



Site Update Meeting

459-471 Watertown Street &
320 Nevada Street
Newton, MA
RTN 3-0033794

December 13, 2022



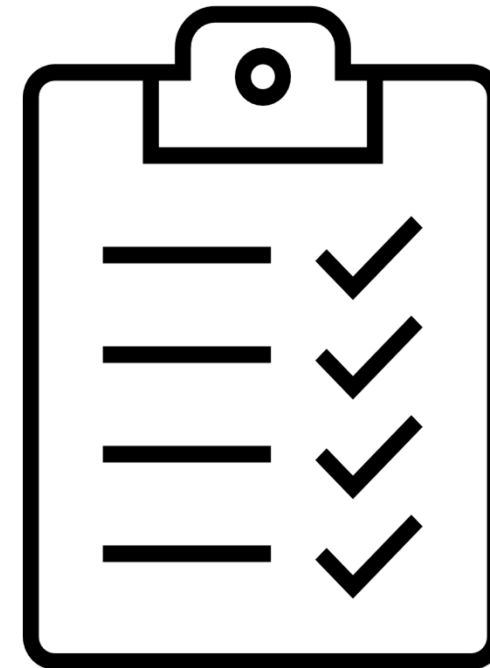
Housekeeping

- ▶ Please sign in
 - Sign-in sheet
 - Public Involvement Plan mailing list
- ▶ Emergency Exits
- ▶ Hold questions until Q&A session at end



Presentation Agenda

- ▶ Introductions
- ▶ Site Background
- ▶ Phase II Results
- ▶ Notice of Audit Findings
- ▶ Supplemental Phase II Scope of Work
- ▶ Question and Answers

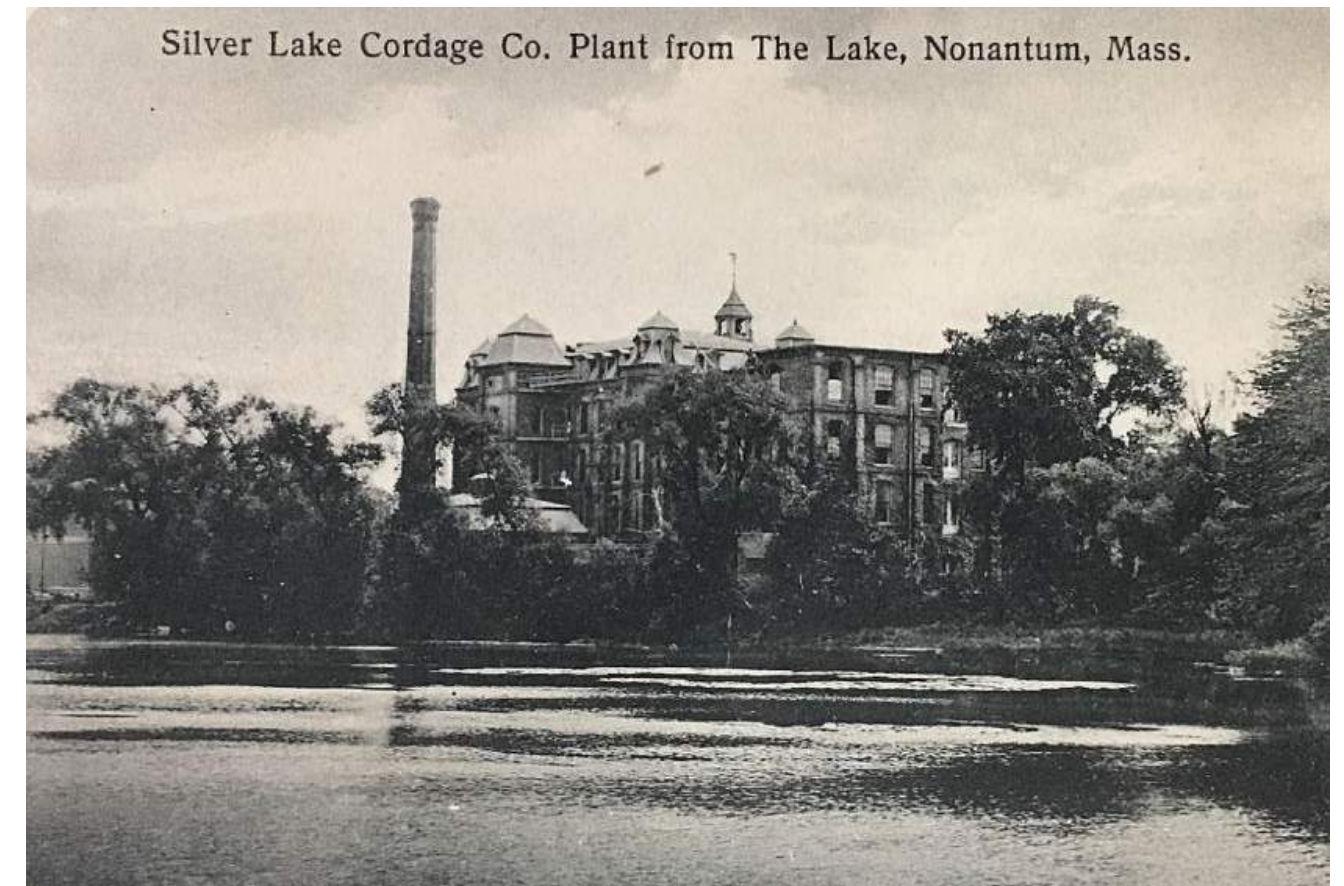


Acronyms

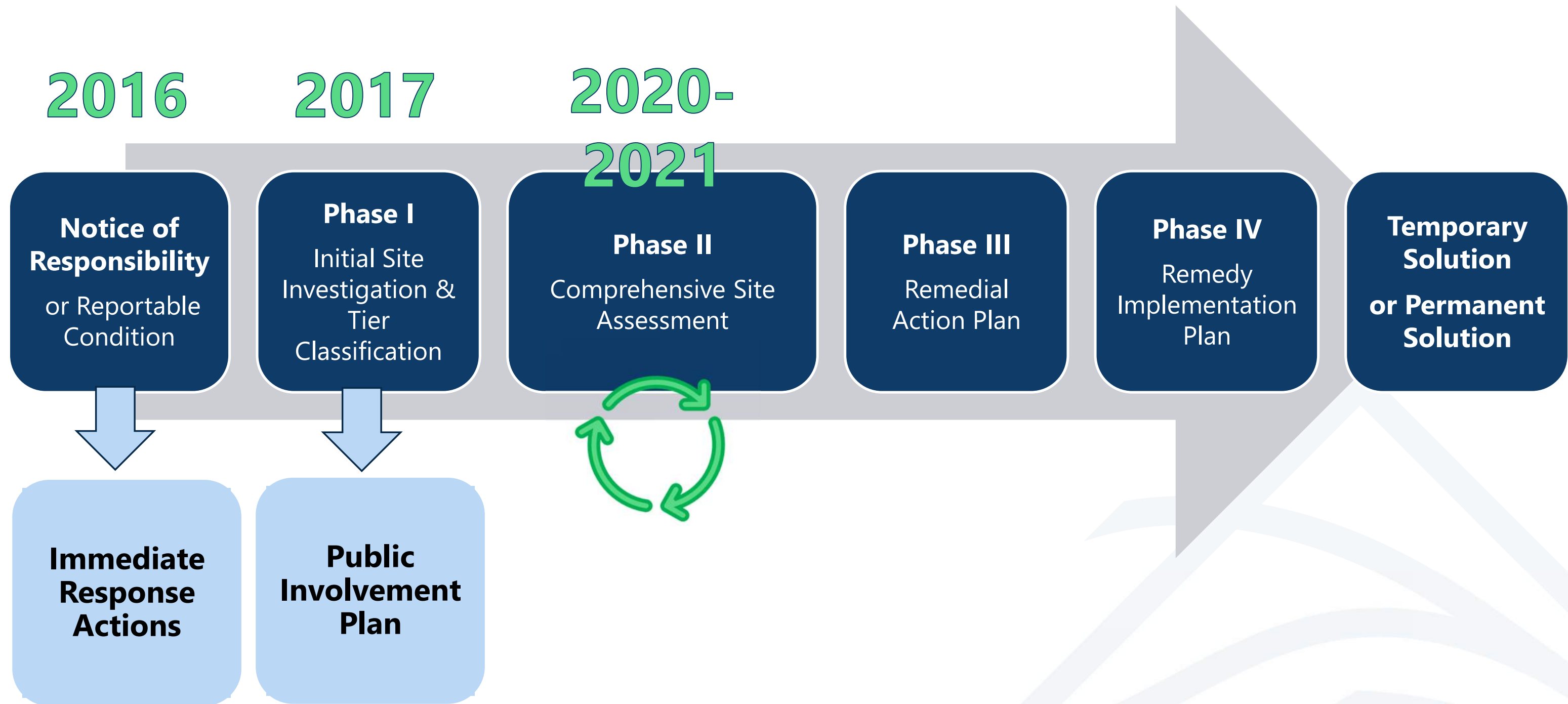
- ▶ MCP = Massachusetts Contingency Plan, 310 CMR 40.000
- ▶ MassDEP = Massachusetts Department of Environmental Protection
- ▶ PIP = Public Involvement Plan
- ▶ LSP = Licensed Site Professional
- ▶ CVOCs = Chlorinated Volatile Organic Compounds
- ▶ TCE = Trichloroethylene
- ▶ SSD = Sub-slab depressurization
- ▶ NOAF = Notice of Audit Findings
- ▶ CSA = Comprehensive Site Assessment

Overview of Involved Parties

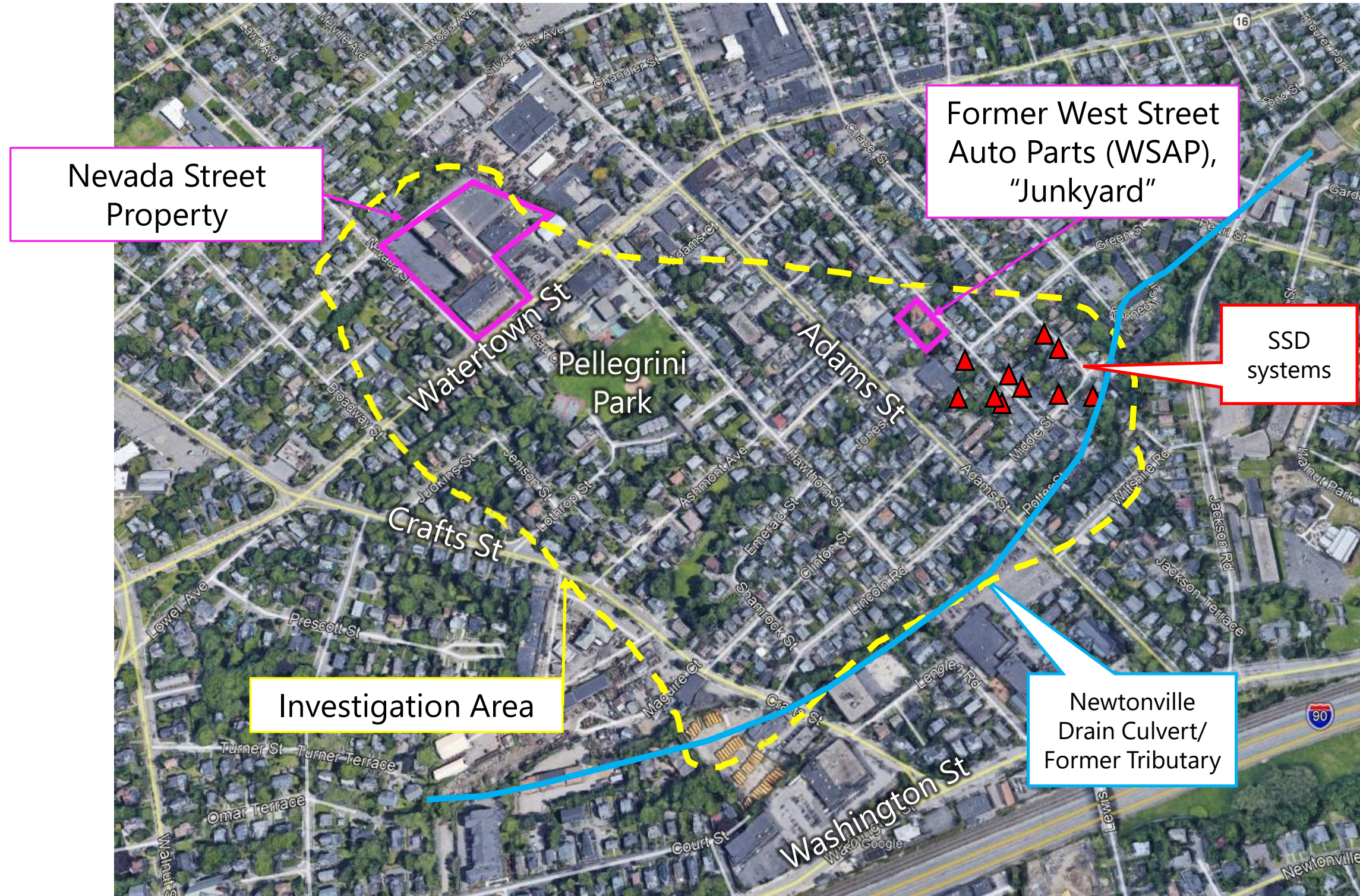
- ▶ MassDEP – regulatory agency
- ▶ One Nevada Realty, LLC – current Property owner
 - O'Reilly, Talbot & Okun – environmental consultant
- ▶ Northrop Grumman – acquired TRW, former Property owner
 - Woodard & Curran – environmental consultant
 - Lisa Campe – LSP of Record



Massachusetts Contingency Plan Roadmap



Investigation Area

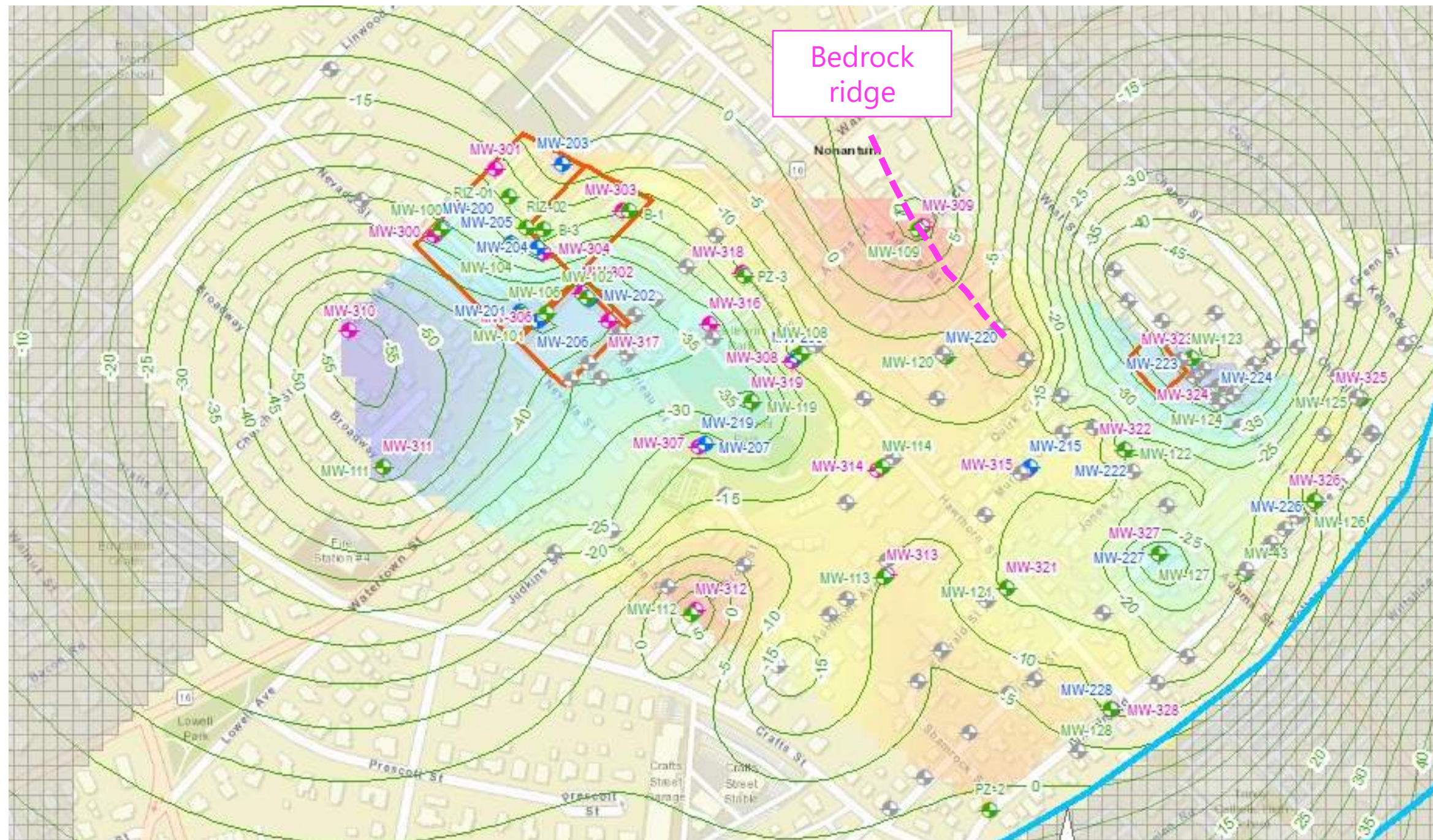


Summary of Field Investigation Activities

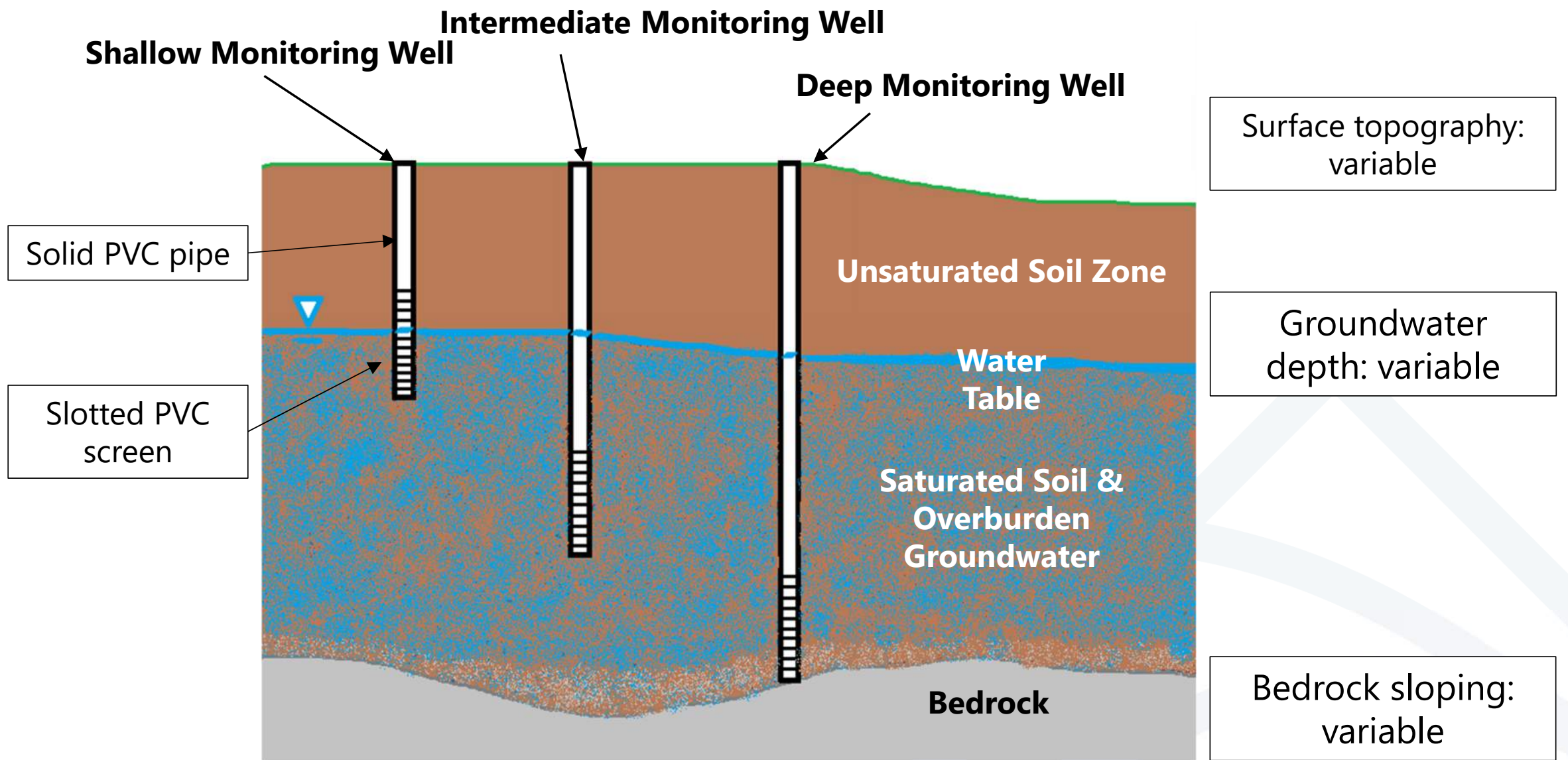
- ▶ Regional bedrock surveys
- ▶ Soil borings, groundwater profiles, monitoring wells
- ▶ Soil and groundwater sample analysis for contaminants
- ▶ Environmental forensics to differentiate CVOC sources
- ▶ Monitored groundwater flow patterns
 - Manual measurements and computer model



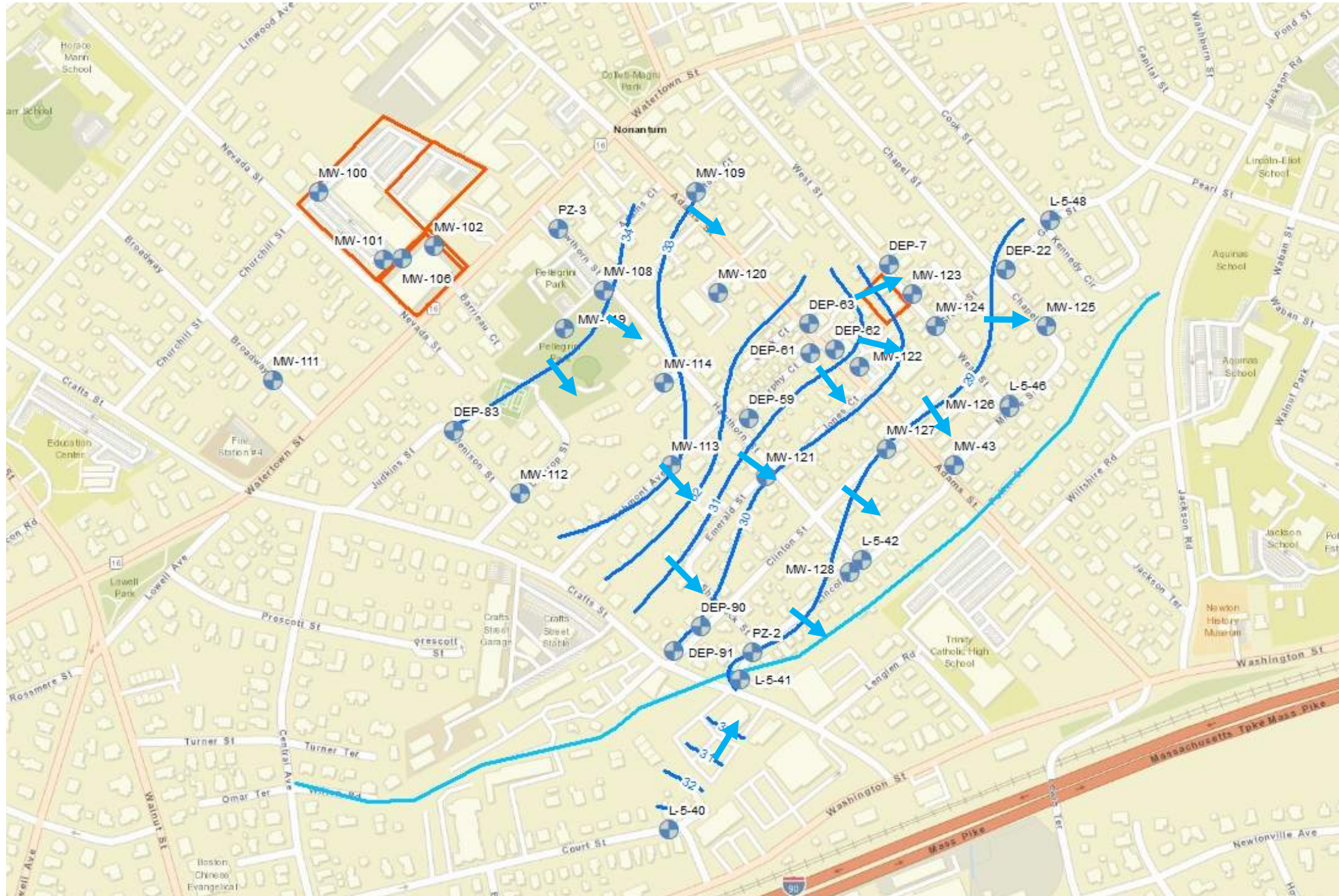
Bedrock Surface Elevation



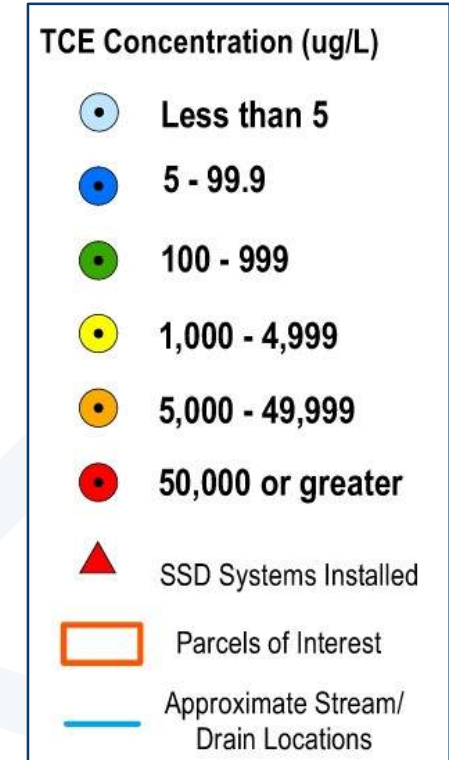
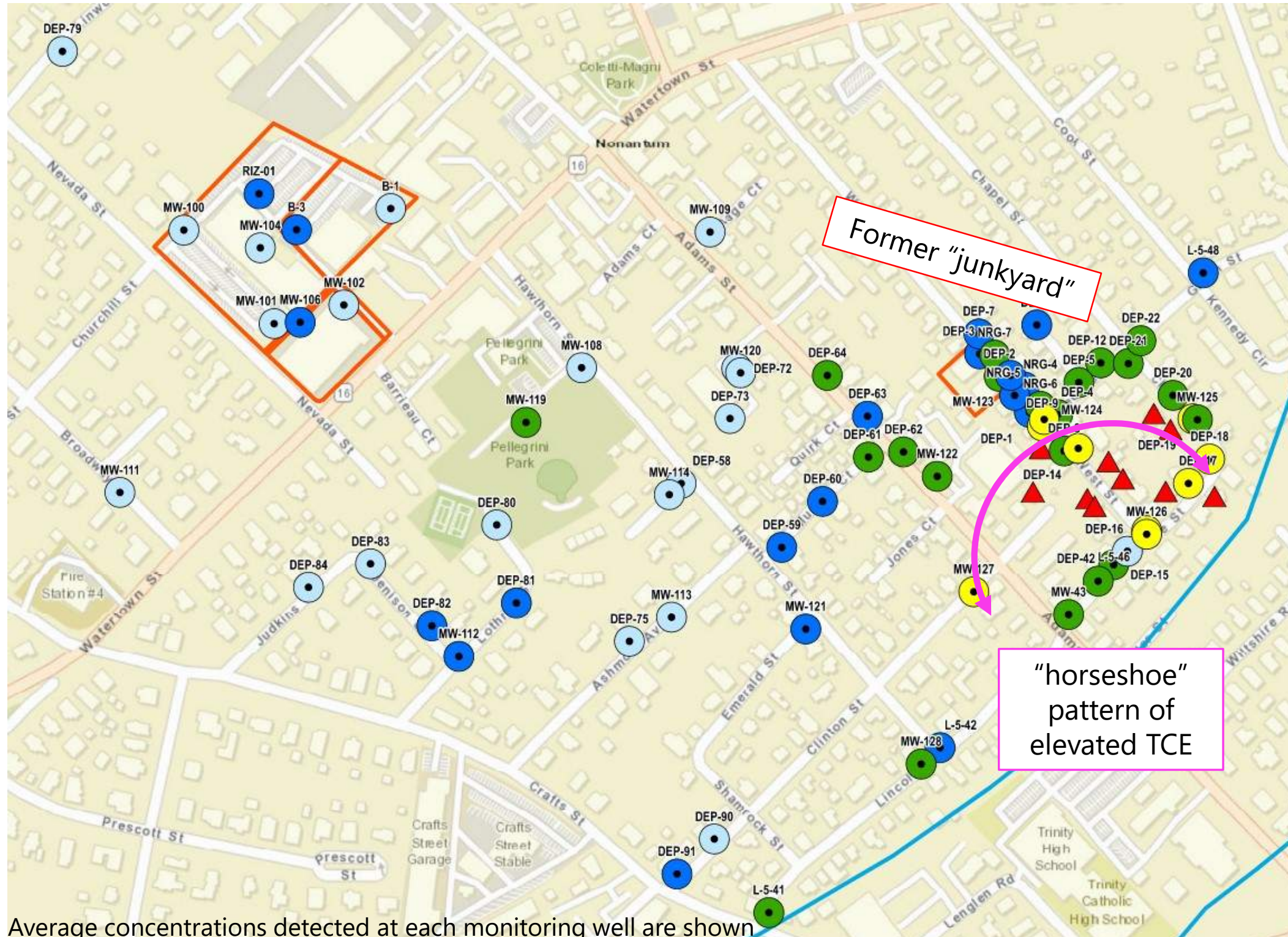
Groundwater Monitoring Wells



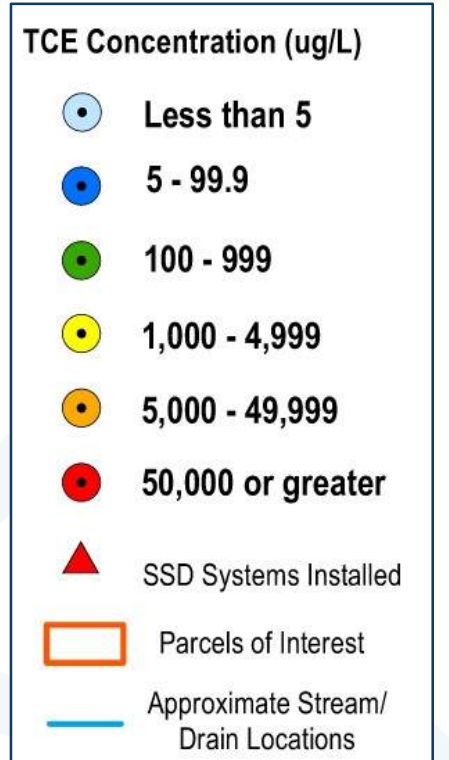
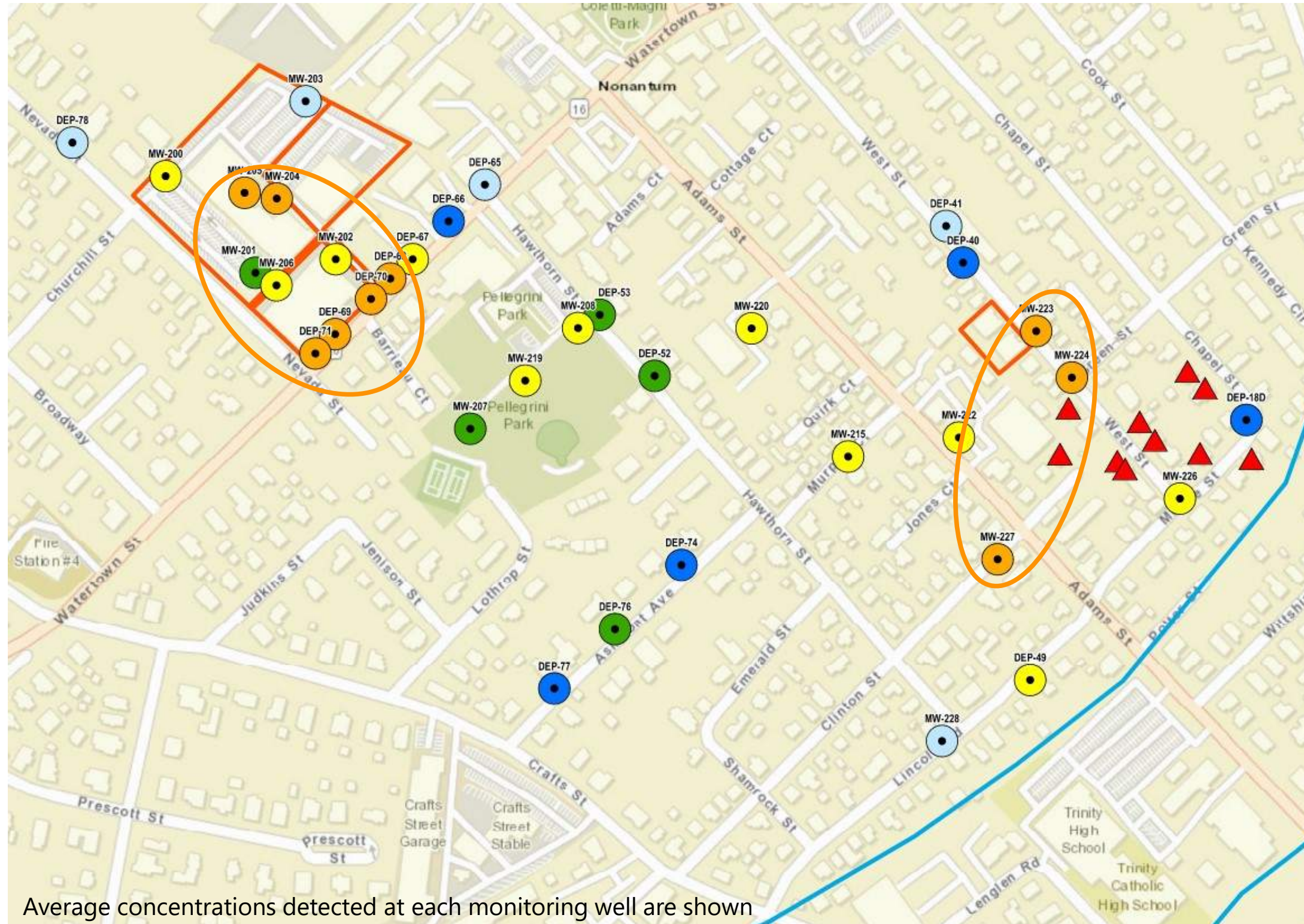
Groundwater Flow



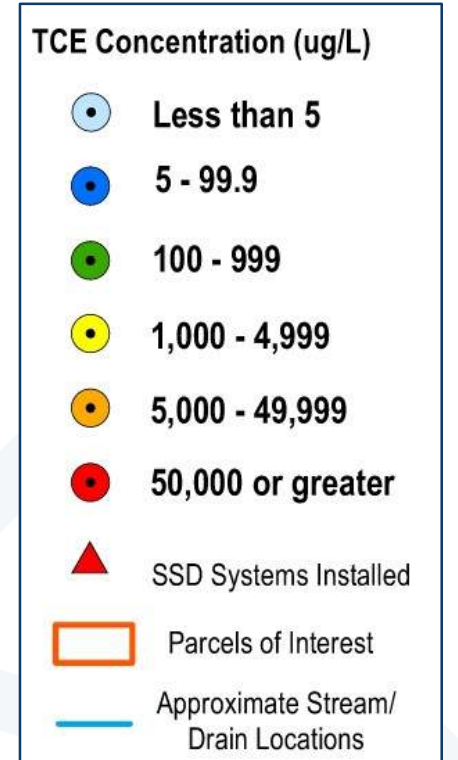
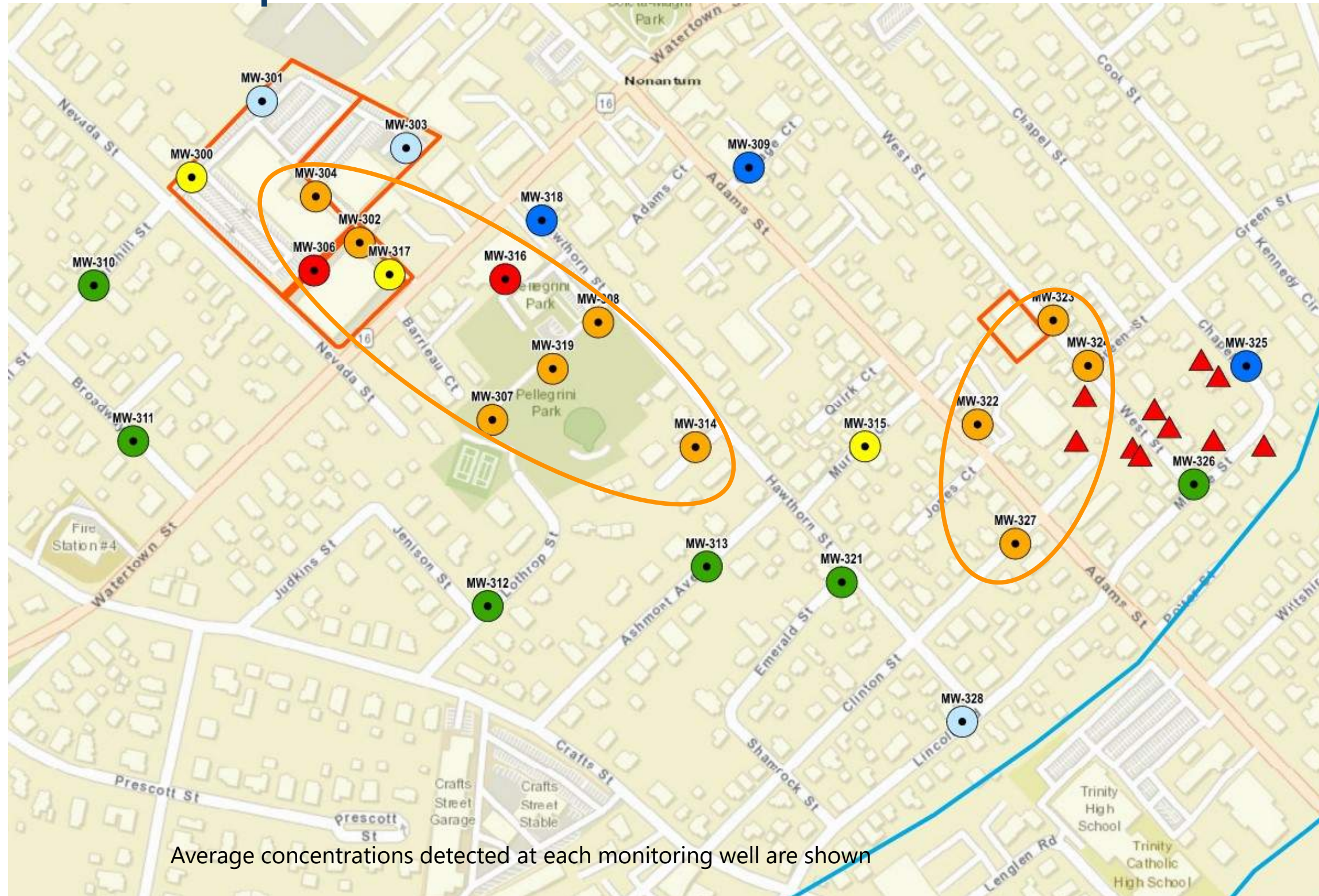
TCE in Shallow Groundwater



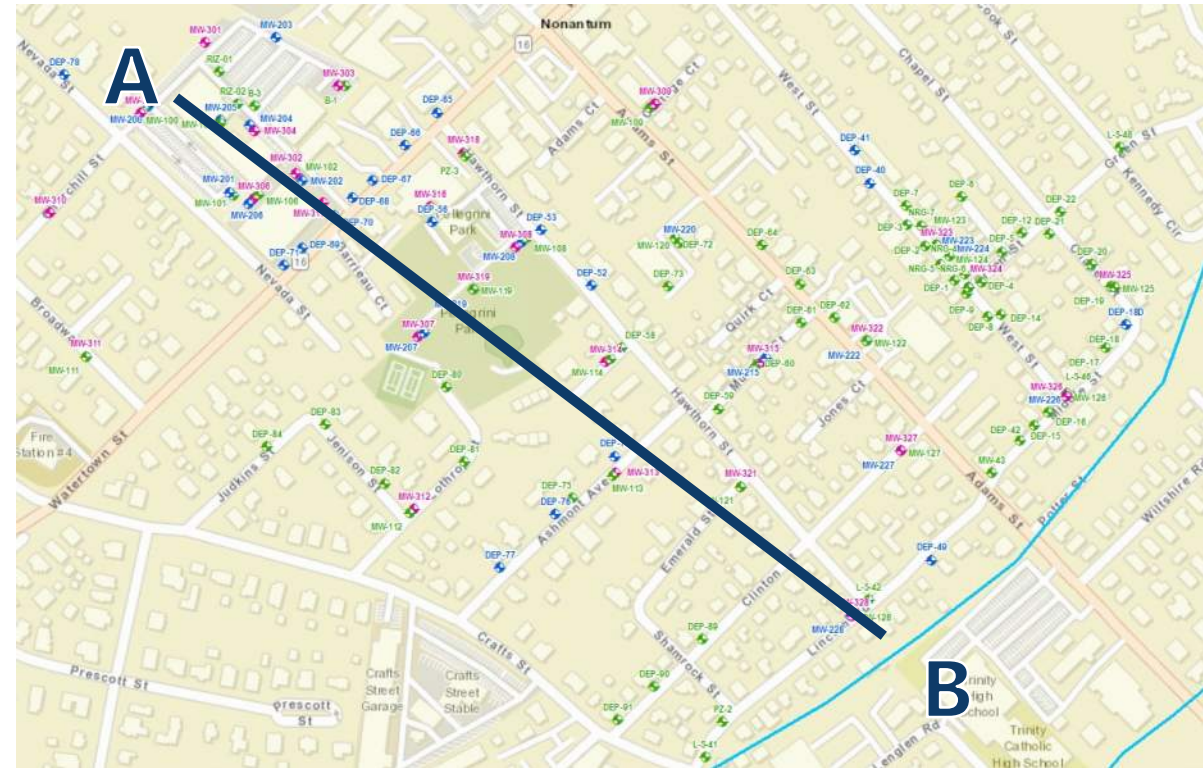
TCE in Intermediate Groundwater



TCE in Deep Groundwater



TCE in Cross-Section

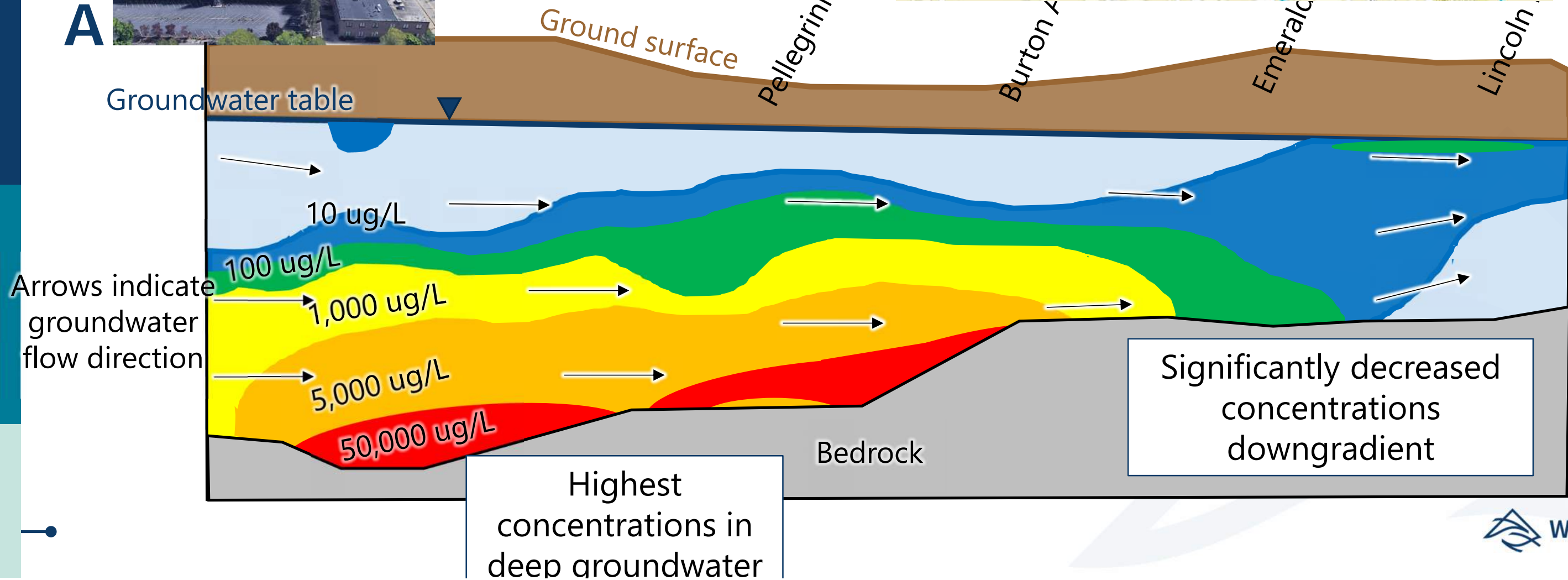


Nevada Street Property



A

B
Newtonville Drain



Phase II Comprehensive Site Assessment Objectives

1. Source Areas

- Identify the source(s) of contamination at the Site

2. Nature and Extent

- Determine where contamination is present

3. Risk Characterization

- Determine who is exposed to contamination, and if exposure poses a potential health risk

4. Next Steps

- Assess the need to conduct additional remedial actions at the Site, or “close out” the Site

Disposal Site Boundary: Key Lines of Evidence

1. Horizontal groundwater flow



2. Vertical groundwater flow



3. CVOC concentrations/
patterns

4. Geochemical forensics

- Chemical "fingerprint"

5. Groundwater flow model

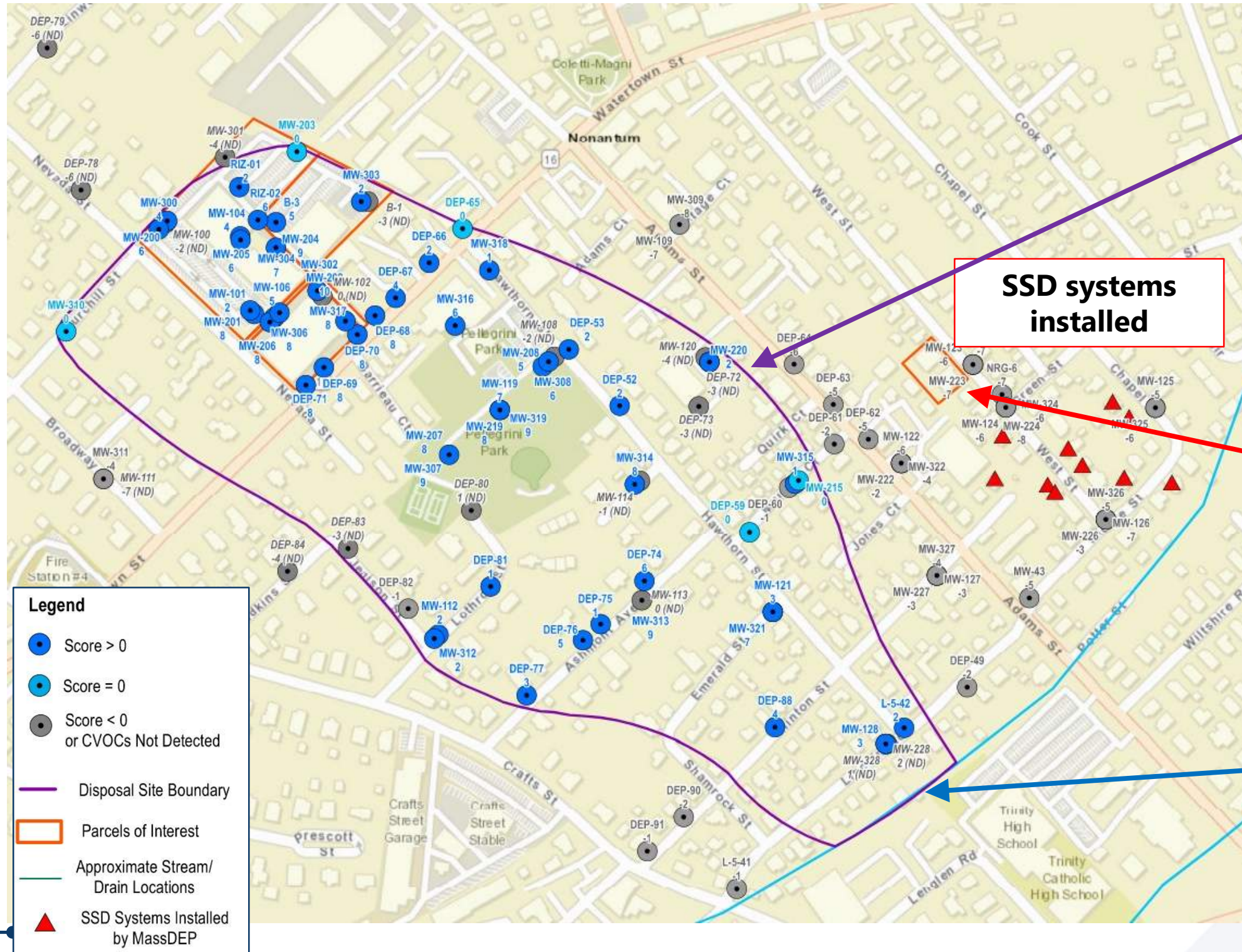
- How water moves

Phase II Results: Source and Conceptual Site Model

- ▶ Pre-1980s TCE release(s) at the Nevada Street Property
- ▶ TCE historically stored and used in metal plating and electroplating
- ▶ TCE in soil gas and indoor air
- ▶ TCE in intermediate and deep groundwater and soil
- ▶ TCE moved off-Property in intermediate and deep groundwater



Phase II Results: Disposal Site Boundary



- ▶ CVOCs from Nevada Street Site do not cross east of Adams Street
- ▶ Homes with vapor intrusion impacts are outside the DSB
- ▶ West Street Auto Parts Site more likely source of vapor intrusion
- ▶ CVOC concentrations in groundwater decrease before reaching the Newtonville Drain

Phase II Results: Risk Assessment

Risk Assessment: Tool used to evaluate *potential* adverse health effects to people and the environment from Site-related contaminants.

Risk Assessment does not measure or indicate actual health effects.

MCP Risk Characterization

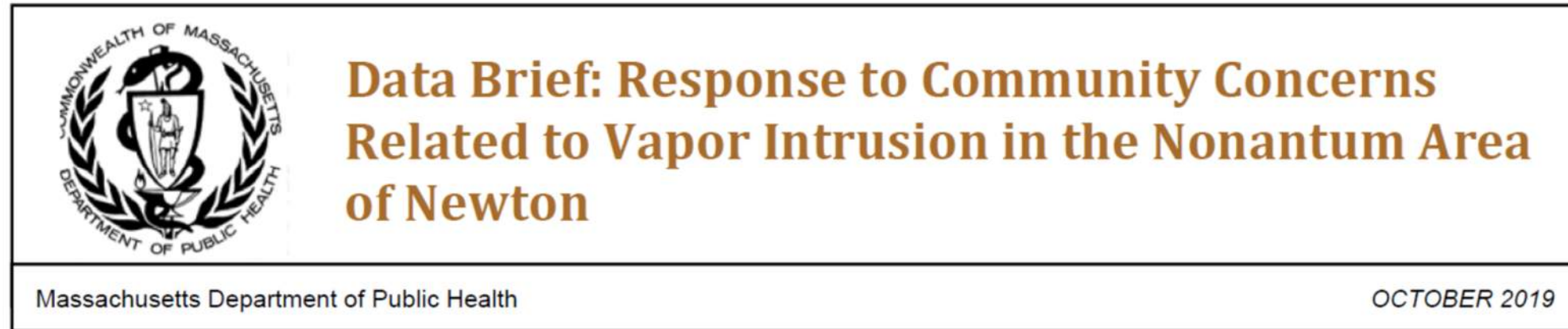
- Human Health
- Public welfare
- Safety
- Environment



Result:
No Significant Risk



Massachusetts Department of Public Health Study (2019)

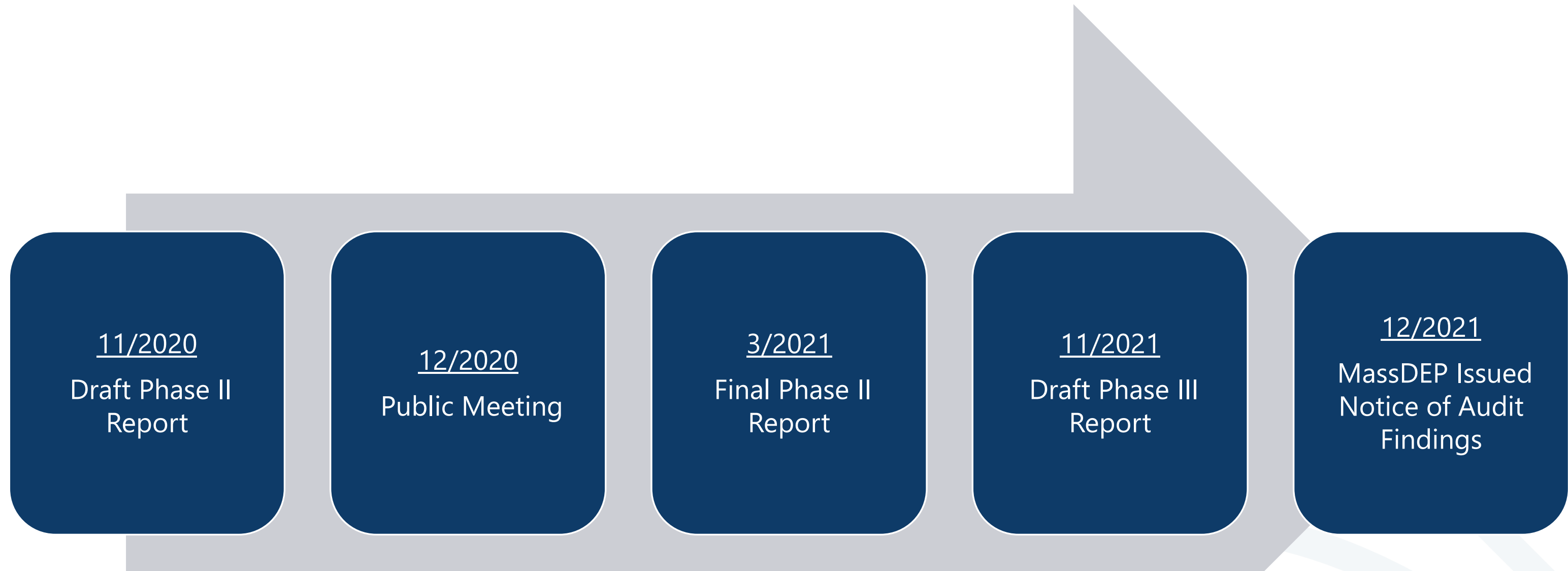


- **Evaluated cancer rates and congenital heart defects in census tracts proximate to Site**
- **No unusual health patterns were observed**

Report available at:

<https://www.mass.gov/doc/data-brief-response-to-concerns-related-to-vapor-intrusion-in-the-nonantum-area-of-newton/download>

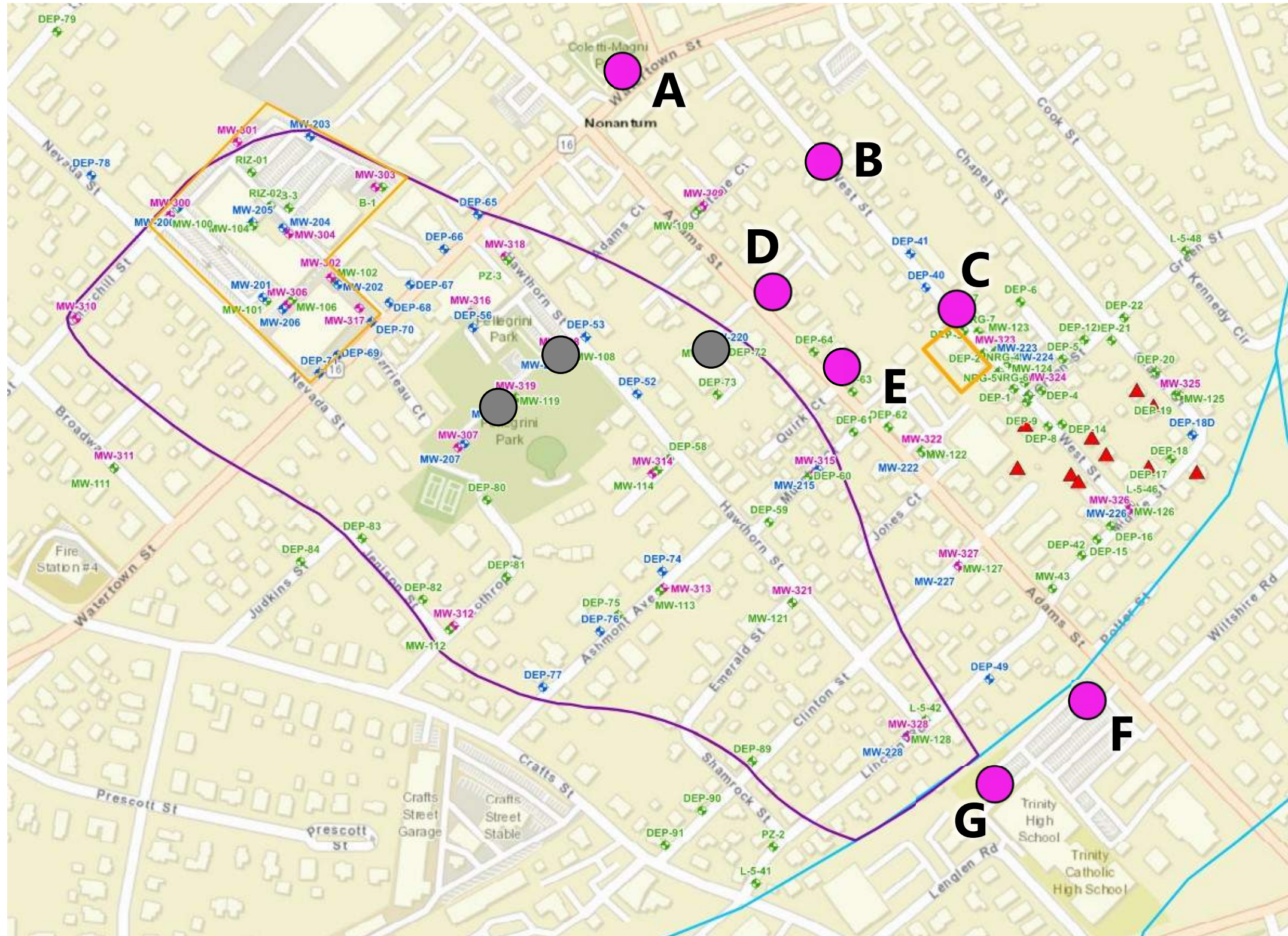
Phase II Timeline: 2020-2021



NOAF: Summary of MassDEP Comments

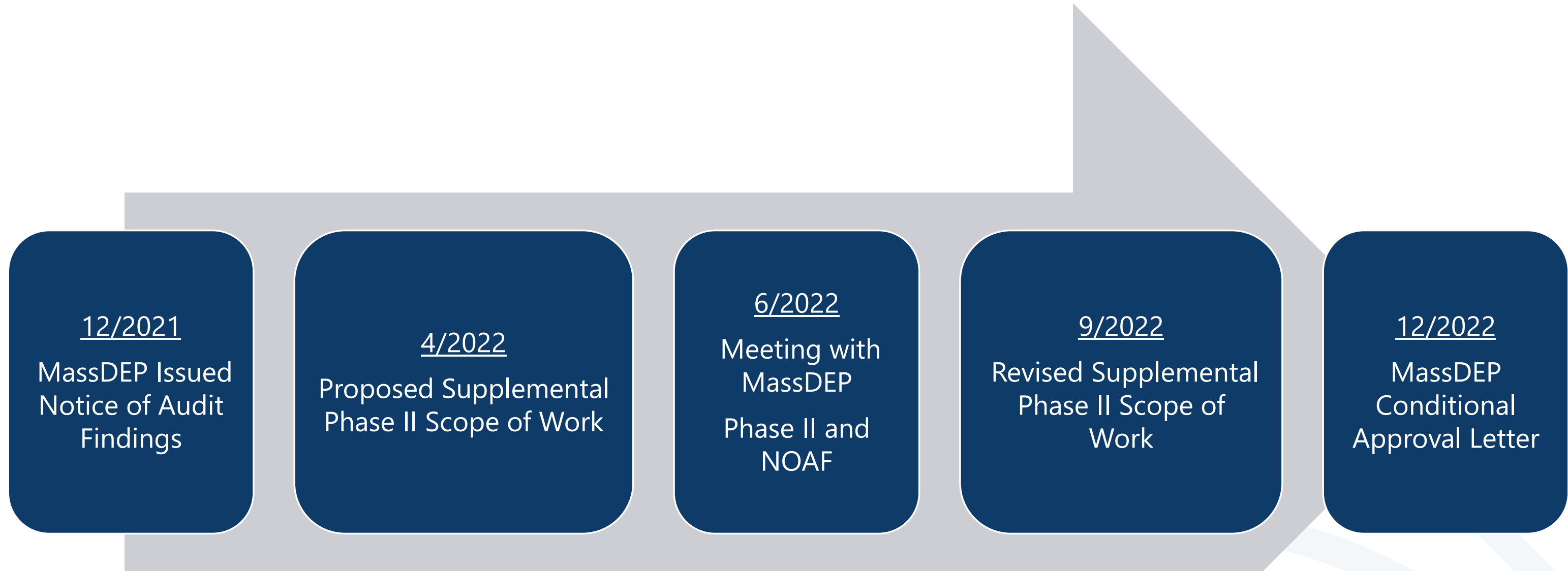
- ▶ Agreed that both the Nevada Street Site and West Street Used Auto Parts Site were sources of CVOCs
- ▶ Additional investigations recommended:
 - Install wells south of Newtonville Drain
 - Assess upgradient of WSAP
 - Further assess groundwater flow near Adams Street
 - Further assess Site boundary to the east
 - Investigate sewer and subdrain system
 - Investigate bedrock
- ▶ Revisit lines of evidence and scoring method
- ▶ Prepare a Phase II Addendum Report with new information

Proposed Supplemental Investigations



● New well triplets

Phase II Response Timeline



Summary of Next Steps

Spring 2023

- Profiling and well installation

Summer
through Winter,
2023

- Groundwater monitoring

2024

- Phase II Addendum Report
- Public Meeting



Thank You!

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