NEW YORK
STATE OF
OPPORTUNITY

Department of
Environmental
Conservation

Taconic Plastics
Remedial Investigation – Progress Update

Site Number: 442047

Site Location: 136 Coonbrook Road, Petersburgh, NY

November, 2020

Agenda

1. Introduction

2. Superfund
   - History
   - Process
   - Goals

3. Site Location and Description

4. Site History

5. RI Phase I Data Summary

6. RI Phase 2a Workplan

7. MCLs and POET reassessment

8. Q & A

State Superfund

History

- NYSDEC was created in April 1970 (on Earth day)
- State Superfund (SSF) was created in 1979 – Title 13 of Article 27 of the Environmental Conservation Law (ECL).
- Mission
  - Identify and characterized suspected inactive hazardous waste disposal sites
  - Investigate and remediate sites that pose significant threat to public health and/or the environment.

Investigations are performed according to the regulations set forth in Title 6 of NYCRR part 375.

And the technical guidance used to conduct investigations and remediation are described in DER-10 DEC Program Policy.

Terminology:

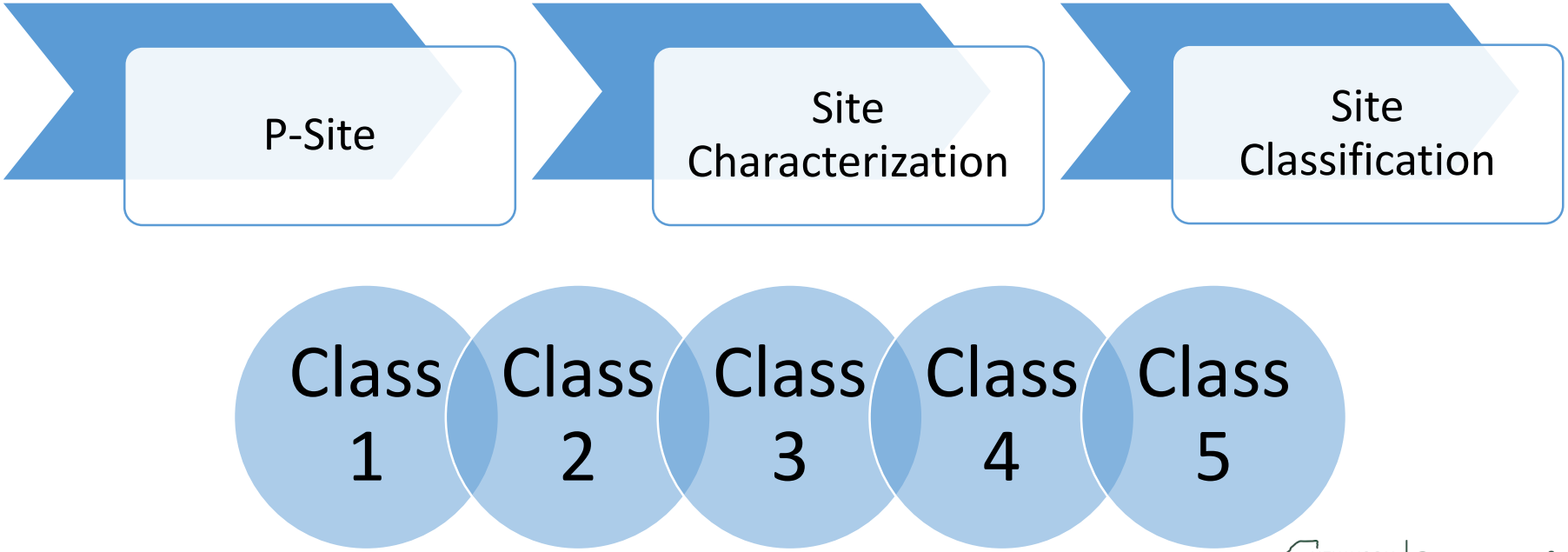
Investigation: Systematic Inquiry

- Site History
- Structures and potential sources of contamination
- Sample soil, groundwater, surface water, sediment, and soil vapor

Remediation: The act or process of remedying

- Removal of contamination,
- Containment of contamination (physical barriers)
- Treatment of contamination (ISCO, pump and treat, etc.)
- Monitored natural attenuation

Superfund


P-Site
Site Characterization
Site Classification
Class 1
Class 2
Class 3
Class 4
Class 5

Site Characterization (SC)

- SC is initial investigation of potentially contaminated site (“P” site) – generally 1-2 years
  - Records search; field program
- Goal -- Determine if:
  - Hazardous waste disposed, and
  - Does it pose a significant threat?
- SC determines whether to list site on Registry and how to classify it

Significant Threat

Created by current or reasonably foreseeable:

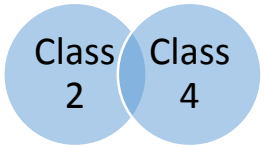
- Exposure pathways that result in significant adverse impacts to public health as determined by the NYS DOH
- Significant adverse impacts to biota as determined by the NYSDEC
- Significant environmental damage

Characteristics and impacts of the contamination must be reviewed together.

Site Classification

- Sites are classified according to their threat to public health and the environment
- DEC's investigation and remediation efforts focus on Class 2 sites

  Class 2 sites are a significant threat to public health/environment; action required
- The number of sites on the Registry changes throughout the year as sites are added, reclassified or delisted
- Currently 440 Class 2 sites on the Registry
- Class 4 sites (434 on the Registry) are remediated but require ongoing site management



Taconic Plastics

Project Type and Status

Current Status:

- Class 2 Site
- Order on Consent signed with Tonoga (dba Taconic) on November 11, 2016.
- Remedial investigation is underway (began in 2018)
- Remedial Investigation: PFAS identified both onsite and offsite
- PFOA identified in the overburden groundwater on- and off-site at concentrations exceeding USEPA Health Advisory and NYS MCL for PFOA in drinking water.
- PFOA identified in the bedrock aquifer via sampling of local residential wells, town water supply wells, and of the onsite production wells.

Objective of Project Update

1) Review Data from Phase 1
2) Review upcoming plans for Phase 2

Site Location and Description

Location:

- Location: 136 Coonbrook Road
- Size: 23.54 acres
- Eastern Rensselaer County, about 4.5 miles west of the VT and MA boarder.
- In the Taconic Mountain Range – “middle taconics”
- Within the river valley of the Little Hoosic River
- 1 mile south of Petersburgh and 5 miles north of Berlin.

Site History

Ownership:

- Founded in 1961 by Lester Russell
- Acquisition of current 23.54 acres occurred between 1969 and 1993.
- Currently Tonoga Inc.

Historic Operations

- Taconic began operations in 1961.

Land Use:

- Manufacturing facility where PTFE coating of fiberglass fabric is performed
- 11 onsite building. 1 to 2 stories each.
- The Little Hoosic River is located to the East of the site, on the east side of Route 22, and flows to the north and into the Hoosic River.
- An unnamed tributary of the Little Hoosic River flows through the center of the site, another is located just south of the site.
- The nearest business is located in Petersburgh, just under a mile North of the site
- The site is surrounded by residential properties, many of which have been purchased by Taconic and are used as residential rental properties, or as additional storage.

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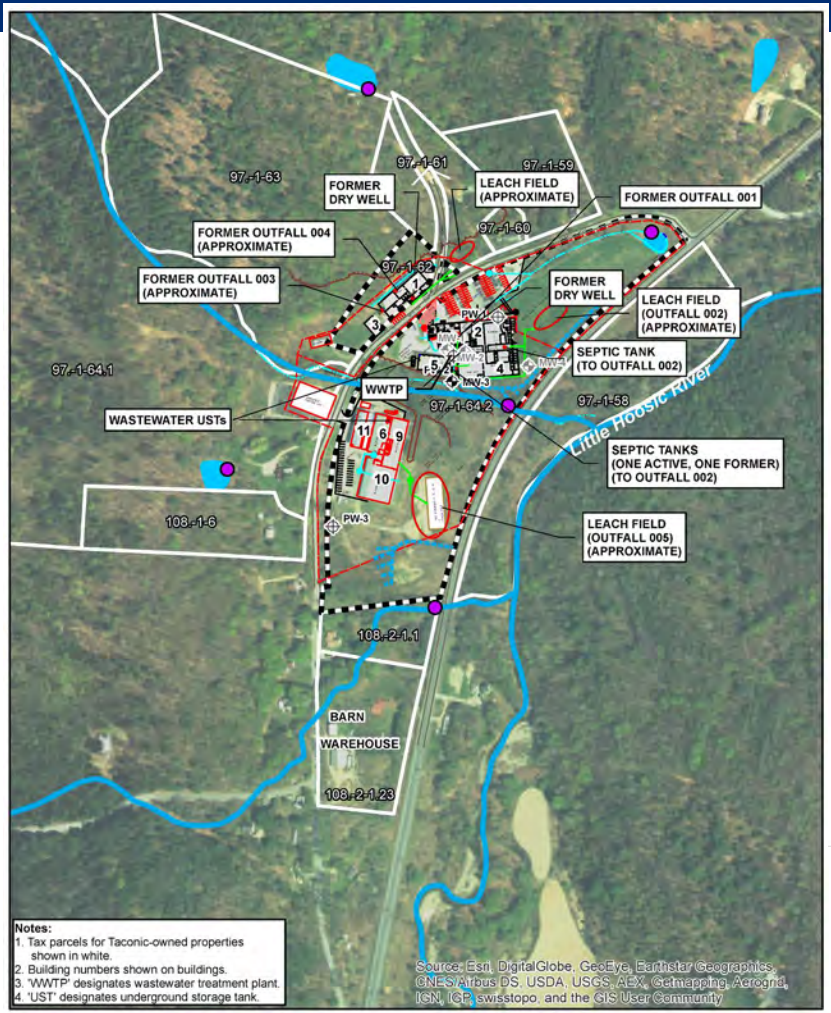
Site Plan



LEGEND

- Site Outline
- Stream (Dashed where Intermittent)
- Pond
- Production Well
- Surface Water Sample Location (Sampled 12/9/16)
- Existing Overburden Monitoring Well
- Abandoned Overburden Monitoring Well

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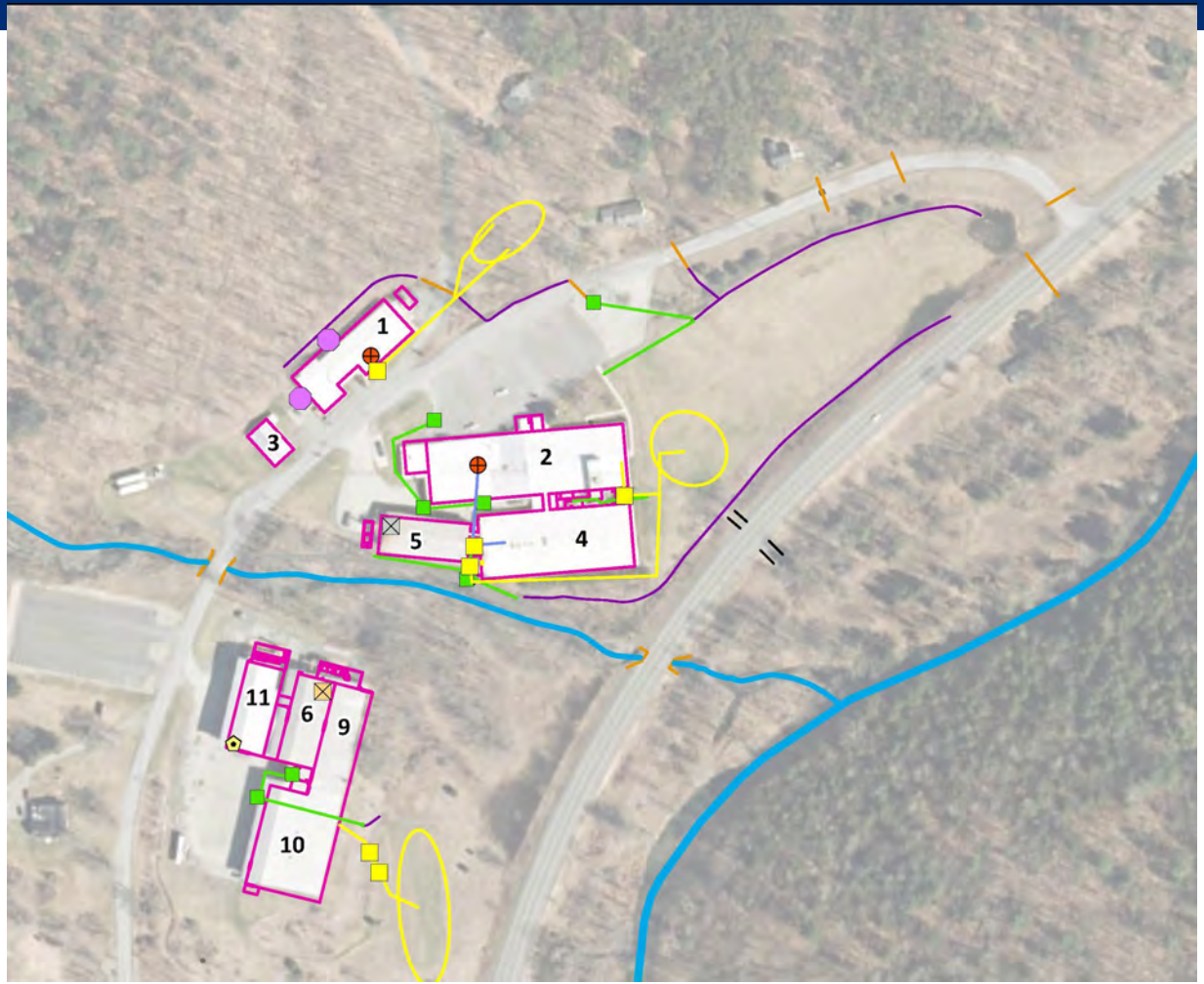
Site Plan



Legend

- Surface Water (Dashed where Intermittent)
- Trench Drain and Piping
- Sanitary Sewer
- Dirt Driveway
- Storm Sewer
- Catch Basin
- Culvert
- Swale
- Inactive Drywell
- Former Outfall
- Septic Tank
- Wastewater Aboveground Storage Tank
- Wastewater Underground Storage Tank Active
- Wastewater Underground Storage Tan Inactive
- Leach Field

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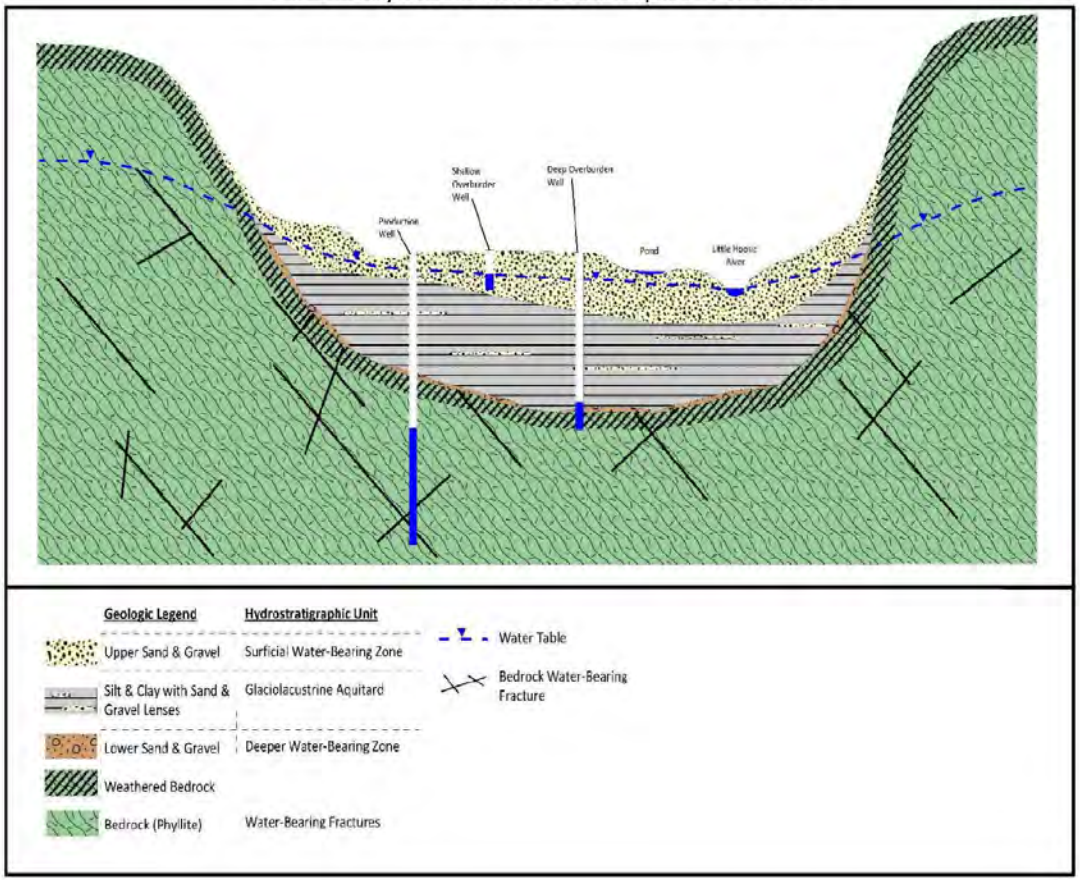
Geology and Hydrogeology

- Bedrock is phyllite. The phyllite in the region is highly deformed from the Taconic Orogeny (mountain building event).
- Bedrock is overlain by unconsolidated soils and sediment – this overburden can be thick in the valley
  - depth to bedrock at the site, in the valley, is between 20 and 110 feet below ground surface.
- Bedrock outcrops on both sides of the valley.
- The hillsides have very thin soil cover.

Potter,1972, 1978

Figure 3 for stratigraphy
'dings Brook thrust fault and

Preliminary Cross-Sectional Conceptual Site Model



- Overburden consists of three units:
  - Shallow overburden – Sand and Gravel (~5-25 feet thick)
  - Silts and clay (~5 to 60 feet thick)
  - Sand and gravel – (thin or non-existent)

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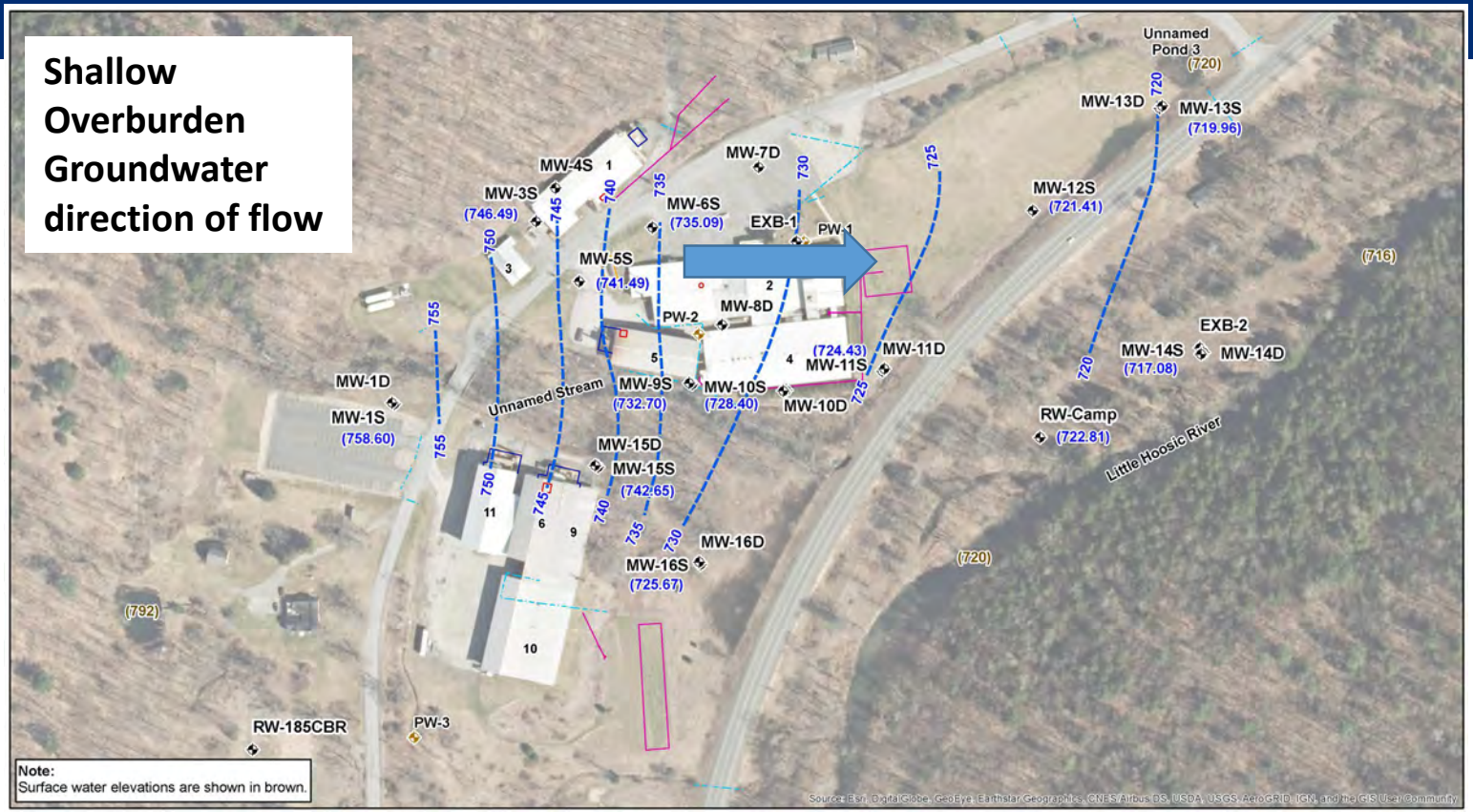
Shallow Overburden Groundwater direction of flow



LEGEND

- Monitoring Well Location
- Production Well Location
- Sludge Roll-Off Storage Pad
- Air Pollution Control System
- UST and Drywell
- Storm Water
- Sanitary Lines and Leach Fields

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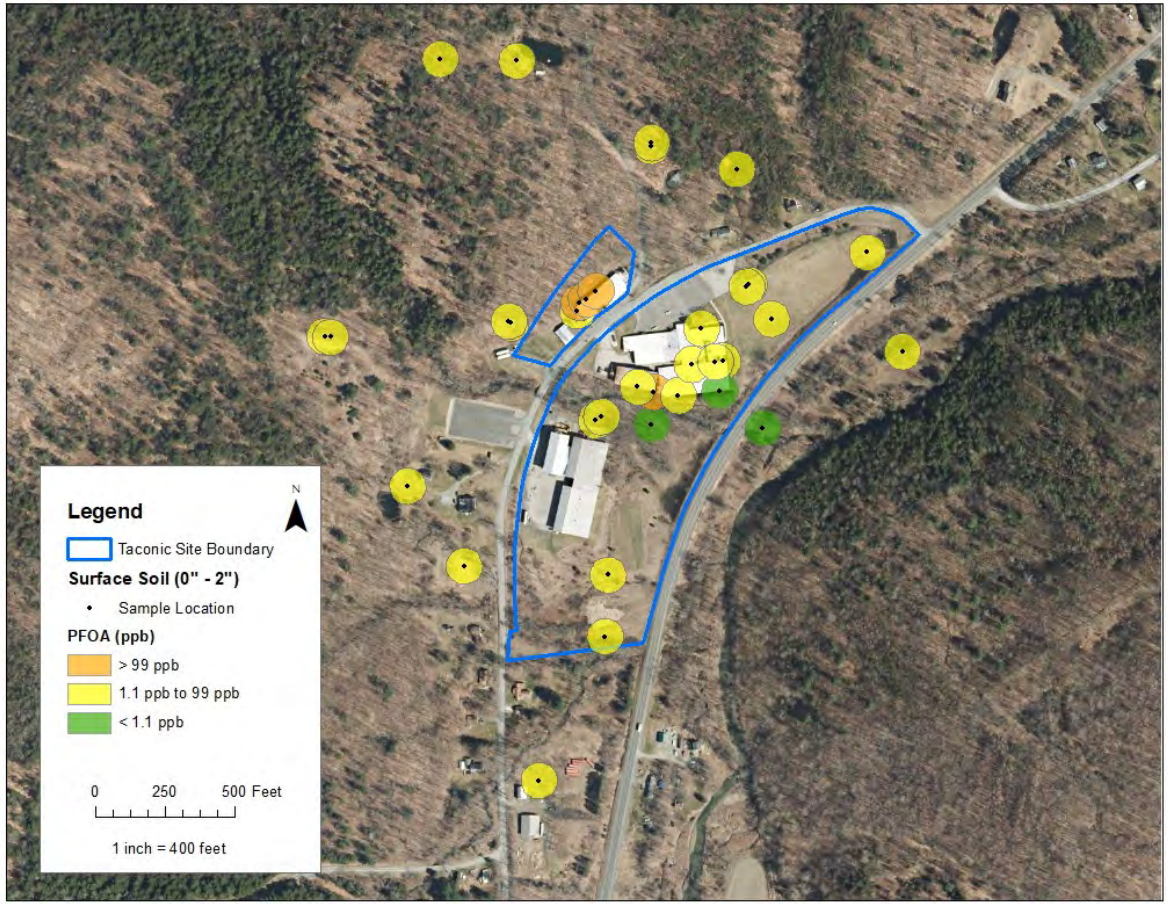
Remedial Investigation Phase 1 Summary and Results

Remedial Investigation Sampling

- 25 Surface water, and 15 sediment
- 40 discrete interval groundwater samples,
- 80 surface soil, and 40 subsurface soil,
- 15 monitoring well locations (6 with 2 intervals), 2 Exploratory Boreholes
- waste water, and sludge samples.



Soil Sampling

Range

- Maximum detection 310 ng/g
- Minimum detection 0.24 ng/g

Sample depths

- “A” interval 0”-2”

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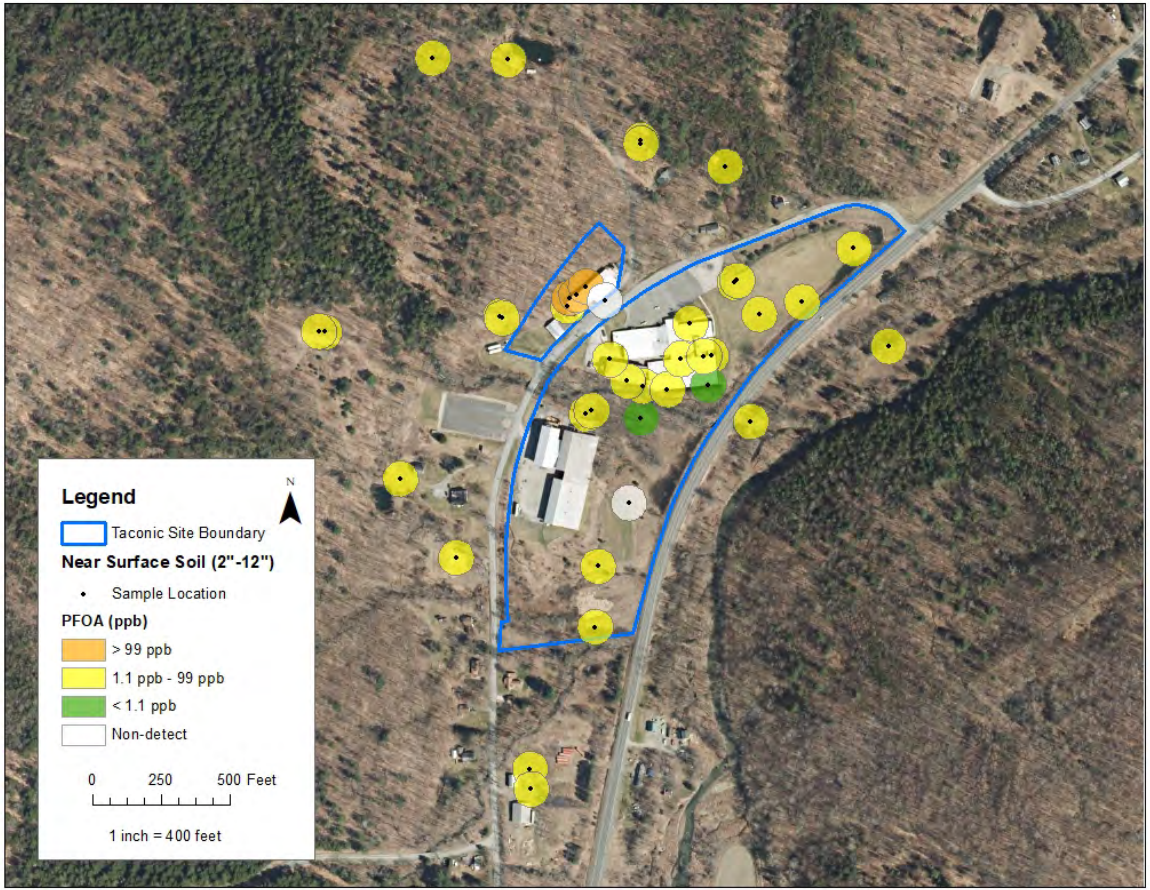

Soil Sampling

Range

- Maximum detection 1100 ng/g
- Minimum detection 0.87 ng/g

Sample depths

- “B” interval 2”-12”

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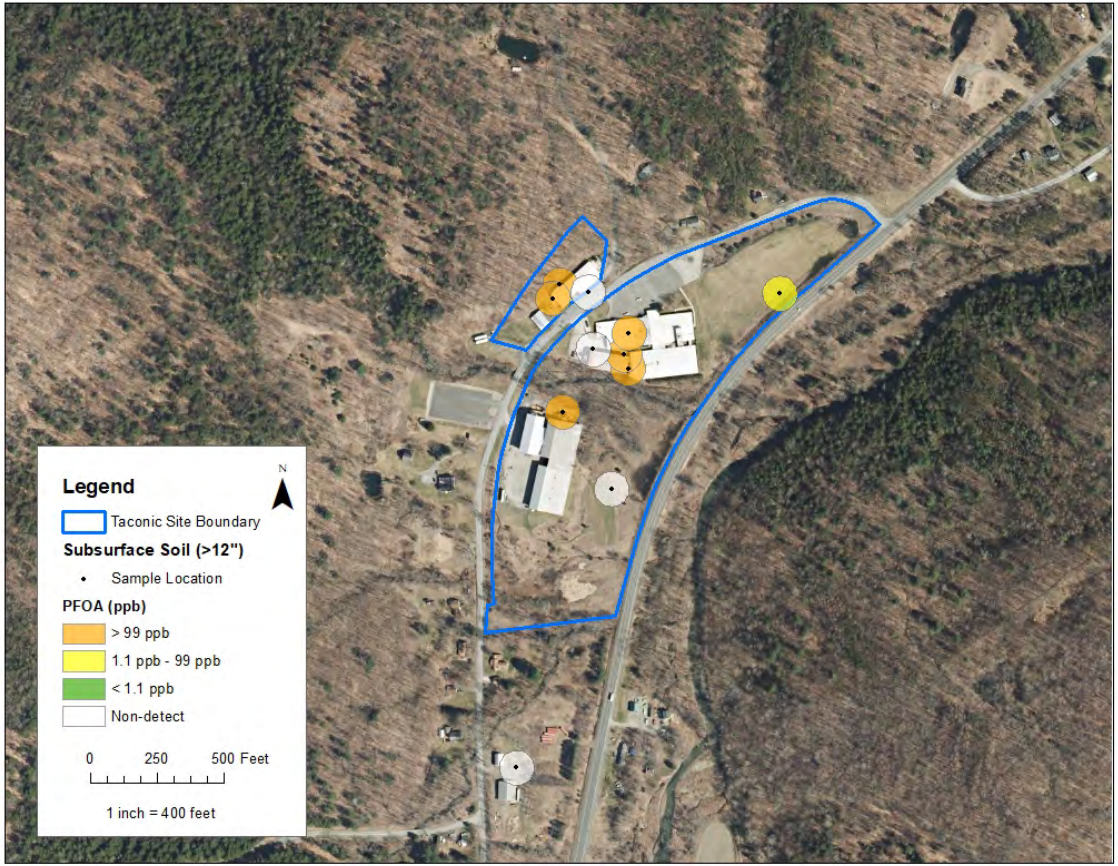

Soil Sampling

Range

- Maximum detection 43000 ng/g
- Minimum detection 0.068 ng/g
- PFOS only present in “source location” soil samples, and not in every interval

Sample depths

- > 12” below ground surface

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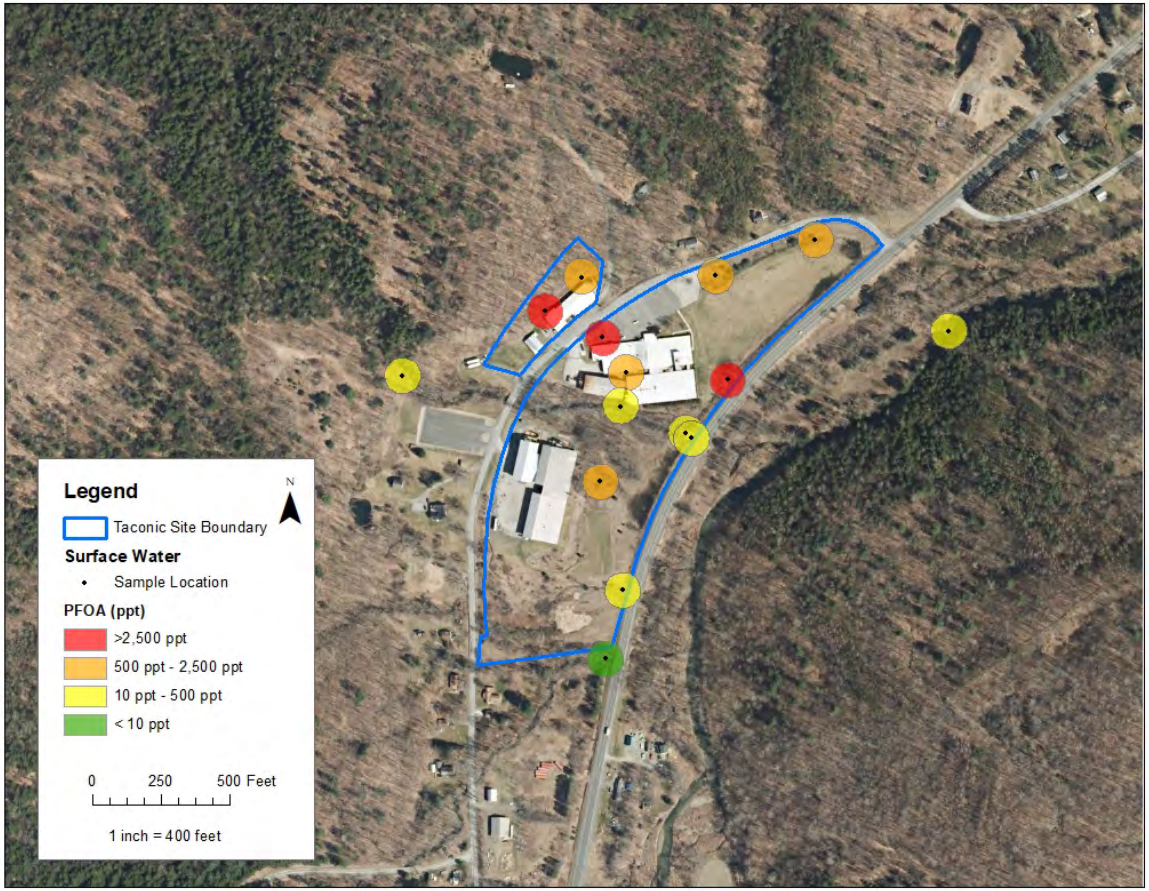

Surface Water Sampling

Surface Water

- Maximum detection 14 ug/L
- Minimum detection 0.015 ug/L
- PFOA detected in every sample
- PFOS inconsistently detected, detections range from 0.00039-0.0026 ug/L in surface water samples collected

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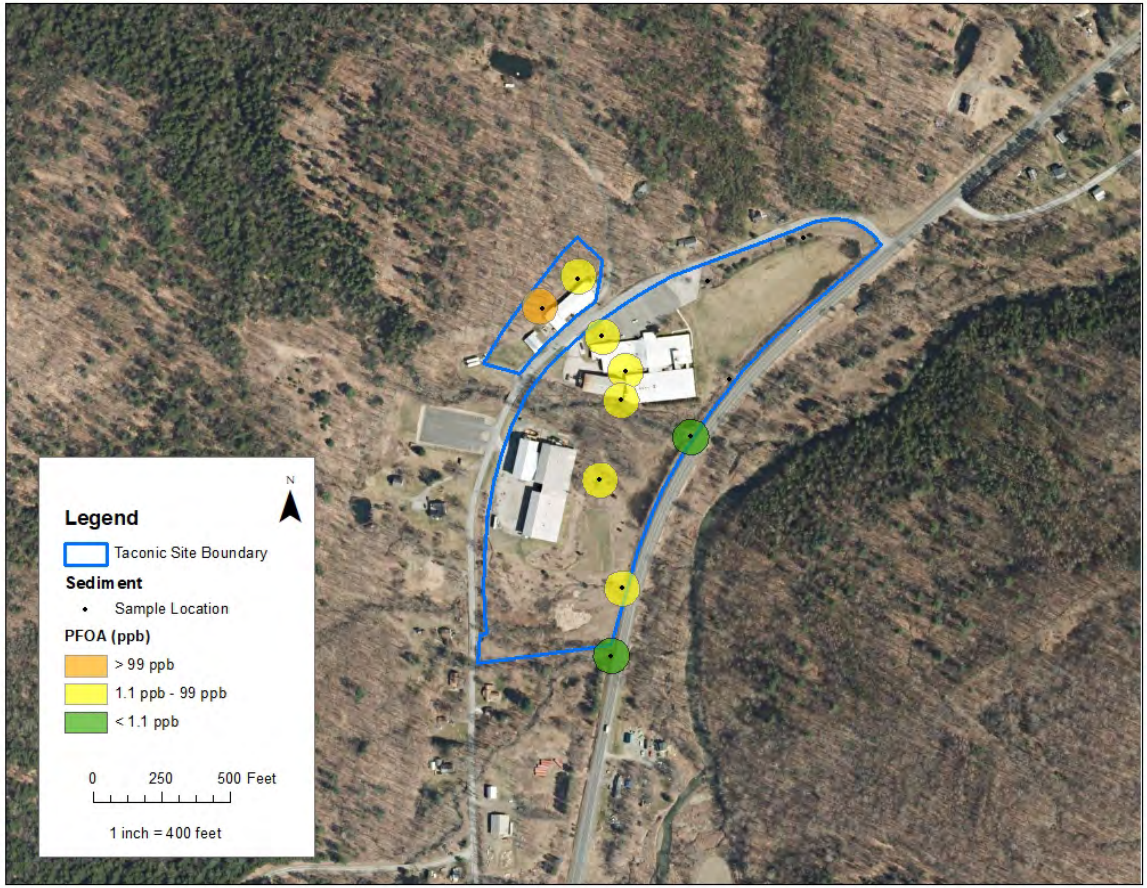

Sediment Sampling

- Maximum detection 610 ng/g
- Minimum detection 0.54 ng/g
- PFOA detected in every sample
- PFOS ND in sediment, except behind Building 1

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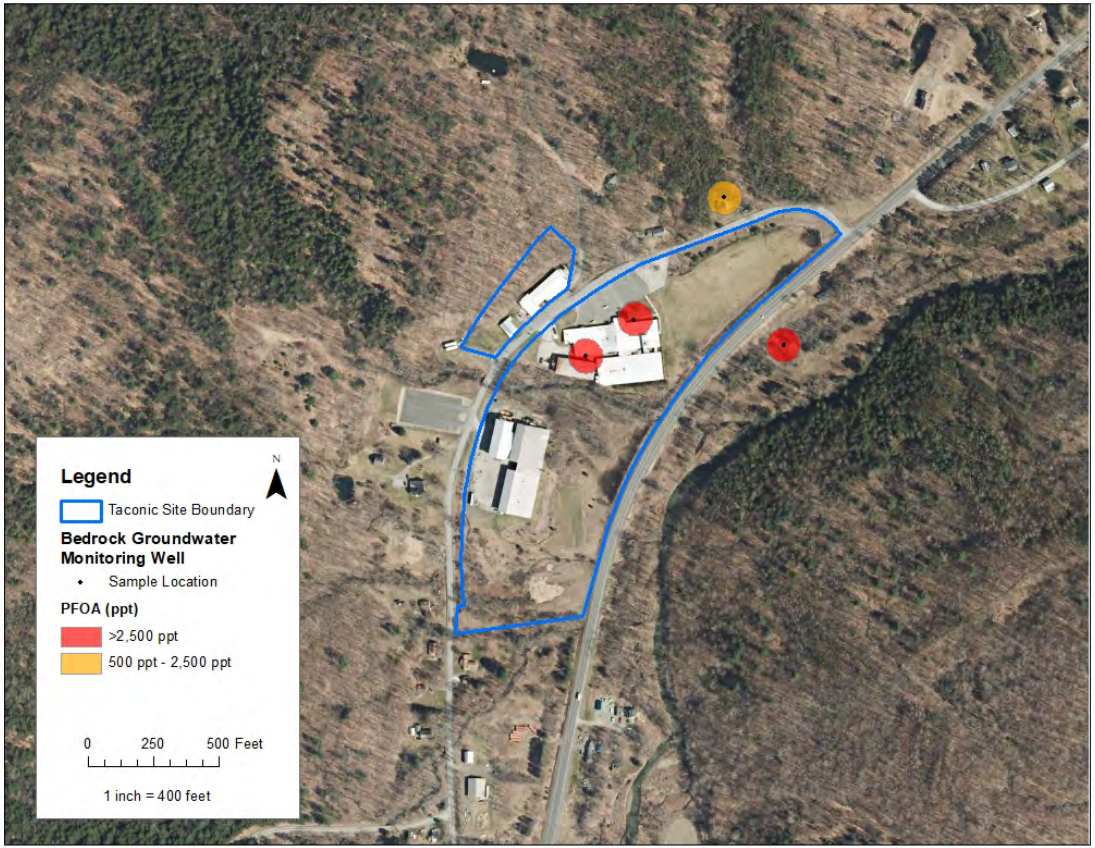
Bedrock Groundwater



Detections range from:
2.1 to 8.1 ug/L

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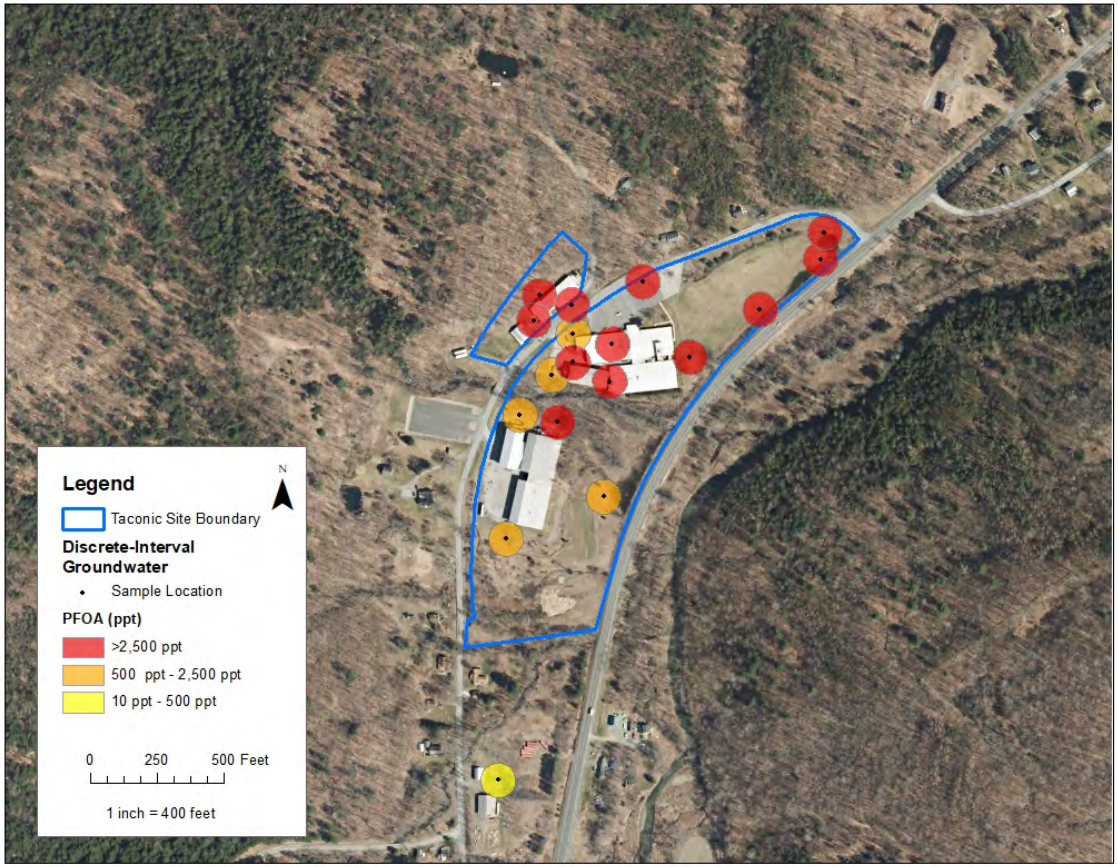
Overburden Groundwater Sampling



- PFOA detected in every sample
  - Range from 0.068 to 5600 ug/L
- PFOS detected inconsistently at lower concentration
  - Maximum detection 0.014 ug/L

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Conceptual Site Model

Contaminants of Concern:

- PFAS

Source:

- Historical disposal of industrial waste via on-site drywells and outfalls
- Historical Aerial deposition

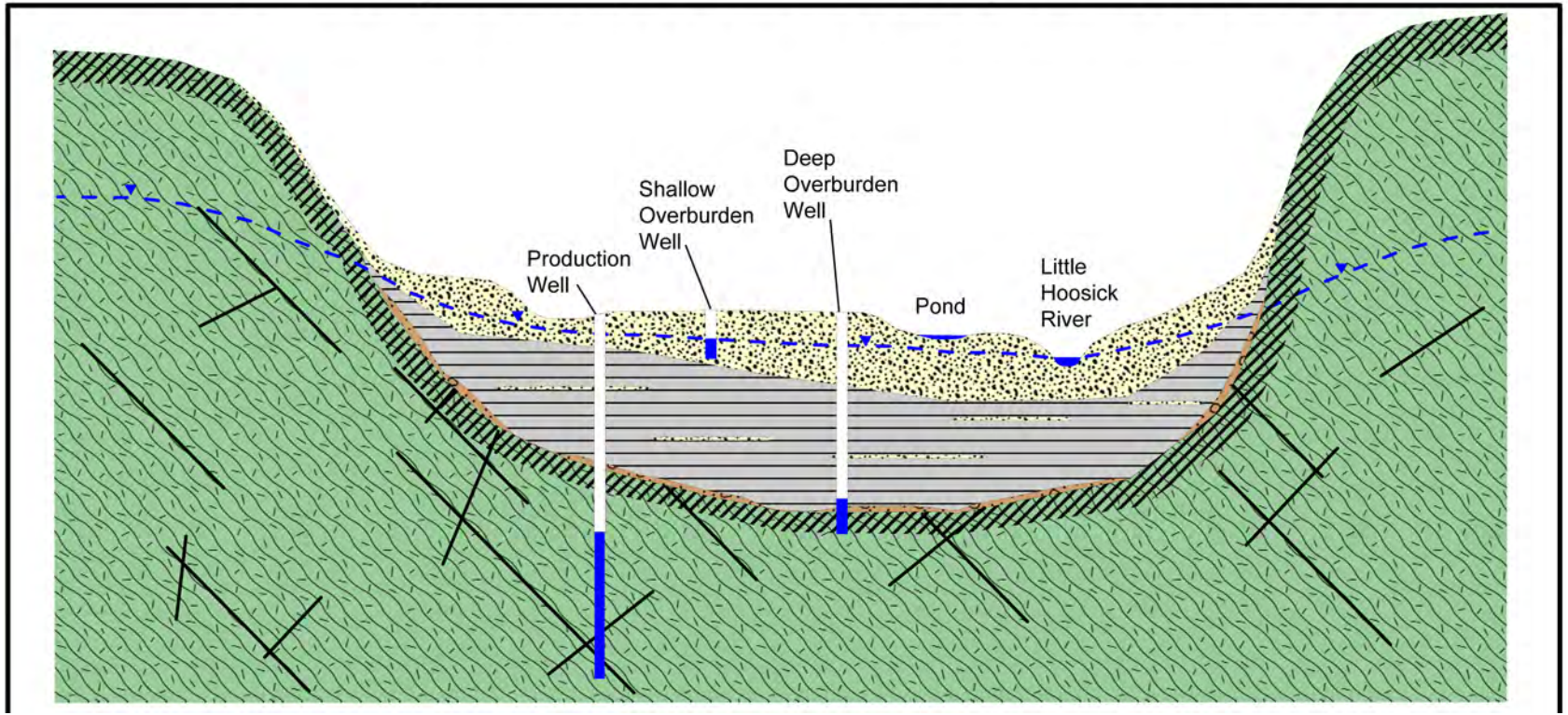
Migration and Pathways:

- Overburden groundwater aquifer (shallow and deep) on- and off-site
- Bedrock Aquifer
- Migration toward the Little Hoosic River

Exposure Pathway:

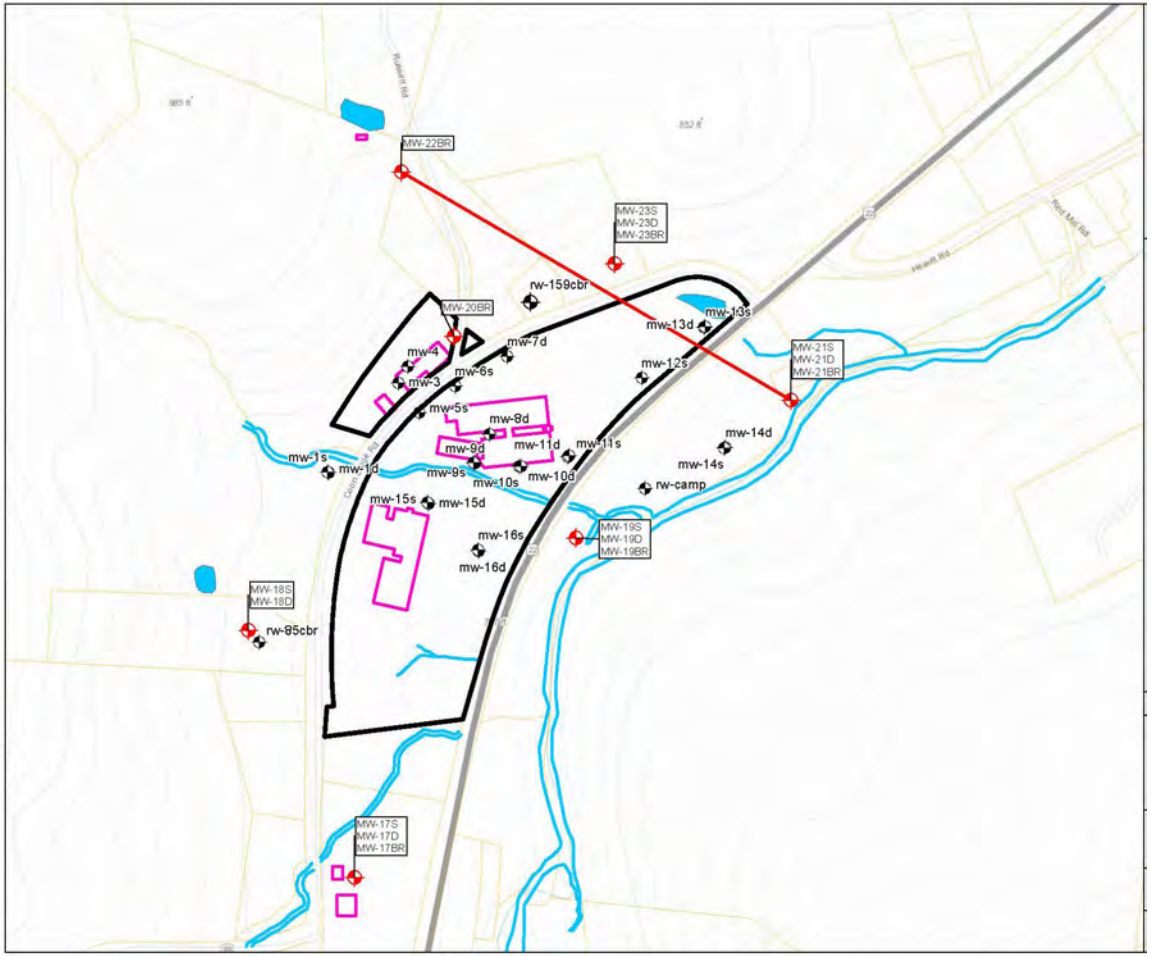
- Drinking water
- Surface soil
- Surface water

Preliminary Cross-Sectional Conceptual Site Model



Remedial Investigation Phase 2a

- The Phase 2a workplan was approved on September 8th.
  - Geophysical Transect across the northern end of the site
  - Bedrock investigation, coring, logging, and well installation and sampling
  - Additional offsite soil sampling to assess aerial deposition
  - Additional surface water evaluations, including two baseline sampling events, and the installation of staff gauges upstream and downstream of the facility in the Little Hoosic.



Geophysical Transect and Bedrock Investigation

- Multichannel analysis
- Resistivity

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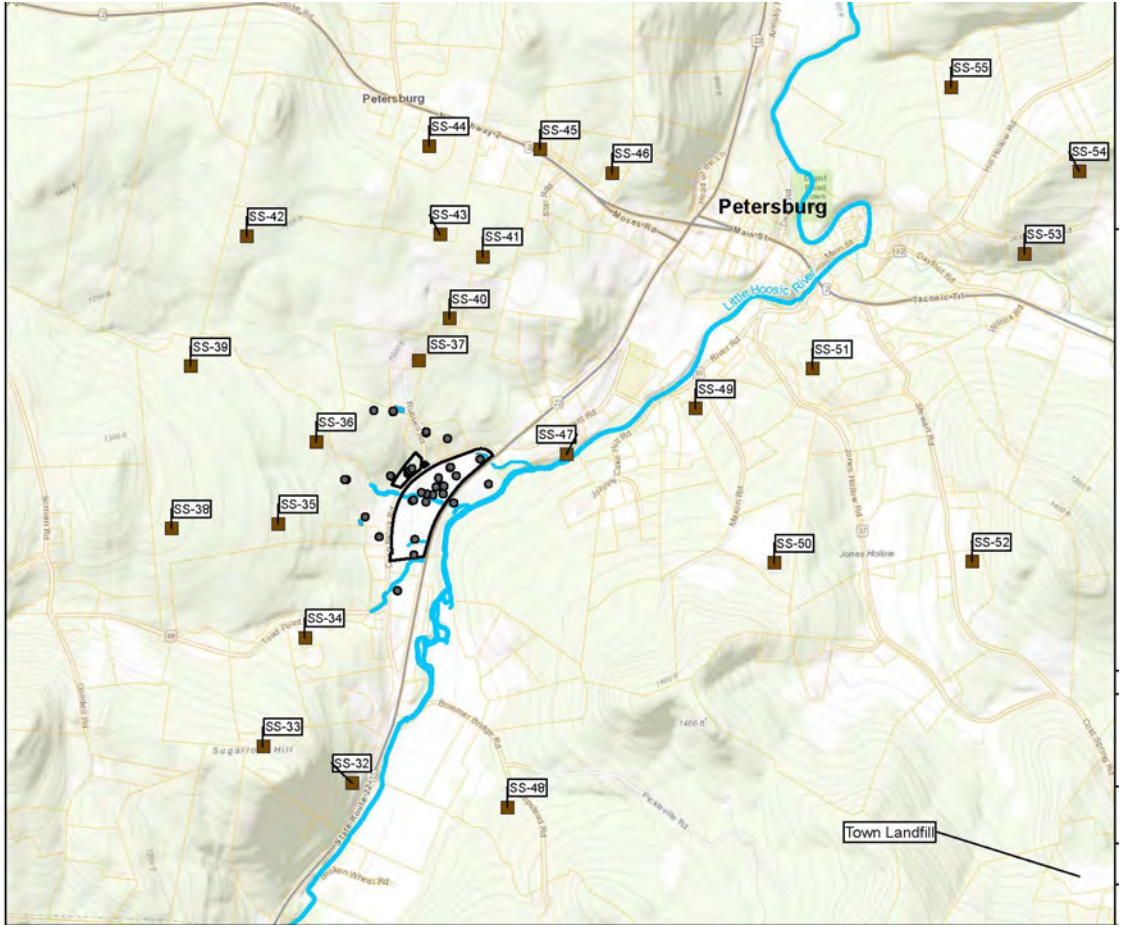

Soil Sampling Locations

- 0-2”
- 2-12”
- 12-24” (1/3 of locations)
- 5 locations will be tested for Replacement compounds

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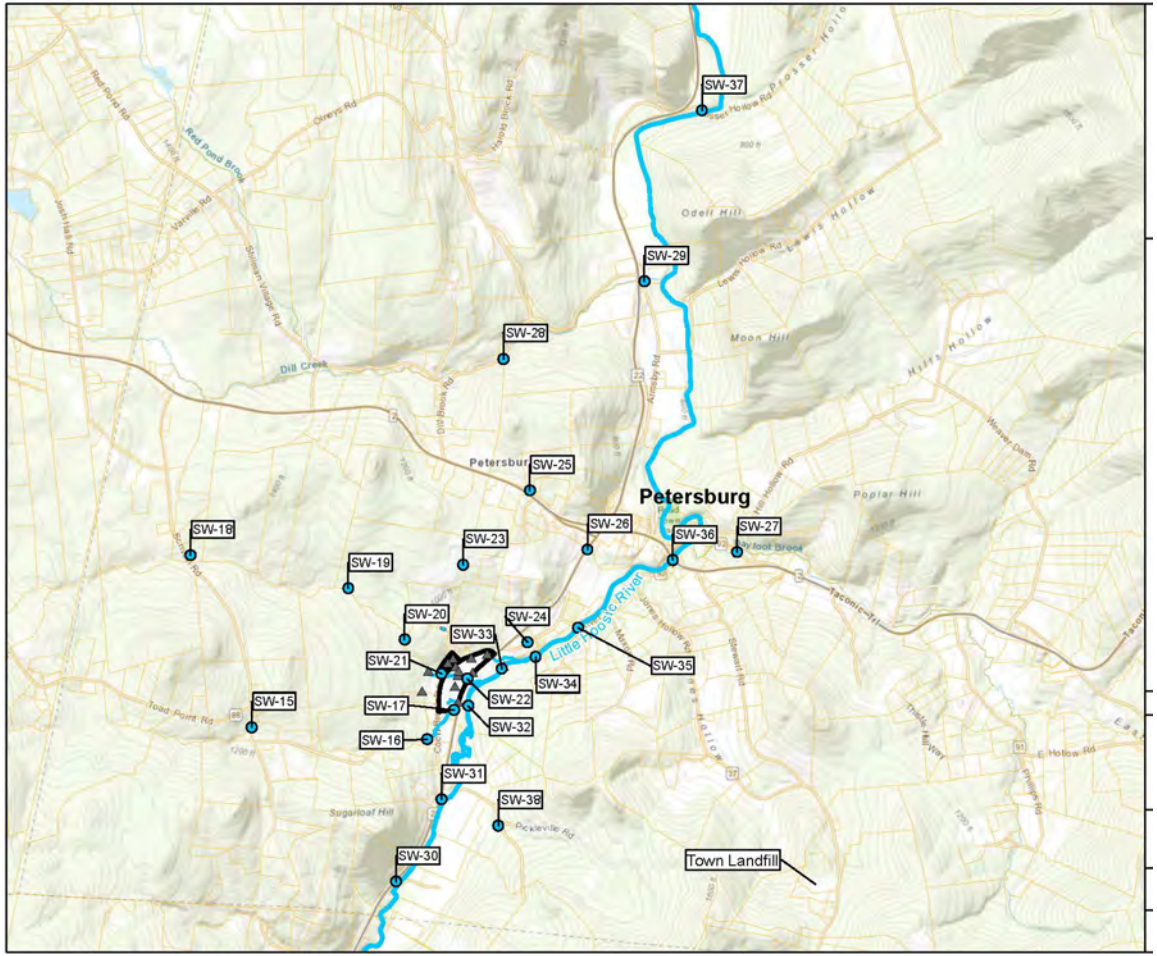

Surface Water and Sediment Sampling

- 2 rounds of samples, 4 months apart
- Second round will include some co-located sediment sampling.
- 5 locations to be tested for replacement compounds

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Maximum Contaminant Levels and POET Reassessments

Maximum Contaminant Levels for PFAS

- Maximum Contaminant Levels (MCLs) adopted for PFOA & PFOS
  - 10 ppt for PFOA
  - 10 ppt for PFOS
- Public water systems are required to test for PFOA & PFOS
  - MCLs are set well below levels known or estimated to cause health effects
  - Exceedances indicate a need to reduce the levels to meet the MCLs
- MCLs also used to guide actions for private wells

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Private Wells: Water Quality Reassessment

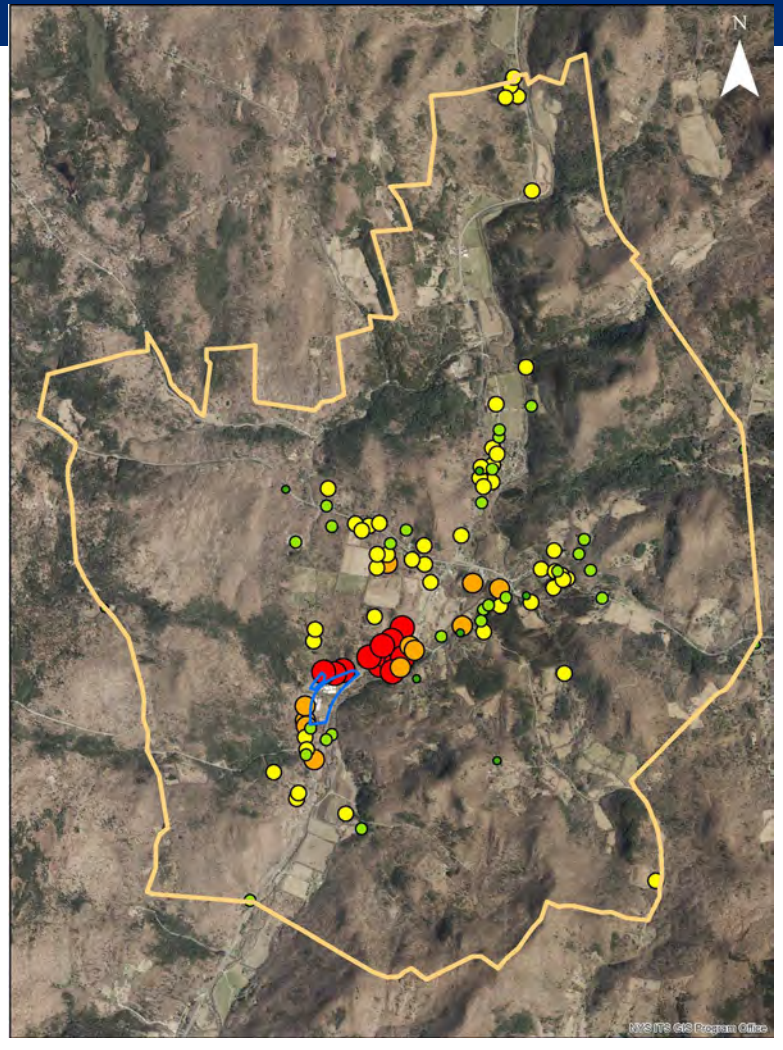
- Lower Screening Values (10 ppt) established
- Determine the need for mitigation, resampling, or other action (monitoring)
- Reach out to owners who previously declined treatment or an alternate water source
  - Communicate lower drinking water standards
  - Offer to retest well water or,
  - If past data indicate, offer treatment without retesting

Petersburgh Reassessment Program Priorities

- Previously-tested water supplies w/o a treatment system
- If a previous drinking water sample result was:
  - ≥ 20 ppt: Treatment be offered w/o resampling
  - ≥ 10 ppt and < 20: Resample well water
  - ≥ 5 ppt and < 10: Resample well water
  - < 5 ppt: No resampling necessary

- Upon Receipt of data, DOH will provide a recommendation to the homeowner

PFOA concentrations in Raw water and Pre-GAC drinking water samples



Legend

- Investigation Area
- Taconic Site Boundary

PFOA (ppt)

- ND - 10.00
- 10.01 - 70.00
- 70.01 - 500.00
- 500.01 - 1,000.00
- >1,000.00

0 0.250.50.75 1 Miles

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Thank You

NYS Department of Environmental Conservation

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TACONIC Documents and Information:
https://gisservices.dec.ny.gov/gis/dil/index.html?rs=442047

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