the Response Level was 70 ppt for the total concentration of the two chemicals combined.
- In 2021, Notification and Response Levels for perfluorobutane sulfonic acid (PFBS) of 500 ppt and 5000 ppt, respectively, were established.
- In 2022, Notification and Response Levels for perfluorohexane sulfonic acid (PFHxS) of 3 ppt and 20 ppt, respectively, were established.

If PFAS levels exceed notification levels water agencies must notify local governing bodies such as city councils or board of supervisors. Additionally, when response levels are exceeded, water agencies must take the impacted water source out of service or provide public notification.

These steps move the state toward enforceable limit for PFAS in California drinking water while officials gather more information, with the goal of ensuring safe, affordable benchmarks at a time of ongoing research.

## PFAS and Your Health

As research into PFAS continues, it is unclear if, or how, microscopic levels of the chemicals affect people's health. However, the chemicals can build up in the human body over time, and high concentrations of PFAS have been linked to health concerns.

Across the board, scientists still have much to learn about PFAS and human health. Many areas of PFAS testing and research remain in development.

## Western Water's Commitment to You

Western Water is committed to ensuring safe, reliable drinking water for each of its 25,000 residential and business connections in portions of Riverside, Murrieta and Rainbow. Western's water—which meets and exceeds all state and federal water quality standards—is primarily derived from pure Northern California snowmelt. Furthermore, regional desalters offer Western Water the ability to remove PFAS from local groundwater.

Western Water takes a range of steps to ensure safe water 365-days-a-year, seven-days-a-week and 24-hours-a-day, including:



**Rigorous monitoring and testing of the water at over 148 locations within the water system, performing over 41,000 tests to monitor for contaminants and impurities.**



**The continuous monitoring of innovation in chemical detection and treatment technology.**



**Regular, transparent communication with customers about water quality, treatment and safety.**

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