



# POTENTIAL SOURCES OF PFAS IN DRINKING WATER

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## INTRODUCTION

On August 26, 2020 the New York State Department of Health (NYSDOH) enacted a new Maximum Contaminant Level (MCL) for Perfluorooctanoic acid (PFOA), Perfluorooctane sulfonate (PFOS) and 1,4-Dioxane. PFOA and PFOS are part of a group of chemicals known as Per- and Polyfluoroalkyl Substances (PFAS). Historically these chemicals were used to make coatings and substances that resisted heat, oil, stains, grease, and water. With the new MCLs, public water systems will have to start monitoring for PFOA and PFOS (in addition to 1,4-Dioxane). The question is will your system detect PFAS? The answer lies in if there are any local sources of PFAS. PFOA and PFOS can migrate to groundwater or surface water through infiltration, runoff, and air transport followed by precipitation.

## SOURCES OF PFAS CONTAMINATION

Here in New York, perhaps the three most notable incidents involving PFAS contamination of drinking water supplies involved three communities: Hoosick Falls and Petersburg in Rensselaer County and Newburgh in Orange County. The former communities involved plastics processing and manufacturing plants, Teflon machining, and other industrial facilities. Common at each community are landfills at which both industrial and municipal waste were disposed at. In Newburgh, the source of PFOS contamination in surface water reservoir(s) is from firefighting foam utilized at the adjacent Stewart Air National Guard Base

NYSDOH has estimated that approximately 21 percent of all public water systems will have levels of PFOA or PFOS above the new MCL of 10 parts per trillion (ppt). It is believed that the most likely public water systems to be impacted will be those with sources adjacent to (1) military bases, airports, firefighting training sites, and other locations where firefighting foam has been applied; (2) manufacturing facilities that produced or used

PFAS and may have released such chemicals through wastewater, solid waste, and air emissions; (3) historic landfill sites where materials containing PFAS has produced leachate that may have contaminated groundwater or surface water; (4) groundwater discharge permit sites that dispose of wastewater to the ground; and (5) hazardous waste remediation sites where a hazardous substance has been released. Although these are the most likely sites for PFAS contamination, remember that PFAS compounds are transported through the atmosphere and deposited by rainfall and snow. Through air transport, PFOA and PFOS have been detected in groundwater and surface water in areas that would not have been predicted by topography (see Figure 1).

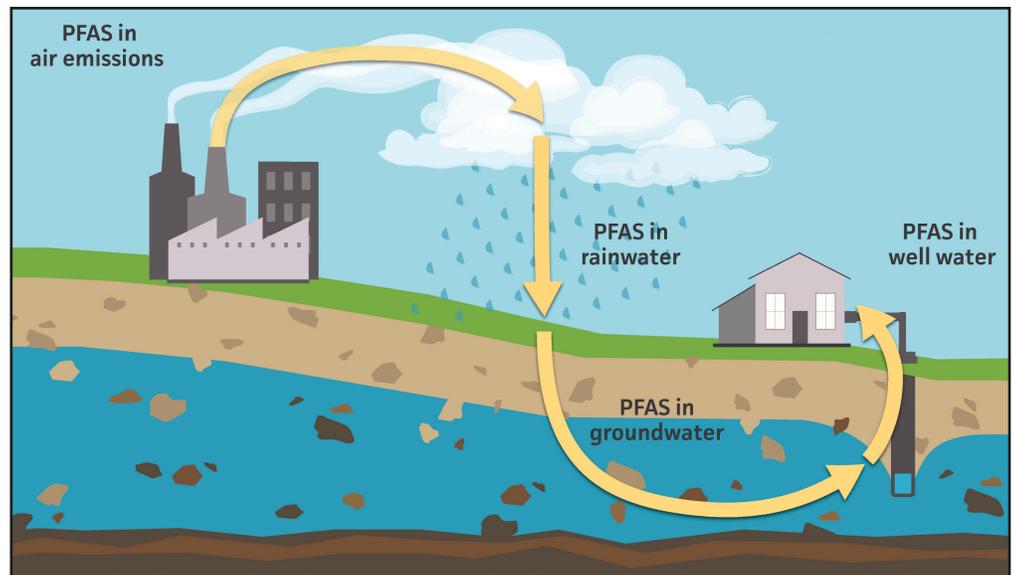


Figure 1 (from the North Carolina PFAS Testing Network)

## CLOSING THOUGHTS

Most small public water systems, those serving less than 3,300, will have to begin monitoring for PFOA and PFOS by February 25, 2021. The presence of these compounds in your drinking water will likely depend upon the location of source water relative to potential contaminant sources. If you have any questions related to this subject or would like to learn more about source water protection, please feel free to contact me at 1-888-NYRURAL ext. 170 or [winkley@nyruralwater.org](mailto:winkley@nyruralwater.org). 💧💧