



Drinking Water Update September 2019

Summary

- Based on recent state-wide concerns about per- and polyfluoroalkyl substances (PFAS), the Town of East Hampton proactively sampled wells used by all the schools and the water systems operated by the Water and Sewer Commission.
- Low levels of per- and polyfluoroalkyl substances (PFAS) have been detected within 2 of the 11 water wells tested by the Town of East Hampton.
- The water is safe to drink – concentrations are below levels that would be a potential health concern per EPA and DPH, and the wells have been shut down since contamination was first found.
- The treatment system for the Village Center Well is reducing the PFAS to levels that are Non-detectable.

What are PFAS?

Per- and Polyfluoroalkyl Substances (PFAS) are a group of man-made chemicals that have been used in a variety of products, including non-stick cookware, food packaging, upholstered furniture, clothing, and firefighting foam. They have been manufactured and used in the United States since the 1940s. Perfluorooctanoic acid (PFOA) and perfluorooctane sulfonate (PFOS) have been the most extensively produced and studied of these chemicals.

What are the health effects?

The main health concerns regarding PFOS, PFOA and related PFAS come from studies in laboratory animals. The health advisory limits are set to protect people from the most sensitive effects, which are developmental (e.g. growth, low birth weight). PFAS may also reduce immune system function. Exposure to these chemicals at higher concentrations may cause other health problems, including an increase in cholesterol levels, liver and thyroid problems, and an increased risk for testicular and kidney cancer. While studies of human populations exposed to elevated levels of PFOS and PFOA generally support the effects seen in animals, the evidence in humans is evolving and remains unclear at present.

What is the Drinking Water Standard?

There is no federal enforceable standard (Maximum Contaminant Level or MCL) for any chemical in the PFAS family. However, the EPA issued a Health Advisory in 2016 for PFOS and PFOA of 70 parts per trillion (ppt). This target concentration in a water sample is for either contaminant alone or for the sum

of the two. The Connecticut Department of Public Health has developed a more conservative drinking water action level of 70 ppt for the sum of five PFAS chemicals – PFHxS, PFHpA, PFOA, PFOS, and PFNA.

What were the PFAS testing results?

Royal Oaks System Memorial School Well

PFAS Tested	Detection Limit (ppt)	Untreated Water (ppt)	Treated Water (ppt)
PFHxS	5	ND	ND
PFHpA	2	ND	ND
PFOA	2	7.4	8.1
PFOS	4	6.0	7.4
PFNA	2	ND	ND
Sum of 5	2	13.4	15.5

ND=Non Detectable

Village Center System Well #1

PFAS Tested	Detection Limit (ppt)	Untreated Water (ppt)	Treated Water (ppt)
PFHxS	5	ND	ND
PFHpA	2	21	ND
PFOA	2	12	ND
PFOS	4	5.3	ND
PFNA	2	ND	ND
Sum of 5	2	38.3	ND

ND=Non Detectable

The results are all below the action level set by the Connecticut Department of Public Health for all 5 constituents' combined of 70 parts per trillion (ppt).

What has been done to protect water quality?

After preliminary testing revealed low levels of PFAS contamination in the Royal Oaks System Memorial School Well and Village Center System Well #1, the Water and Sewer Commission shut down both wells while the Connecticut Department of Public Health sent samples to confirm the results. Though the confirmatory results of testing (see above tables) revealed PFAS levels below the CT DPH action level, and results from the Village Center System indicated that the treatment system in place was effectively removing the PFAS contamination, out of an abundance of caution, the Water and Sewer Commission has kept both wells shut down.

Why did the Town test for PFAS?

This past year, the Connecticut Department of Public Health has begun encouraging public water system operators to evaluate the risks of PFAS contamination in their drinking water supply. Though not yet required of small systems like East Hampton, the town took a proactive approach to help ensure the health of East Hampton residents and tested all the School wells and Town owned Public Water Systems.

About the water systems affected.

The East Hampton Water and Sewer Commission operates the two public water systems affected. The Royal Oaks system consists of 5 wells that serve approximately 85 customers, including the Memorial Elementary School. Only one well in that system was affected – Well # 5 which is located at the Memorial Elementary School and serves all customers.

The Village Center system consists of 2 wells that serve approximately 30 customers, including the Center Elementary School. Only one well in that system was affected – Well # 1 which serves all customers.

While both of the affected wells were shut down, water from the remaining wells in each system have been supplying water to all customers since testing revealed PFAS contamination. There is a treatment system on the Village Center system that uses granulated activated carbon (GAC), which effectively removes PFAS. There is not a similar filtration system on the Memorial School well, but PFAS levels there were found to be well below the level that would be of concern for the health of the community.

What is the Town going to do moving forward?

The Town will work with the DPH to monitor the situation and determine if any future action is appropriate.

For more information.

[CT Department of Public Health](#)
[Center for Disease Control And Prevention](#)
[Connecticut Interagency PFAS Task Force](#)
[United States Environmental Protection Agency](#)
[Town of East Hampton Water Pollution Control Authority](#)