

# **WELCOME**

**Solvay Specialty Polymers USA, LLC**

## **Community Information Session**



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***Please Sign In***



# About Syensqo

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Syensqo is a science company that makes advanced materials for a wide range of industries, such as aerospace, automotive, electronics, healthcare, and consumer goods.

Our products can be found:

- ❖ In almost every vehicle that flies
- ❖ In 50% of electric vehicles
- ❖ In 60% of hemodialysis membranes
- ❖ In 20% of hair care products

As well as in many other applications such as smart devices and orthopedic implants.

# Who We Are and What We Do

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- ❖ The West Deptford facility produces a range of finished fluoropolymer products used in a variety of applications, including:
  - fuel cells,
  - lithium-ion batteries,
  - automotive fuel systems, and
  - components used in high-heat environments, like o-rings, seals and gaskets.
- ❖ We employ about 110 people and pay about \$1.45 million annually in property taxes to West Deptford.

# Plant Ownership History

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**1970s** Pennwalt Ltd. designed, built and operated a plant to manufacture refrigerants and blowing agents.

**1985** Pennwalt Ltd. designed, built and then operated the plant to produce polyvinylidene fluoride (PVDF) resin.

**1989** Pennwalt became Elf Atochem North America Inc.

**1990** Elf Atochem sold the Site to Ausimont USA, Inc. Elf Atochem is now known as Arkema Inc.

**2002** Specialty Polymers purchased the Site as part of its acquisition of Ausimont.

**2003** Ausimont was renamed Solvay Solexis, Inc.

**2012** Solvay Solexis, Inc. was merged into Solvay Specialty Polymers USA, LLC.

**2023** Syensqo was created and is now the ultimate parent company of Specialty Polymers in West Deptford.

# Plant Operations History

**1985 – 1990 (Arkema)**

**1990 – 2010 (Specialty Polymers)**

The surfactant Surflon®, manufactured by Asahi Glass Company, used to produce PVDF. Surflon® predominantly contains a specific PFAS and presents as PFNA in the environment.

**By 2010** PFNA use phased out. After 2010, Specialty Polymers primarily used proprietary fluorosurfactants in its operations.



## 1970s

Pennwalt, an Arkema predecessor, built and operated the plant to manufacture refrigerants and blowing agents.

**2003** NaPFO use phased out.

**1995 – 2003** Specialty Polymers used, to a lesser extent, NaPFO, manufactured by the 3M Company, which presents as PFOA in the environment.

**1996** Specialty Polymers began to use certain proprietary fluorosurfactants called chloro-perfluoro-polyether carboxylates (CIPFPECAs), and later perfluoropolyether dicarboxylic acids [bifunctional surfactants (BFS)], which are also a type of PFAS.

## By July 2021

Use of fluorosurfactants fully phased out.

Specialty Polymers has developed manufacturing processes for its Site operations that do not require the use of fluorosurfactants.

# Working Under Regulatory Oversight

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Specialty Polymers operations are subject to various authorities and detailed requirements for the protection of the environment, public health and safety, including:

- U.S. Environmental Protection Agency
- U.S. Department of Transportation
- Federal Railroad Administration
- U.S. Department of Labor
- Occupational Health and Safety Administration
- N.J. Department of Environmental Protection
- Township of West Deptford
- Gloucester County
- Gloucester County Utilities Authority

# PFAS Investigation - Background

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- ❖ Since 2013, Specialty Polymers has been investigating and remediating contaminants related to its past use of fluorosurfactants.
- ❖ The environmental investigation initially focused on PFNA and PFOA.
  - ❖ In 2021, the investigation expanded to include MFS, BFS.
  - ❖ In 2024, the investigation expanded to include C6O4, which was used in small amounts for research and development at the West Deptford facility.
- ❖ The investigation includes groundwater, soil, stormwater, surface water, porewater and sediments.
- ❖ Results are submitted to DEP and are available at [www.syensqo.com/en/usa/nj-involvement-plan](http://www.syensqo.com/en/usa/nj-involvement-plan).

# Regulatory Process for Remediation

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- There are five primary phases of site investigation and remediation. Activities in support of the various phases can sometimes overlap or be implemented at the same time.
- All work is performed under the oversight of the New Jersey Department of Environmental Protection (DEP). All submissions are also reviewed, certified and approved by a Licensed Site Remediation Professional (LSRP).

## Primary phases of site investigation and remediation

Preliminary  
Assessment

Remedial  
Investigation

Remedial Action  
Work Plan

Remedial  
Action and  
Reporting

Monitoring

# Keeping the Community Informed

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**Since 2013, Specialty Polymers has kept the community informed about its work.**

**Communications include, but are not limited to:**

- Door-to-door notifications
- Posting a sign at the Specialty Polymer property
- Letters, calls, fact sheets and other notifications
- Notices in local newspapers
- Public meetings Jan. 22, 2025, May 5, 2025, and as needed in the future
- The Syensqo NJ Involvement Plan website

**The December 2024 notification was sent to:**

- +2,000 owners, tenants and businesses within 200 feet of the groundwater plume attributable to the Site exceeding standards for PFNA and PFOA
- West Deptford Clerk, Gloucester County Health Officer, DEP officials

**The notification list will be expanded to include people who express interest and based on the findings of the ongoing investigation. Future updates will be made following the completion of major investigation and remediation milestones, as required.**

# About the Judicial Consent Order

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In March 2024, the Court approved a settlement agreement between Solvay Specialty Polymers USA, LLC and New Jersey DEP.

- ❖ The settlement includes \$75 million to the State of New Jersey for natural resource damages and \$101.05 million for a DEP-administered fund for certain remediation projects, including treatment for public water systems.
- ❖ The settlement also requires Specialty Polymers to complete remediation activities, valued at \$214 million, and to establish a remediation funding source for those activities.
- ❖ The settlement requires Specialty Polymers to offer PFAS sampling and, if needed, treatment to private well owners over a broad area. Specialty Polymers did not admit any fact or liability, including regarding the wells that DEP requested it sample.

# About the Conceptual Site Model

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**Specialty Polymers filed its Conceptual Site Model (CSM) with the DEP on July 29, 2022.**

The CSM provides written and graphical representation of the potential migration pathways to receptors.

The CSM also presents initial information on MFS and BFS from data collected from the facility's soil and groundwater.

On January 30, 2025, the CSM was updated to reflect data collected to date and the Judicial Consent Order approved in March 2024 between Specialty Polymers and DEP.

The CSM will continue to be updated and refined as regulatory standards are issued and as additional data are collected.

**Documents are available at the Syensqo NJ Involvement Plan website.**



# Assessing Pathways

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**A pathway assessment is an evaluation of how contaminants can move from a source to a person or an ecosystem. This assessment informs how to design and prioritize remedial actions.**

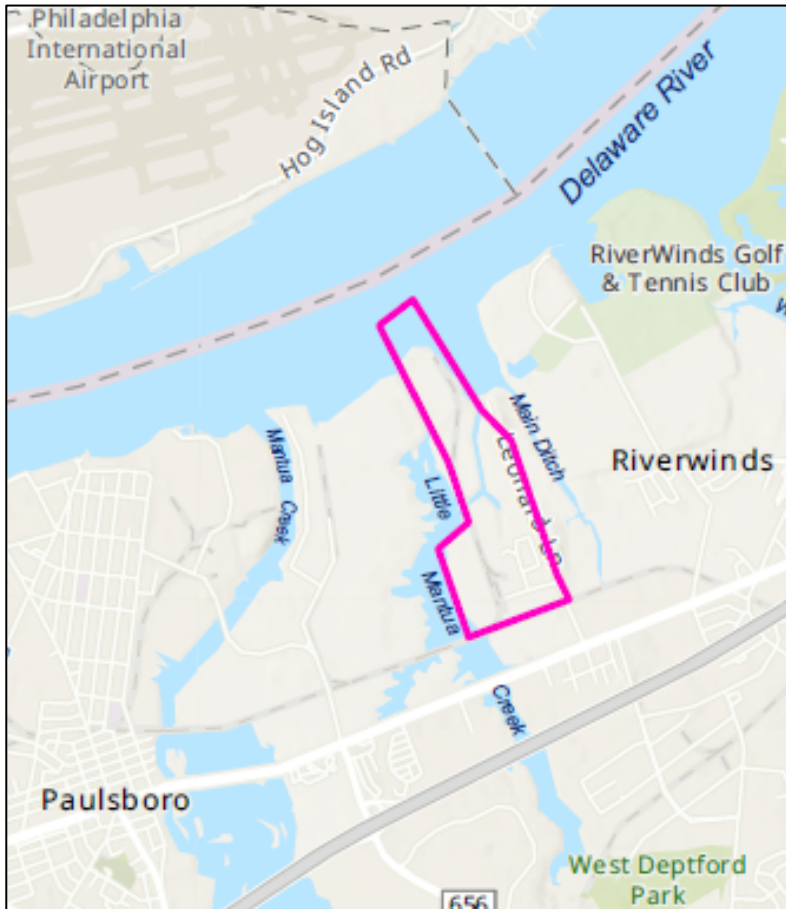
The following are confirmed migration pathways for the contaminants that are the focus of the PFAS investigation:

- ❖ **Leaching from soil to groundwater.** Sampling to date has identified onsite contaminants that leach from soil into groundwater.
- ❖ **Groundwater transport.** Contaminants are transported into the Potomac-Raritan-Magothy (PRM) aquifer primarily through the flow of groundwater.
- ❖ **Groundwater discharge to surface water.** Groundwater may emerge as surface water at various points across the property.
- ❖ **Atmospheric deposition to soil.** Air deposition modeling indicated that maximum air transport of contaminants occurred within the property boundary. Deposition off-property is likely to have rapidly decreased with distance.

# Surface Water, Sediment, Porewater

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**Work to assess these pathways is ongoing within the investigation areas. Work to date has included:**

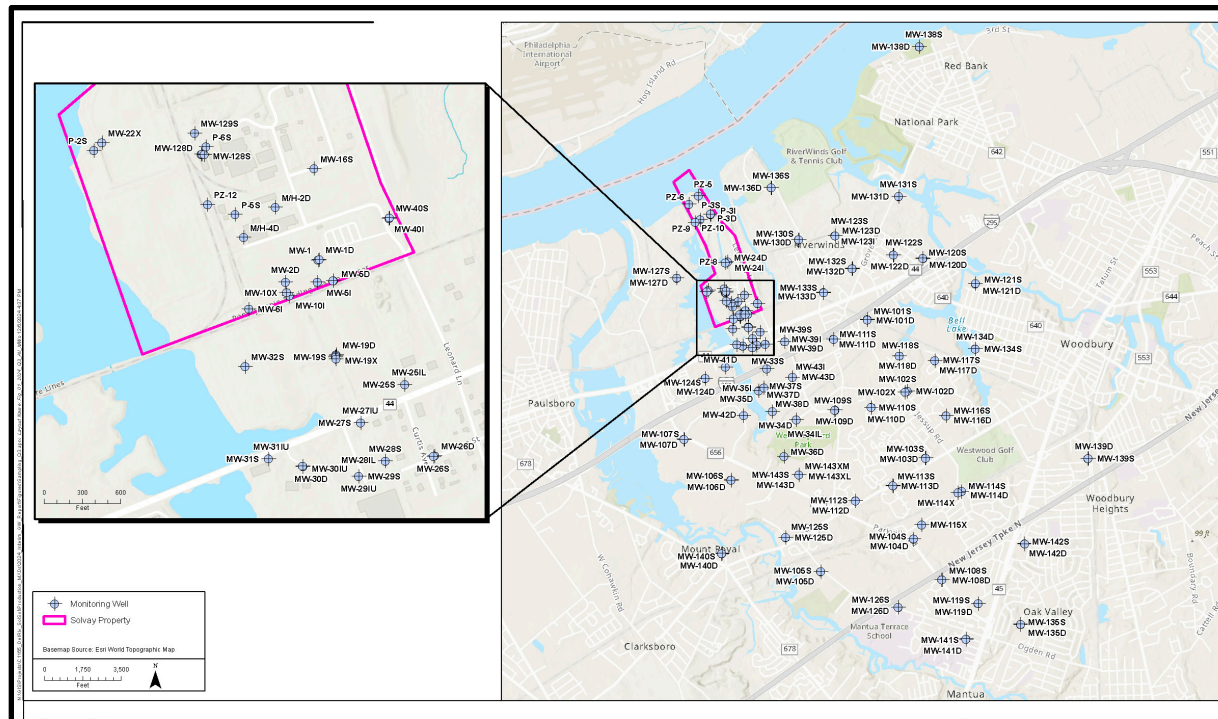


- ❖ Evaluation of off-site conditions within the Delaware River, Little Mantua Creek, Main Ditch, and Mantua Creek between 2014 and 2023.
- ❖ Data collection to identify the presence of the contaminants that are the focus of our investigation in surface water, porewater, and sediment.
- ❖ Data assessment to delineate the individual contaminants that are the focus of our investigation.

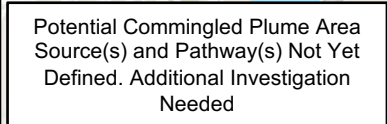
Work to date provided an improved understanding of the behavior of on-site shallow groundwater with the adjacent tidally influenced water bodies. Additional investigation activities are needed.

# Groundwater Investigation Overview

Specialty Polymers is working to delineate impacts to groundwater through continuing investigation, including monitoring well installation and quarterly sampling of groundwater monitoring wells onsite and offsite.



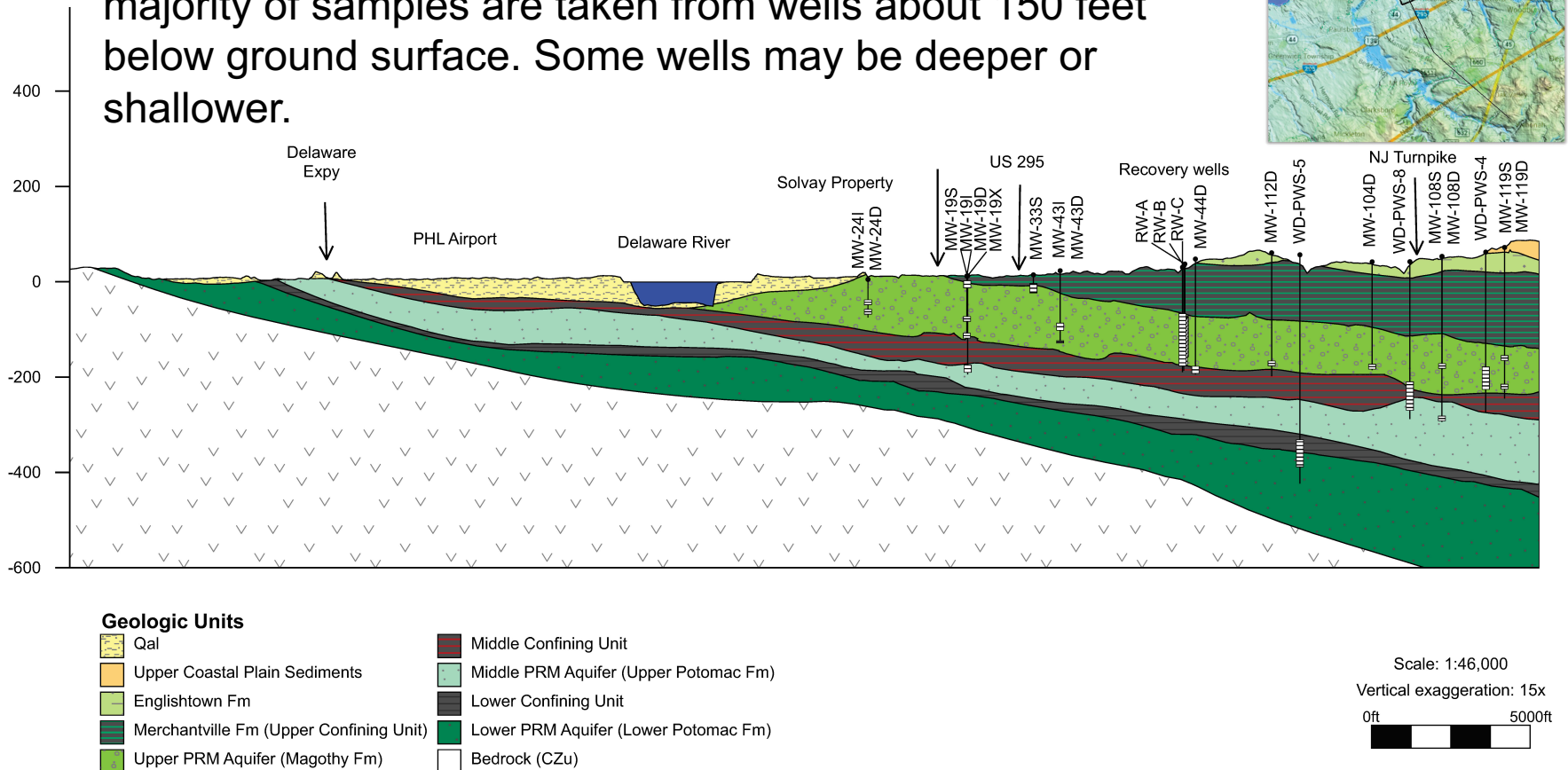
- ❖ To date, more than 100 groundwater monitoring wells have been installed.
- ❖ Some monitoring wells are outside the area of known impacts to serve as sentinel wells.



Potential Commingled Plume Area  
Source(s) and Pathway(s) Not Yet  
Defined. Additional Investigation  
Needed

# Aquifers and Sampling Depths

The Potomac-Raritan-Magothy (PRM) aquifer system is the major source of drinking water for the region. The majority of samples are taken from wells about 150 feet below ground surface. Some wells may be deeper or shallower.



**Quarterly monitoring well results are placed on the NJ Involvement Plan website.**

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- Monitoring Well**
- Solvay Property**
- Basemap Source: Esri World Topographic Map
- Scale: 0, 1,750, 3,500 Feet
- N



# Groundwater Remediation

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**Specialty Polymers has taken several steps to mitigate or remediate impacts to groundwater from contaminants that are the focus of our investigation.**

**This effort is ongoing.**

Examples of actions taken to date include:

**2015** – Adding activated carbon treatment to a groundwater containment system on its property and expanding it in 2022.

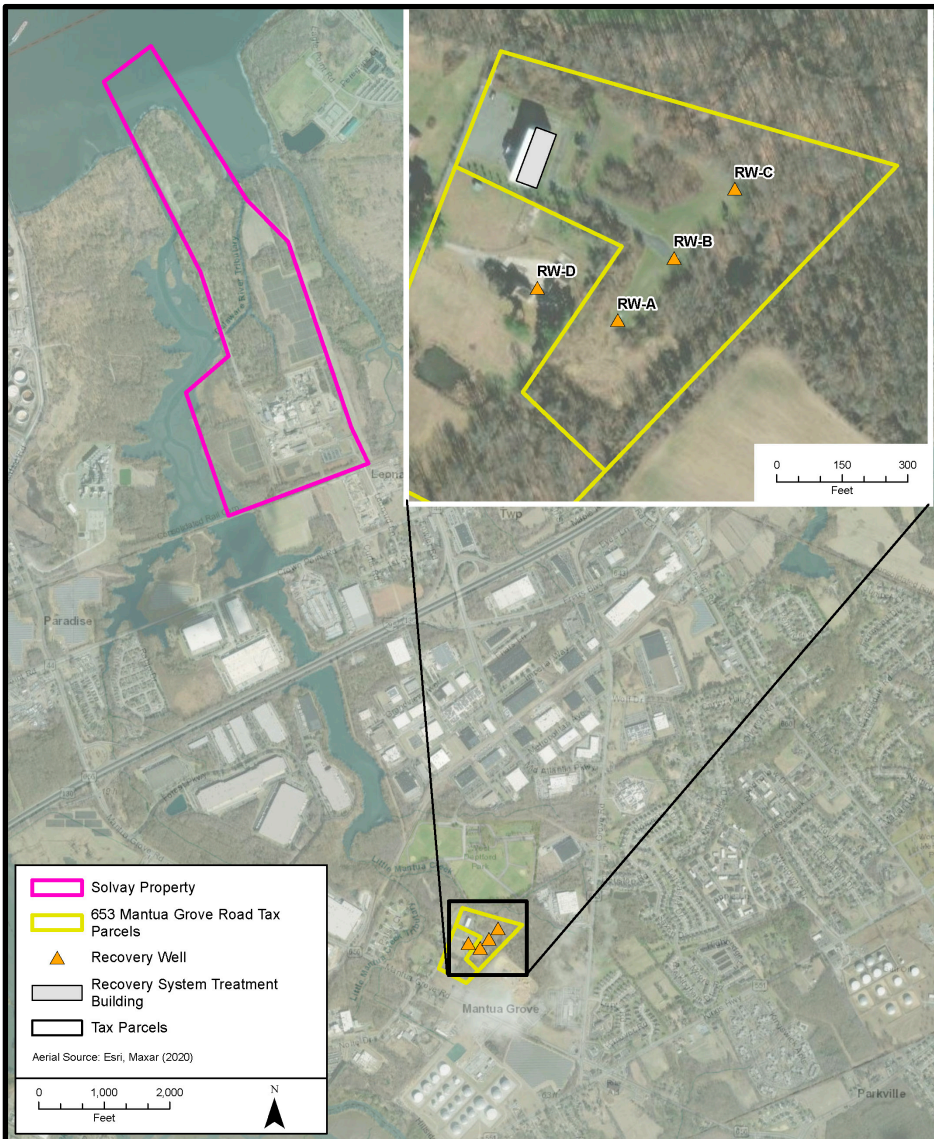
**2018-2019** – Installing a surface cap on manufacturing areas to mitigate migration to groundwater.

**2020** – Building an offsite pump and treatment system designed for groundwater containment and treatment.

**2021** – Phasing out fluorosurfactants by July 2021.

**2022** – Installing activated carbon treatment for wastewater discharged to surface water on an interim measure in 2022 and on a permanent basis in 2023. Discharged wastewater is monitored under a permit issued by DEP.

# Offsite Pump and Treat System



Built in 2020 and working as designed.

An offsite pump and treatment system for groundwater containment, including treatment for PFAS groundwater remediation.

Pumps groundwater from four extraction wells and discharges treated water to surface water under DEP permit.

Located off Mantua Grove Road.



# Onsite Source Area Mitigation

## 2015 and 2022

Added activated carbon for PFAS treatment to an existing groundwater containment system onsite and expanded it with additional extraction wells. (shown as triangles)

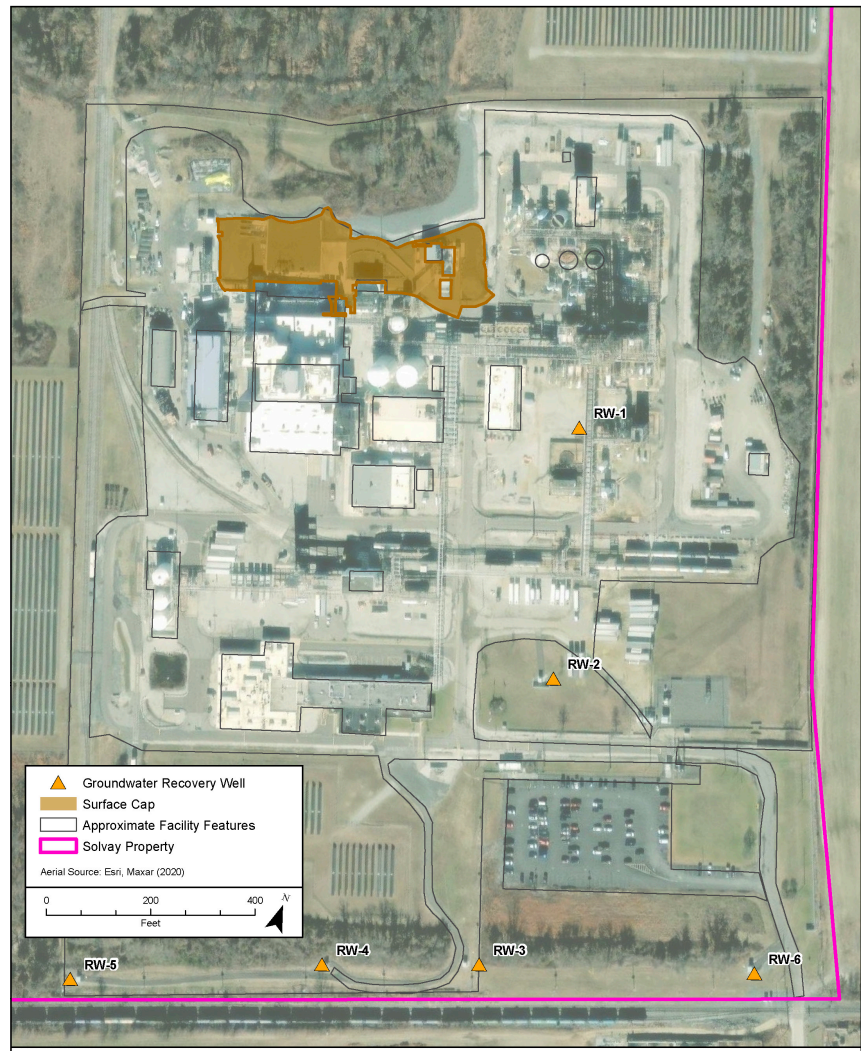
## 2018-2019

Installed a surface cap on manufacturing areas to mitigate migration to groundwater. (shown in orange)

## 2021

Incorporated proprietary technology at its West Deptford facility to produce fluoropolymer products without the use of fluorosurfactants.

The facility no longer uses fluorosurfactants.



Specialty Polymers Facility

# Protecting Drinking Water

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## Private Drinking Water Well Sampling Is Ongoing

- ❖ Since 2014, Specialty Polymers has sampled more than 100 private drinking water wells near its West Deptford facility, some more than once.
- ❖ If PFAS impacts were above DEP limits, Specialty Polymers paid for POET systems, and in some cases, connected the property to the public water system.
- ❖ Twice a year sampling takes place in specific locations.
- ❖ Under the settlement\*, Specialty Polymers offered to test a list of wells requested by DEP. If results are above the standards set in the settlement, treatment is provided.

## Public Supply Well Monitoring Is Ongoing

- ❖ Since 2014, West Deptford public wells have been tested for PFAS.
- ❖ Specialty Polymers is working with West Deptford to develop a treatment system or alternative for West Deptford Well 3, interim treatment on Wells 4 and 5, and will work with West Deptford as necessary regarding any other township well that may need PFAS treatment.
- ❖ Under the settlement\*, Specialty Polymers provided \$101.05 million for a DEP-administered fund for certain remediation projects, including PFAS treatment of public water systems outside of West Deptford.

*\*By entering into this agreement with DEP, Specialty Polymers does not admit any fact or liability.*

# Working with West Deptford

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**Since 2014, Specialty Polymers has been working with West Deptford Township.**

- ❖ Keeping officials informed about the environmental investigation.
- ❖ Providing sufficient funding to West Deptford to enable the municipal water supply to meet PFAS drinking water standards. The agreements are referenced in the Judicial Consent Order.
- ❖ Working with West Deptford to develop a treatment system or alternative for West Deptford Well 3, interim treatment on Wells 4 and 5, and will work with West Deptford as necessary regarding any other of its wells that may need PFAS treatment. Specialty Polymers previously installed a treatment system on West Deptford Well 8.

# Keeping You Informed

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- ❖ Regular Updates to West Deptford Officials
- ❖ Dedicated Community Information Line and Email
- ❖ Project Website – [www.syensqo.com/en/usa/nj-involvement-plan](http://www.syensqo.com/en/usa/nj-involvement-plan)
- ❖ Project Fact Sheets
- ❖ Public Notification Mailings
- ❖ Community Information Meetings
  - January 22, 2025
  - May 5, 2025

## **We encourage you to contact us.**

Our community liaisons will respond.

Call: 800-936-8159

Email: [contact\\_westdeptford@syensqo.com](mailto:contact_westdeptford@syensqo.com)

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## **To contact the LSRP**

Scott Drew, LSRP,  
Geosyntec Consultants

Call: 609-895-1400 or

Email: [sdrew@geosyntec.com](mailto:sdrew@geosyntec.com)

## **To contact DEP**

Kristine Iazzetta, DEP Project Manager

Call: 609-777-0376

Email: [kristine.iazzetta@dep.nj.gov](mailto:kristine.iazzetta@dep.nj.gov)

# Ongoing Public Input

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**Specialty Polymers is committed to keeping the public informed and responding to questions from stakeholders and community members.**

- Specialty Polymers has been taking comments and answering questions from the public since its investigation began and will continue to do so.
- As stated in the notification letter mailed in December 2024: “Following the completion of major project milestones, an updated letter with the details of those project milestones will be mailed to you. Additionally, if circumstances relating to the investigation and remediation substantially change in the course of completing the work, an updated letter will be mailed as appropriate.”
- Specialty Polymers encourages everyone to visit its website at [www.syensqo.com/en/usa/nj-involvement-plan](http://www.syensqo.com/en/usa/nj-involvement-plan) to view project-related documents, which are updated after being reviewed by the DEP. For any questions, Specialty Polymers can be reached by calling 800-936-8159 or by emailing [contact\\_westdeptford@syensqo.com](mailto:contact_westdeptford@syensqo.com).