

REMEMBER, IT ALL FLOWS DOWNHILL

By Steve Grimm

By now we should all be somewhat familiar with PFAS. Many of you have been testing your drinking water. How many of you have tested your wastewater effluent? Just because you haven't had a detect in your drinking water doesn't mean you don't have PFAS in your wastewater. Remember, it all flows downhill.

PFAS is the "family name" for a myriad of compounds. Within that "family" are two compounds of current interest, PFOA and PFOS. These two compounds were widely used because of their non-stick properties (Teflon coatings on cookware), stain resistance (treatments on furniture, carpets, clothing), water resistance (waterproofing treatments on clothing, shoes, etc.) and as a very effective ingredient in firefighting foams. Because of their potential link to certain cancers, companies in the US began phasing out the use of PFOA/PFOS in the early 2000's, but they are still in use in other countries, and they have been showing up in consumer goods sold here. Research has shown that PFOA/PFOS bioaccumulate in the human body and can be excreted in your urine and feces.

Just because you haven't had a detect in your drinking water doesn't mean you don't have PFAS in your wastewater. Many products containing PFOA/PFOS can still be found in households all across the country. That beautiful living room carpet that looks as good as it did the day it was installed twenty-five years ago. The sofa that goes oh so well with the carpet. The non-stick cookware that your parents gave you that you have passed on to your children. All these and more could contain traces of PFOA/PFOS. And every time you flush, do the dishes or laundry, guess where that water goes? You guessed it. Either to the septic system or the municipal wastewater system. Remember, it all flows downhill.

We are focused on identifying and removing PFOA/PFOS from our drinking water, as we should be. Currently, the best available treatment for removing, not eliminating, not destroying, but removing PFOA/PFOS from drinking water is granulated activated carbon (GAC) filtration. When the filters are backwashed, where does the backwash water go? Either to a backwash lagoon (and eventually back into the groundwater) or, you guessed it, the municipal wastewater system. Remember, it all flows downhill.

When the GAC has reached its useful life, it is removed and disposed of in a landfill, which also has decades worth of PFOA/PFOS junk buried within. With that in mind, DEC has recently added an addendum to its Technical and Operational Guidance Series (TOGS) 1.1.1: Ambient Water Quality Standards and Guidance Values and Groundwater Effluent Limitations as well as a new draft TOGS 1.3.13 entitled Permitting Strategy for Implementing Guidance Values for PFOA, PFOS, and 1,4-Dioxane. Short story long, the draft addendum to TOGS 1.1.1 will establish guidance values (GV) for PFOA/PFOS discharges, while new TOGS 1.3.13

would enable GV's to be incorporated into the SPDES permits of industrial wastewater discharges from priority facilities. The TOGS further states that the data collected will help guide how GV's may be applied to other SPDES permitted facilities, including municipal wastewater treatment plants.

Landfills are listed as a priority facility, meaning the leachate may very well be subject to the proposed GV's. Septage, while not specifically mentioned in the draft addendum, may also be subject to some sort of GV. Septage comes from areas outside the municipal sewer district, often from more rural areas without municipal water. Leachate and septage are outside contributors, often out of the wastewater treatment plant operator's control. Just because you haven't had a detect in your drinking water doesn't mean you don't have PFAS in your wastewater. If landfill leachate is tested for PFOA/PFOS, how long before the wastewater treatment plants that receive leachate begin testing their effluent? Or facilities that take septage? Remember, it all flows downhill.

There is currently no feasible or affordable way to eliminate, destroy PFOA/PFOS. There are many pilot destruction projects going on, some showing potential "promise". The biggest issue surrounding these destruction technologies remains affordability. It ain't cheap. Until the technology evolves we are left with removing PFOA/PFOS and sending it somewhere to be removed again only to be sent somewhere else to be removed again, and so on and so on. My biggest fear is that all the "free" money will be spent on removing PFOA/PFOS from our drinking water, and ultimately the wastewater treatment plants will be saddled with the cost of ultimate destruction. Remember, it all flows downhill.

These are but a few things for you to think about, keep on your radar and possibly start to plan for the future, which may be just around the corner. If you'd like to learn more, please contact me at 518 828-3155 ext. 180 or grimm@nyruralwater.org. Just because you haven't had a detect in your drinking water doesn't mean you don't have PFAS in your wastewater.

Cheers. 💧💧

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