

DRINKING WATER HEALTH ADVISORY

Hyannis Public Drinking Water System

What happened?

On May 19th, United States Environmental Protection Agency (EPA) issued a new lifetime Health Advisory of 0.070 ug/L (70 parts per trillion) for Perfluorooctanoic acid (PFOA) and Perfluorooctane Sulfonate (PFOS). These values were reduced from 0.40 ug/L (400 parts per trillion) for PFOA and 0.20 ug/L (200 parts per trillion) for PFOS to reflect new scientific data on potential health effects. In situations where both chemicals are present in drinking water, EPA recommends that the levels be added together and not exceed 0.070 ug/L (70 parts per trillion). EPA lifetime Health Advisories are recommended contaminant levels in drinking water, set to be protective against adverse health effects for all people consuming the water for a lifetime. For PFOS and PFOA, EPA recommends that the lifetime Health Advisory also apply to shorter-term exposures of weeks to months during pregnancy and breast-feeding.

Given this new EPA Health Advisory, the Hyannis Water System, in consultation with MassDEP, has determined that recent samples taken in April 2016 by the Hyannis Water System exceed the new EPA lifetime health advisory and we need to notify you of this new information, update you on what it means and what we are doing about it.

What are PFOA and PFOS?

PFOA and PFOS are fluorinated organic chemicals that are part of a larger group of chemicals referred to as perfluoroalkyl substances (PFASs). PFOA and PFOS have been the most extensively produced and studied of these chemicals. They have been used to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease or stains. They are also used for firefighter training, fighting oil and gas fires, including at airfields, and in a number of industrial processes. Because these chemicals have been used in an array of consumer products, most people have been exposed to them.

Between 2000 and 2002, PFOS was voluntarily phased-out of production in the U.S. by its primary manufacturer. In 2006, eight major companies voluntarily agreed to phase out their global production of PFOA and PFOA-related chemicals, although there are a limited number of ongoing uses. 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.

While consumer products and food are a large source of exposure to these chemicals for most people, drinking water can be an additional source in the small percentage of communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility, for example, an industrial facility where these chemicals were produced or used to manufacture other products or an airfield at which they were used for firefighting.

For more information on PFOA and PFOS see EPA's Drinking Water Health Advisories for PFOS and PFOA can be found at: <https://www.epa.gov/ground-water-and-drinking-water/drinking-water-health-advisories-pfoa-and-pfos> and The Centers for Disease Control and Prevention's Public Health Statement for PFOS and PFOA can be found at: <http://www.atsdr.cdc.gov/phs/phs.asp?id=1115&tid=237>

What are the potential adverse health effects with exposure to PFOS and PFOA?

The toxicity of PFOA, PFOS and other related chemicals is being actively researched. EPA's Health Advisory values were based on recent studies of PFOA and PFOS in laboratory animals and were also informed by studies of exposed people. Overall, these studies indicate that exposure to sufficiently elevated levels of PFOA and PFOS may cause developmental effects in fetuses during pregnancy and in breastfed infants. At higher levels of exposure, effects on the thyroid, the liver, the blood system, the immune system, and elevated rates of some types of cancers, were sometimes observed in adults.

EPA has lowered the Health Advisory values for PFOA and PFOS to reflect new toxicity information and states that they were set at levels that offer a margin of protection against adverse effects in the most sensitive people: the fetus during pregnancy and infants. The Health Advisory values are also protective of adults. It is important to note that consuming water with PFOA and PFOS above the Health Advisory level does not mean that adverse effects will occur. The degree of risk depends on the level of the chemicals and the duration of exposure. The Health Advisory assumes that individuals drink only contaminated water and are also exposed to PFOS/PFOA from sources beyond drinking water, such as food. Several safety factors are additionally applied to account for the differences between animals and humans and the differences from one human to another human. Under this scenario, a significant risk would be expected only if an individual continuously drinks only contaminated water at a level significantly higher than the HA.

What should you do?

- **PREGNANT WOMEN, NURSING MOTHERS AND INFANTS ARE MOST SENSITIVE TO THESE CHEMICALS AND CAN REDUCE THEIR POTENTIAL RISK BY NOT CONSUMING WATER FROM THE HYANNIS PUBLIC DRINKING WATER SYSTEM.** In an abundance of caution, until further notice, while the levels are being reduced, it is recommended that pregnant women, nursing mothers and infants:
 - Use bottled water for drinking and cooking of foods that absorb water (like pasta).
 - Use formula that does not require adding water or use bottled water to make formula.
- The water is safe to use for washing foods, brushing teeth, bathing and showering.
- For older children and adults, who are less sensitive to shorter-term exposures to these chemicals, the Health Advisory value is applicable to a lifetime of consuming the water.

Thus, no additional precautions are recommended for these groups while the levels are being evaluated and reduced. If you are concerned, use of bottled water will reduce your exposure.

- **BOILING THE WATER WILL NOT DESTROY THESE CHEMICALS AND WILL SOMEWHAT INCREASE THEIR LEVELS IN THE WATER.**
- If you have specific health concerns, you should consult a health professional, such as your family doctor or health care provider.

What is your water system doing?

In 2014, PFOS was detected at concentrations higher than the previous provisional Health Advisory of 0.2 ug/L. In consultation with the Massachusetts Department of Environmental Protection, the Hyannis Water System immediately stopped using the sources over 0.2 ug/L until treatment was added to address the contamination. Since that time, the Hyannis Water System continued treatment and confirmatory sampling to ensure delivery of drinking water at a concentration below the previous Health Advisory. The most recent drinking water samples, taken on April 20th & 27th of 2016, detected combined concentrations of PFOS and PFOA of 0.11 ug/L and 0.18 ug/L respectively. While these results are below the previous provisional Health Advisory of 0.2 ug/L, they exceed EPA's new lifetime health advisory of 0.070 ug/L. The Hyannis Water System has taken the following actions:

- We have taken off-line an untreated well that exceeds the new Health Advisory.
- Initiated actions to procure and install a carbon treatment system for the untreated well.
- We are continuing to work with the Town of Yarmouth to reestablish the interconnection to the Yarmouth drinking water system to introduce additional water to our system that meets the new Health Advisory without treatment. Our goal is to have the Yarmouth interconnection activated as soon as Thursday of this week.
- We are also coordinating with MassDEP to take samples on Monday and Tuesday of this week at all water sources (wells), entry points to the distribution system and at various places in the distribution system. The data obtained from these samples will be used to determine which sources should not be used and where treatment should be added to the system.
- For those persons who are concerned that they are in sensitive population, bottled water is available at the Hyannis Water System office at 47 Old Yarmouth Road, Hyannis.

When additional information becomes available this public notice will be updated.

For more information, please contact Department of Public Works Water Division at 508-778-9617; or by mail at 47 Old Yarmouth Road, P.O. Box 326, Hyannis, MA 02601

Please share this information with all the other people who drink this water, especially those who may not have received this notice directly (for example, people in apartments, nursing homes, schools, and businesses). You can do this by posting this notice in a public place or distributing copies by hand or mail.

This notice is being sent to you by Hyannis Water System, PWS ID#:4002004 Date: May 23, 2016. Date distributed: May 24, 2016