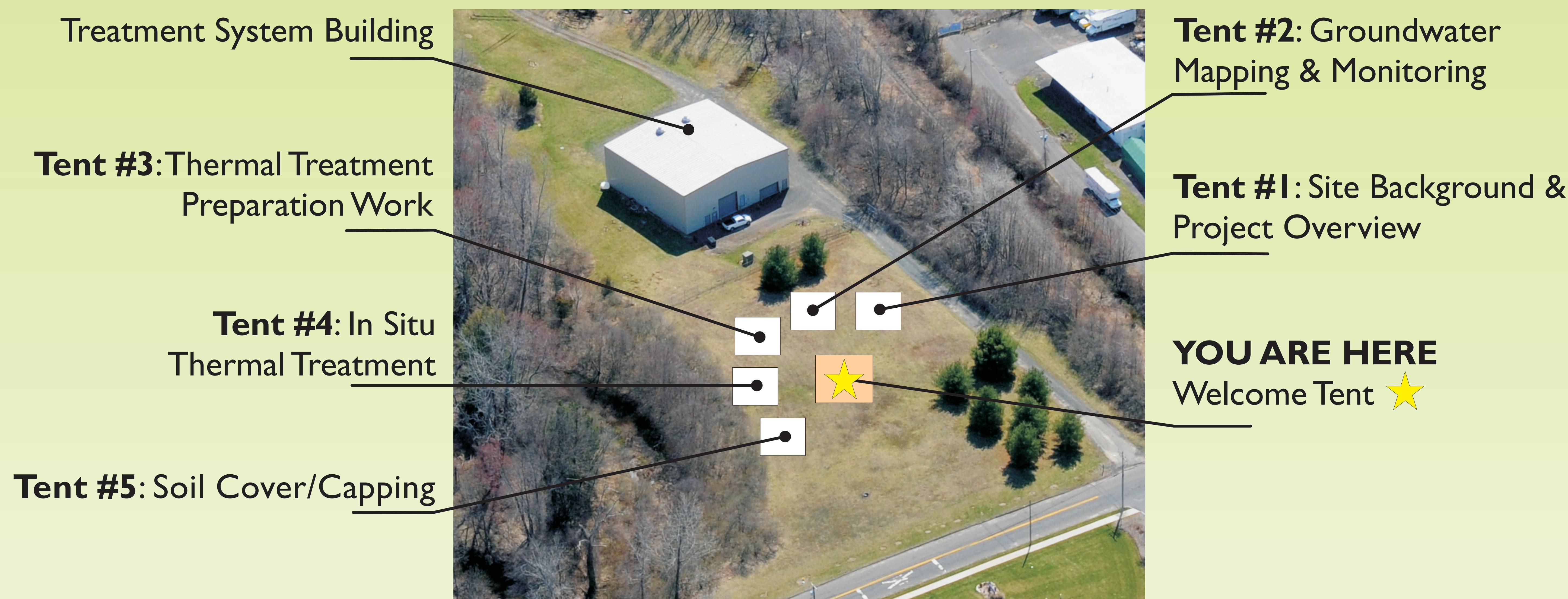


Solvents Recovery Service of New England, Inc. Superfund Site Open House – July 2010

Welcome! A new phase of cleanup work is about to begin at the SRSNE Superfund Site. Visit the different topic-specific tents and the treatment system building to meet with project representatives and learn about each element of the cleanup plan.

Visit www.epa.gov/region1/superfund/sites/srs, www.srsnesite.com, or the [Southington Public Library](#) for additional information.



Robin Swift
Project Manager
Willey Leung
Electrical Engineer



Ralph Fletcher
Treatment System Operator
Bryce Fletcher
Engineer



Karen Lumino
Project Manager
Jim Murphy
Community Involvement Coordinator



Ryan Santos
Project Manager
Tom RisCassi
Remediation District Supervisor



Bruce Thompson
Project Coordinator
John Hunt
Project Manager
Brandon Pizzoferrato
Field Quality Assurance Representative



Jeff Holden
Project Manager/Engineer

Solvents Recovery Service of New England, Inc. Superfund Site Site History, Key Investigations & Actions, Cleanup Plan

Key Investigations & Actions

Site History

- **1955 - 1991:** Spent solvents received from customers were distilled to remove impurities, then returned or sold for reuse. More than 41 million gallons of waste solvents, fuels, paints, and other materials were processed at the facility.
- **1957 - 1967:** Waste materials generated during processing were disposed onsite. After 1967, wastes were either transported to a disposal facility or burned – the State of Connecticut issued an order to stop burning waste in the 1970s.
- **1983:** SRSNE Site added to the Superfund List
- **1990:** U.S. Environmental Protection Agency started the Remedial Investigation process to characterize the nature and extent of impacts from historical operations.

More than 15 investigations have been completed over the past two decades across a 50-acre study area, and 275 groundwater monitoring wells have been installed. Highlights:

- **1990 - 1994:** U.S. Environmental Protection Agency's Remedial Investigation – carried out in three phases
- **1992:** USEPA removes soils from the railroad drainage ditch and chemicals stored at the Site
- **1995:** SRSNE Site Group builds a pump and treat system for groundwater
- **1996:** SRSNE Site Group begins new Remedial Investigation & Feasibility Study work
- **1999:** SRSNE Site Group constructs an enhanced groundwater containment system
- **1995/1999 - Present:** SRSNE Site Group operates the groundwater containment and treatment systems
- **2005:** USEPA issues the Record of Decision for the Site
- **2009:** Agreement for the design and implementation of the final cleanup plan is finalized, engineering work begins

Cleanup Plan

Key elements of the cleanup plan, formalized in the September 2005 Record of Decision:

- **Heating soils** in the former Operations Area to remove, capture, and treat waste oils and solvents in the ground – this process is called *in situ* thermal remediation
- **Excavating** targeted areas of soil from across the Site, **consolidating** the soils in the former Operations Area, and **covering** the materials with a permanent, waterproof cap
- **Continuing to pump and treat groundwater** in certain areas of the Site, **monitoring groundwater** in other locations
- **Placing restrictions on future use of the property and groundwater**
- **Carrying out long-term monitoring** to make sure all the elements of the remedy perform as expected

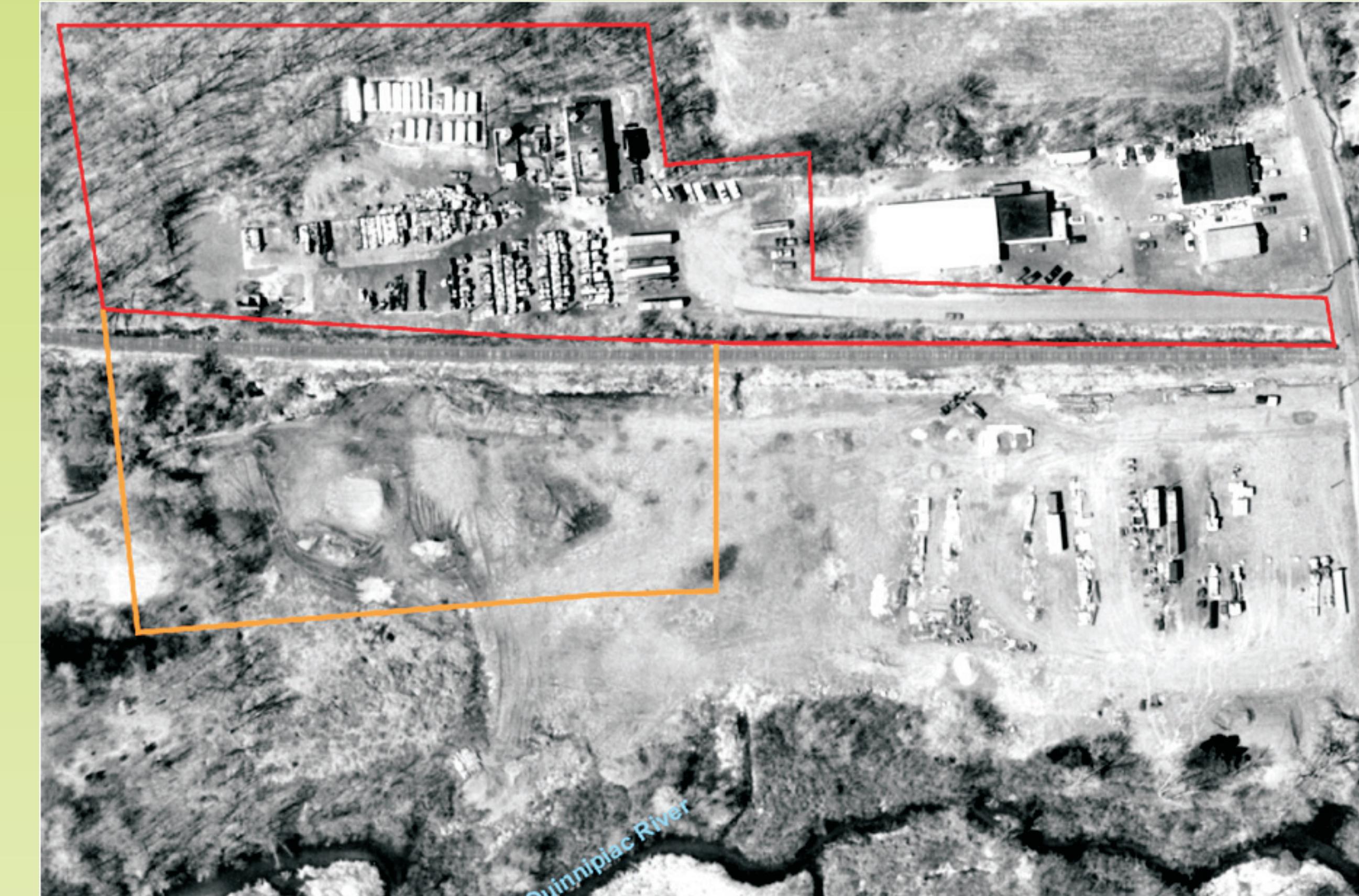
Solvents Recovery Service of New England, Inc. Superfund Site Historical Operations & Prior Cleanup



SRSNE Site 1965



SRSNE Site 1975



SRSNE Site 1980



Drilling a groundwater monitoring well



Phytoremediation Study Area



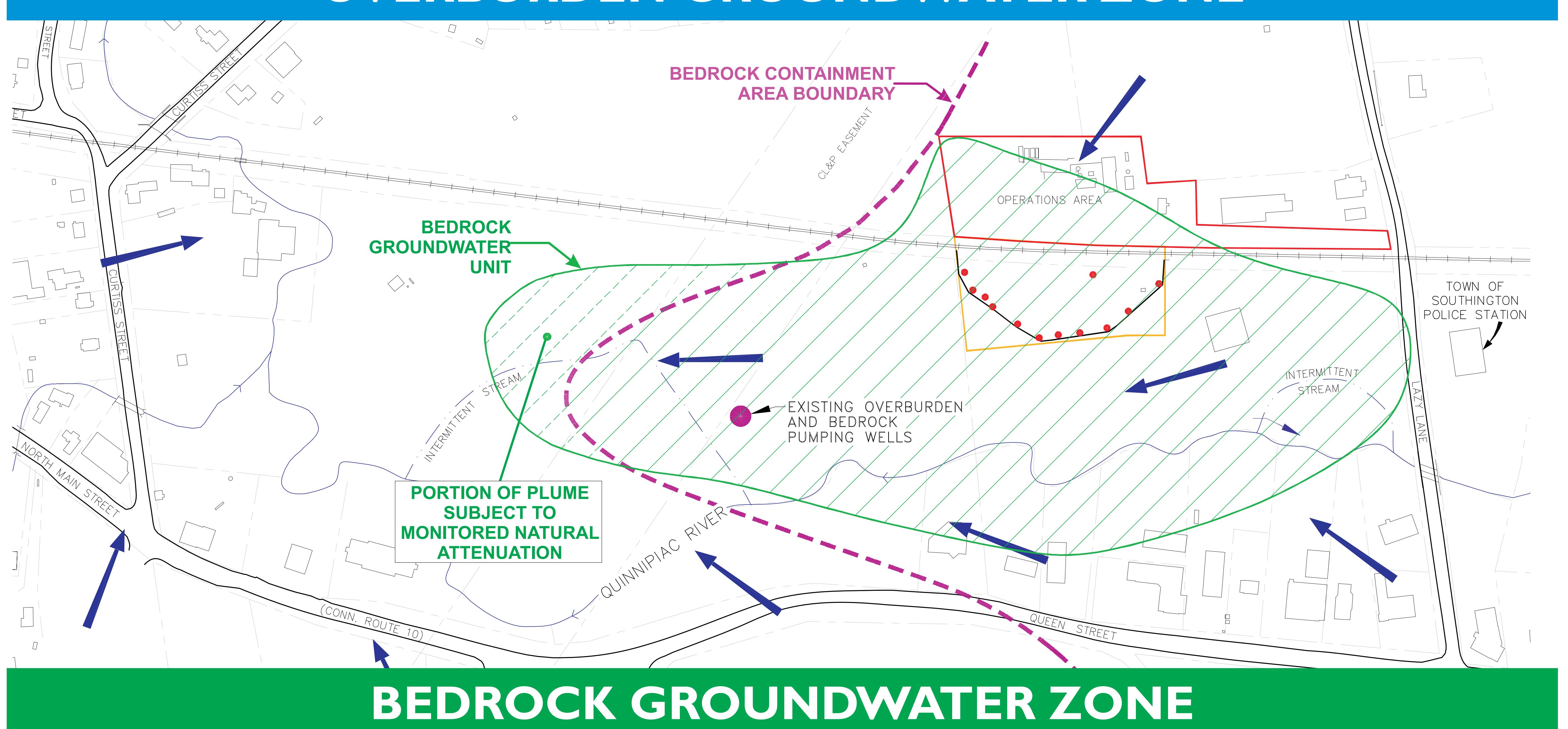
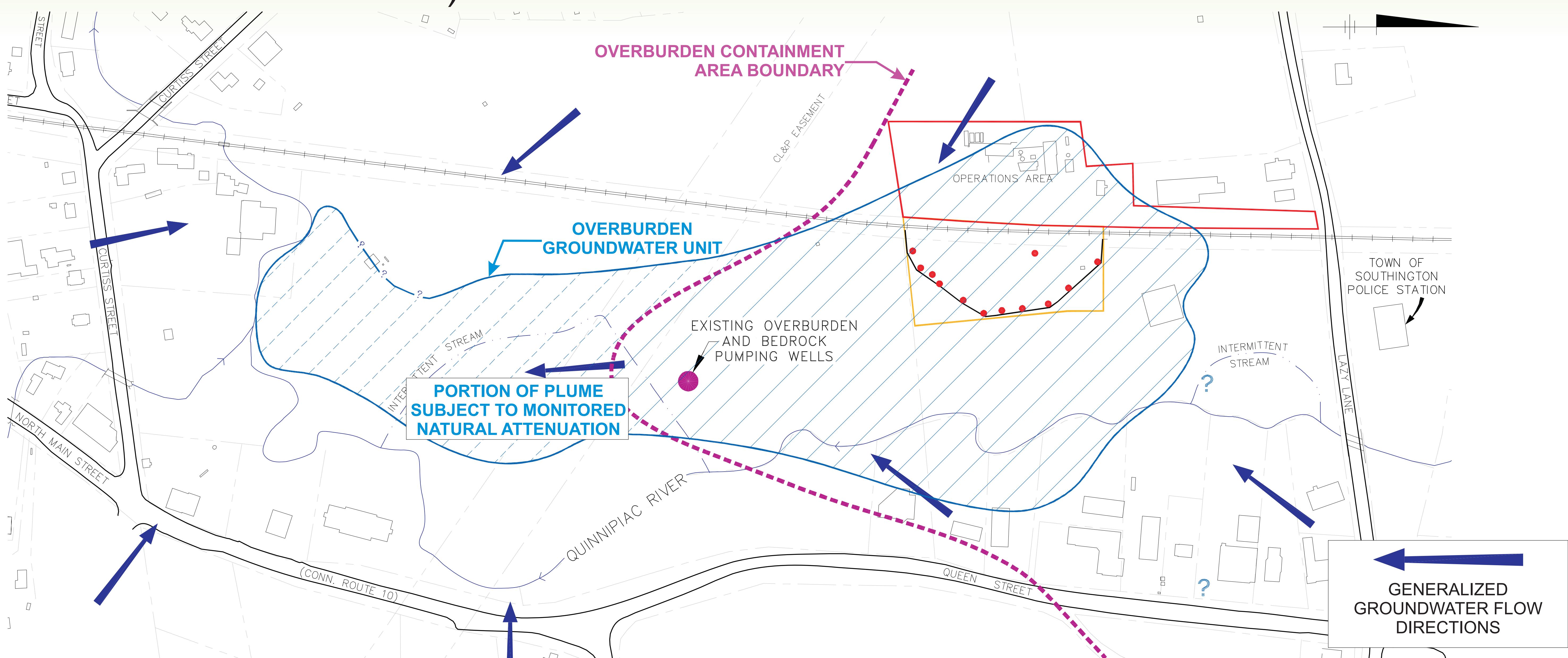
June 2000



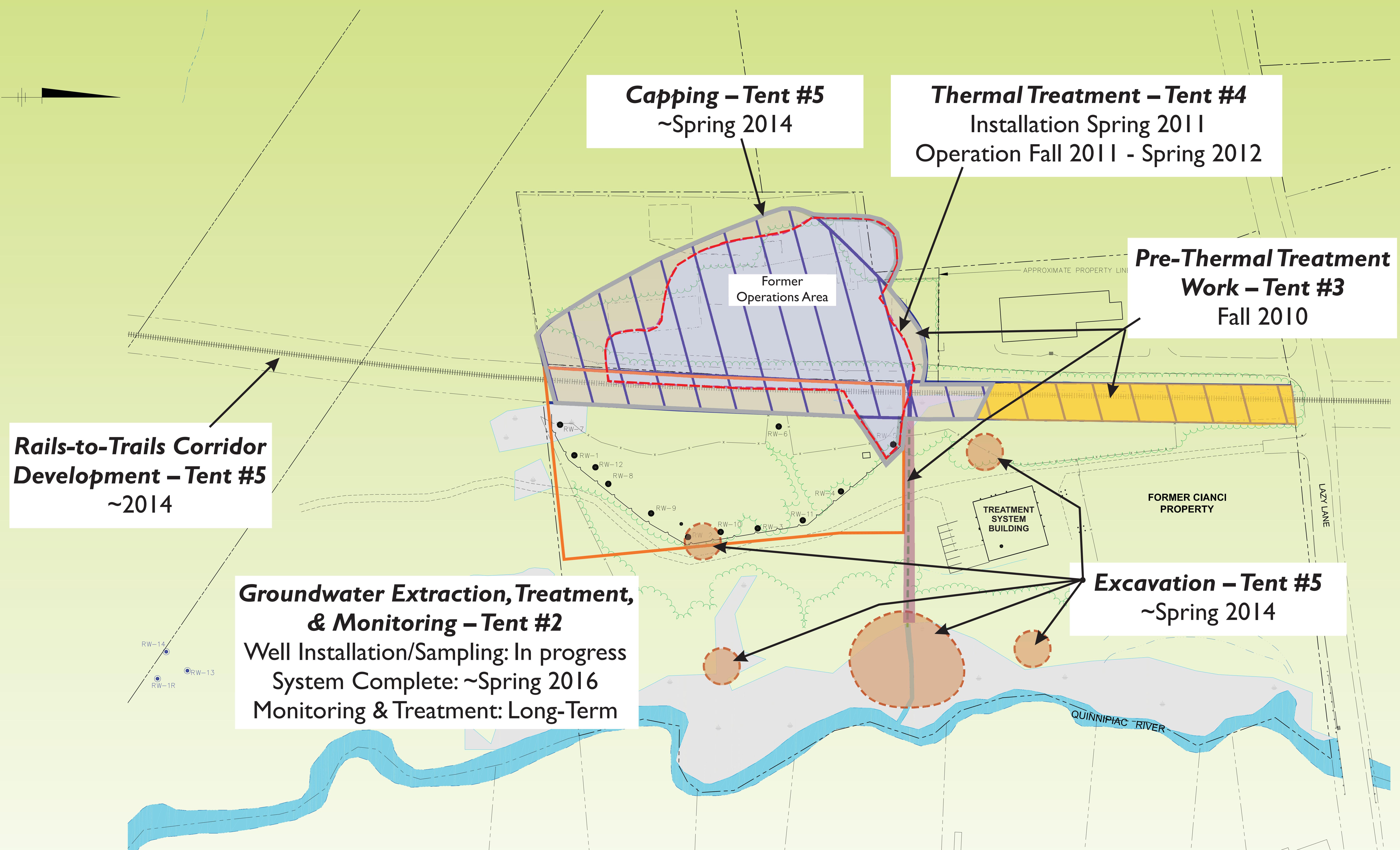
Testing for non-aqueous phase liquids

Solvents Recovery Service of New England, Inc. Superfund Site Groundwater Monitoring Zones

Groundwater at the Site is monitored both in the soils above bedrock (referred to as the overburden) and in the fractured bedrock. The depth to bedrock varies across the Site from approximately 12 to 175 feet. The maps below show the estimated location and extent of the groundwater plumes in the overburden and bedrock zones, and the portion of the plumes that will be addressed using Monitored Natural Attenuation (see posters in Tent #2 for more on Monitored Natural Attenuation).



Solvents Recovery Service of New England, Inc. Superfund Site Cleanup/Remedy Components & Timing



An aerial photograph of a Superfund site, likely the Solvents Recovery Service of New England facility. The image shows a large, sprawling industrial complex with numerous interconnected buildings, some with blue roofs and others with grey or white facades. A dense network of power lines and transmission towers crisscrosses the sky above the facility. In the foreground, there is a mix of green grassy fields and areas of brown, possibly contaminated ground. The surrounding terrain appears hilly or mountainous, with more forested areas visible in the background.

Solvents Recovery Service of New England, Inc. Superfund Site Public Outreach Activities



USEPA, Connecticut DEP, and the SRSNE Site Group will work together throughout the cleanup process to carry out community involvement and outreach activities.

Tools the team will use to provide updates on the status of work will include:

- Producing fact sheets
 - Hosting open house sessions
 - Maintaining project websites at
www.epa.gov/region1/superfund/sites/srs
and www.srsnesite.com
 - Archiving project documents at the
Southington Public Library

USEPA is also in the process of conducting a five-year review of work at the Site. As part of this comprehensive review of the last five years of activities, USEPA will interview local officials and citizens.

 United States Environmental Protection Agency

U.S. Environmental Protection Agency

Solvents Recovery Service of New England, Inc.

Superfund Site

Superfund Community Update

May 2010

This update provides you with information on the activities ongoing at the SRSNE Superfund site in Southington Connecticut.



Cleanup Work Underway

In 2005, the United States Environmental Protection Agency (EPA) issued a final cleanup plan called the Record of Decision for the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site in Southington, CT. In March 2009, the U.S. District Court for Connecticut approved a settlement that required the SRSNE Site Group to conduct the cleanup of the Site. Since that time, the SRSNE Site Group has been preparing the engineering design plans for the cleanup, and started field work to gather additional pre-design information in June 2009. Construction is expected to start later in 2010, and the key components of the cleanup—which include collecting and treating groundwater, and excavating, treating, and capping soils—will be carried out over the next few years. The SRSNE Site Group will monitor soil and groundwater at the Site until federal and state drinking water standards have been achieved and potential risks to human health have been addressed.

Site Background

The SRSNE Site is located on approximately 14 acres of land along Lazy Lane and the Quinnipiac River in Southington. From approximately 1955 until closure of the hazardous waste treatment and storage facility in 1991, used solvents were received from customers and processed to remove impurities. The recovered solvents were returned to the customer or sold to others for reuse. Waste materials generated during processing were disposed onsite from 1957 until 1967 - after that, materials were either burned onsite or transported to a licensed disposal facility. In the 1970s, the State of Connecticut issued an order to stop the burning of waste, and in 1991 all operational activities at the Site ended.

EPA began the Remedial Investigation process at the Site in 1990 to identify the nature and extent of environmental impacts resulting from historical operations. Since that time, a number of investigations and cleanup actions have been completed - including excavating and disposing of contaminated soils, collecting and treating groundwater, and cleaning and demolishing buildings and storage tanks in the former Operations Area of the Site.

Contacts

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www.epa.gov/region1/superfund/sites/

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USEPA's May 2010 Fact Sheet

Solvents Recovery Service New England (SRSNE)

[Site Contacts](#)

Site Information

[Site Description](#)

[Nature and Extent of Contamination](#)

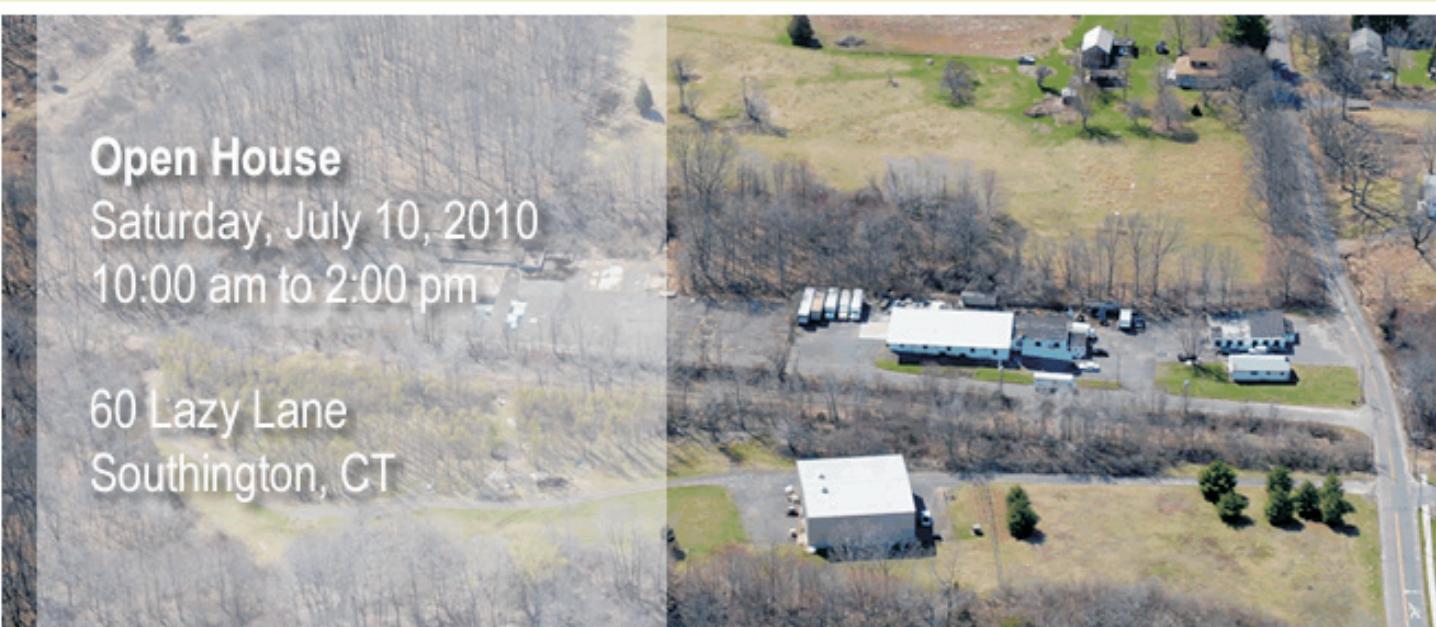
[Remedial Action Objectives](#)

[Site Remedy](#)

[Next Steps](#)

[Distribution and Mass of COCs in Groundwater](#)

[VOC Mass Estimate](#)



The image is an aerial photograph of the Solvents Recovery Service of New England (SRSNE) Superfund Site. The site is located in Southington, Connecticut, and is situated on a hillside. Several industrial buildings, including a large white building and smaller structures, are visible. There is a parking lot with several vehicles. The surrounding area includes fields, trees, and a road.

Open House
Saturday, July 10, 2010
10:00 am to 2:00 pm

60 Lazy Lane
Southington, CT

Open House Saturday, July 10, 2010 10:00 am to 2:00 pm Solvents Recovery Service of New England, Inc. Superfund Site

60 Lazy Lane, Southington, Connecticut
Opposite the Southington Police Station on Lazy Lane

- Join us to learn about the final phase of cleanup at the Site, set to begin this year
- Meet project representatives from EPA, CTDEP, and the SRSNE Site Group
- View maps and graphics of key project components and future plans for the Site

For additional information contact the Project Coordinator,
Bruce Thompson at 860-298-0541 or brucet@demaximis.com.

About SRSNE

At the Solvents Recovery Service of New England, Inc. (SRSNE) Superfund Site (Site) in Southington, Connecticut, the Remedial Design/Remedial Action (RD/RA) phase of cleanup is underway.

This work is being performed by the SRSNE Site Group under a Consent Decree (CD) and Statement of Work (SOW). The CD was filed on October 30, 2008 with the United States District Court for the District of Connecticut in connection with Civil Actions No. 3:08cv1509 (SRU) and No. 3:08cv1504 (WWE). The CD was approved by the Court on March 26, 2009.

The SRSNE Site Group, comprised of companies that were former solvent-recycling customers of SRSNE, that have been working cooperatively with URS EPA and CT DEP, has been performing clean-up work at the Site since 1994. The final remedy for the Site is described in the 2005 Record of Decision (ROD) issued by the U.S. Environmental Protection Agency (USEPA).

[More>>](#)

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The SRSNE Site Group Website



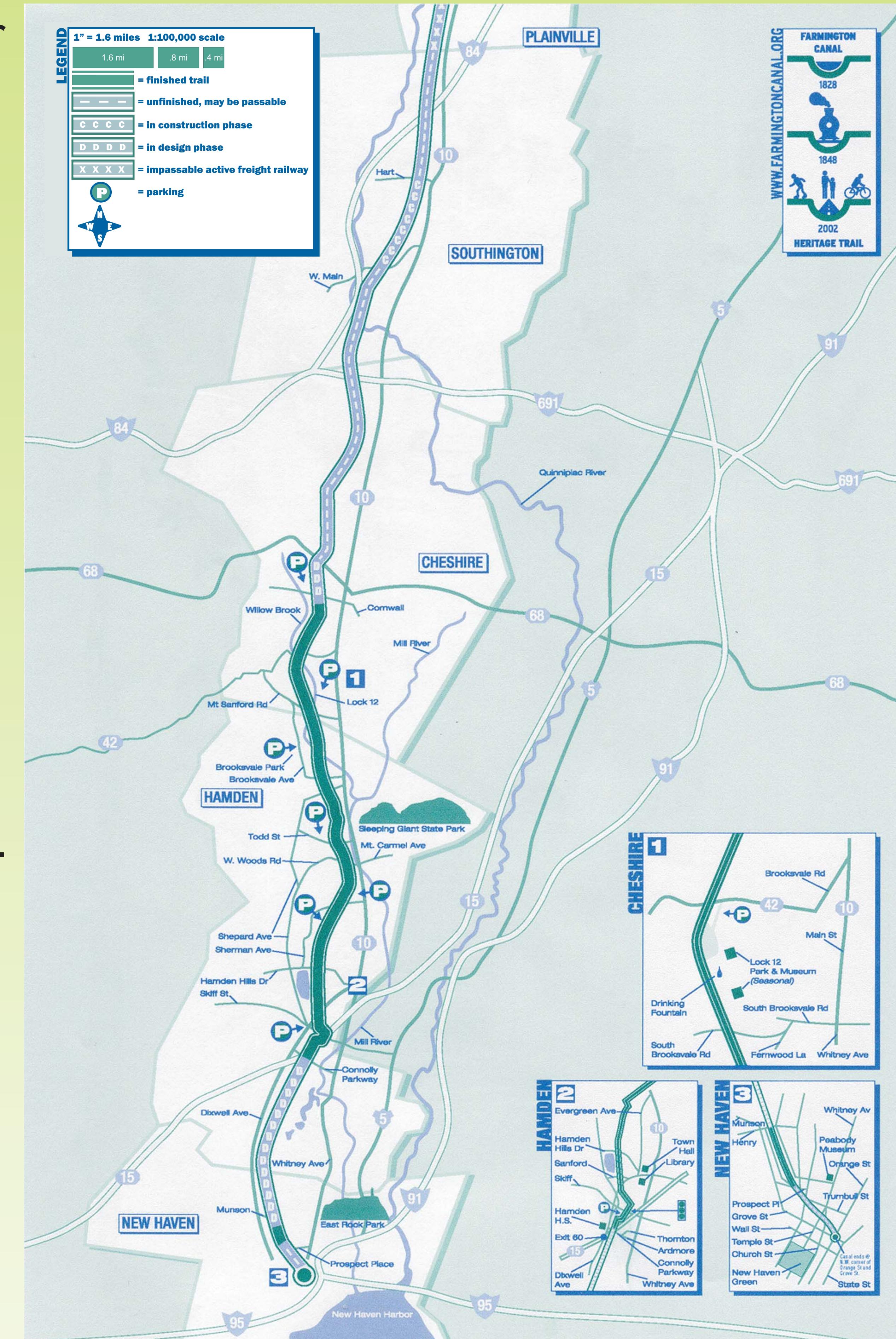
The Southington Public Library

Solvents Recovery Service of New England, Inc. Superfund Site Vision of Final Conditions



After thermal treatment of the soils in the former Operations Area is complete, the area will be covered with a **multiple-layer waterproof cap**. The cap will be designed to **isolate treated soils and materials excavated from other areas of the Site** and protect human health by preventing people from coming into contact with them. Conceptual future views of the Site are shown to the left.

Once the cap is in place, the SRSNE Site Group will build a new segment of the **Farmington Canal Heritage Trail**, paving the former railroad right-of-way between **Curtiss Street** and **Lazy Lane**. This will link up the existing rails-to-trails corridor in Southington, and provide additional recreational opportunities for local residents and visitors. Plans for the trail also include construction of a **public parking lot** just off Lazy Lane.



Farmington Canal Heritage Trail – Plainville to New Haven

Solvents Recovery Service of New England, Inc. Superfund Site Groundwater Monitoring Program

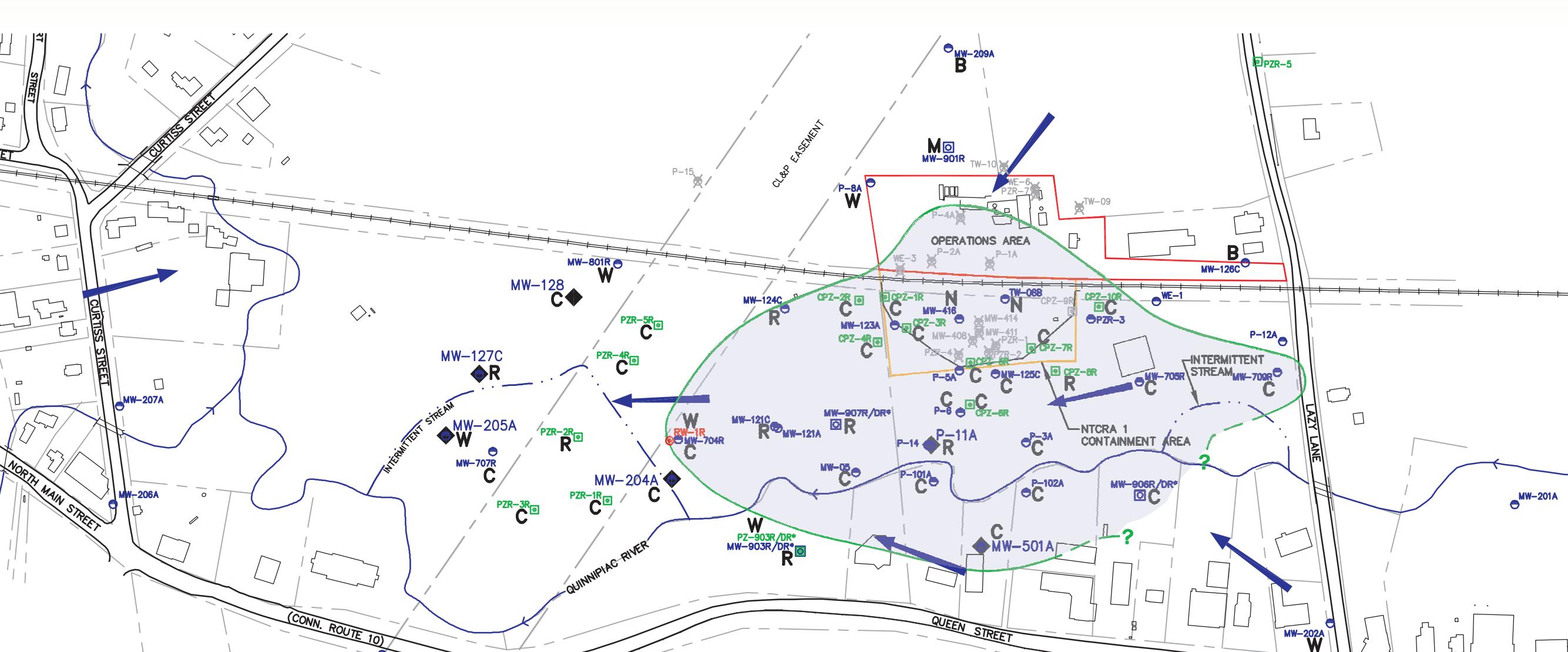
Well Group	# Wells	Sampling Period	Sampling Frequency	Analytical Parameters
"C" wells	80	first comprehensive event	1 event completed in May-June 2010	VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs
"R" wells	26			VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs, MNA parameters
"N" wells	10			VOCs, alcohols, 1,4-dioxane, TAL metals, PAHs, PCBs, MNA parameters
"M" wells	5			TAL metals, MNA parameters (background)
"B" wells	3	subsequent comprehensive events	every 5 years beginning in 2015	TAL metals (background)
"C" wells	80			VOCs, 1,4-dioxane, TAL metals
"R" wells	26			VOCs, 1,4-dioxane, TAL metals, MNA parameters
"N" wells	10			VOCs, 1,4-dioxane, TAL metals, MNA parameters
"M" wells	5			TAL metals, MNA parameters
"B" wells	3	after first comprehensive event	annual beginning in 2011	TAL metals
"R" wells	26			VOCs
"R" wells	26			MNA parameters
"M" wells	5	after first comprehensive event	biennial beginning in 2012	TAL metals (background)
"M" wells	5		biennial beginning in 2012	MNA parameters (background)
"W" wells	36	all comprehensive events	every 5 years beginning in 2010	Water levels only - during all comprehensive events

Well Group	# Wells	Sampling Period	Sampling Frequency	Analytical Parameters
"N" wells - overburden	8	before thermal treatment	biennial beginning in 2012	VOCs, MNA parameters
			annual	VOCs, MNA parameters
		after thermal, before equilibrium	3x / year	VOCs, MNA parameters
		after equilibrium	annual	VOCs
"N" wells - bedrock	2	before thermal treatment	biennial	MNA parameters
			annual beginning in 2011	VOCs, MNA parameters
		during thermal treatment	annual beginning	VOCs, MNA parameters
		after thermal, before equilibrium	3x / year	VOCs, MNA parameters
		after equilibrium	annual	VOCs
		biennial	biennial	MNA parameters

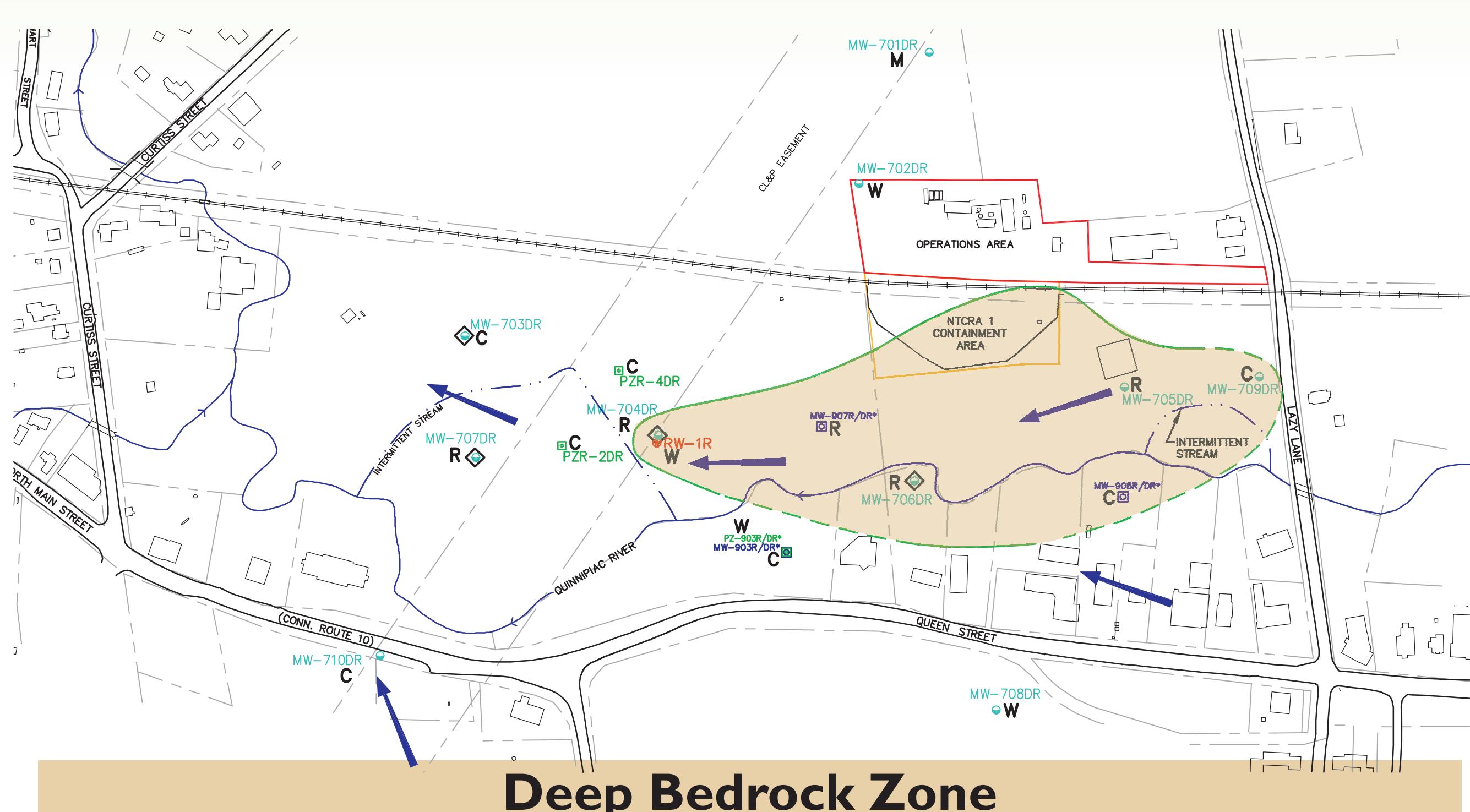
Monitoring Well Types

- C** Monitoring Well for Comprehensive Sampling Rounds Only
- R** Monitoring Well for Routine VOC and MNA Monitoring
- N** NTCRA 1 Area Monitoring Well
- M** Background Monitoring Well for Metals Sampling Only
- B** Background Monitoring Well for Metals and MNA Sampling
- W** Monitoring Well for Water Level Measurements Only

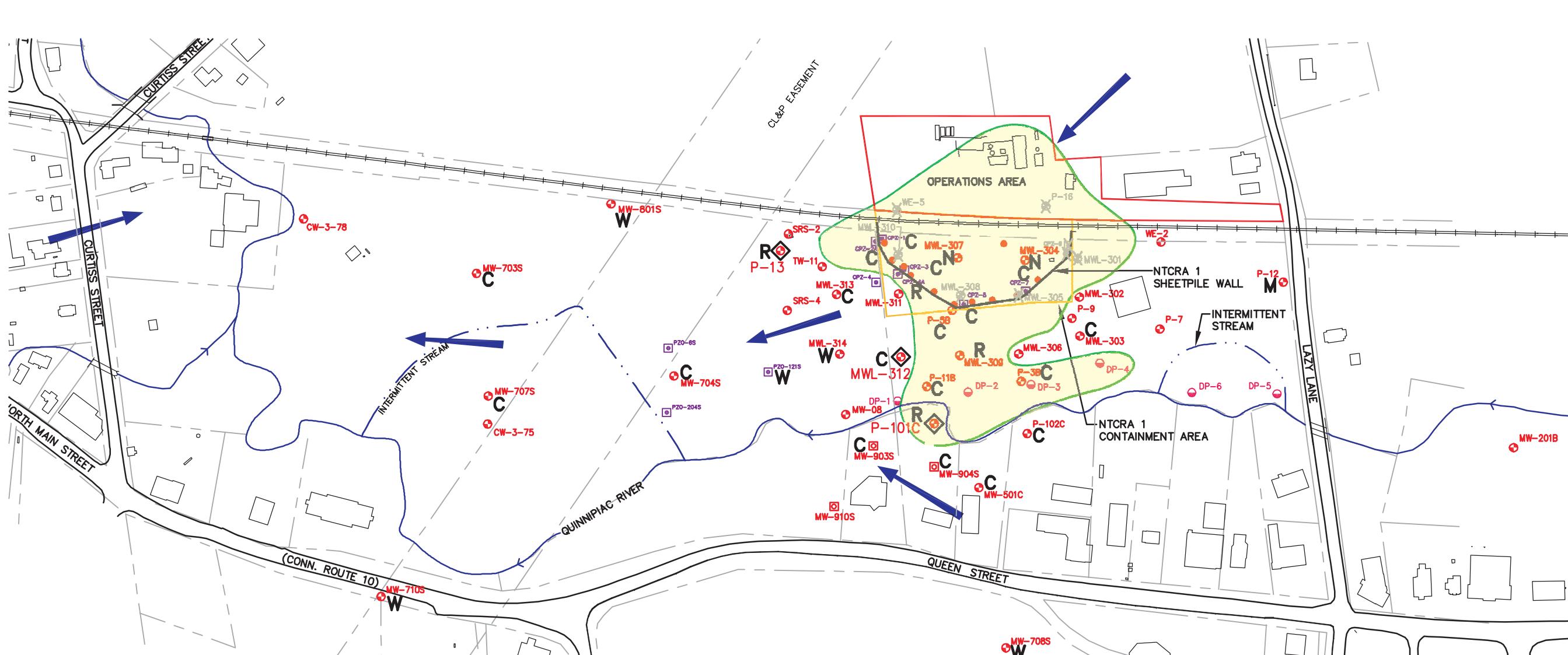
VOCs: Volatile Organic Compounds
TAL: Target Analyte List
PAHs: Polycyclic Aromatic Hydrocarbons
PCBs: Polychlorinated Biphenyls
MNA: Monitored Natural Attenuation



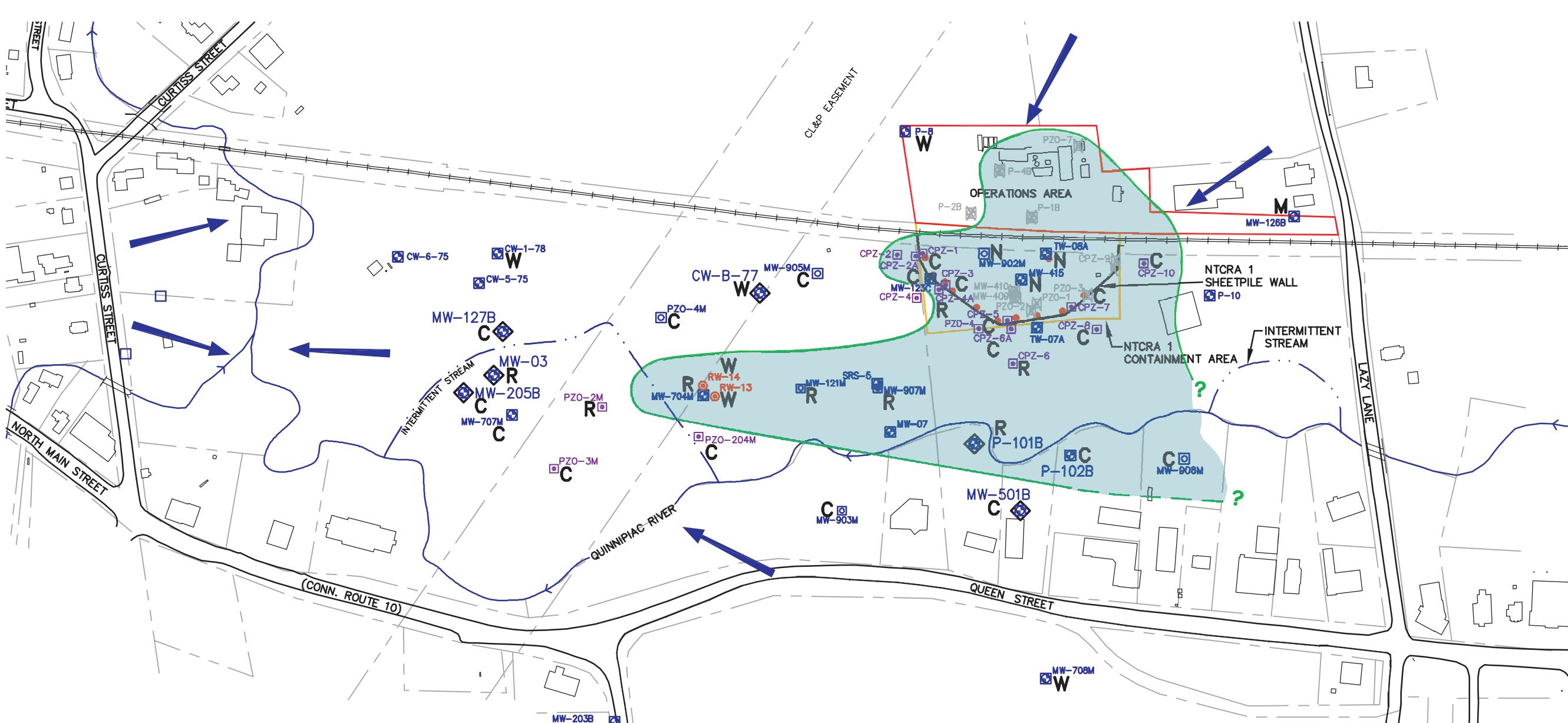
Shallow Bedrock Zone



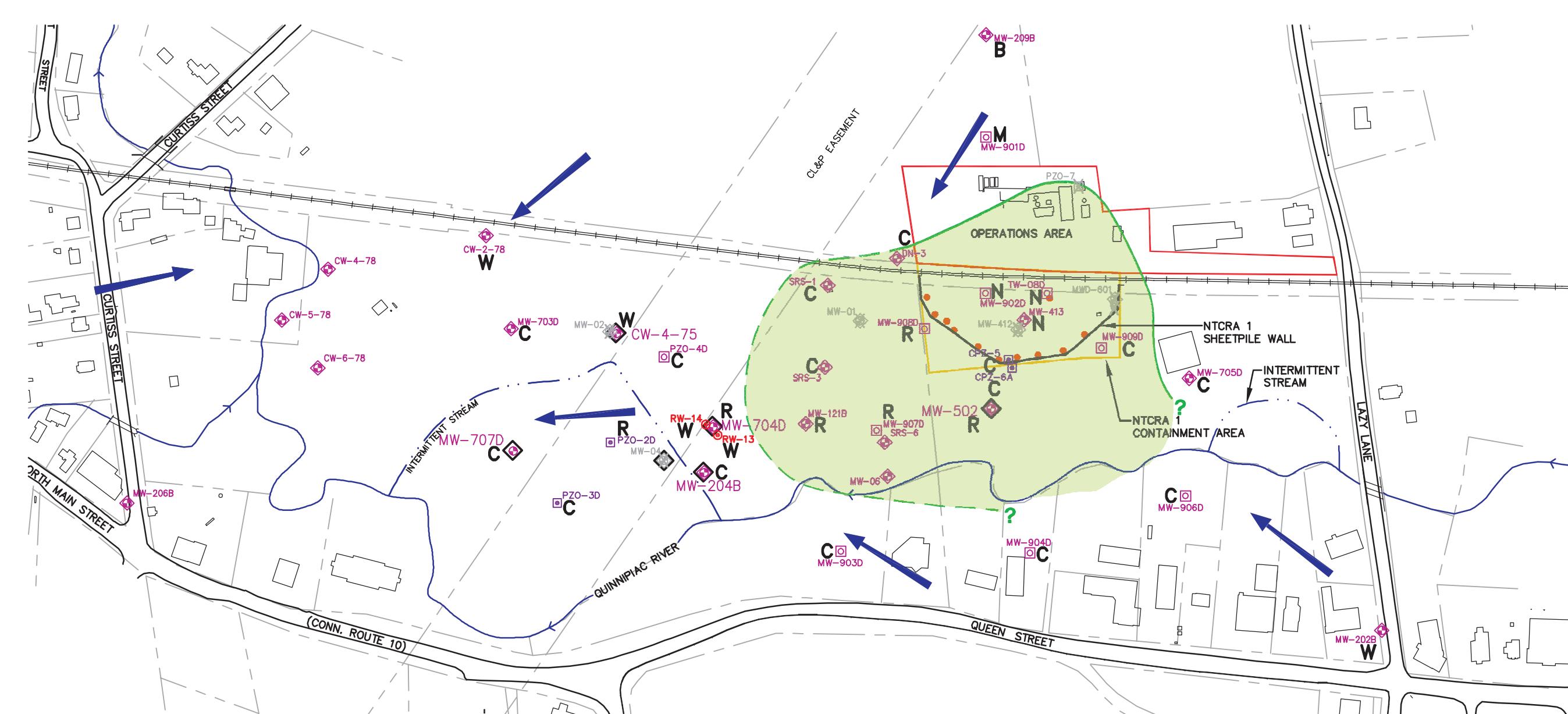
Deep Bedrock Zone



Shallow Overburden Zone



Middle Overburden Zone



Deep Overburden Zone

Solvents Recovery Service of New England, Inc. Superfund Site Monitored Natural Attenuation in Groundwater

Monitored natural attenuation, or MNA, is the reliance on natural processes to achieve site-specific cleanup goals. MNA is always used in combination with source control and as part of a carefully controlled and monitored cleanup program.

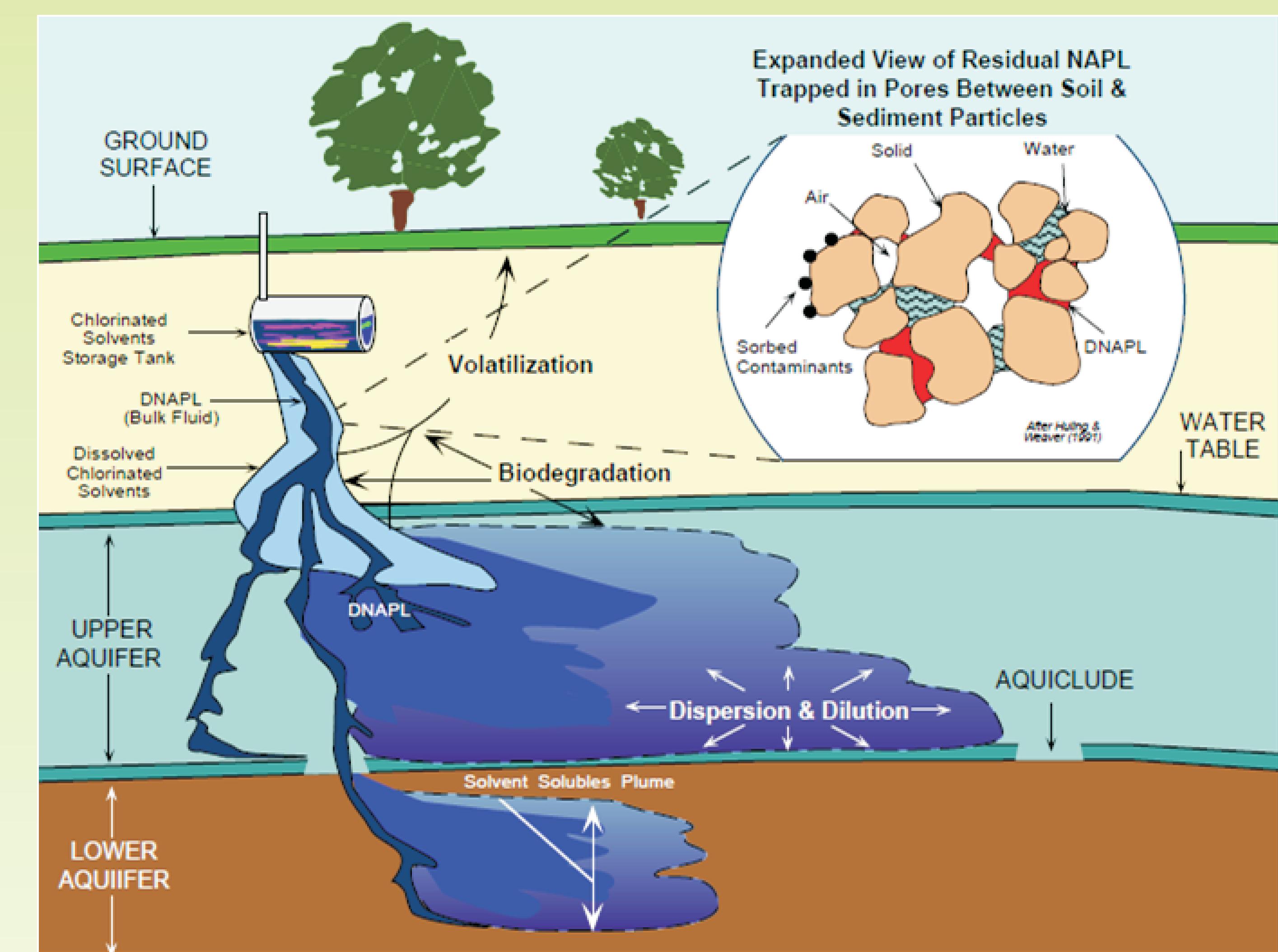
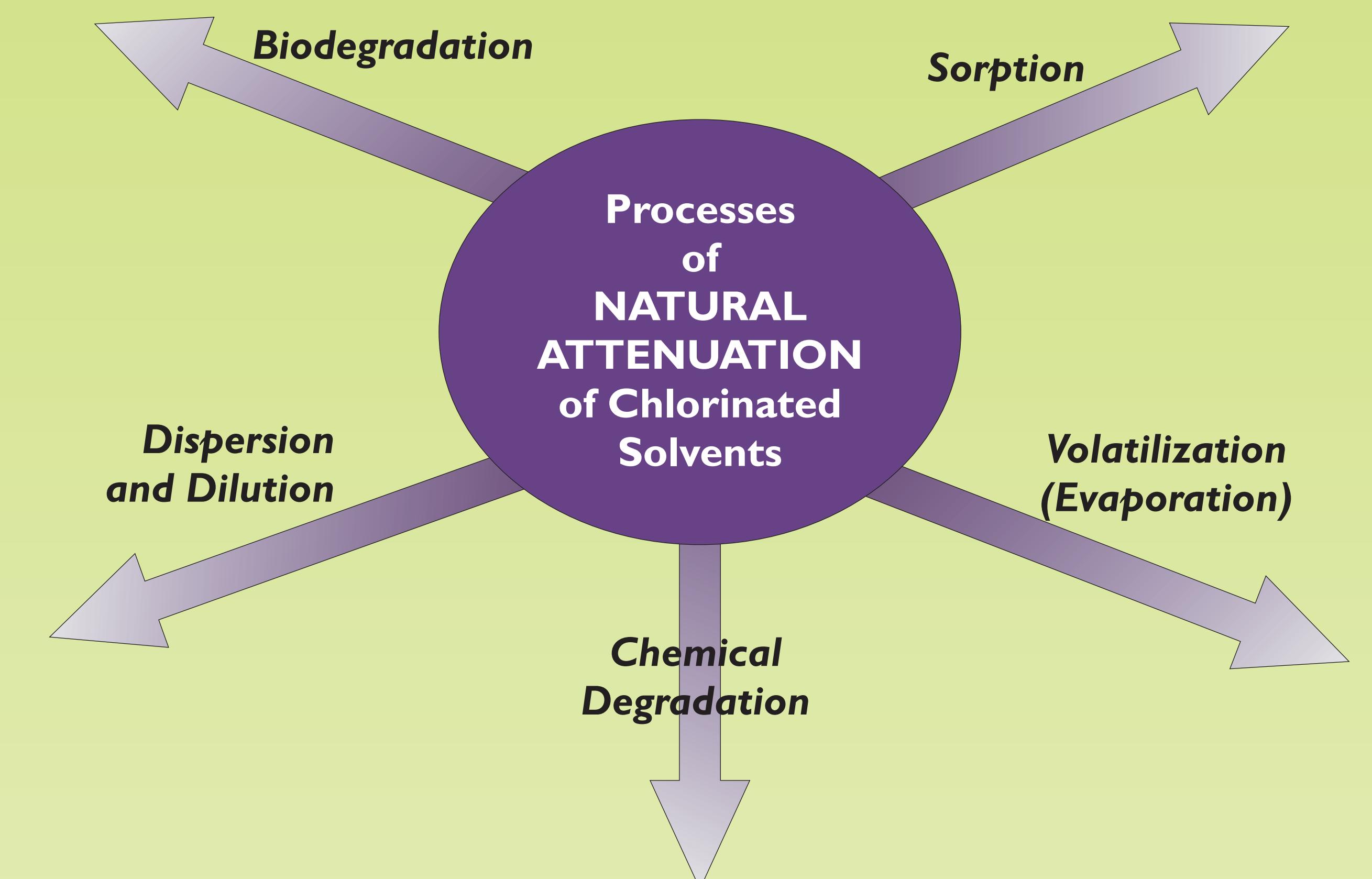
Natural attenuation processes reduce mass, toxicity, mobility, volume, and concentration of chemicals in groundwater.

- **Biodegradation:** transformation of chemicals carried out by microorganisms – the organisms are almost everywhere in nature
- **Sorption:** where chemicals dissolved in groundwater “stick” to solids like silt, sand or clay – this slows or stops the movement of the chemicals
- **Volatilization:** when chemicals move from the solid or liquid phase into the atmosphere or the spaces in soil
- **Chemical degradation:** a spontaneous change in chemicals without microorganism activity
- **Dilution:** when concentrations of chemicals in groundwater are reduced by the addition of clean water from lakes and rivers or precipitation

At the SRSNE Site, the key chemicals of concern are chlorinated solvents.

MNA is an appropriate cleanup approach for groundwater at the Site based on:

- **Historical groundwater data,** which show a declining trend in chemicals of concern over time at most monitoring locations (see companion poster)
- **Hydrogeological and geochemical data,** which demonstrate that conditions are right for MNA
- The documented **presence of microorganisms** capable of breaking down chemicals of concern in the soils of the Site

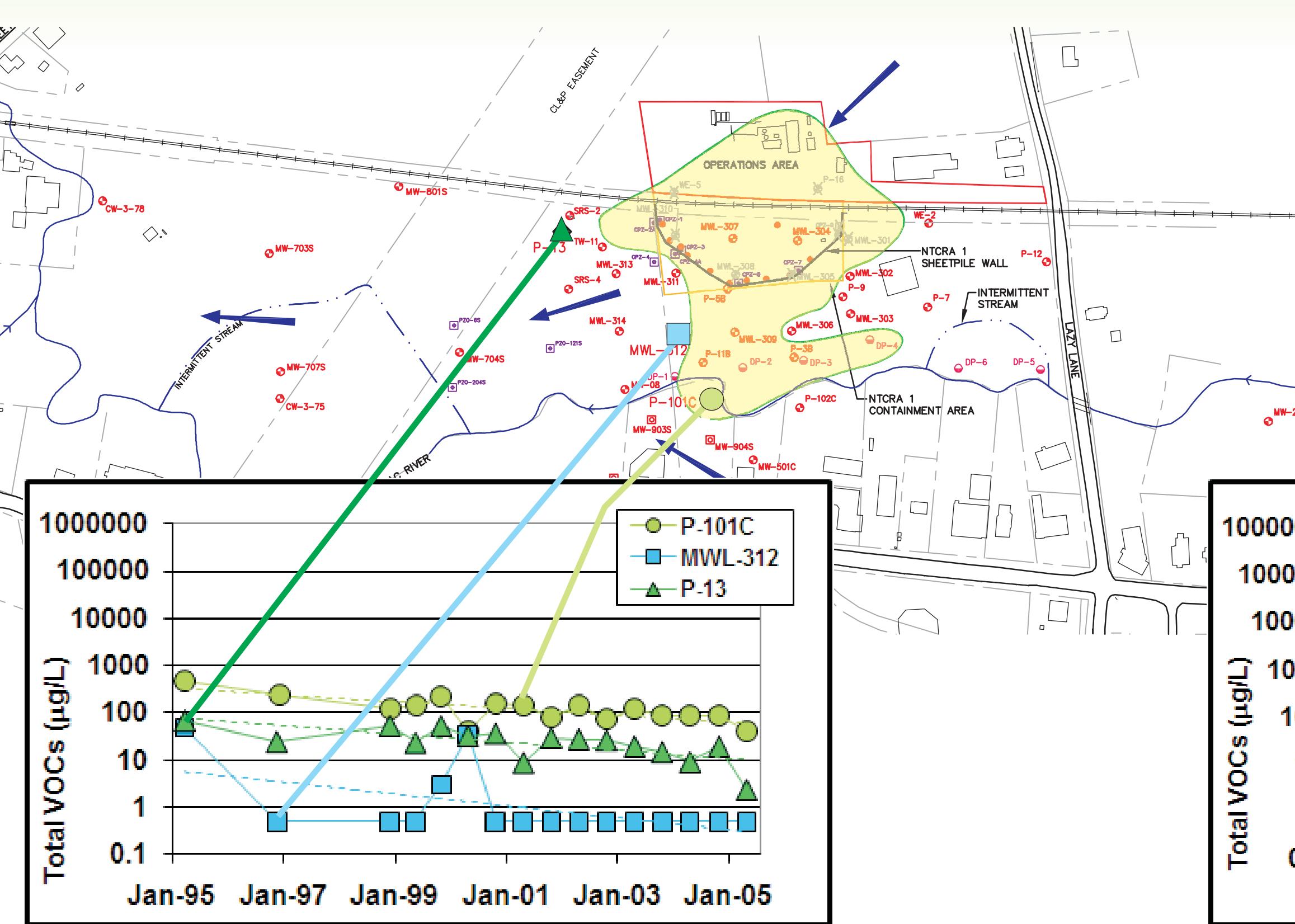


As chlorinated solvents move through the subsurface, some of the liquid may: 1) be trapped in the soil or sediment pores; 2) evaporate (volatilization); 3) become attached to soil particle surfaces (sorption); and 4) dissolve in groundwater (dissolved plume). Some chlorinated solvent liquids are heavier than water and may sink below the water table. As the dissolved plume moves, the concentration of the dissolved chlorinated solvents is lowered by dilution. Microorganisms and chemical reactions may degrade chlorinated solvents that are dissolved, volatilized, or sorbed.

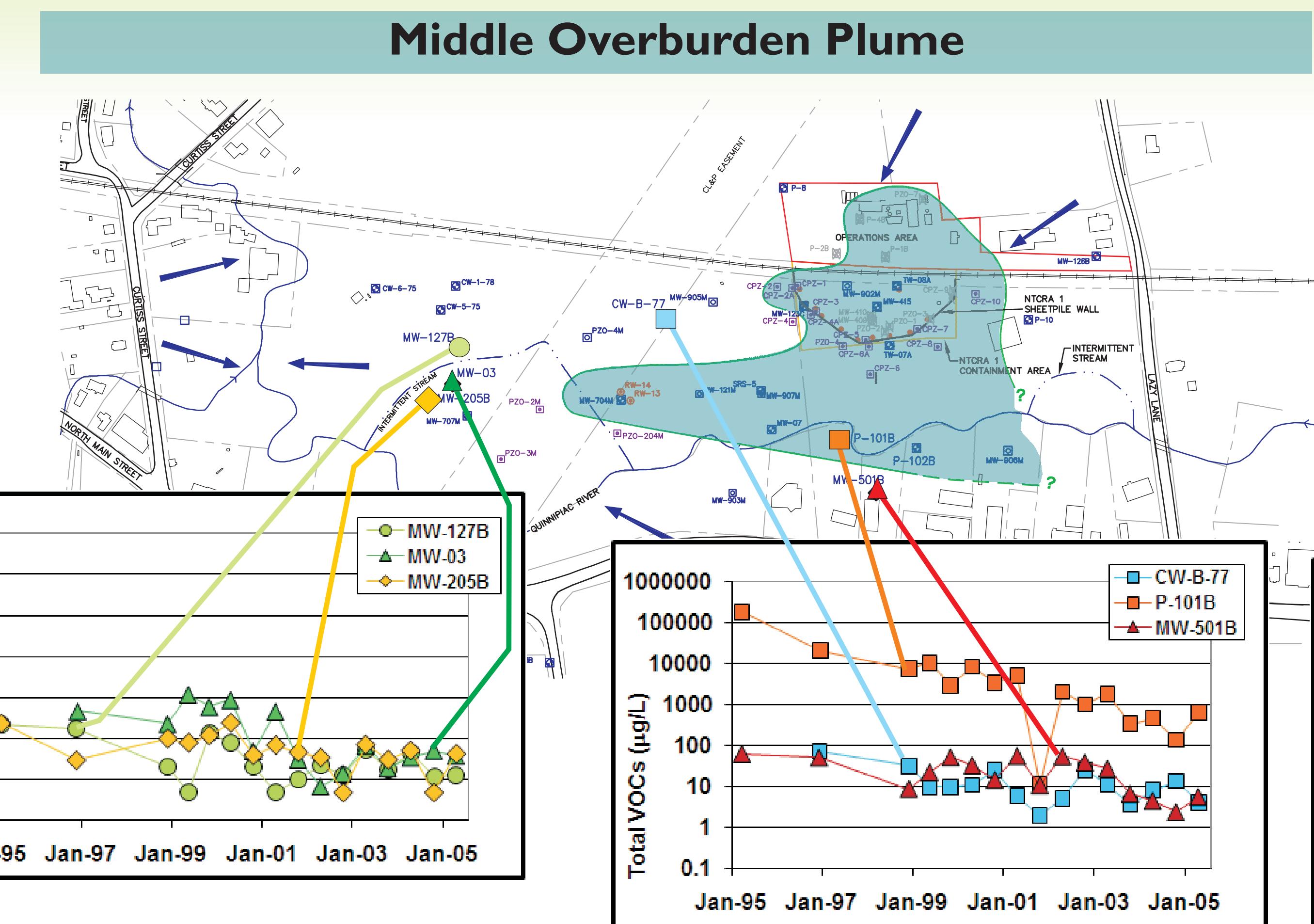
Solvents Recovery Service of New England, Inc. Superfund Site Monitored Natural Attenuation in Groundwater

Changes in Concentrations of Volatile Organic Compounds in Groundwater Over Time at the SRSNE Site

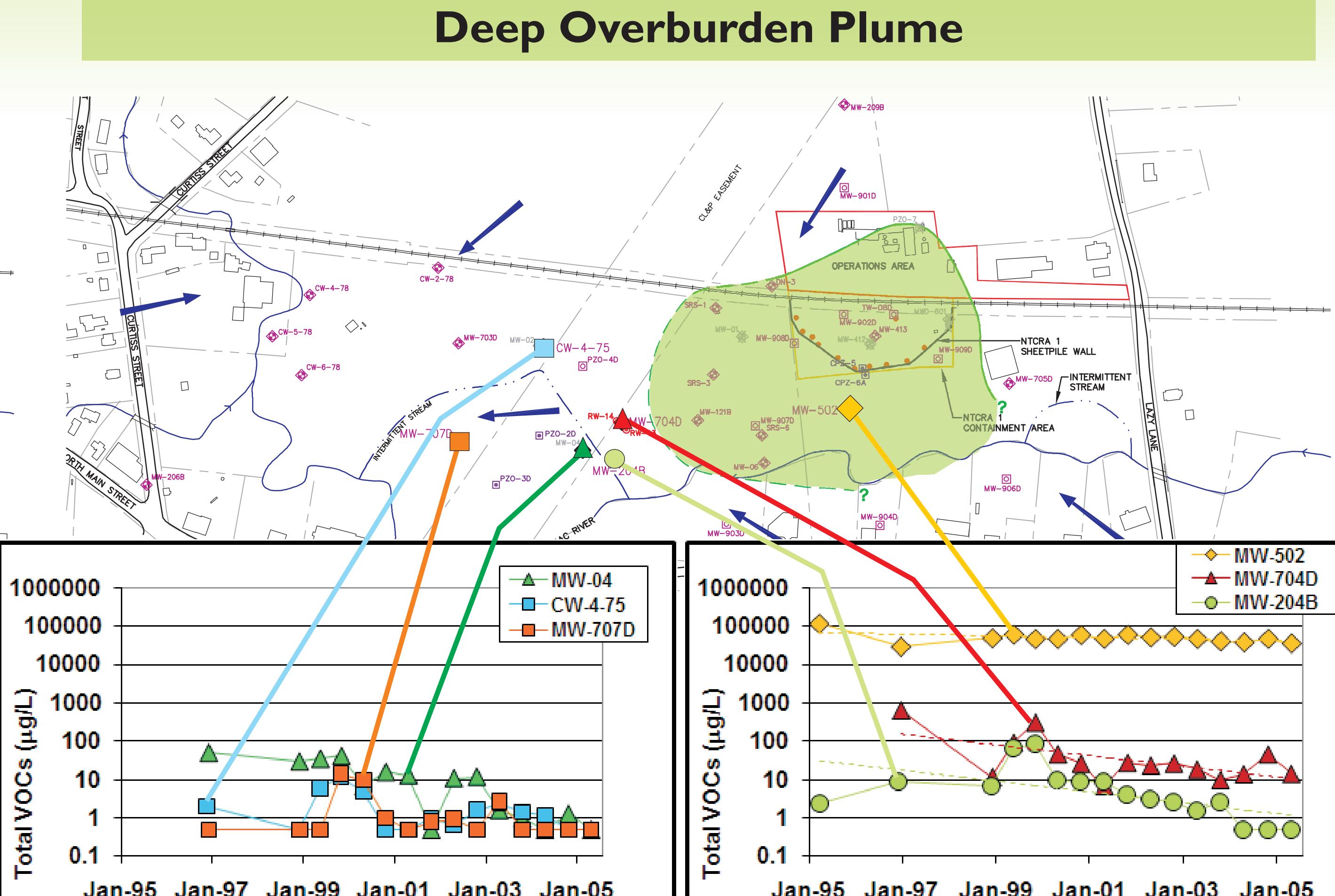
Shallow Overburden Plume



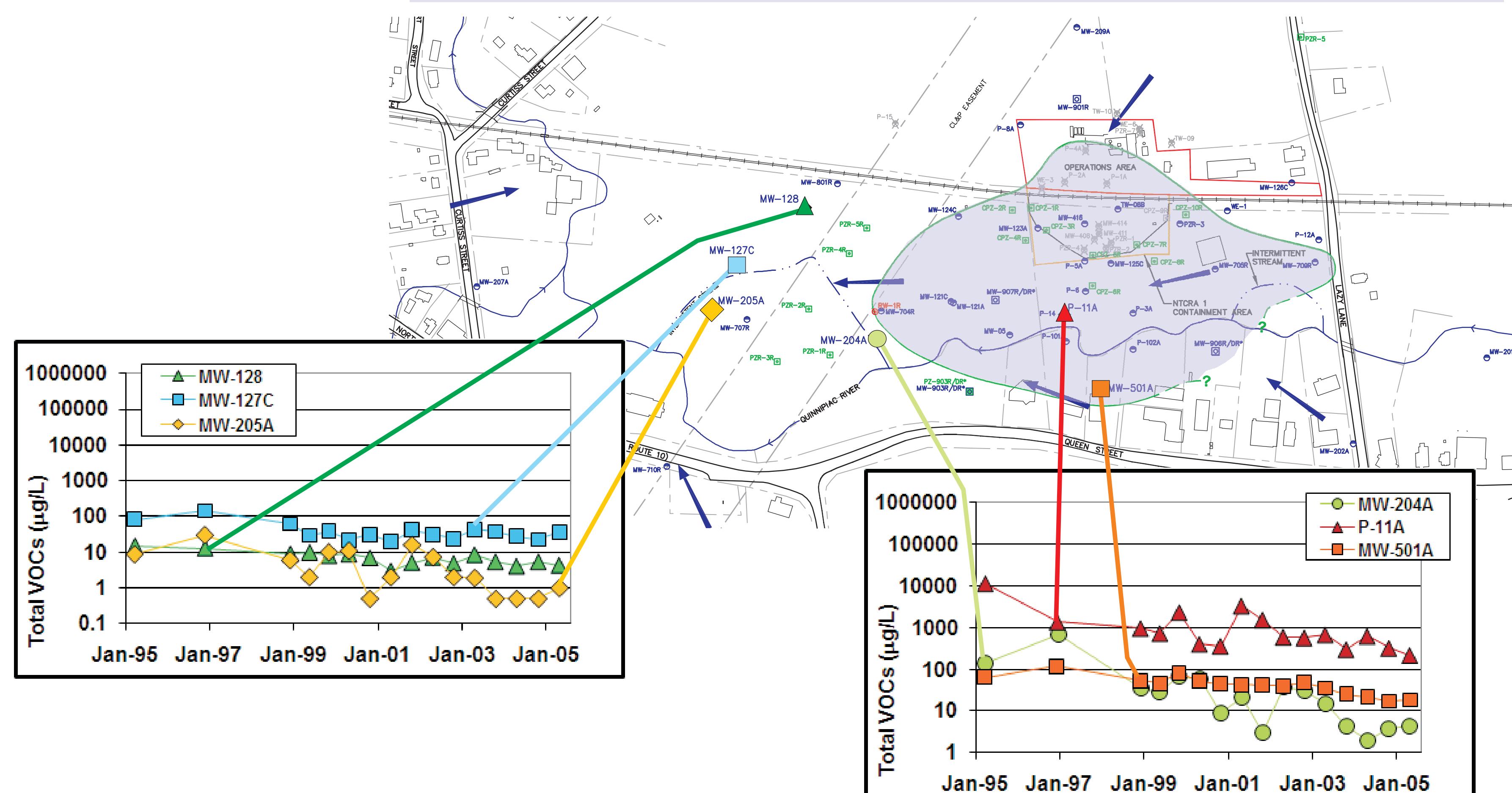
Middle Overburden Plume



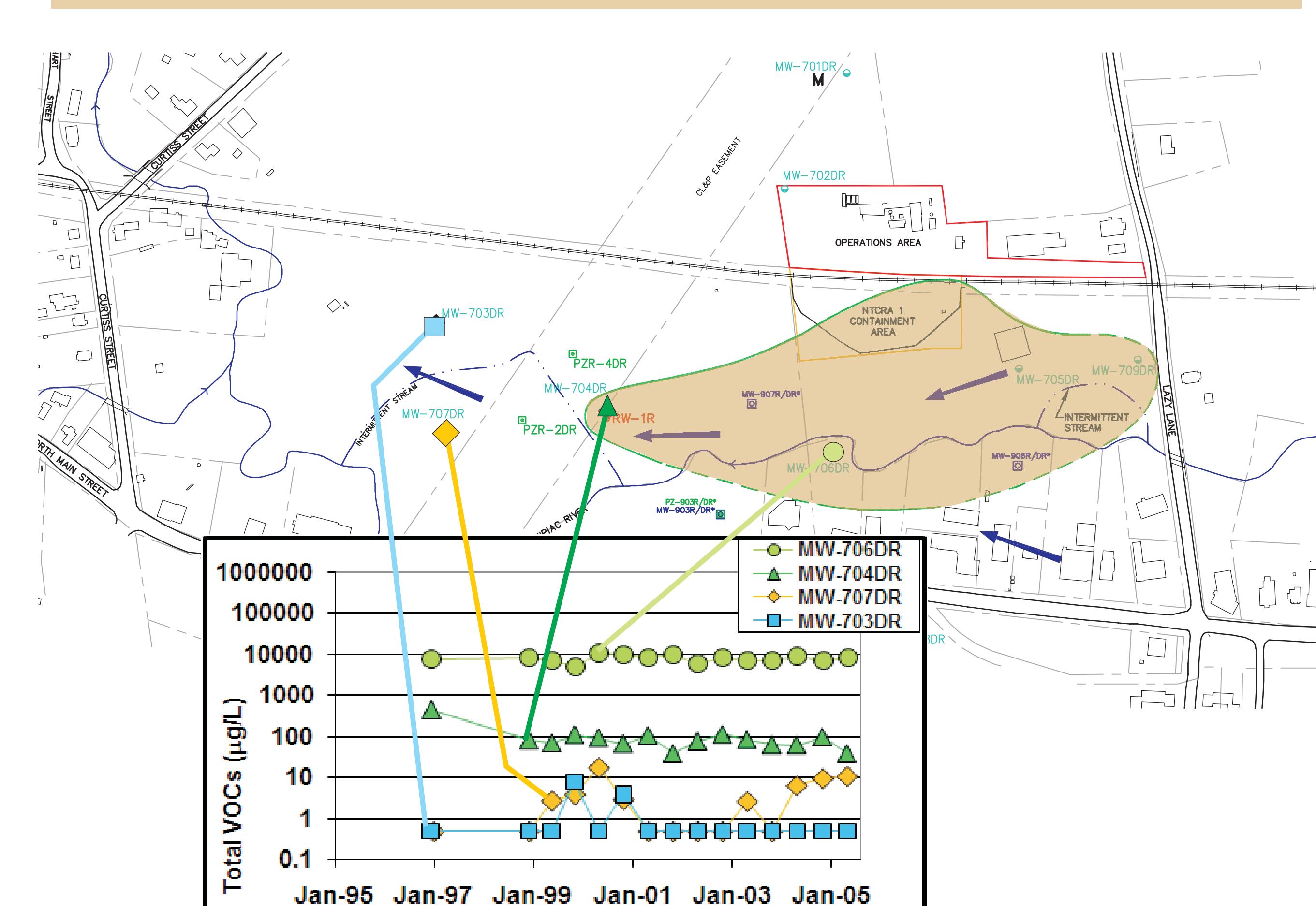
Deep Overburden Plume



Shallow Bedrock Plume



Deep Bedrock Plume

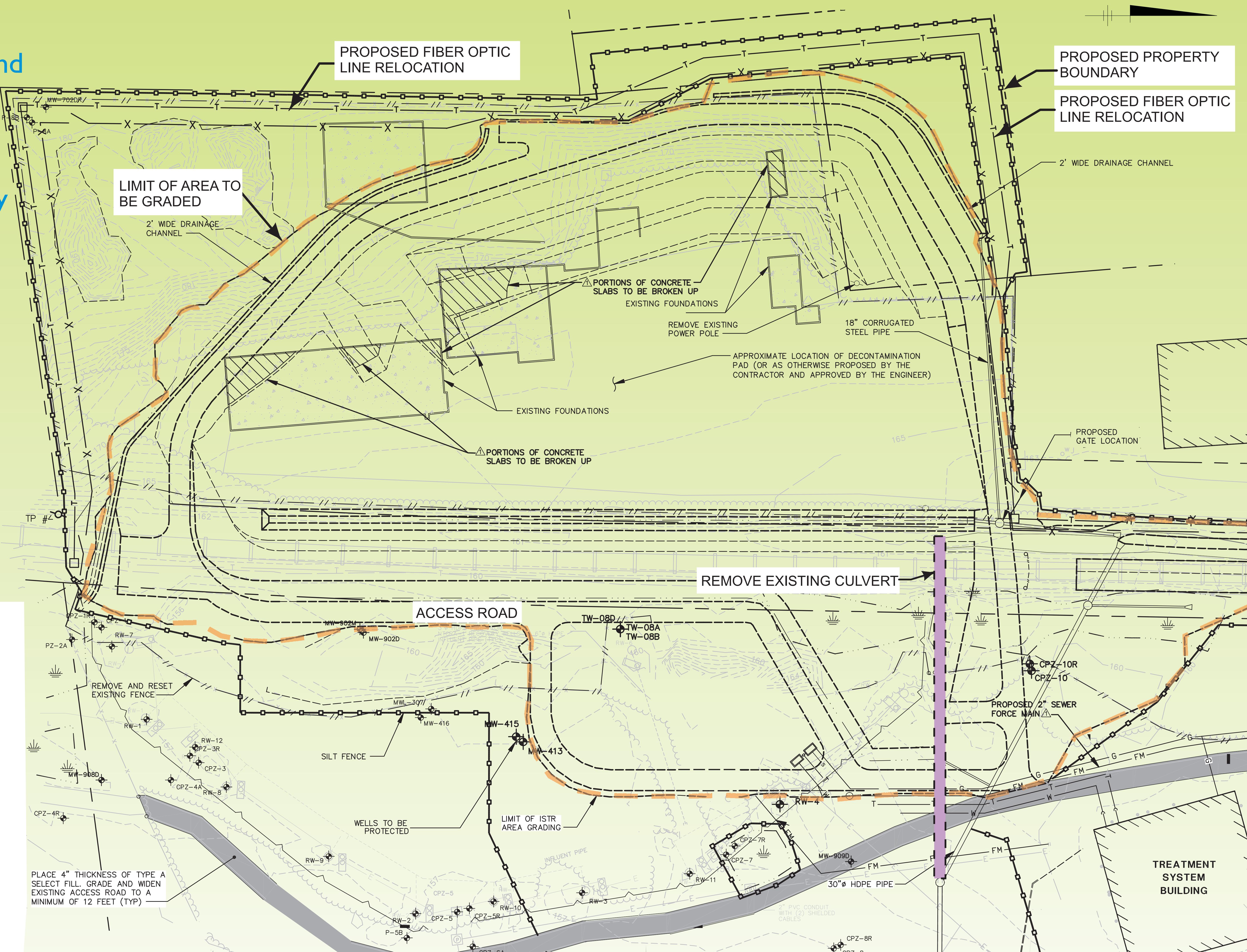
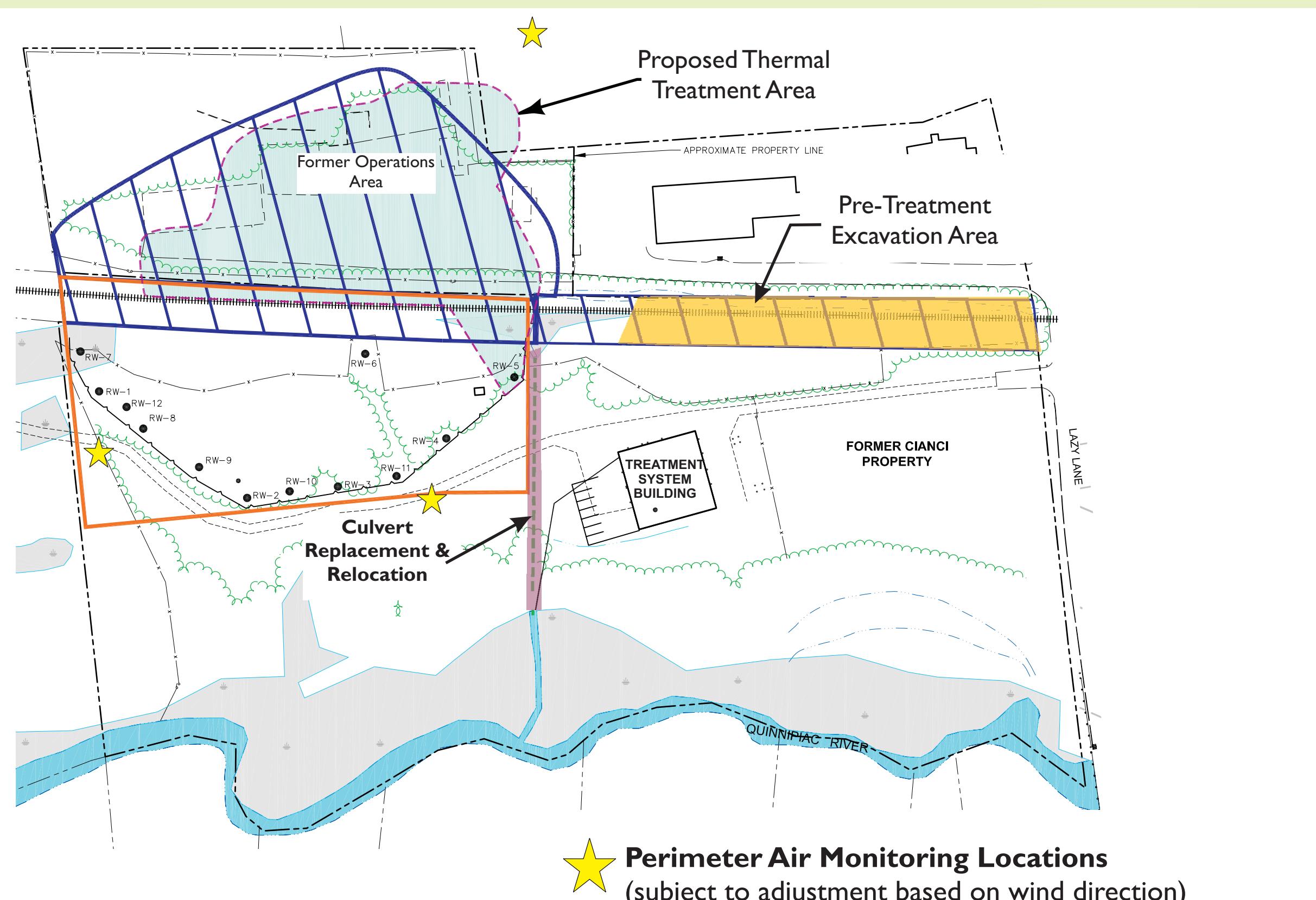


Solvents Recovery Service of New England, Inc. Superfund Site Remedy Component: Thermal Treatment Preparation

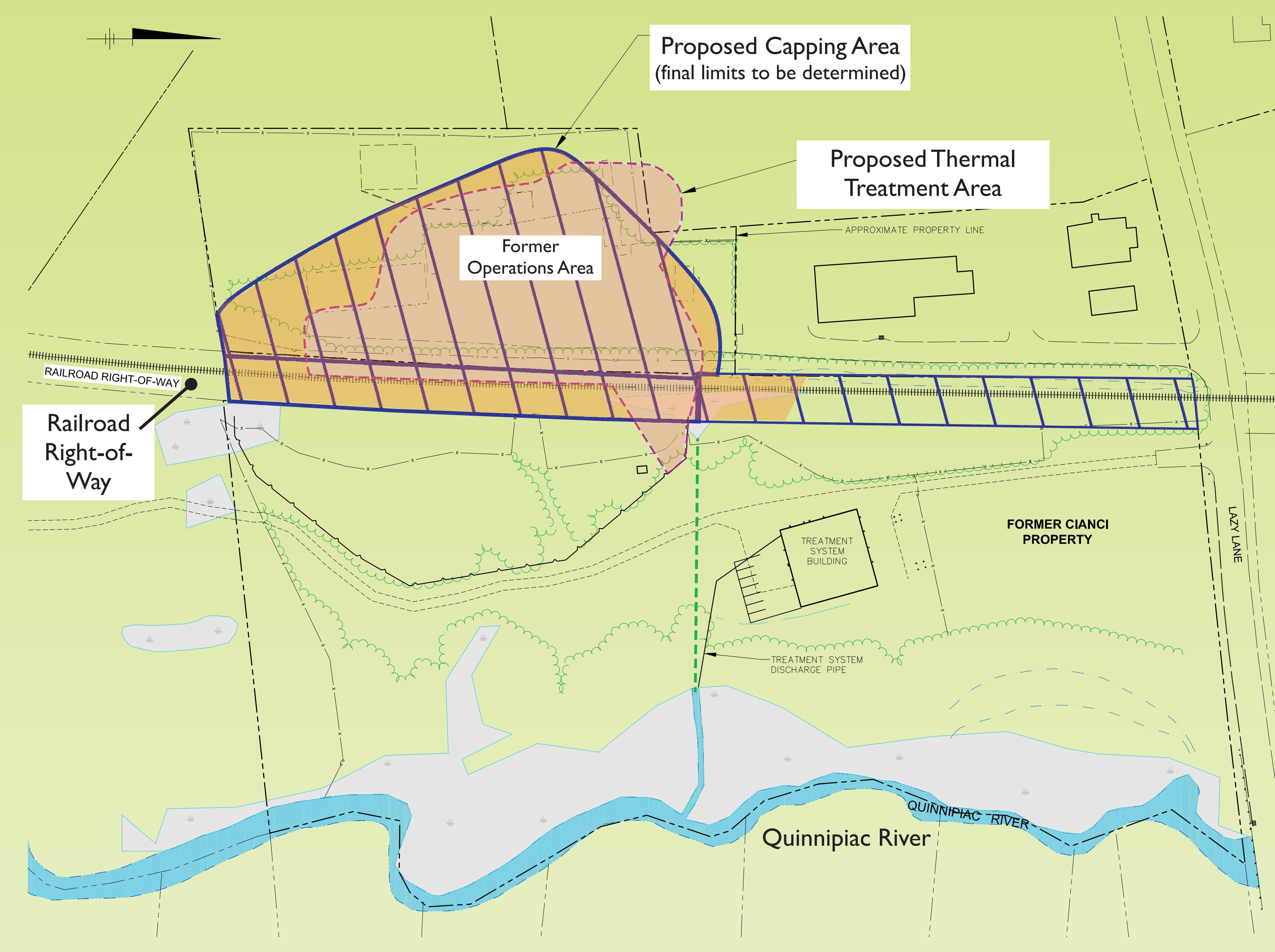
Most of the work in 2010 will be focused on preparing the Site for **Thermal Treatment** and subsequent capping. Activities will include:

- Moving the property fence so it encloses the entire work zone
- Clearing work areas and building temporary access roads
- Rerouting an existing AT&T fiber optic line
- Relocating a drainage culvert
- Excavating targeted soils from along the railroad tracks
- Grading/leveling soils in the treatment area

After the preparatory work scheduled for this fall is complete, the project team plans to build and operate the thermal treatment system beginning in **Spring 2011**.

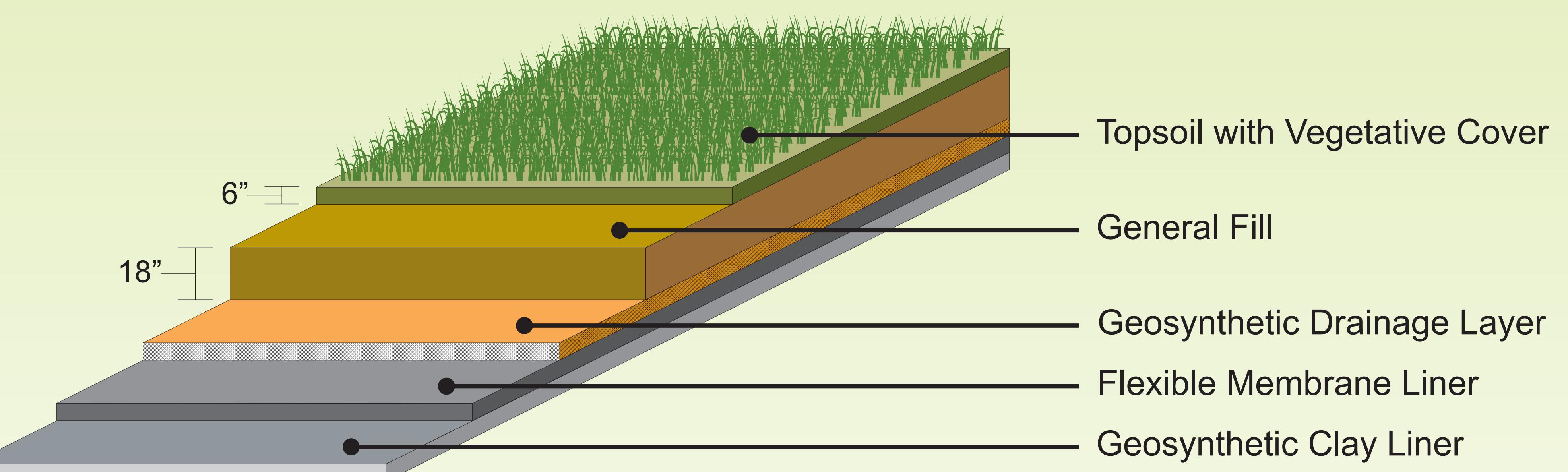


Solvents Recovery Service of New England, Inc. Superfund Site Remedy Component: Capping



After thermal treatment of the soils in the former Operations Area of the SRSNE Site is complete, the area will be covered with a **multiple-layer waterproof cap** (the thermal treatment component is described in Tents #3 and #4). The cap will be designed to **isolate treated soils and materials excavated from other areas of the Site**, and protect human health by preventing people from coming into contact with them.

The boundaries of the area to be capped are not yet finalized. **Additional sampling** is planned as part of the preparatory work for the thermal treatment component of the remedy, and the results of that effort will be used to establish the extent of the multi-layer cover. The various layers of the cap will also be developed later in the engineering design process. The cap will include layers to separate the isolated materials from the clean fill and soil added on top – these liner layers will also keep animals from burrowing down into the treated and consolidated soils. After the liner and drainage layers are in place, clean soil will be added across the entire capping area, and the soil will be planted with native grasses. The cap will be inspected over the long term and repaired as necessary to verify that it continues to function as intended.



Typical Elements of a Multi-Layer Cap



Solvents Recovery Service of New England, Inc. Superfund Site Remedy Component: Excavating & Capping

Soils from **five areas** (defined as part of sampling programs) will be dug up and consolidated in the **proposed capping area**. After excavation and thermal treatment efforts are complete and additional sampling work has been conducted, the final boundaries of the capping area will be established, and the multi-layer cap will be installed. Then a **new trail** along the rails-to-trails corridor will be paved between Lazy Lane and Curtiss Street.

