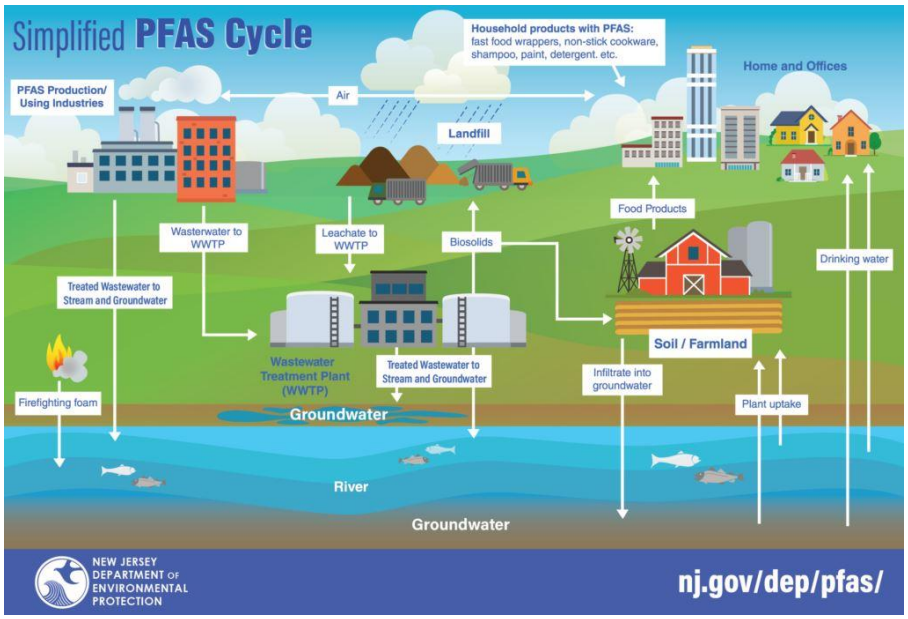
Hopewell Township Q & A for Virtual Public Meeting with NJDEP on 3/13/2024

Bureau of Environmental Measurements and Site Assessment Immediate Concern Unit (BEMSA-ICU) Questions

1. What is being done to investigate and determine the source of the contamination?

    a. PFAS contamination has been identified nationwide in ground water. Common sources of PFAS are:
        i. Air and wastewater emissions from industrial facilities where they are made or used.
        ii. Aqueous film-forming foam (AFFF firefighting foam) released during training or in response to a petroleum-based fire event.
        iii. Sludge and effluent from wastewater treatment plants.
        iv. Landfills where PFAS containing industrial waste or consumer products are disposed.



    b. PFAS contamination is widespread throughout the nation. Where sources of PFAS contamination are identified in New Jersey, they are required to be cleaned up. For private wells contaminated with PFAS, the NJDEP's first priority is to install Point of Entry Treatment Systems (POET) to provide clean drinking water to residents.

2. Is work being done to clean up the ground water at the Hopewell sites?

    a. Remediation of ground water has not yet begun; NJDEP is in the process of determining the source(s) of contamination and if/when the source(s) of contamination is found, treatment options will be evaluated.

3. Is it possible to clean up the ground water?

    a. Cleanup of ground water is possible where the sources of contamination can be found and remediated. PFAS compounds do not readily degrade in ground water, however treatment is available for this type of contaminant. The NJDEP's primary focus is to provide clean water to those with PFAS contamination above standard in their potable well.

4. How can I have my well tested?

    a. Homeowners may have their private well tested in one of two ways:
        i. NJDEP Potable Well Investigation:
            1. A homeowner may be contacted by NJDEP's Bureau of Environmental Measurements and Site Assessment – Immediate Concern Unit (BEMSA-ICU) to allow access for their well to be sampled due to proximity to other contaminated wells as part of a BEMSA – ICU potable well receptor investigation.
        ii. Homeowner sampling:
            1. An individual can test their private well by contacting a state-certified laboratory. The NJDEP encourages homeowners to routinely test their wells for the parameters found in the Private Well Testing Act (PWTA).

5. How do the PFAS levels in Hopewell compare with surrounding areas?

    a. Generally, across various sites in New Jersey, most potable wells identified by BEMSA-ICU have concentrations of PFAS that range from 15-25 parts-per-trillion (ppt), which is consistent with the majority of PFAS contaminated wells identified in Hopewell.

6. Has there been any recent test of the aquifer under the 'Tree Streets' (i.e. Maple, Oak, Birch)?

    a. BEMSA-ICU has not completed potable well testing in this area. However, one sample was collected in 2022 as required by the Private Well Testing Act. This sample did not reveal PFAS in this area.

7. Have sources been identified for the issue and once the source is determined, will the responsible party be held accountable?

    a. NJDEP will conduct an investigation to identify potentially responsible party(ies). If sources of PFAS contamination are found, the party(ies) will be notified of their responsibilities to remediate the contamination.

Environmental Claims Administration (ECA) Spill Fund Questions:

1. How do you submit a Spill Fund claim?

    a. Spill Fund claims are submitted by mail. The address is located on the top of the Spill Compensation Fund Damage Claim form available at www.nj.gov/dep/srp/finance/ecaclaim.htm).

2. How does the Point of Entry Treatment (POET) system work?

    a. Raw or untreated water enters the pre-treatment sediment filter which removes small solid particles and protects the POET system. The water then enters the first tank where it encounters granular activated carbon (GAC) which is a media that removes PFAS from water. The PFAS contaminants stick to the GAC and the cleaned water proceeds through to tank 2. Tank 2 is a backup tank that is also filled with GAC. From there the clean water can be circulated through the whole house.

3. What type of remediation system is required to remove PFAS from drinking water?

    a. NJDEP requires a POET that is installed directly before water enters the house's plumbing, typically after it exits a pressure tank. The system consists of a pre-treatment filter to remove solid particles, and two tanks containing granular activated carbon (GAC) which remove regulated PFAS chemicals from the water.

4. What forms are required to be filled out to receive compensation for the purchase of bottled water & filters?

    a. The required form is the Spill Fund Damage Claim Form (available at www.nj.gov/dep/srp/finance/ecaclaim.htm). In addition, 2 rounds of sampling results from a state-certified laboratory, proof of ownership of the home (copy of the tax bill/statement and/or Deed), 3 bids for the installation of the POET system, and receipts for bottled water (if applicable) must be submitted with the form. If the claim is approved, the claimant will be required to submit a W-9 form, release agreement, and complete a state payment voucher to be reimbursed for costs incurred (for example: confirmation sample, bottled water).

5. What are the costs involved?

    a. Common costs associated with a POET system are:
        i. Cost to install the POET System: $3,200.00 to $3,500.00
        ii. Cost To sample the system
            1. Raw (untreated water) annually: $350 to $430.
            2. Field Reagent Blank: $350 to $430.
            3. Treated water twice per year: $700 to $860
        iii. Cost of POET Re-bed: $695 to $925
        iv. Cost of sediment filter changes: $275 to $375

6. How long will the Spill Fund cover those costs?

    a. The POET is eligible to be maintained through the Spill Fund for as long as you own the house or until sampling of raw water reveals 2-3 consecutive annual raw water samples at or below all applicable standards (Maximum Contaminant Levels -MCL in this case).

7. How frequent is sampling/analysis recommended for monitoring of treatment systems and effectiveness?

    a. The POET Specifications require that the Treated (mid-system port) be tested twice per year to confirm that contaminants are not breaking through. If contamination breaks through, and it is more than ½ of the MCL, a re-bed of the system is necessary. If there are frequent breakthroughs or the raw water sample results indicate a high concentration of contamination exists, the sampling of treated water may be increased to four times per year.

8. After the installation of a POET filtration system, how often does the filter require replacement? I assume replacement is based upon gallons processed, but is there any data on usual gallons used by a person so we can make a time estimate for filter replacement? Will filter replacement costs be covered? For how long and at what frequency?

    a. The sediment filter is changed annually or more frequently if needed. The carbon media within the tanks is changed when sampling indicates that "breakthrough" is occurring. Breakthrough is defined as a treated water sample with PFAS levels greater than ½ of the Maximum Contaminant Level (MCL). The vendor, lab, and NJDEP monitor all sampling done of a POET system to ensure that water complies with standards and is safe to drink. We do not use a gallon usage model to gauge when filters should be changed. All filter replacement costs are covered as part of an eligible Spill Fund claim. Eligible claims are paid for as long as you own the home or if raw water sampling results are at or below PFAS standards based on 2-3 consecutive years of raw water sampling.

9. Has there been testing on the filters and how long do they last before changing?

    a. The POET will be tested twice per year to confirm that water meets standards. On average the carbon media lasts 3 years.

Miscellaneous Questions:

1. What are the effective carbon filters for treating PFAS?

    a. NJDEP uses coconut shell derived granular activated carbon.

2. Are the filters "carbon block" type?

    a. No, the filters are granular activated carbon.

3. Is there a silver bullet that would address most well water contamination? Whole house reverse osmosis system for example?

    a. The GAC POET systems recommended by NJDEP are effective at removing the contaminants of concern (PFAS) in Hopewell. In addition, the GAC system removes most organic chemicals.

    b. According to the USEPA, reverse osmosis membranes are typically more than 90 percent effective at removing a wide range of PFAS. The expected 90 percent removal of PFAS from influent water may not reduce the concentration of PFAS to below NJDEP's drinking water standard.

    c. To be eligible for spill fund reimbursement the POET must meet NJDEP specifications.

4. At one time the state of New Jersey played with water filtration on some homes. I now understand that the filtration is no longer taking place. Is that true?

    a. Before Class II Ground Water Quality Standards (GWQS) were established for PFAS, NJDEP's Bureau of Site Management (BSM) installed POET systems at several homes identified to have contaminated wells. BSM continues to maintain these systems. After the GWQS were established, all properties with a contaminated well were referred to the Spill Fund for system installation.

5. Who manufactures and sells the carbon filters?

    a. There are many manufacturers of activated carbon. The contractor installing the system can source the granular activated carbon from any one of the manufacturers provided the product meets NJDEP's specifications.

Additional Resources:

NJDEP PFAS Information Website: https://dep.nj.gov/pfas/

NJDEP PFAS in Drinking Water: https://dep.nj.gov/pfas/drinking-water/

NJ Department of Health PFAS Information Sheet:
https://www.nj.gov/health/ceohs/documents/pfas_drinking%20water.pdf

USEPA PFAS Website: https://www.epa.gov/pfas

USEPA Reducing PFAS in Drinking Water: Reducing PFAS in Drinking Water with Treatment Technologies | US EPA

Centers For Disease Control PFAS Factsheet: https://www.cdc.gov/biomonitoring/PFAS_FactSheet.html