

## Central Coast Regional Water Quality Control Board

### PUBLIC NOTICE

#### Notification of Per- and Polyfluoroalkyl Substances (PFAS) in Groundwater

#### San Luis Obispo County Regional Airport Area

September 9, 2019

The Central Coast Water Board is providing this information to private domestic well owners and other interested parties to inform them about PFAS detections in groundwater near the San Luis Obispo County Regional Airport.

*La Junta de Aguas de la Costa Central está proporcionando esta información a los propietarios de pozos domésticos y otras partes interesadas para informarles sobre las detecciones de PFAS en aguas subterráneas cerca del Aeropuerto Regional del Condado de San Luis Obispo. Si desea obtener información en español, póngase en contacto con Hector Hernandez al (805) 542-4641.*

Dear Well Owner and/or Resident:

This notification is to inform private domestic well users and others dependent on groundwater about the presence of per- and polyfluoroalkyl substances (PFAS) found in groundwater sampled from community water system wells in the area around the San Luis Obispo County Regional Airport (Airport). The discovery of PFAS was part of recent statewide groundwater investigation efforts associated with airports and municipal solid waste landfills.

#### **What are PFAS?**

PFAS are a group of human-made chemicals that include perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) that do not occur naturally in the environment and are resistant to heat, water, and oil. PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s. PFAS are found in many consumer products that people use daily, such as cookware non-stick coatings, food containers, stain and water repellants for carpets and clothing, and even some dental floss products. PFAS are also used in some industrial processes and in certain fire-fighting foams.

DR. JEAN-PIERRE WOLFF, CHAIR | JOHN M. ROBERTSON, EXECUTIVE OFFICER

895 Aerovista Place, Suite 101, San Luis Obispo, CA 93401 | [www.waterboards.ca.gov/centralcoast](http://www.waterboards.ca.gov/centralcoast)

Because of the many different sources and uses of PFAS and through improper disposal, spills, and other types of releases, PFAS have been introduced into the environment and are present in some food and drinking water sources. Some PFAS are persistent in the environment – meaning they don't break down and can accumulate over time.

### **PFAS Exposure and Health Effects**

People are exposed to PFAS through food, food packaging, consumer products, dust in homes, and contaminated drinking water. While consumer products are a large source of exposure to these chemicals for most people, exposure through contaminated drinking water has become an increasing concern due to the tendency of PFOA and PFOS to persist in groundwater.

PFOA and PFOS are readily absorbed but not readily eliminated from the human body. Health effects associated with long-term exposure to PFAS include harmful effects to a developing fetus or infant; damage to the immune system, thyroid and liver; and cancer.

### **PFAS Advisories**

Notification levels and response levels are non-regulatory health-based advisory levels established by the State Water Board Division of Drinking Water for chemicals in public water systems that lack a drinking water standard or maximum contaminant level.

**Notification Level:** If a public water system detects a contaminant at a concentration exceeding its notification level, the public water system is required to report exceedances to its local governing board (e.g., county) and is urged by the State Water Board to inform its customers.

Notification levels exist for two distinct classes of PFAS chemicals, PFOA and PFOS. They were revised on August 22, 2019, to:

PFOA:	5.1 parts per trillion
PFOS:	6.5 parts per trillion

There is no requirement that a public water system stop serving water to its customers if a notification level is exceeded.

**Response Level:** The response level for PFAS is:

PFAS:	70 parts per trillion (combined PFOA and PFOS)
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Response levels are set higher than notification levels and represent a level above which public water systems should consider taking a water source out of service or provide treatment if that option is available.

The response level of 70 parts per trillion combined PFOA and PFOS currently matches the U.S. Environmental Protection Agency's health advisory level. It is anticipated that the response level will be revised in the fall of 2019.

### **Domestic Wells**

Domestic wells are not regulated the way public water systems are regulated, which means that the notification levels and response levels don't legally apply to domestic wells. However, the notification levels and response levels can serve as a guide to domestic well owners about safe drinking water standards since they are both health-based.

### **PFAS Investigations**

The State Water Board (in coordination with Central Coast Water Board and other regional boards across the state) issued orders in March 2019 to landfill and airport owners across the state requiring investigations for PFAS in groundwater. Owners of public supply drinking water wells within two miles of airports (including the San Luis Obispo County Regional Airport) and one mile of landfills were also directed to sample their wells for PFAS through orders issued by the Division of Drinking Water.

### **Results of Testing**

Preliminary results from 2019 groundwater investigation testing indicate that PFOA and PFOS are present in groundwater in public supply wells near the San Luis Obispo County Regional Airport. Of 22 wells that were sampled, 21 had detections of PFOA, PFOS, or both. Eleven wells exceeded a notification level, and four wells exceeded the response level.

### **Treatment Methods**

Effective treatment methods include granular activated carbon and membrane filtration (e.g., reverse osmosis), with greater than 90% removal rates reported. However, removal effectiveness can depend on the background chemistry of the water (e.g., organic carbon dissolved solids content), and the presence of other pollutants that may be present, such as trichloroethylene in the Buckley Road area. Research into other viable treatment methods is ongoing.

**Domestic well users are advised to test their wells for PFAS and, if detected, consult with a treatment specialist to ensure that a selected treatment method will consistently remove PFAS.** If laboratory analyses for PFAS are performed on private domestic wells, the Central Coast Water Board requests that they be submitted to us at [RB3-PFAS@waterboards.ca.gov](mailto:RB3-PFAS@waterboards.ca.gov) to aid in our investigations.

## **Central Coast Water Board Actions**

It is not known where PFAS in the area around the San Luis Obispo County Regional Airport originates, but we are working to identify the source(s). Current Central Coast Water Board actions associated with PFAS investigations include:

1. Airports: Many airports used a fire-fighting foam known as AFFF that often contains PFAS and applied the foam onsite for training purposes and for actual incidents at the airports. The San Luis Obispo County Regional Airport is one of four airports being investigated in the central coast region.
2. Municipal Solid Waste Landfills: These facilities often received PFAS-containing materials, such as carpet, food wrappers, and other products that may have served as a leaching source for PFAS to groundwater. There are 12 landfills under investigation in the central coast region.
3. Public Water System Wells: Groundwater samples are being analyzed from public water system wells within one mile of the landfills and two miles of the airports that are under investigation. Recent sampling work provided information about PFAS detections near the San Luis Obispo County Regional Airport.

Workplans have been submitted for our review for three of the four airports under investigation and for each of 12 the landfills. Central Coast Water Board staff are currently reviewing the workplans to advance these investigations.

## **Resources**

- The State Water Resources Control Board website has additional background information about PFAS, including information about health effects, regulatory matters, and treatment options: <https://www.waterboards.ca.gov/pfas>.
- Laboratories approved for PFAS analysis of drinking water: [https://www.waterboards.ca.gov/drinking\\_water/certlic/drinkingwater/documents/pfos\\_and\\_pfoa/pfas\\_lab\\_list.pdf](https://www.waterboards.ca.gov/drinking_water/certlic/drinkingwater/documents/pfos_and_pfoa/pfas_lab_list.pdf). Domestic well owners planning to sample groundwater from their wells for PFAS are advised to consult with their laboratory or other authority about sampling and analytical techniques and how to prevent cross-contamination from common household and other items containing PFAS.
- **Interactive Map Showing PFAS Concentrations in Public Water System Wells:** An interactive mapping tool is being constructed to allow residents to view PFAS detections. Residents who would like to be notified when this tool is available are advised to subscribe to the “PFAS in Groundwater” email notification list (below) to receive an announcement about the availability of the map.
- **“PFAS in Groundwater” Email Notification List:** A mailing list has been created to allow the Central Coast Water Board to periodically provide email notifications about PFAS in groundwater. Future notifications will be sent using this list. Signups

can be done online by checking the “PFAS in Groundwater” box and completing the subscription form at:

[https://www.waterboards.ca.gov/resources/email\\_subscriptions/reg3\\_subscribe.html](https://www.waterboards.ca.gov/resources/email_subscriptions/reg3_subscribe.html)

### **Contact Information**

The Central Coast Water Board will provide updates via email notifications to subscribers of the “PFAS in Groundwater” email notification list when more information is available. Anyone interested in receiving additional updates about PFAS in groundwater is encouraged to subscribe to the email notification list.

Prior to contacting the agencies below regarding any questions, please review the information on the State Water Board website. This website has additional background information about PFAS, including information about health effects, regulatory matters, and treatment options: <https://www.waterboards.ca.gov/pfas>.

- **Central Coast Water Board:**  
Directs investigations to identify source areas (for PFAS and other pollutants) and remediation efforts to clean up pollution affecting groundwater and other media. Questions about investigations of airports, landfills, and other potential sources of PFAS releases can be addressed to the Central Coast Water Board by emailing [rb3-pfas@waterboards.ca.gov](mailto:rb3-pfas@waterboards.ca.gov) or calling 805-549-3902.
- **State Water Board, Division of Drinking Water:**  
Regulates public water systems and can answer public water system, notification level, and response level questions: Questions about public water system well results, notification levels, and response levels can be addressed to the Division of Drinking Water by contacting Jeff Densmore at [jeff.densmore@waterboards.ca.gov](mailto:jeff.densmore@waterboards.ca.gov) or 805-566-9021.
- **Media Inquiries:** All media inquiries should be directed to the State Water Board Office of Public Affairs by contacting Blair Robertson at [blair.robertson@waterboards.ca.gov](mailto:blair.robertson@waterboards.ca.gov) or 916-341-5263.