



YET ANOTHER ARTICLE ON PFAS IN DRINKING WATER

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INTRODUCTION

This is my third article in the last five issues in Aquafacts that has dealt with PFAS, an acronym that stands for per- and polyfluoroalkyl substances. Over the last twenty-six years, I have liked to “mix up” my Aquafacts article topics. However, the presence of PFAS is an issue that literally will not go away.

PFOA AND PFOS ARE JUST TWO OF THOUSANDS

PFAS are nicknamed “forever chemicals” because they do not readily break down in the environment and can accumulate in our bodies. As indicated on the Centers for Disease Control and Prevention (CDC) website, research involving humans suggests that high levels of certain PFAS may lead to increased risk of kidney or testicular cancer and the potential for other health issues. PFAS can readily contaminate soil, migrate to surface

water or infiltrate into groundwater, and get transported relatively large distances due to the high solubility and persistence of these substances.

The most well-known PFAS are perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS). However, these are just two of nearly 5,000 different types of PFAS that have been manufactured since the 1950s and used in: non-stick cookware (e.g. “Teflon”); water-repellent clothing, stain resistant fabrics and carpets (e.g. “Scotchgard”); personal care products (waterproof mascaras and eyeliners, sunscreen, shampoo, and shaving cream); firefighting foams; food packaging (e.g. packaging for microwave popcorn, pizza boxes, fast food containers, etc.); cleaning products; paints, varnishes and sealants; and a variety of other products that resist grease, stains, water, and oil.

Although there have been so many different forms of >>>

Group	Chemical Name	Abbreviation	CAS Number
Perfluoroalkyl sulfonates	Perfluorobutanesulfonic acid	PFBS	375-73-5
	Perfluorohexanesulfonic acid	PFHxS	355-46-4
	Perfluoroheptanesulfonic acid	PFHpS	375-92-8
	Perfluorooctanesulfonic acid	PFOS	1763-23-1
	Perfluorodecanesulfonic acid	PFDS	335-77-3
Perfluoroalkyl carboxylates	Perfluorobutanoic acid	PFBA	375-22-4
	Perfluoropentanoic acid	PFPeA	2706-90-3
	Perfluorohexanoic acid	PFHxA	307-24-4
	Perfluoroheptanoic acid	PFHpA	375-85-9
	Perfluorooctanoic acid	PFOA	335-67-1
	Perfluorononanoic acid	PFNA	375-95-1
	Perfluorodecanoic acid	PFDA	335-76-2
	Perfluoroundecanoic acid	PFUA/PFUdA	2058-94-8
	Perfluorododecanoic acid	PFDoA	307-55-1
	Perfluorotridecanoic acid	PFTriA/PFTrDA	72629-94-8
	Perfluorotetradecanoic acid	PFTA/PFTeDA	376-06-7
Fluorinated Telomer Sulfonates	6:2 Fluorotelomer sulfonate	6:2 FTS	27619-97-2
	8:2 Fluorotelomer sulfonate	8:2 FTS	39108-34-4
Perfluorooctane-sulfonamides	Perfluorooctanesulfonamide	FOSA	754-91-6
Perfluorooctane-sulfonamidoacetic acids	N-methyl perfluorooctanesulfonamidoacetic acid	N-MeFOSAA	2355-31-9
	N-ethyl perfluorooctanesulfonamidoacetic acid	N-EtFOSAA	2991-50-6

Figure 1. NYSDEC’s PFAS Analyte List

PFAS produced, some are more commonly found in the environment than others. For example, the NYSDEC listed 21 different PFAS on an analyte list in its publication, *Guidelines for Sampling and Analysis of PFAS* (see Figure 1). As I discussed in my Spring 2020 and Winter 2020/21 articles, the New York State Department of Health (NYSDOH) has enacted Maximum Contaminant Levels (MCLs) for PFOA and PFOS of 10 parts per trillion (ppt) each. By the time you read this article, most of you will have sampled your water supplies once or twice for these two PFAS. However, it is important to note that it is common in testing for PFOA and PFOS, a laboratory will report levels of several other PFAS as well (likely several of those on Figure 1).

OTHER PFAS IN THE ENVIRONMENT

In December 2020, a Village in New York State had to deal with a PFAS that has not yet been regulated, one known as PFNA. PFNA stands for perfluorononanoic acid, a compound similar to PFOA in its use. Levels of PFNA were found in the range of 75 and 330 parts per trillion (ppt) in the Village well water. Levels of PFOA and PFOS were below detection limits. A "Do Not Drink" advisory was put forth and the Village supplied bottled and bulk water to consumers until a well with no detectable levels of PFNA could quickly be put in service.

As I indicated in my summer 2020 Aquafacts article, NYSDOH had estimated that approximately 21% of all public water systems in New York will have PFOA or PFOS above the 10 ppt MCL. Could that percentage be higher if other PFAS like PFNA are accounted for?

HELP COULD BE ON THE WAY FOR SOME

The National Rural Water Association (NRWA) has partnered with the firm of Napoli Shkolnik to bring a class action lawsuit against the manufacturers of PFAS for reimbursement of any cost incurred by a member of NYRWA for testing, treatment, and remediation. We encourage your system to register as part of the class action lawsuit if you have had any detections of PFAS or your water supply is near an airport, military base, fire-fighting activity, or an industrial facility where PFAS was produced or used to manufacture other products.

The class action lawsuit is against the manufacturers of PFAS, not any local companies which may have used the compounds. There is no upfront cost for a utility to register as a participant and all expense of the suit will come from the settlement. For more information, visit <https://www.napolilaw.com/nrwa-pfas> or email Sam Wade, former NRWA CEO, at gsw20@gmail.com.

FINAL THOUGHTS

The results of PFOA, PFOS, and other PFAS sampling in New York State by drinking water suppliers will better define the extent of this form of contamination in New York. The possible presence of these compounds in your drinking water will likely depend upon the location of your source water relative to possible PFAS contaminant sources. If you have any questions regarding your PFAS results, please reach out to me (winkley@nyruralwater.org or 1-888-NYRURAL ext. 170). Also feel free to reach out to Sam Wade as well (gsw20@gmail.com). 💧💧