

Reducing PFAS in Private Wells



Department of Environmental Conservation

Department of Health

Per- and poly-fluoroalkyl substances (PFAS) are commonly found in the environment and have been detected in public drinking water and private wells. This guide provides information about PFAS and describes options that individuals on private wells can choose to reduce PFAS exposures in drinking water.

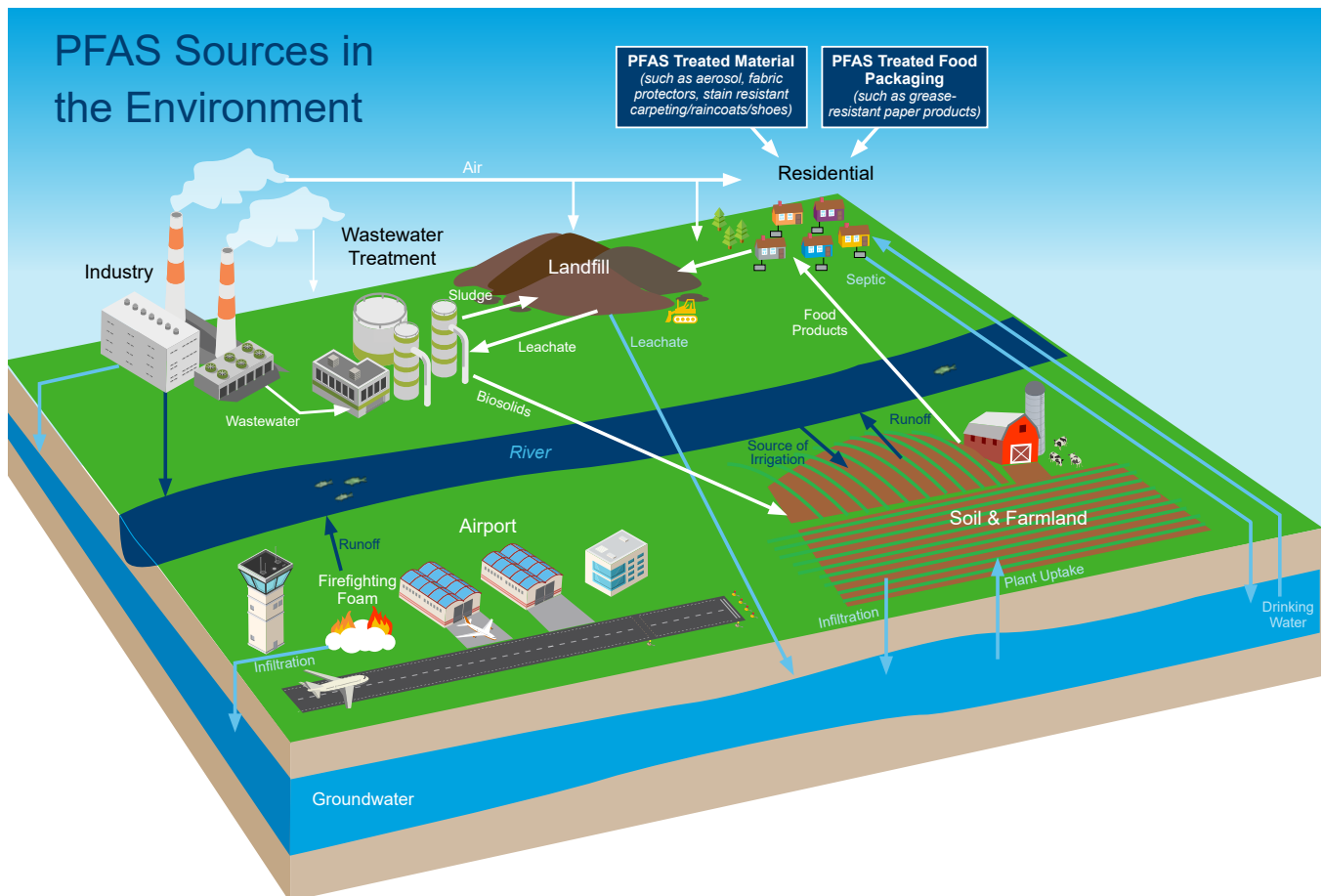
Like other contaminants, New York State does not regulate PFAS in private wells. However, the state's stringent public drinking water standards for perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) of 10 parts per trillion are used as guidelines to recommend actions to reduce exposures in private wells.

PFAS in the Environment

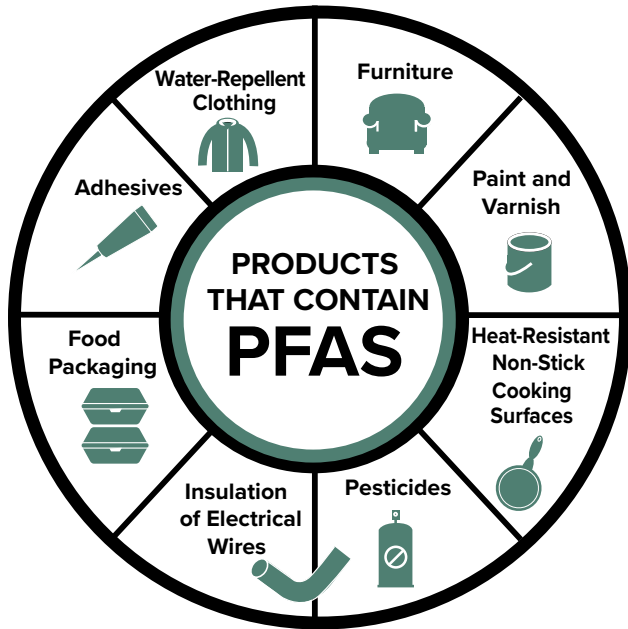
PFAS are a group of manufactured chemicals that have been used in industry and consumer products since the 1940s. PFAS are present in household and commercial products due to their water and oil-resistant properties. Products include cosmetics, food packaging, non-stick pans, fire-fighting foams, adhesives, and water-repellent clothing.

PFAS can enter the environment from manufacturing, land application practices, firefighting foam, landfills, wastewater treatment plants, consumer products, and septic systems. PFAS are sometimes referred to as "forever chemicals" because some do not break down in the environment.

Removing PFAS from the environment requires a long-term, concerted effort involving laws and regulations aimed at manufacturers to control direct discharges to groundwater or surface water bodies.



Over the past several years, New York took action to reduce PFOA and PFOS in industrial discharges, and phase out PFAS in carpeting, firefighting foam, food packaging, and apparel, among other products.



Property Owner Sampling Guidance

Property owners may choose to test their well water for PFAS, but private testing can be expensive. Tests may range from \$300-\$600. PFAS tests are performed by a small number of certified laboratories that have specialized equipment and quality control procedures. This enables them to accurately test for PFAS at very low levels. Discuss sample collection procedures with your laboratory prior to taking a sample. Some laboratories may collect the sample for you for a fee.

Contact your [local health department](#) or [DOH's Bureau of Environmental Exposure Investigation](#) (see *More Information* below) to find out if PFAS contamination in drinking water is present in your area and what steps are recommended. They can help you search for a New York State-accredited laboratory and help with deciding on which tests are most appropriate, interpreting your lab results, and discuss appropriate options to reduce PFAS in your drinking water.

Treatment Options

There are several effective ways to reduce PFOA and PFOS concentrations in drinking water. Most systems use filters to reduce these contaminants. This section describes the most common types of treatment systems available and the processes they use.

When considering filter options, look for filters and units that are National Sanitation Foundation (NSF), Underwriter Laboratories (UL), or Water Quality Association certified. Your water filtration unit must be maintained for it to continue to be effective. Change the filters periodically and follow all maintenance schedules according to the manufacturer's instructions. The more you use your water filtration unit, and the more water you run through it, the more frequently you will need to change your filter.

Types of Systems

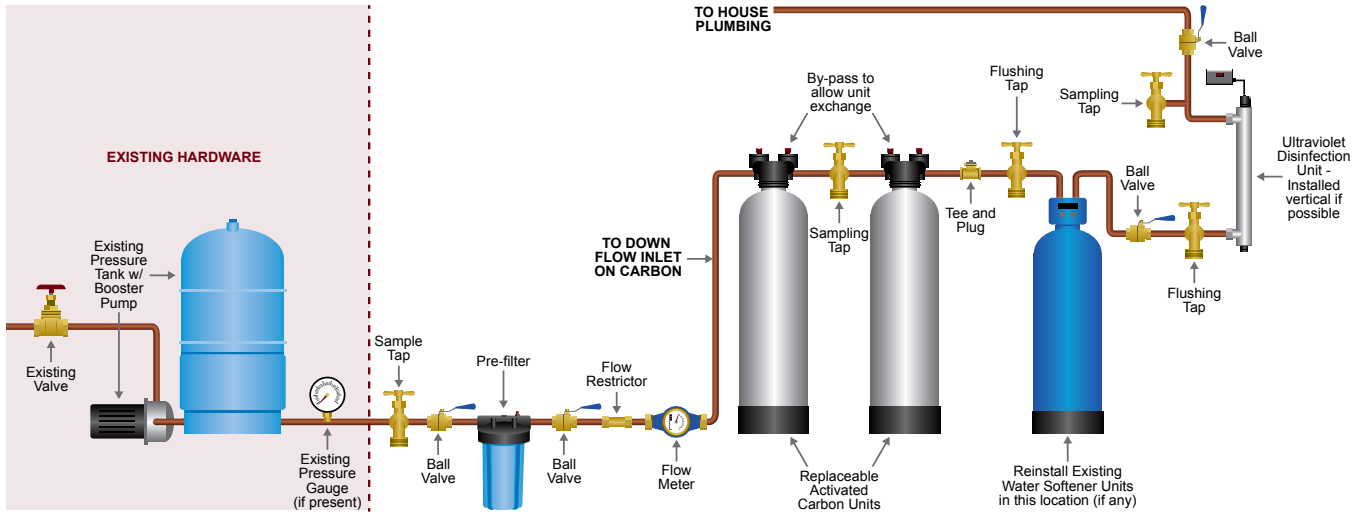
One of the key decisions you may need to make is what type of system is best for you: Point-of-Use Treatment (POUT) or Point-of-Entry Treatment (POET). Each system is described to help you determine if one of these systems is right for you.

Point-of-Use Treatment

POUT systems are generally smaller filters that are attached at or near the faucet or point where your water is dispensed for use. Various types of POUT systems include portable water pitchers or those that can be attached to kitchen sinks and refrigerators. These require that filters be changed and maintained per a manufacturer's owner's manual.



If you prefer all water used within your home or business to be treated, multiple POUT filters may be needed or a POET system may be a more suitable option.



Point-of-Entry Treatment

A POET system is a whole-house treatment system designed to treat water entering the home or business. POET systems are generally more complex and designed specifically for your home by a trained specialist. They typically use a series of unit processes including sediment removal via a pre-filter, a filter, water softening (as needed), and ultraviolet (UV) light disinfection. See figure above showing a POET system using two granular activated carbon (GAC) filters.

Maintenance of POET systems may also be required by a trained specialist. The typical system design includes a minimum of two sampling points:

pre-treated water and final treated water. If using a Granulated Activated Carbon (GAC) filter, owners may also opt to install a secondary GAC vessel which acts as a backup filter and adds a mid-point sampling location. The secondary GAC vessel adds an extra layer of protection; however, it is not necessary.

Filtration is the most common way to reduce PFAS levels in drinking water. Below are some of the filtration options that may be used by your water treatment system.

Types of Filters

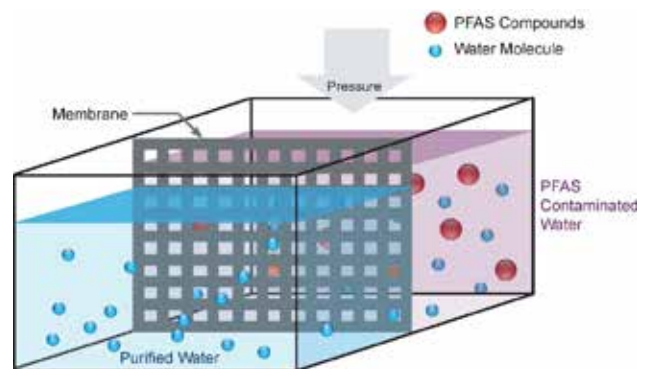
Granular Activated Carbon

GAC is a well-established treatment approach for reducing PFAS in water supplies. PFAS are trapped in tiny “holes” or pores within activated carbon particles by a process called adsorption.



Reverse Osmosis

Reverse osmosis (RO) moves water through a high-pressure membrane to reduce contaminants including PFAS. RO can also filter out all salts, which may affect drinking water taste. It may be necessary to use a filter pretreatment to remove small, suspended solids from the untreated water.



Learn More

Test Your Well: Protect Your Family's Water

www.health.ny.gov/PrivateWells

PFAS and Private Wells

<https://www.health.ny.gov/environmental/water/drinking/pfasinprivatewells.htm>

PFAS and Health

www.health.ny.gov/chemicalsandhealth

In-home Water Filtration Options

<https://www.health.ny.gov/environmental/water/drinking/pou/>

NYS Accredited Laboratory

<https://apps.health.ny.gov/pubdoh/applinks/wc/elappublicweb/>

Questions?

Find your Local Health Department:

www.health.ny.gov/EnvironmentalContacts

State Health Department:

bee@health.ny.gov | (518) 402-7860

Key Points

- Certain PFAS like PFOA and PFOS do not break down in the environment and were widely used in industry and in household products.
- You can choose from two types of systems that reduce PFAS from your household drinking water: a Point of Use Treatment system or a Point of Entry Treatment system.
- Your treatment system may use granular activated carbon or reverse osmosis to reduce PFAS compounds from water.
- If you are concerned about PFAS in your household water, contact your local health department or DOH's Bureau of Environmental Exposure Investigation to assist with:
 - Searching for a New York State-accredited laboratory, and to help you decide on which tests are most appropriate,
 - Reviewing your lab results and identifying appropriate options to reduce PFAS in your drinking water; and
 - Understanding PFAS contamination in drinking water supplies in your area and if any next steps are recommended.