

**Subject: Atascadero Mutual Water Company
Water contamination from polyflouroalkyl substances (PFAS)**

On May 21, 2019, Atascadero Mutual Water Company (AMWC) received the results of water samples that were analyzed for polyflouroalkyl substances (PFAS) under the EPA's Unregulated Contaminant Monitoring Rule. The EPA is requiring some water systems to samples for PFAS to better understand the extent of this compound in the environment and to what extent it should be regulated.

The sampling results showed that three of AMWC's water supply wells had levels of perflourooctanoic acid (PFOA) and perflourooctanesulfonic acid (PFOS) that exceeded the Notification Levels for these contaminants of 14 parts per trillion (0.00014 milligrams/liter) and 13 parts per trillion (0.00013 milligrams/liter), respectively. One part per trillion (PPT) is equivalent to 1 ounce in 7.8 billion gallons, 1 drop in 13.2 million gallons, or 1 second in 32,000 years.

None of the wells had combined levels of these contaminants above the 70 PPT Health Advisory Level established by the Environmental Protection Agency (EPA). EPA's health advisory level for PFOA and PFOS offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water. The highest level detected in one of AMWC's wells was 53 PPT.

AMWC notified both the County of San Luis Obispo and City of Atascadero of the PFAS detection in accordance with California Health and Safety Code section 116455.

The State Water Board ordered AMWC to conduct periodic water analyses for PFAS over the next four quarters to determine the level of potential contamination.

Attachment A provides more information on PFAS in drinking water.

In-home activated carbon water filters and reverse osmosis systems have been shown to be effective at the removal of PFAS according to the EPA (<https://www.epa.gov/sciencematters/reducing-pfas-drinking-water-treatment-technologies>).

If you would like additional information on the above, please contact AMWC's General Manager John Neil at jneil@amwc.us or (805)464-5351,

Attachment A

Polyflouroalkl Substances

Contaminant:

- PFAS = polyflouroalkyl substances
 - PFOA = perflourooctanoic acid
 - PFOS = perflourooctanesulfonic acid

Description:

- PFAS are a group of man-made chemicals that includes PFOA, PFOS, and many other chemicals
- PFAS have been manufactured and used in a variety of industries around the globe, including in the United States since the 1940s
- PFOA and PFOS have been the most extensively produced and studied of these chemicals. Both chemicals are very persistent in the environment and in the human body – meaning they don't break down and they can accumulate over time.

Manufacturers:

- 3M
- DuPont
- Others
- PFOA and PFOS are no longer manufactured in the United States. They are still produced internationally and can be imported into the United States in consumer goods.

Common products:

- Food containers – pizza boxes, sandwich wrappers, popcorn bags
- Non-stick pots & pans
- Stain treatments for clothing & furniture – Scotchgard, Stainmaster
- Carpet & carpet treatments
- Cosmetics – eye shadow, foundation, facial powder, bronzer & blush
- Shampoos
- Fire-fighting foams

Possible sources of PFAS:

- Fire-fighting activities that used fire suppression foam
- Industrial activities
- Landfills
- Wastewater treatment facilities

Are there health effects from PFAS?

- There is evidence that exposure to PFAS can lead to adverse health outcomes in humans
- If humans ingest PFAS (by eating or drinking food or water that contain PFAS), the PFAS are absorbed, and can accumulate in the body

- PFAS stay in the human body for long periods of time. As a result, as people get exposed to PFAS from different sources over time, the level of PFAS in their bodies may increase to the point where they suffer from adverse health effects
- Studies indicate that PFOA and PFOS can cause reproductive and developmental, liver and kidney, and immunological effects in laboratory animals. Both chemicals have caused tumors in animal studies
- The most consistent findings from human epidemiology studies are increased cholesterol levels among exposed populations
- Limited findings related to:
 - infant birth weights
 - effects on the immune system
 - cancer (for PFOA)
 - thyroid hormone disruption (for PFOS)

Health Advisory:

- EPA has established the health advisory level at 70 parts per trillion. One part per trillion is equivalent to 1 ounce in 7.8 billion gallons, 1 drop in 13.2 million gallons, or 1 second in 32,000 years.
- Health advisories provide information on contaminants that can cause human health effects and are known or anticipated to occur in drinking water
- 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's health advisory level for PFOA and PFOS offers a margin of protection for all Americans throughout their life from adverse health effects resulting from exposure to PFOA and PFOS in drinking water

Required Actions by AMWC:

- Steps to Assess Contamination
 - If water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than 70 parts per trillion, AMWC is required to undertake additional sampling to assess the level, scope and localized source of contamination to inform next steps.
- Steps to Inform
 - AMWC is required to promptly notify their State drinking water safety agency and consult with the relevant agency on the best approach to conduct additional sampling if water sampling results confirm that drinking water contains PFOA and PFOS at individual or combined concentrations greater than 70 parts per trillion.
 - AMWC is to provide consumers with information about the levels of PFOA and PFOS in their drinking water.
 - This notice should include specific information on the risks to fetuses during pregnancy and breastfed and formula-fed infants from exposure to drinking

water with an individual or combined concentration of PFOA and PFOS above EPA's health advisory level of 70 parts per trillion.

- The notice should include actions AWMC will take and identify options that consumers may consider to reduce risk, such as seeking an alternative drinking water source, or in the case of parents of formula-fed infants, using formula that does not require adding water.

- Steps to Limit Exposure
 - Closing contaminated wells
 - Blending of water sources
 - Treat source water with activated carbon or high-pressure membrane systems
 - Provided bottled water to consumers while steps to reduce or remove PFOA or PFOS from drinking water or to establish a new water supply are completed
 - Point-of-use (POU) systems that meet American National Standards Institute (ANSI) and/or NSF International (NSF®) Standards 53 and 58

More information:

- EPA website - <https://www.epa.gov/pfas/basic-information-pfas>
- EPA FAQ sheet - https://www.epa.gov/sites/production/files/2016-06/documents/drinkingwaterhealthadvisories_pfoa_pfos_updated_5.31.16.pdf