FACT SHEET
PFAS (Per- and Polyfluoroalkyl Substances)

Valley Water

PFAS man-made "forever chemicals" including
- PFOA (Perfluorooctanoic Acid)
- PFOS (Perfluorooctane Sulfonate)
- PFBS (Perfluorobutane Sulfonate)
- GenX (hexafluoropropylene oxide [HFPO] dimer acid and its ammonium salt)

What are PFAS?

PFAS are a group of thousands of man-made chemicals that resist heat, oils, stains and water. They have been widely used in consumer products like nonstick cookware, carpets, waterproofing clothing, furniture fabrics and food packaging. They are also used in industrial processes and firefighting foams.

PFAS are often called "forever chemicals" because they break down very slowly and can accumulate in humans, animals and the environment. PFOA and PFOS are two common PFAS chemicals.

What are the health effects of PFAS?

PFOA is a possible human carcinogen according to the International Agency for Research on Cancer. Studies suggest a certain level of PFAS exposure can cause adverse effects in humans, including increased cholesterol, thyroid and liver disease, decreased fertility, lower birth weights, decreased vaccine response and pregnancy-induced hypertension.

How are people exposed to PFAS?

These chemicals have been widely used for decades in industrial applications and consumer products. Most people have been exposed to PFAS through consumer products but drinking water can be an additional source of exposure. The major sources of PFAS in water supplies are fire training/response sites where foam was applied, industrial sites, landfills, and wastewater treatment plants/biosolids. Because of their persistence in the environment, PFAS can accumulate in water supplies.

Are there limits for PFAS in drinking water?

No, but draft state and federal limits for PFOA and PFOS in drinking water are expected by late 2022. Lawmakers and regulators are moving toward stricter standards for the detection, public notification, and treatment of PFAS in drinking water.

The Environmental Protection Agency (EPA) recently released the following lifetime drinking water health advisories:

- PFOA: 0.004 parts per trillion (ppt)
- PFOS: 0.02 ppt
- GenX (PFOA replacement): 10 ppt
- PFBS (PFOS replacement): 2,000 ppt

The advisories are conservatively based on lifetime exposure to PFAS in drinking water and account for sensitive populations. The EPA also assumes only 20% of exposure to PFAS comes from drinking water, while the other 80% originates from other sources.

Previously, the State Water Resources Control Board (State Board) set drinking water notification levels for PFOA (5.1 ppt), PFOS (6.5 ppt), and PFBS (500 ppt). If exceeded, water providers must notify their governing bodies, and the State Board recommends they inform customers. The State Board set the current response level at 10 ppt for PFOA, 40 ppt for PFOS, and 5,000 ppt for PFBS. If exceeded, water providers are required to take the water source out of service, provide treatment, or notify customers in writing.

Has local water been tested for PFAS?

Yes, Valley Water and several local water retailers have tested various water sources. PFOA, PFOS, GenX, and PFBS have not been detected in Valley Water's imported water or the treated water we supply to our retailers.

Valley Water has detected PFOA and PFOS below the State Board notification levels in two of the three water supply wells we own for emergency backup supply. No water from these wells has been delivered to water retailers or consumers. In 2020, Valley Water voluntarily sampled PFAS at 55 monitoring wells throughout Santa Clara County. These results and other available data indicate that PFOA, PFOS, and PFBS are not widely present in groundwater above the State Board notification and response levels.

Several local water retailers have tested their water supply wells for PFAS and most of them have found no detections.

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The main exception is one retailer who found PFOS above the state notification level in some water supply wells in San José and Campbell. The retailer discontinued the use of the wells out of an abundance of caution and notified consumers. In Santa Clara County, PFOA or PFOS have not been detected in any water supply wells at levels where the State Board recommends removing the water source from service.

The State Board continues to order PFAS testing of wells throughout the state. Results from this testing, which includes wells in Santa Clara County, are helping us better understand the presence of PFAS in local groundwater.

How can PFAS in drinking water be treated?

Treatment technologies that have shown to be effective in removing PFAS from drinking water include granular activated carbon, powdered activated carbon, high-pressure membranes (reverse osmosis/nanofiltration) and ion exchange resin. More information can be found at:

- ***www.epa.gov/sciencematters/reducing-pfas-drinking-water-treatment-technologies***
- ***www.nsf.org/news/pfoa-pfos-reduction-claims-requirements-added-to-nsf-standards***

Are PFAS found in bottled water?

Bottled water producers are not required to test for PFAS. We recommend consumers contact bottled water producers directly for information about their product's water quality.

Are PFAS found in purified recycled water?

Valley Water is exploring the use of purified recycled water as a drought-resilient water supply for groundwater recharge or other uses. While PFAS are present in wastewater, any purified recycled water used in Santa Clara County would be treated with multiple, proven technologies including reverse osmosis, which is effective in removing PFAS. Valley Water is carefully testing these technologies at our Silicon Valley Advanced Water Purification Center to ensure purified recycled water meets or exceeds drinking water standards and is protective of the environment.

What is Valley Water doing about PFAS?

Valley Water is concerned with any potential risks to safe drinking water and is committed to protecting public health.

Valley Water has been proactive in evaluating the threat posed by PFAS through voluntary sampling and coordination with other agencies. Our water quality laboratory is certified to test for PFAS in drinking water, but one challenge all water providers are facing is that the EPA health advisories are near zero. There are no EPA-approved testing methods that can detect PFAS to those low levels.

We take our responsibility to provide safe, clean water and to protect local groundwater very seriously. Valley Water and local water retailers use proven technologies and best practices to ensure drinking water delivered to businesses and residents meets or exceeds all drinking water standards. Valley Water will continue to track the rapidly evolving PFAS science and regulations, work with our state and local regulatory agencies and water retailers, and provide timely, transparent communication to our customers and the public.

Questions?

To find out more about PFAS or to submit questions or comments, please contact **George Cook** at **(408) 630-2964** or ***GCook@valleywater.org***.

Envíe un correo electrónico a ***translations@valleywater.org*** si tiene preguntas sobre este documento.

Vui lòng liên hệ với ***translations@valleywater.org*** nếu bạn có thắc mắc về tài liệu này.

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