

Solvay Settlement Community Update

November 7, 2024



The Science of Per- and Polyfluoroalkyl Substances (PFAS)

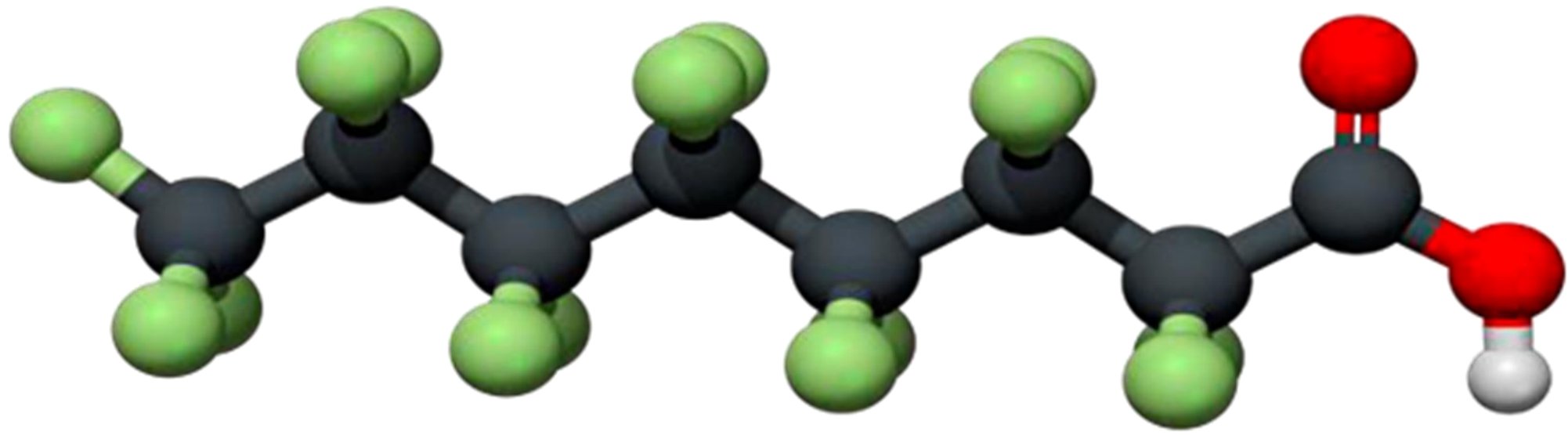
November 2024



What Are Per- and Polyfluoroalkyl Substances (PFAS)?

- Large class of surfactants with unique chemical & physical properties that make many of them extremely persistent and mobile in the environment
- Used since 1940s in wide range of consumer and industrial applications





Introduction to PFAS

The tight fluorine-carbon bond makes PFAS highly resistant to degradation, and so these substances can persist for long, long, long periods of time if released into the environment.

You've heard them referred to as "forever chemicals".

Major sources of PFAS



Production and Manufacturing

- Surfactants, resins, molds, plastics
- Textiles and leather
- Paper products

Aqueous Film Forming Foam

- Military installations
- Airports
- Petroleum Refineries
- Fire Fighting Training Areas

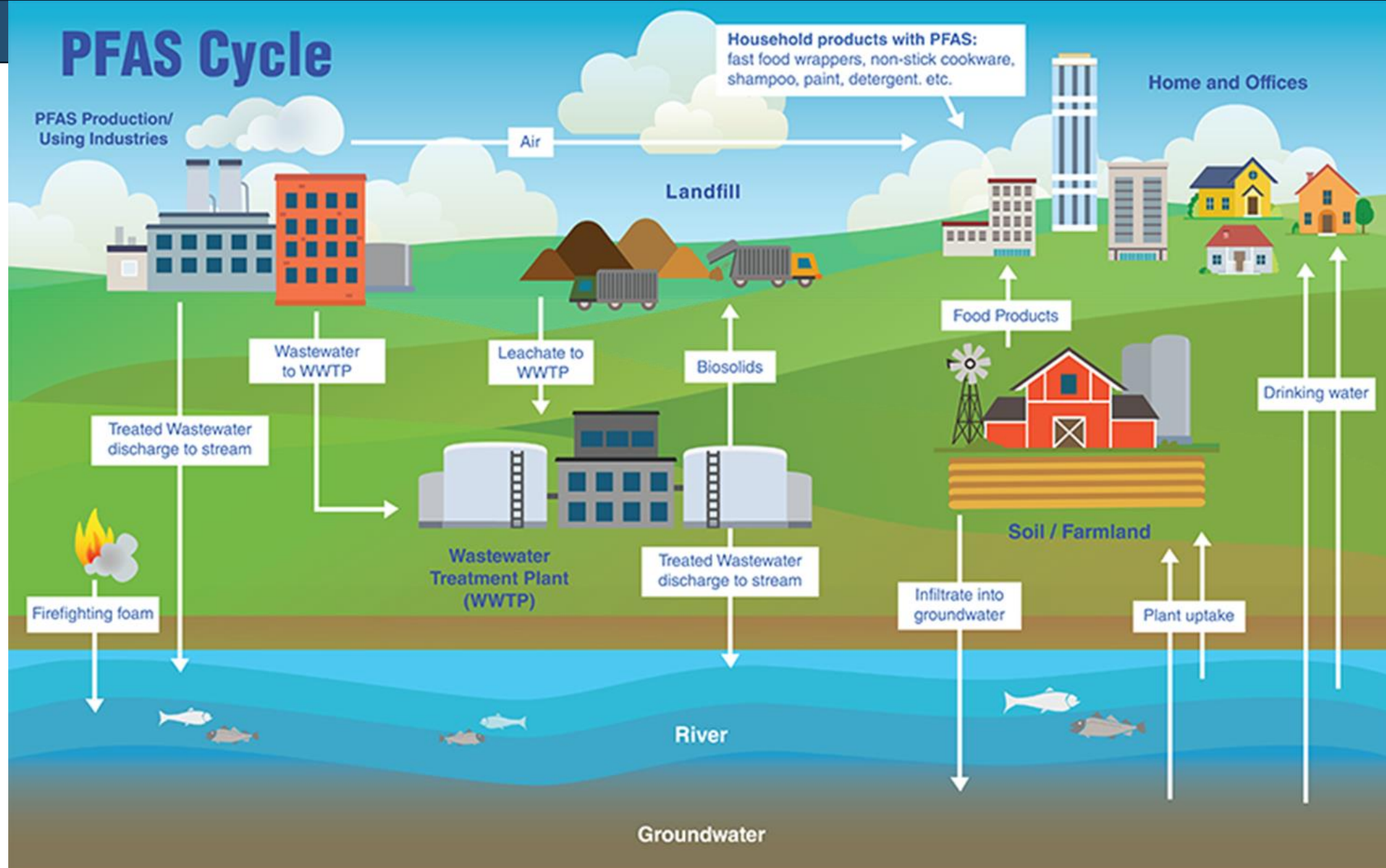
Waste Water Treatment Plants

- Industrial or domestic products in influent may not be treated (or may be transformed) and end up in effluent
- Biosolids created in treatment process may contain PFAS

Landfills

- Consumer products
- Industrial waste
- Biosolids from WWTP applied as cover

PFAS Cycle

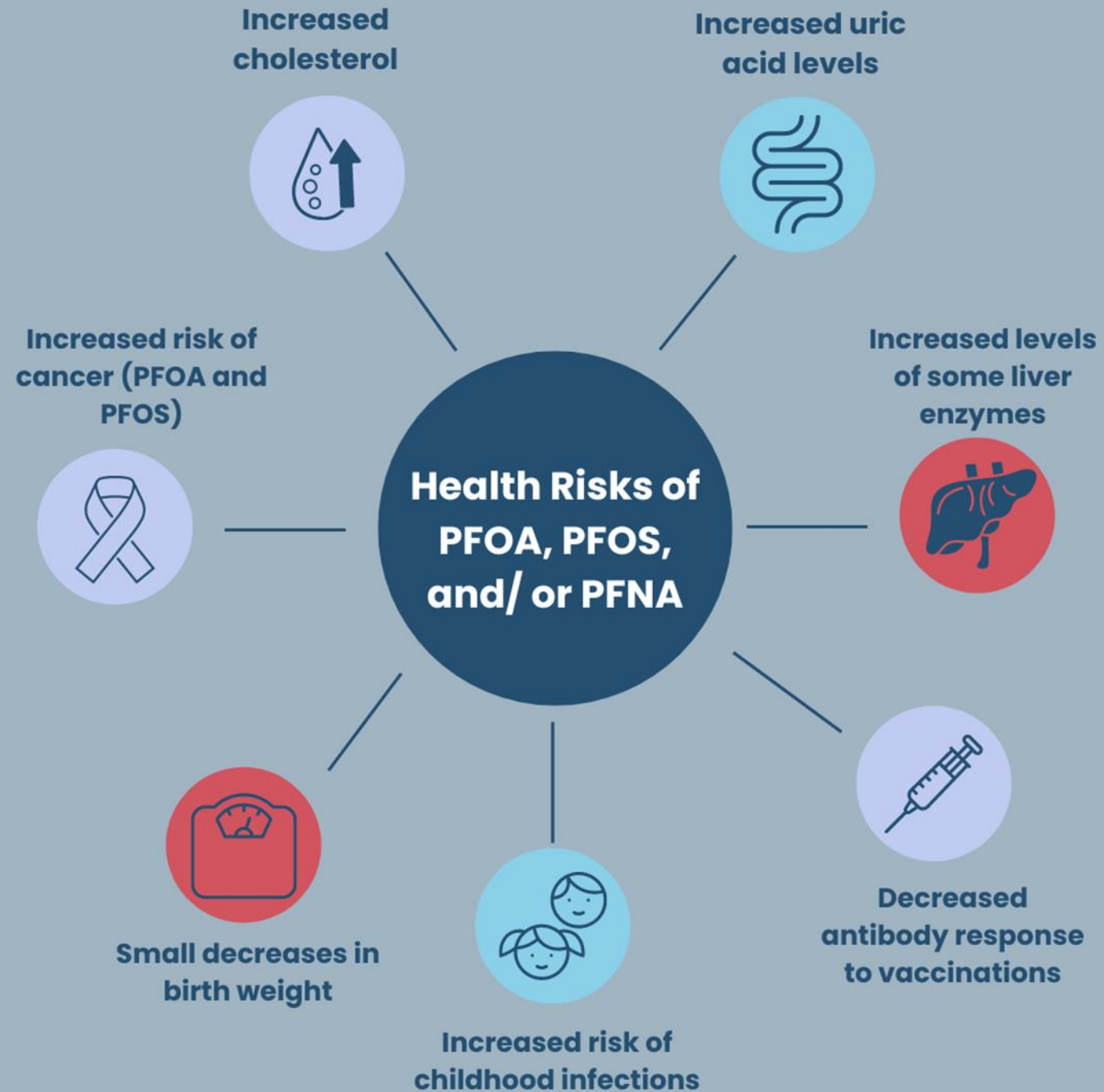


NEW JERSEY
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PROTECTION

nj.gov/dep/pfas/

Why are PFAS in drinking water of particular concern?

- Widespread occurrence.
- Do not break down in the environment – “forever chemicals”.
- Detected in almost everyone’s blood serum.
- Slowly excreted from the body.
 - Remain in the body for many years after exposure ends.
- Multiple types of toxic effects in lab animals, some at low doses.
- Multiple human health effects at very low (general population) exposures.
- Exposure from even low levels in drinking water overwhelms common sources (food & packaging, consumer products).
- Higher exposures to infants, especially those breastfed.



Water System Treatment for PFAS

NJ PFAS Regulations

- PFOA MCL of 14 ng/L
- PFOS MCL of 13 ng/L
- PFNA MCL of 13 ng/L

Common Treatment Approaches:

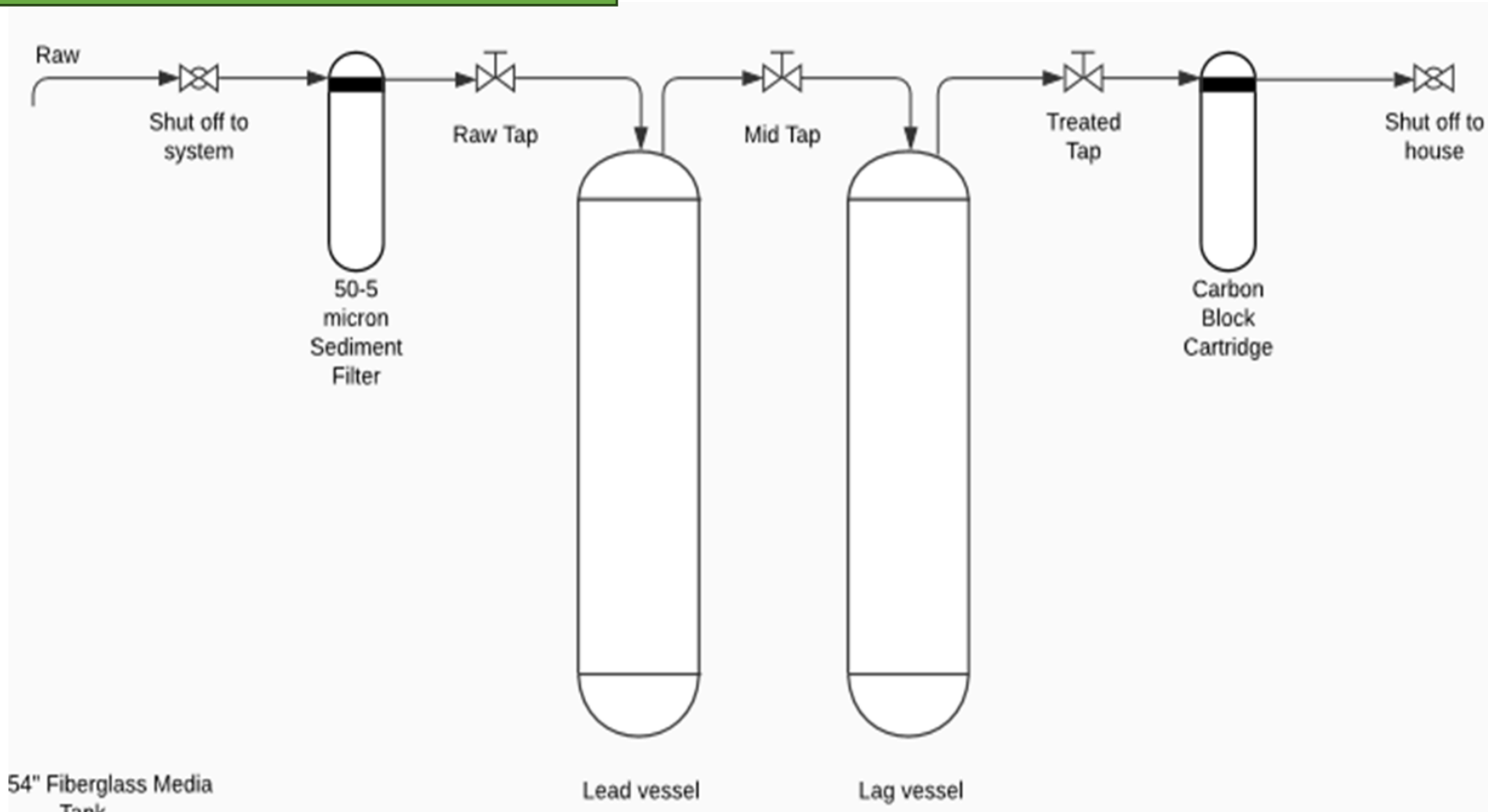
- Granular Activated Carbon (GAC)
- Ion Exchange
- Reverse Osmosis



Private Well Treatment Process

Primary treatment options:

Point Of Entry Treatment or POET - water from the well passes through to a system designed to filter out contaminants using GAC or Ion Exchange.



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Solvay Settlement Funding

NJDEP Legal & Regulatory Affairs
November 7, 2024



Background of the Litigation

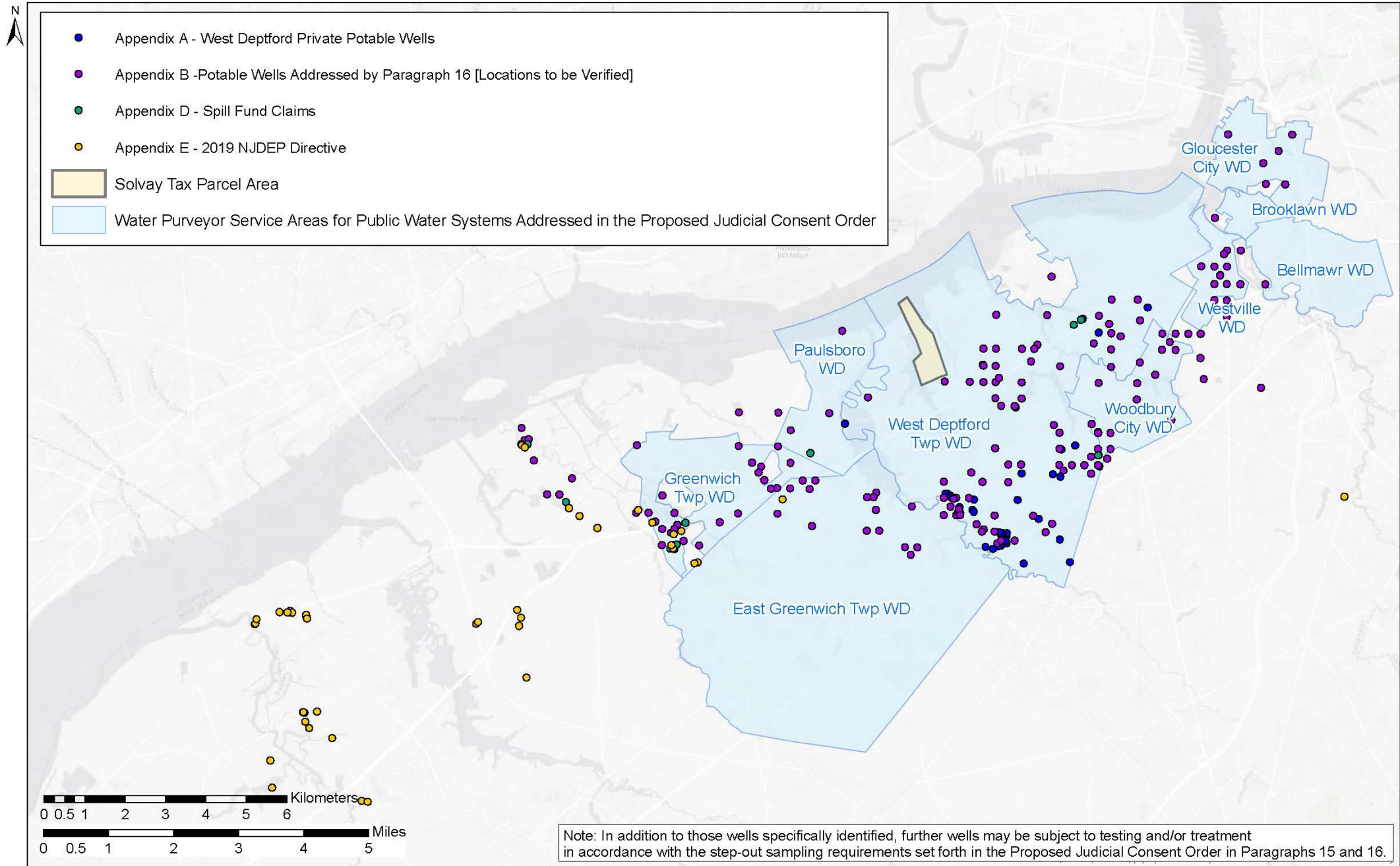
- The settlement with Solvay was reached after DEP had brought litigation to force Solvay and its predecessor on the property (Arkema) to clean up the plant in West Deptford and to address the effects that contamination from the plant had on natural resources.
- The contamination has been caused by Solvay's manufacturing operations at the plant for more than 30 years. As part of its operations, Solvay used a processing aid called Surflon, which contained PFNA. Solvay also for some time used PFOA and in more recent years began using certain alternative PFAS. Solvay had long been under an obligation to remediate its site but was slow to conduct the investigation and cleanup required by state law.
- DEP first tried to force Solvay to meet its legal obligations by issuing a directive in 2019, but Solvay instead first challenged the directive and then failed to fully comply.
- DEP filed its lawsuit in 2020.

Settlement Process

- After succeeding on some preliminary rulings and as the case entered the discovery phase, the DEP was open to negotiating with Solvay if it was able to meet certain essential requirements through a settlement, as it was clear the litigation would otherwise be lengthy and delay any cleanup and other benefits to the State and its citizens.
- Solvay agreed-in-principle to settle with DEP in June 2023. After a legally-required public comment period, DEP submitted the settlement -- with modifications to address certain public comments -- to the court for its consideration. In March 2024, the court entered the settlement as an enforceable Judicial Consent Order. With a total value of approximately \$394 million, this is the largest single-site NRD and remediation settlement ever achieved by DEP.
- In the same case, DEP also sued Arkema, the company that owned and operated the West Deptford plant before Solvay. We reached a proposed settlement with Arkema in May 2024, and published the proposed settlement in June. The comment period closed in August. DEP is still reviewing the comments that were submitted to determine whether the proposed settlement should be submitted to the court for approval in its present form, modified, or withdrawn. We expect to make that determination over the next few months.

Requirements of the Settlement

- The settlement requires Solvay to clean up its site and the surrounding area, at an estimated cost of over \$214 million. Solvay's cleanup commitment is backed up by financial guarantees from Solvay.
- As part of its cleanup commitment, Solvay will sample and treat wells in the vicinity of its plant. The settlement provides specific terms as to how that process will occur and our microsite aims to provide guidance (E.g., the following slide available at:
 - dep.nj.gov/wp-content/uploads/solvay/appxwellocations_solvayjco.pdf
- Solvay also paid the State \$75 million for the injuries it caused to the State's natural resources, and reimbursed DEP for the costs it had incurred for remediation and oversight.
- Finally, and importantly for tonight's purposes, Solvay paid DEP over \$101 million to fund remedial projects, especially treatment of potable water supplies.
- The settlement is designed to directly fund treatment projects in West Deptford, Bellmawr, Brooklawn, East Greenwich, Gloucester City, Greenwich, National Park, Paulsboro, Westville, and Woodbury, along with other important activities the Department will prioritize and undertake to address PFAS in the region.



Wells Cited in Proposed Settlement (June 2023) and Public Water System Purveyor Service Areas

Spill Claims

- ▶ More information on Spill Claims:
 - ▶ www.nj.gov/dep/srp/finance/eca.htm
- ▶ Spill Fund General Questions Hotline:
 - Phone: 609-984-2076
 - Email: srp_Spillfund_gq@dep.nj.gov



Overview of Water System Funding

Matt Wilson, Bureau Chief, Bureau of Safe Drinking Water

November 7, 2024



A close-up photograph of water being poured into a clear glass. The water is captured mid-pour, creating a dynamic splash with many small bubbles and droplets. The background is a soft, out-of-focus green, suggesting foliage. An orange rectangular box is overlaid on the right side of the image, containing the title text in white.

Overview of Public Water System Funding

Appendix C Water Supplies

Town	Public Water Supply	Wells
Bellmawr	Bellmawr Water Department	Wells 3 and 6
Brooklawn	Brooklawn Water Department	Wells 1, 3, and 4
Mt. Royal	East Greenwich Township Water Department	Well 3
Gloucester City	Gloucester City Water Department	Wells 40, 41, 42, and 43
Gibbstown	Greenwich Township Water Department	Wells 4 and 6A, Well 5
National Park	National Park Water Department*	Wells 5 and 6
Paulsboro	Paulsboro Water Department	Wells 8 and 9
Westville	Westville Water Department	Wells 4 , 5, and 6
Woodbury	Woodbury City Water Department	Wells 7 and 8

*Already funded

JCO accessed at: <https://dep.nj.gov/wp-content/uploads/solvay/final-jco.pdf>

Funding Distribution Process



NJDEP Meets with
Water Systems

System Gathers
Needed Documents

NJDEP hosts
workshop with Water
Systems

System Submits
Application



NJDEP Reviews
Application

On-site Meeting

NJDEP and System
Enter into Agreement

Distribution of
Funds

Ongoing Efforts and Other Notes



DEP met with impacted water systems to inform them of the application process



DEP will host a workshop for water systems in November to go further in-depth on the application process



DEP will coordinate closely with systems to provide resources and guidance throughout the application and reimbursement process.



Per- and Polyfluoroalkyl Substances (PFAS)

Home

What are PFAS?

Your Health & PFAS

PFAS in Drinking Water

Wastewater & PFAS

Science of PFAS

EPA PFAS Rule

Standards & Regulations for PFAS and Resources ▾

Contact



- If you are interested in learning more about PFAS, visit DEP's website at: <https://dep.nj.gov/pfas/>
- More information about the Settlement is available here <https://dep.nj.gov/solvay/>.
- For more information about your public water utilities' water quality, visit Drinking Water Watch at: https://www-dep.nj.gov/DEP_WaterWatch_public/



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<https://dep.nj.gov/solvay/>



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