Town of Norwell Water Department 345 Main Street Norwell, MA, 02061 781.659.8076

produced or used.



Frequent PFAS Questions/Concerns:

1. What are PFAS and how are people exposed to them?

Per- and Polyfluoroalkyl Substances are a group of chemical compounds called PFAS. Two PFAS chemicals, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS), were extensively produced and are the most studied and regulated of these chemicals. Several other PFAS that are similar to PFOS and PFOA exist. These PFAS are contained in some firefighting foams used to extinguish oil and gas fires. They have also been used in a number of industrial processes and to make carpets, clothing, fabrics for furniture, paper packaging for food and other materials (e.g., cookware) that are resistant to water, grease and stains. Because these chemicals have been used in many 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. While consumer products and food are the largest source of exposure to these chemicals for most people, drinking water can be an additional source of exposure in communities where these chemicals have contaminated water supplies. Such contamination is typically localized and associated with a specific facility,

for example, an airfield at which they were used for firefighting or a facility where these chemicals were

2. Which well supplies water to my home – people believe they are fed by just one treatment plant?

We have three main sources of water in Town. South Street Water Treatment Plant (WTP), Grove Street WTP and Washinton Street WTP. All three sources pump into the distribution system and go to customer locations as well as our elevated storage tanks. These locations pump water based on the level of water in our water storage tanks. The elevated storage tanks are located on Judges Hills Drive and Paradise Drive and a pumped storage facility on Phillips Drive. Depending on where water is being used in the system during the day will affect the flow patterns and therefore make it hard to say exactly where water from each treatment location goes in the system. So realistically no location in Town would receive 100% of their water from the South Street WTP but would be a blend of water from all our sources. We are currently using South Street WTP only as needed to meet demand and allow of maintenance at other facilities.

3. Are we able to drink the town water? many think the water is unsafe

It is important to note that consuming water with PFAS6 above the drinking water standard 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 drinking water standard assumes that individuals drink only contaminated water, which typically overestimates exposure, and that they are also exposed to PFAS6 from sources beyond drinking water, such as food. To enhance safety, several uncertainty factors are additionally applied to account for differences between test animals and humans, and to account for differences between people. Scientists are still working to study and better understand the health risks posed by exposures to PFAS. If you have specific health concerns, you may wish to consult with your doctor.

4. Is discolored water PFAS related?

PFAS is colorless and odorless. When discolored water occurs it most often due to changes in flow and demands in the water distribution network. These changes in flow stir up sediments that are in the pipes. This could be due to the opening of a fire hydrant, water main break or changes in direction of flow due to different sources being online. We hope to begin a unidirectional flushing program in the spring to help mitigate these issues.



5. PFAS was not in the water previously but is in the water supply now?

PFAS6 are newly regulated contaminant at action levels that prior to 2019 where difficult to determine by previous laboratory test methods. Prior to 2019 laboratory testing for these compounds that could only detect to the part per billion level, therefore our testing came back as non-detected. As in almost every water supply in the state and most likely nationally PFAS compounds have possibly been in the water supply for a number of years if not decades at parts per trillion.

6. Why are we only filtering PFAS from South Street plant and not Grove and Washington Street?

Currently only South Street is over the 20 ppt level that requires treatment. South Street in the summer accounts for 50% of the Town's water supply. The cost for this treatment at South Street is estimated at \$2.9 million and will have an annual cost for maintenance of approximately \$90,000.

- 7. Is the project completed by summer of 2023, has the timeline changed? We are still on schedule for Summer of 2023.
- 8. Where did the contamination come from?

The four major sources of PFAS are: fire training/fire response sites, industrial sites, landfills, and wastewater. PFAS can get into drinking water when products containing them are used or spilled onto the ground or into lakes and rivers. Once in groundwater, PFAS are easily transported large distances and can contaminate drinking wells. PFAS in the air can also end up in rivers and lakes.

9. Do Brita filters remove PFAS, what should homeowners do?

The EPA has a list of filtration systems of all types that are certified for PFAS removal. These range from the pitcher style, point of use or whole home. They can be found on the NSF website here https://tinyurl.com/mm84dsx4

10. Will the South Street Treatment Plant be shut down during the winter?

We are currently using South Street WTP only as needed to meet demand and allow for maintenance of other facilities.