



Department of
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Availability Session

MAHOPAC Area of Interest

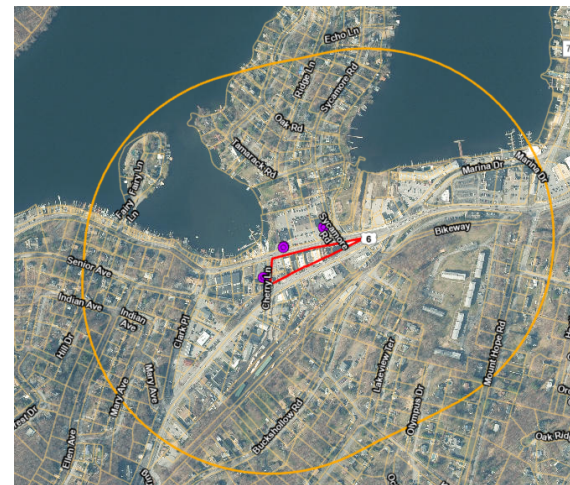
Per- and Polyfluoroalkyl Substances in Water Sources
Overview, Information & Resources

NYSDEC Site No. 340013

August 31, 2022

Background (1 of 3)

As part of NYS's Emerging Contaminant Sampling Initiative to investigate groundwater at State Superfund and Brownfield Cleanup Program sites, DEC identified per- and poly-fluoroalkyl substances (PFAS) in groundwater and private water supply wells in an area of interest around the Mahopac Business District State Superfund site.



Legend:

-  Monitoring well
-  0.25 mile radius
-  Site Boundary



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Background (2 of 3)



Specifically, perfluorooctanoic acid (PFOA) and perfluorooctanesulfonic acid (PFOS) were detected at concentrations above NYS's maximum contaminant levels (MCLs) for public drinking water (10 parts per trillion).

PFAS is not regulated in private wells. NYS uses public drinking water standards as guidance when evaluating private well data and recommending actions to reduce exposure.



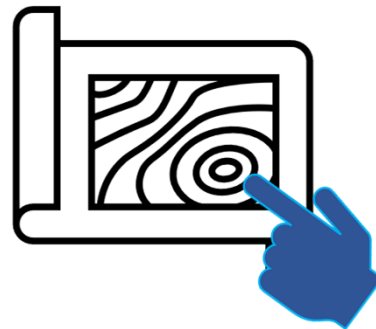
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Background (3 of 3)



Water supply well sampling and alternate water supplies—if needed based on results—are available at no cost to property owners within the currently defined area of interest.

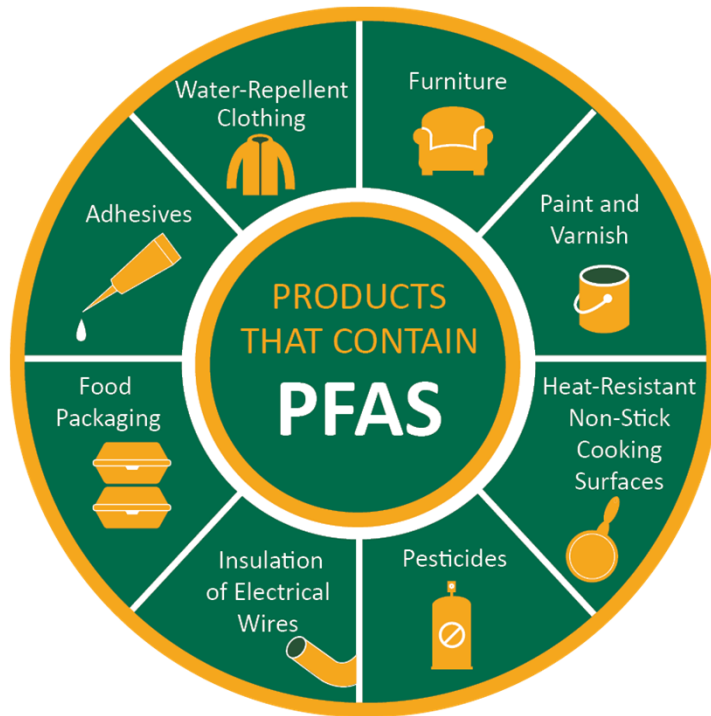
Additional efforts are underway to determine the potential sources of PFAS contamination in the area.



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What are PFAS?

- **PFAS are a group of manufactured chemical compounds used for decades in industry and consumer products.**
- **PFAS are widely used, long-lasting, and break down slowly over time.**



PFAS – Why the concern? (1 of 3)

PFAS are commonly found in the environment and have been detected in public drinking water and in private wells around NY and the US.



PFAS – Why the concern? (2 of 3)

Most of what is known about health effects comes from studies of high-level exposure in animals.

Less is known about human health effects occurring from lower levels of PFAS exposure, such as from drinking water.



PFAS – Why the concern? (3 of 3)

Finding lower levels of chemicals in drinking water prompts DOH and DEC to make recommendations that people take steps to reduce exposures.



How can I be exposed?

You can be exposed to PFAS by:



Drinking contaminated municipal water or private well water



Eating fish caught from water contaminated by PFAS (PFOS, in particular)



Eating food that was packaged in material that contains PFAS



Using some consumer products such as stain resistant carpeting and water repellant clothing

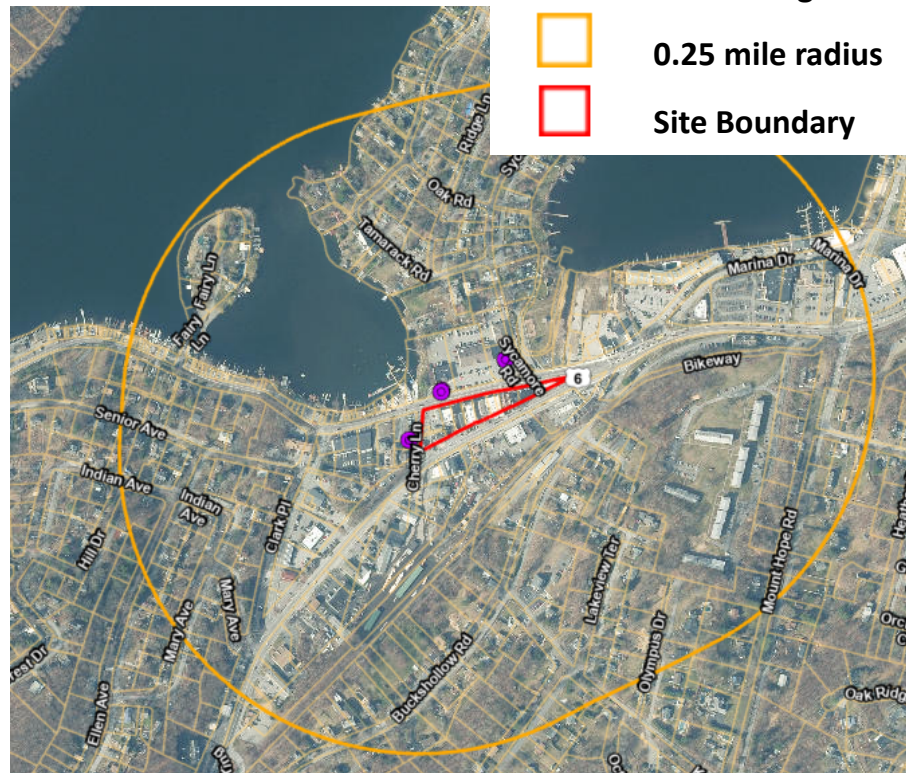
Source: <https://www.atsdr.cdc.gov/pfas/health-effects/exposure.html>

Mahopac Business District Wells

- During survey of State Superfund Sites for emerging contaminants, PFAS were detected in environmental monitoring wells at the Mahopac Business District Wells State Superfund Site.
- Efforts are underway to determine the potential sources of PFAS contamination in the area.

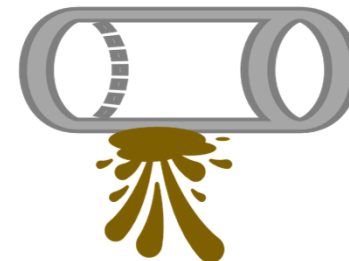
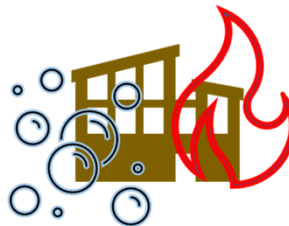
Legend:

-  Environmental monitoring well
-  0.25 mile radius
-  Site Boundary



Potential Sources of PFAS in Mahopac

- Discharges to septic systems
- Sewer system leaks
- Car and boat-related maintenance
- Potential historic fires



PFAS Source Investigation

ACTIONS	STATUS / SCHEDULE
REVIEW OF PRIVATE WELL AND PFAS DATA AND POTENTIAL PFAS SOURCES	ONGOING
SAMPLING OF SOIL AND GROUNDWATER NEAR POTENTIAL PFAS SOURCES	SCHEDULED FOR FALL 2022
SAMPLING OF LAKE MAHOPAC SURFACE WATER, SEDIMENT, AND FISH TISSUE	SCHEDULED FOR SPRING 2023



Private Water Supply Sampling in Mahopac

- DEC and DOH surveyed the surrounding area for private water supplies.
- Private well sampling began with properties closest to the Mahopac Business District Wells site.

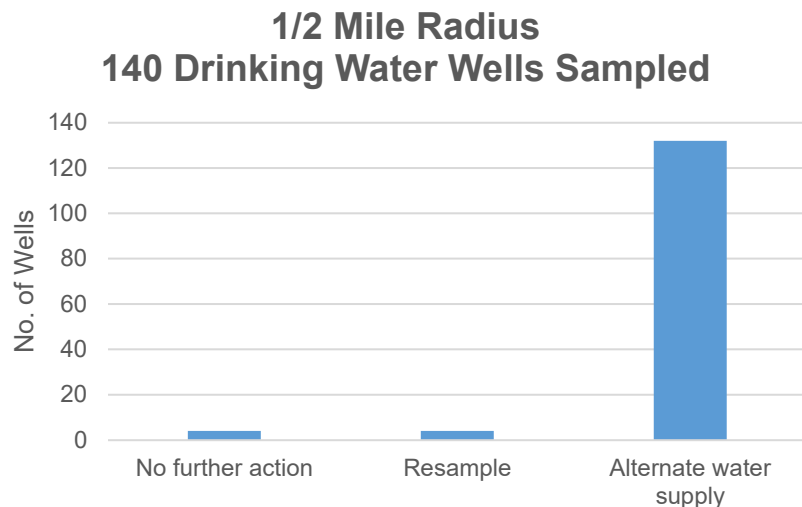


Site Boundary

0.25 mile radius

Non-municipal
water service area

Private Water Supply Sampling Status



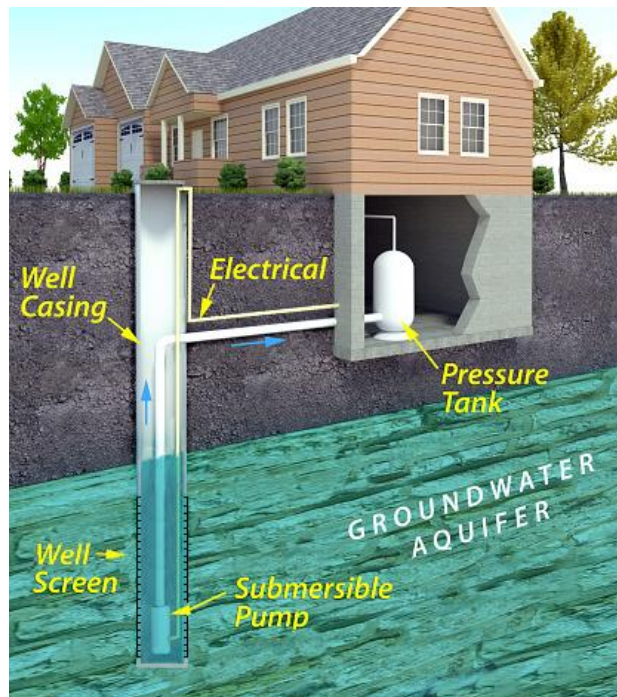
94% of sampled Mahopac private water supply wells were above 10 parts per trillion of PFOA or PFOS.

Alternate water supplies have been provided to these properties.



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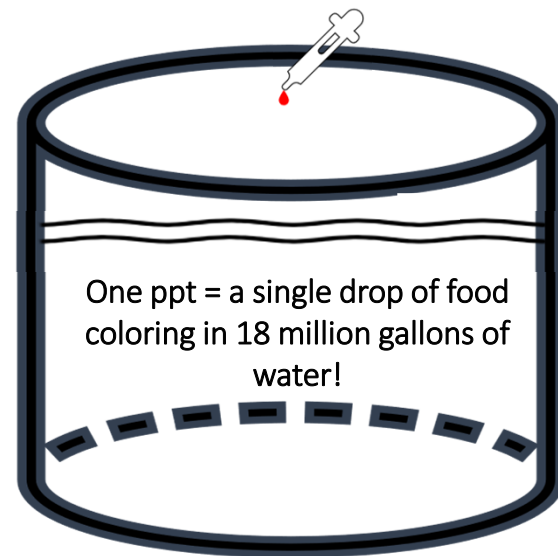
Your water could be from a private well If...



- You have a water pump and a well on your property for your drinking water system
- You do not receive a water bill
- You have a septic system

PFAS – Are There Drinking Water Standards?

- DOH regulates PFAS in public water supplies through drinking water standards or Maximum Contaminant Levels (MCLs).
- The MCL is set at 10 parts per trillion (ppt) for public water supplies.
- These standards are among the lowest in the country and are intended to protect against health effects.

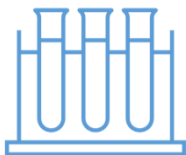


Private Well Sampling for PFAS



- If your property is in the area of interest and you would like to have your private water supply well sampled for PFAS, please contact the DEC hotline provided in the letter you received in the mail or email:

MahopacWaterSupply@gmail.com



- The sampling is performed at no cost to you and can be arranged based on your schedule.
- Typically, drinking water samples will be collected from your kitchen tap in two small bottles and submitted to a certified laboratory for PFAS analysis.



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When Will I Get My Private Well Results? (1 of 2)



DEC/DOH

The laboratory typically provides the results to DEC/DOH one month after the sample is collected.

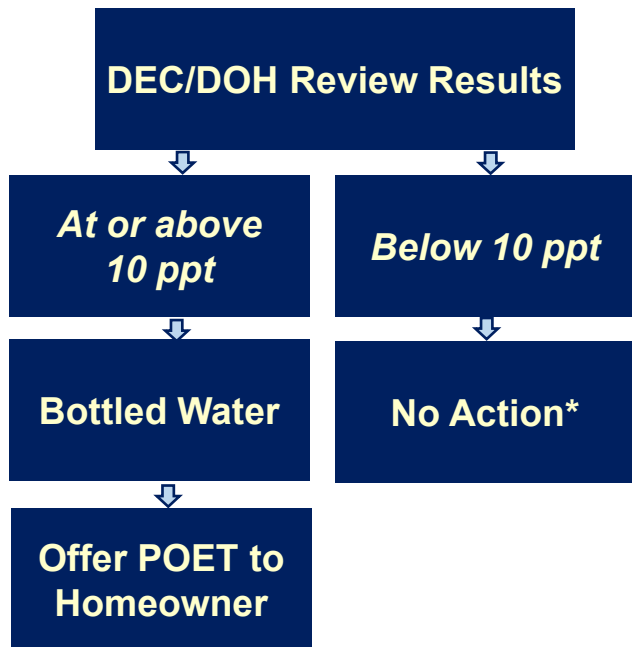


DOH will contact you to discuss your sampling results and will provide you with a copy of the lab report.



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When Will I Get My Private Well Results? (2 of 2)



* DEC/DOH may resample to confirm result after 6 months

If your private well is in the area of interest and has sampling results at or above 10 parts per trillion (ppt) for PFOA or PFOS, DEC will contact you to:

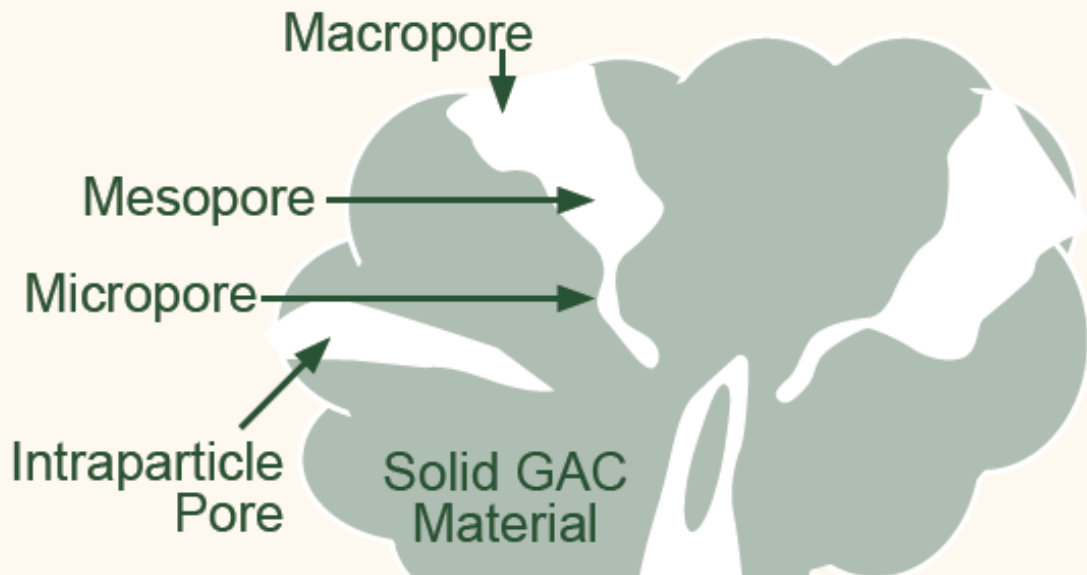
- Provide bottled water (alternate water supply).
- Offer a point-of-entry treatment (POET) system.

For PFOA or PFOS results below 10 ppt, DEC/DOH may resample your well at some point in the future.



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Point-of Entry Treatment (POET) System - Activated Carbon Filtration

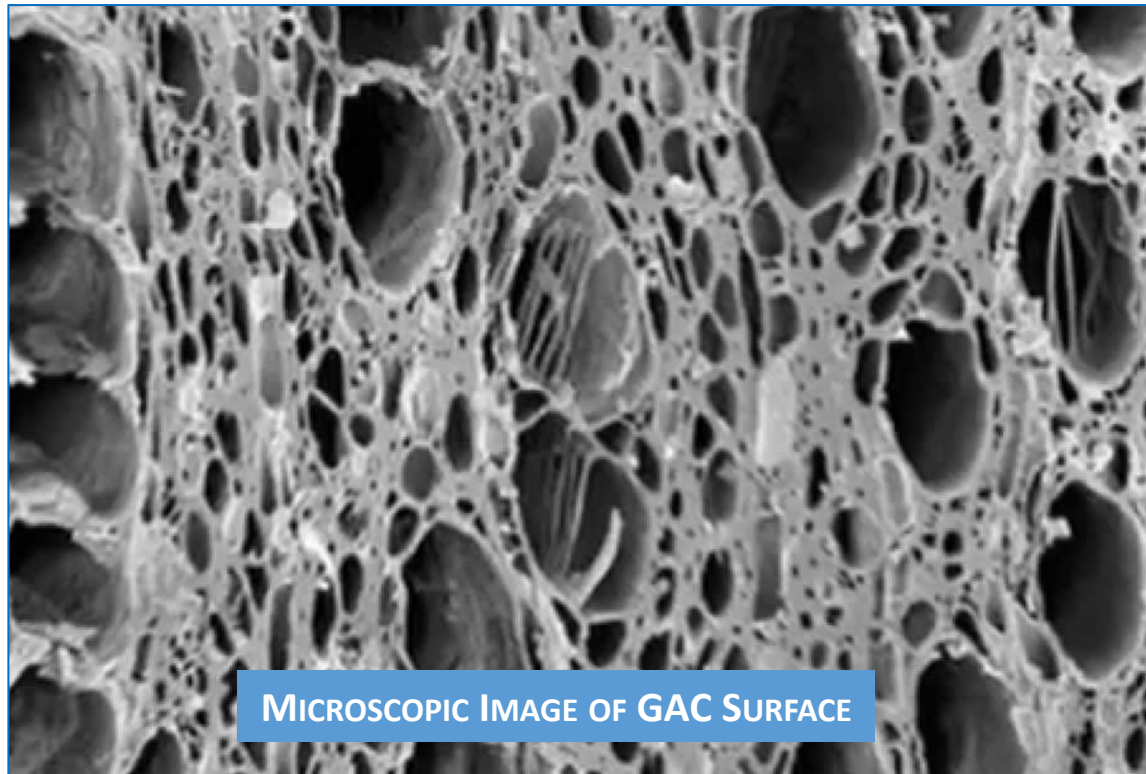


SKETCH OF GAC PARTICLE

Use of activated carbon, commonly referred to as GAC (granular activated carbon) is a well-established approach for purifying water.



Activated Carbon Filtration – How it Works



MICROSCOPIC IMAGE OF GAC SURFACE

PFAS molecules become trapped in the pores within GAC carbon particles by a process called adsorption.



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Activated Carbon Filtration – How it's Used



GAC TREATMENT VESSEL EXAMPLES

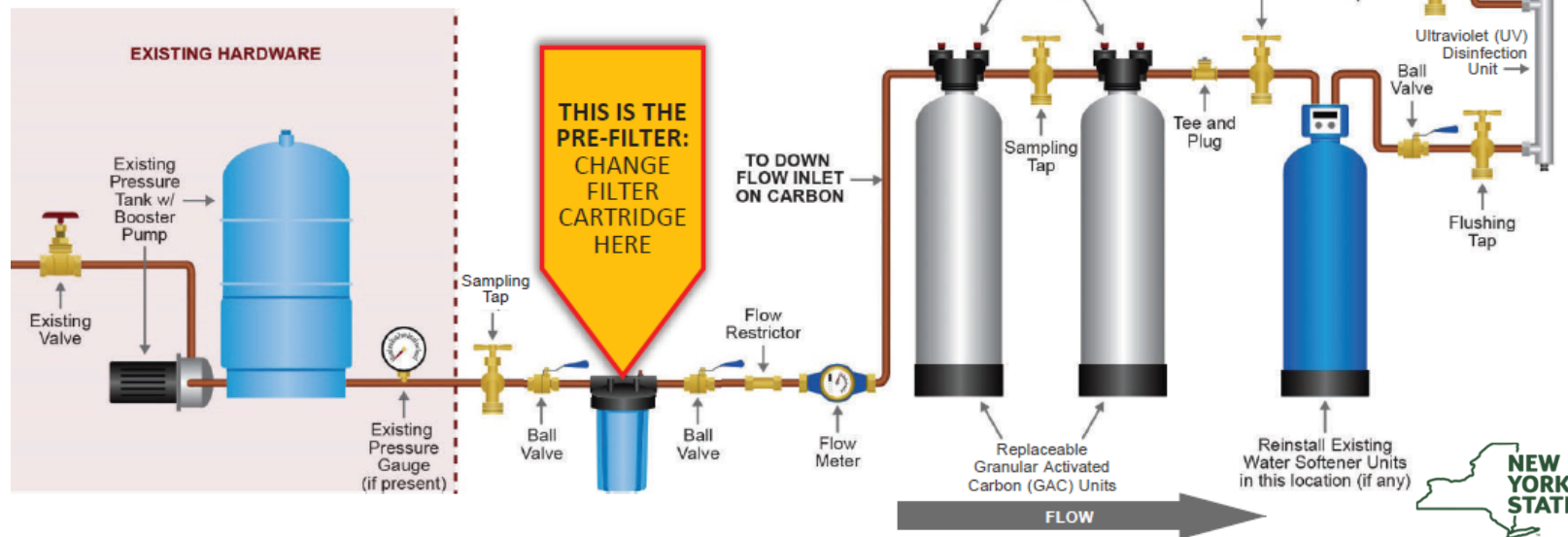
- GAC is typically housed in cylindrical containers referred to as vessels.
- Water is pumped through the activated carbon in the vessels to accomplish treatment.



Point-of-Entry Treatment (POET) Systems

Typical POET Installation

POET Systems Filter All of the Well Water that enters a Residence



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How Does a POET Look When Installed?

Typical Household POET Installation

Outgoing Treated Water

Ultraviolet (UV)
Disinfection Unit

Replaceable Granular
Activated Carbon Units

Pre-Filter with
Replaceable Cartridge

Existing Hardware

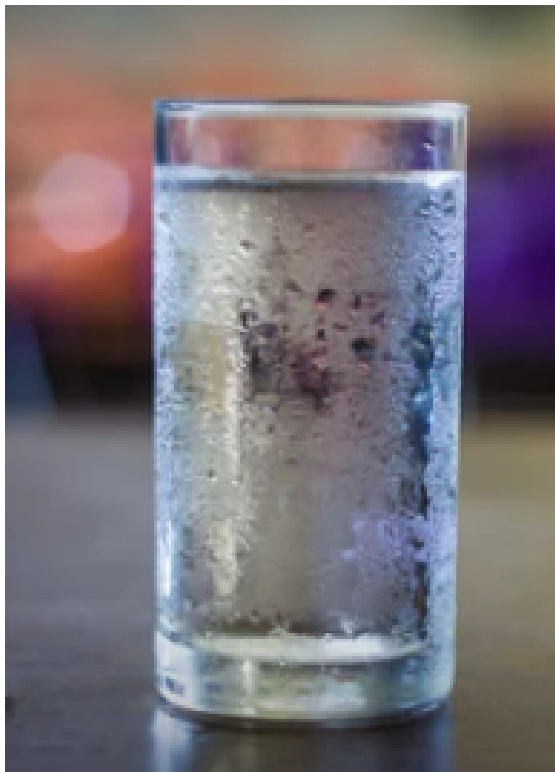
- Pressure Tank
- Booster Pump

Incoming Well Water



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Overall Benefits of POET Water Treatment



- ✓ **Reliable – Established and effective technology**
- ✓ **Safe – Removes PFAS, micro-organisms, and other contaminants**
- ✓ **Improves Water Quality – Decreases cloudiness and improves taste, odor and color**



Monitoring to Confirm Reliable Treatment

- Effective treatment supplemented by periodic testing of the treated water.
- Testing enables operational adjustments and confirmation of effectiveness.



NYSDEC Engineering Contractor
Sampling Filtered Water



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POET Systems – No Cost Maintenance



- ✓ Homeowners are not responsible for installation, maintenance, and sampling costs.
- ✓ Continues until testing indicates well water treatment is no longer necessary.



For additional information, visit our website...



<https://www.dec.ny.gov/chemical/126017.html>

- ✓ **Latest information**
- ✓ **Resources**
- ✓ **Public involvement opportunities**
- ✓ **Contact information**



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NYSDEC Contact Information

Site Investigation



For inquiries related to surface water, groundwater and drinking water sampling, and PFAS source evaluation:



Jasmine Stefansky

(518) 402-9575 | Jasmine.Stefansky@dec.ny.gov



Jeffrey Dyber

(518) 402-9813 | Jeffrey.Dyber@dec.ny.gov



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NYSDEC Contact Information *(continued...)*



Private Well Sampling



To determine if your property is located within the area of interest, and therefore eligible for sampling, contact DEC's environmental engineering consultant at the Mahopac PFAS Information e-mail:



MahopacWellSampling@gmail.com



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NYSDEC Contact Information *(continued...)*



POET Systems & Alternate Water Supplies

For questions related to the provision of an alternate water supply (i.e., bottled water, POET systems, or public water supply connections):



David Chiusano NYSDEC

(518) 402-9813 | David.Chiusano@dec.ny.gov



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NYSDOH Contact Information



Health-Related Inquiries



For health-related inquiries, please reach out to the DOH point of contact below:

Stephen Lawrence NYSDOH
(518) 402-0450 | beei@health.ny.gov



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Questionnaire – Your Input is Appreciated!

Scan this QR code with your phone to
access a homeowner questionnaire. Your
answers will be used to support our PFAS
source investigation!



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Questions? Please Visit Our Theme Tables...



Private Well Sampling



Activated Carbon
Filtration



What is PFAS?



Source Investigation

...or Inquire with our Greeters.



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