



AGENDA

- Welcome & Introductions
- Opening Agency Remarks (Jeff Wilcox with CTDEEP)
- Summary of Assessment Activities
- Proposed Remedial Action Plan
- Questions and answers and opportunity for public comment

QUESTIONS & PUBLIC COMMENTS

Tonight:

- Enter comments/questions into Zoom chat
- Please provide your name and email with your question or comments
- All your questions/comments will be maintained as part of this meeting's record
- Written Comments can be submitted to:
 - Jeffrey Wilcox
 CT DEEP
 79 Elm Street
 Hartford, CT 06106
 Jeff.wilcox@ct.gov
- Public comment period runs through January 17, 2023
- All materials and this meeting will be posted on the BOE website at: https://www.greenwichschools.org/departments/facilities-rentals/building-grounds-projects/western-middle-school-fields



AGECNY & TOWN REPRESENTATIVES

Regulatory Agencies

- Connecticut Department of Energy and Environmental Protection (CTDEEP): Jeffrey Wilcox
- United States Environmental Protection Agency (USEPA): Katherine Woodward



Greenwich Public Schools

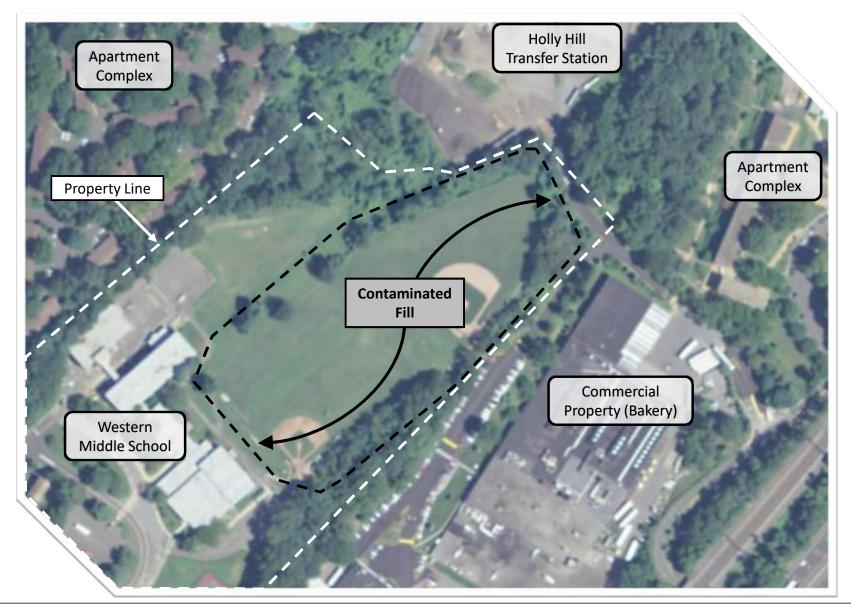
- Dr. Toni Jones: Superintendent
- Daniel Watson: Director of School Facilities

Environmental Investigation & Remediation

- Langan Engineering: Ryan J. Wohlstrom & Jamie P. Barr
- AECOM: Patrick Haskell & Daniel Seremet

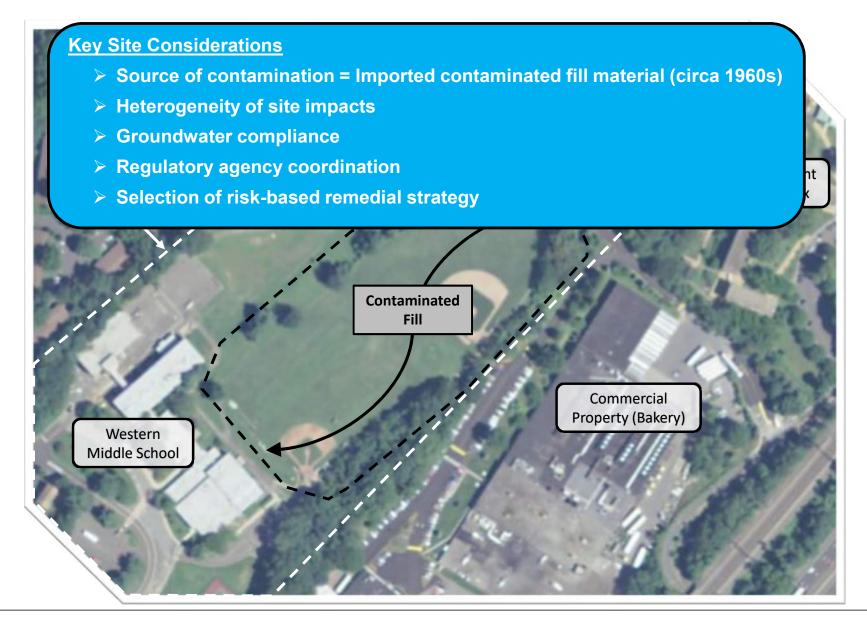


SITE SETTING



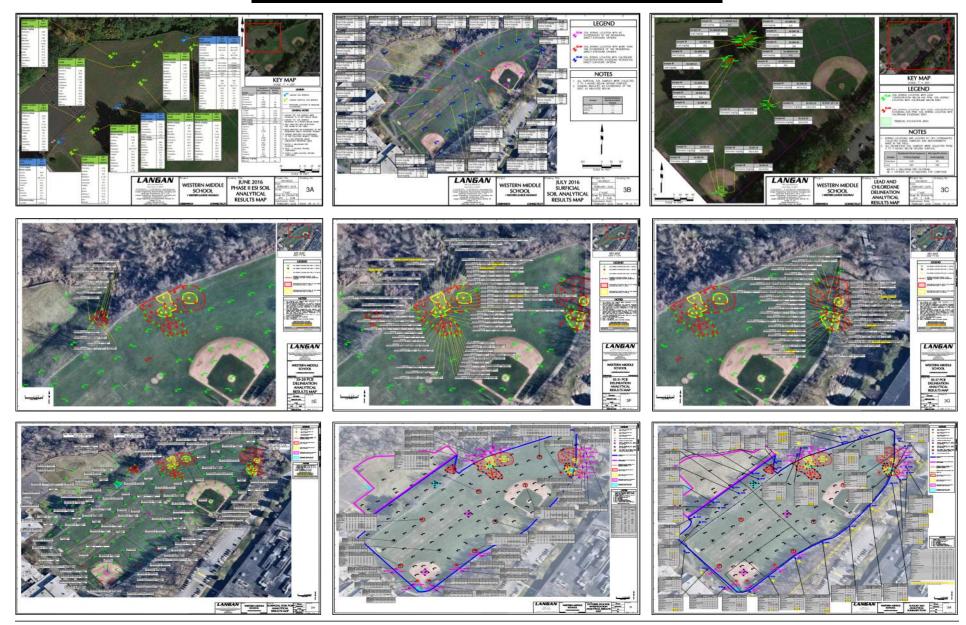


SITE SETTING

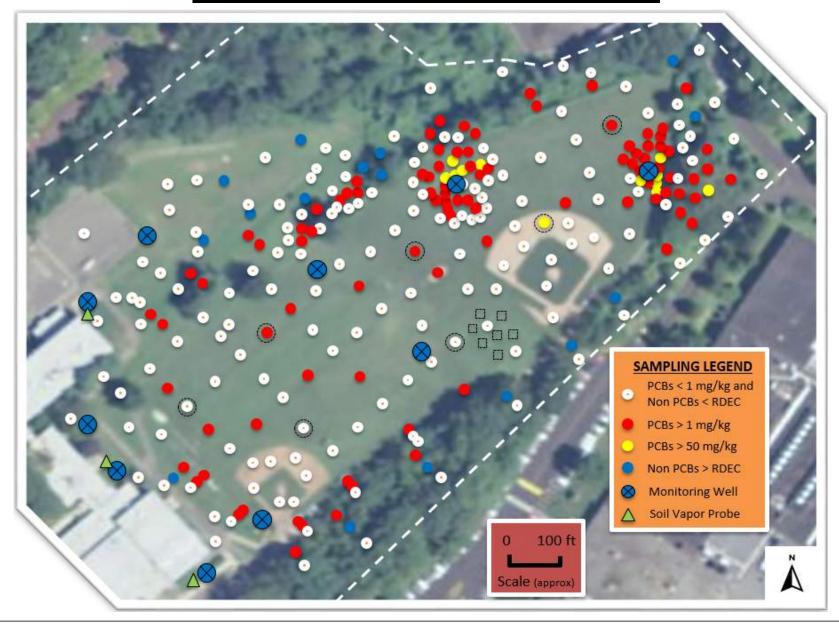




ASSESSMENT ACTIVITIES

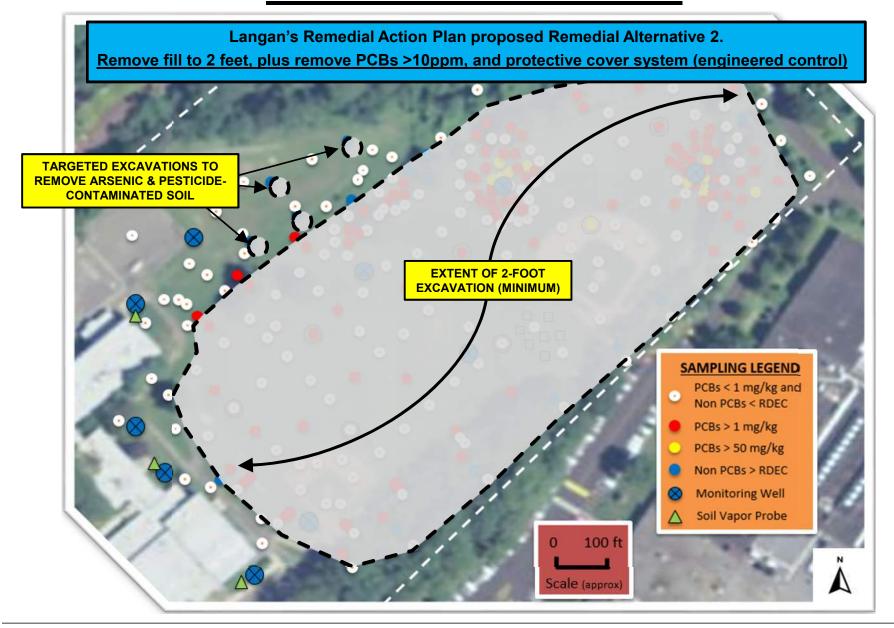


ASSESSMENT OVERVIEW





REMEDIAL APPROACH





PROPOSED REMEDIAL ALTERNATIVE

REMEDIAL ALTERNATIVE NO. 2

Remediation activities would involve the following:

- Excavation and offsite disposal of fill to a minimum depth of 2 feet.
- Impacted soil with PCBs ≥10 mg/kg would be removed across the site (regardless of depth). This action would significantly reduce the contaminant load on the site.
- Verification samples will be collected to confirm that impacted soil is removed to the extent required to comply with applicable regulations and project approvals.
- A series of protective cover systems (primarily the new artificial turf athletic fields and clean fill beneath them) will be used as an Engineered Controls to prevent contact with deeper contaminated soils.



PROPOSED REMEDIAL ALTERNATIVE

Remedial Alternative 2 is proposed for the following reasons:

- Less construction-related impacts on the community.
- Provides a protective clean barrier between public and remaining site impacts.
- Meets the requirements of EPA's risk-based soil remediation standards.
- Long term effectiveness.
- Protective and cost effective (relative to other remedial options).

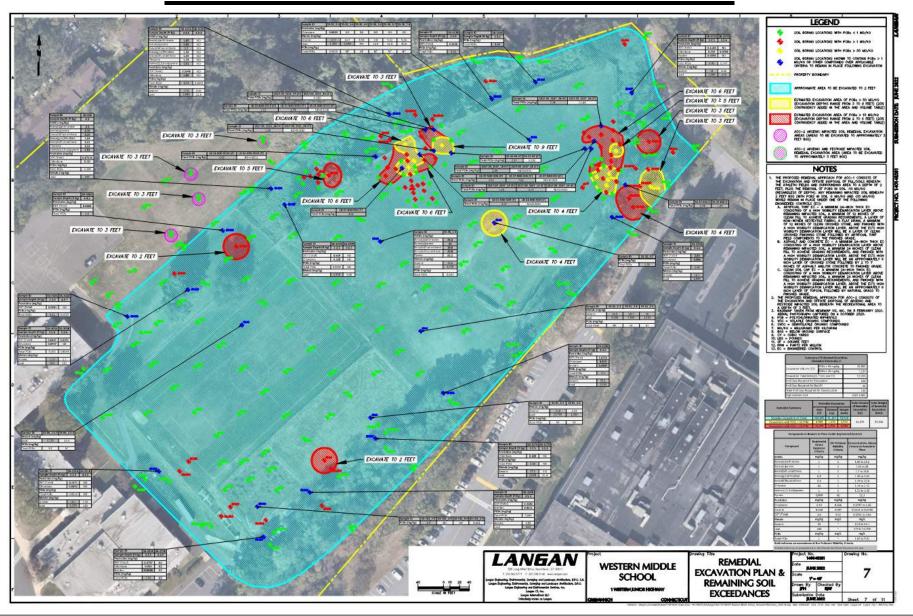


COMPARISON OF REMEDIAL ALTERNATIVES

Evaluation Criteria	Remediate to Numerical Criteria	Remedial Alternative #1	Remedial Alternative #2	Remedial Alternative #3
	Remove all fill to underlying rock or native soil	Remove fill to 4 feet. plus remove PCBs > 10ppm	Remove fill to 2 feet; plus remove PCBs >10ppm	Remove fill to 1 foot plus remove PCBs >10ppm
Overall Protection of Human Health and the Environment	Yes	Yes, with site restrictions	Yes, with site restrictions	Yes, with site restrictions
Compliance with Applicable Regulations	Yes	Yes	Yes, with variances	Yes, with vanances
Long-Term Effectiveness and Permanence	Yes; unlikely to require land use restrictions	Yes, with long-term cap inspection and maintenance	Yes, with long-term cap inspection and maintenance	Yes, with long-term cap inspection and maintenance
Reduction of Toxicity, Mobility, or Volume through Treatment	Greatest reduction	Significant reduction of risk for current uses	Significant reduction of risk for current uses	Significant reduction of risk for current uses
Short-Term Effectiveness	Least short-term effectiveness, entropated to take ± 374 construction days	Better effectiveness than alternative 1, but still anticipated to take ± 252 construction days	Effective in the short-term; but still anticipated to take ± 144 construction days	Most short-term effectiveness; entropated to take ± 90 construction days
Implementability	Least implementable	Implementable, but high trucking production rate is assumed	Implementable, but high trucking production rate is assumed	Most implementable
Cost-Effectiveness	±38.7 MIL	± 28.3 MIL	± 19.2 MIL	± 14.6 MIL
State and Federal Acceptance	Probable acceptability	Probable acceptability.	Probable acceptability with variances and consideration of public comments	
Community Acceptance (Construction impact on Community)	Very large community impact	Large community impacts	Less community impacts	Least community impacts



PROPOSED EXCAVATION PLAN



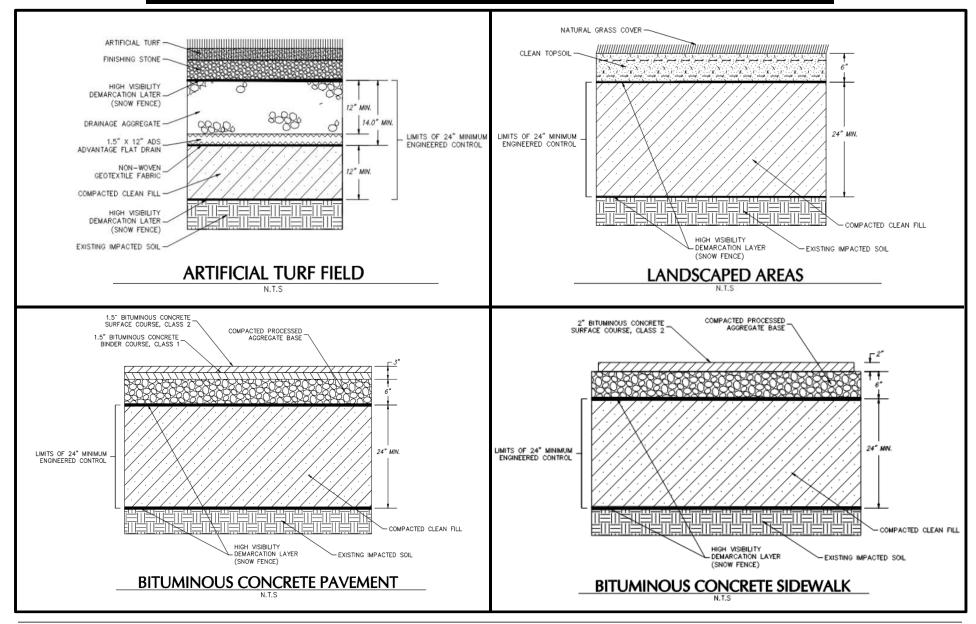


PROPOSED ENGINEERED CONTROLS





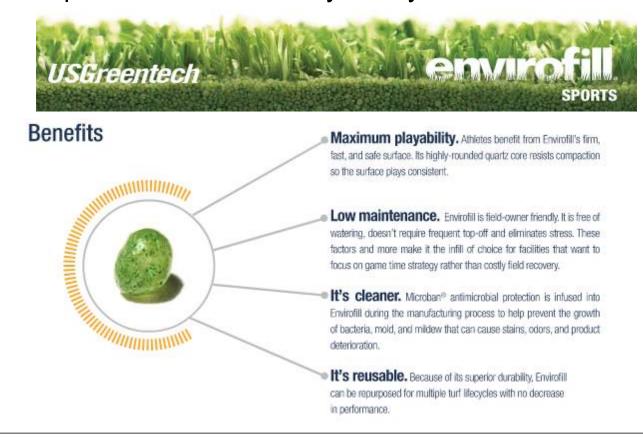
PROPOSED ENGINEERED CONTROLS





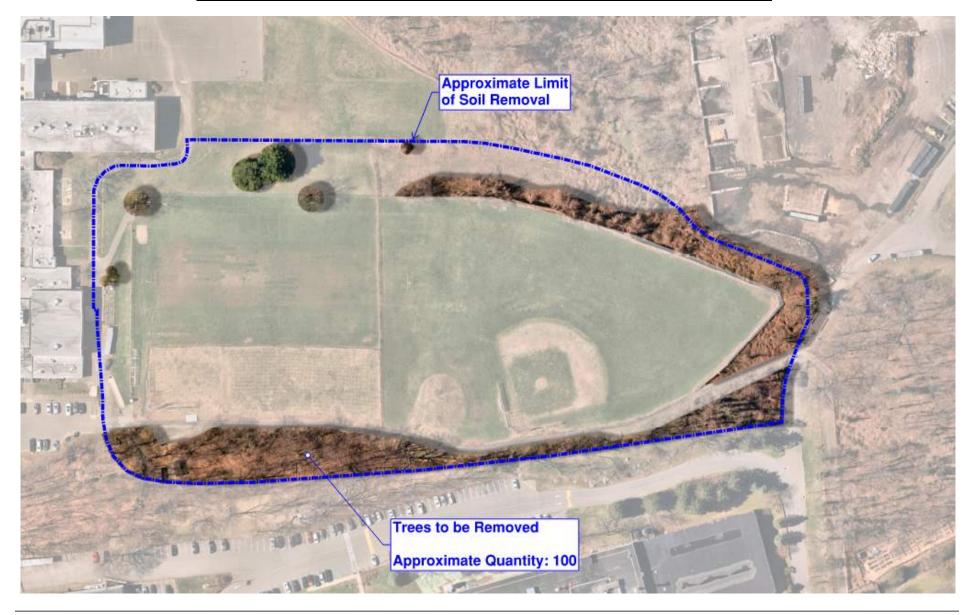
ARTIFICIAL TURF MATERIAL

The turf field infill material will match what is being used for the high school fields. This material is "100% Envirofill infill (no microban)." Per the manufacturer, Envirofill is a safe and sustainable synthetic turf infill option that boasts maximum playability and performance. It is made with non-toxic components and backed by a 16-year warrantee.





TREE WARDEN COORDINATION





DUST SUPPRESION AND AIR MONITORING



Water Trucks



Buffalo Turbine Dust Controllers



Air Monitoring Stations (with telemetry)

SEDIMENT & EROSION CONTROL

- Site Plans include a Sediment and Erosion Control Plan.
- Double row of perimeter controls (silt fence backed by hay bales).
- Other controls include slope stabilization, inlet protection, temporary soil stockpiles, and construction entrances.
- The erosion control plans have been reviewed by the town engineering department.
- Project will obtain CTDEEP Construction Stormwater General Permit, which will require weekly monitoring and reporting.

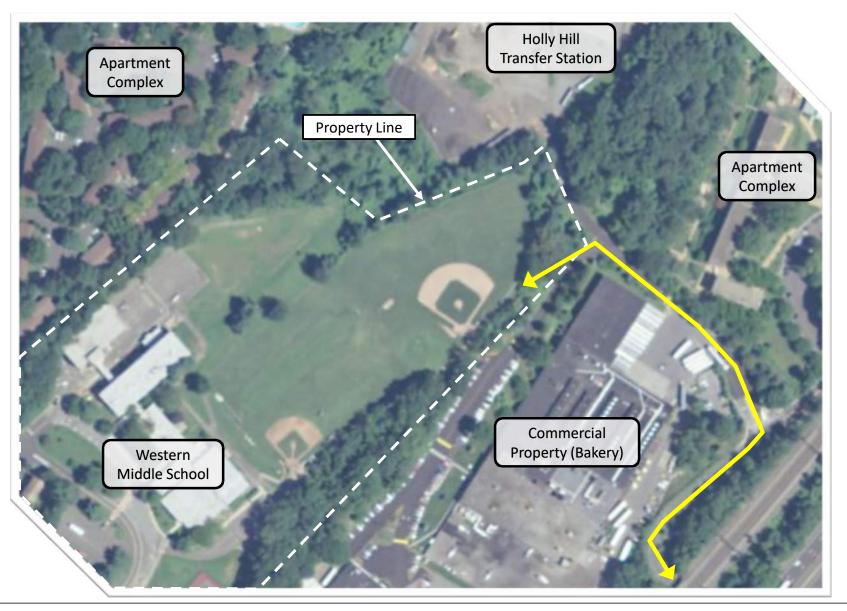


DECONTAMINATION PROCEDURES

- Decontamination procedures will be performed in accordance with the procedures defined in 40 CFR 761.79.
- Decontamination of on-site heavy equipment will be performed, as necessary, to minimize the potential spreading of contaminated soil, dust and debris.
- All vehicles brought onto the site will be inspected and, if needed, will undergo decontamination/cleaning prior to use on-site.
- For general decontamination of dump trailers, a stone construction entrance will be used.
- Decontamination may include highpressure water or a steam cleaner to remove soils.



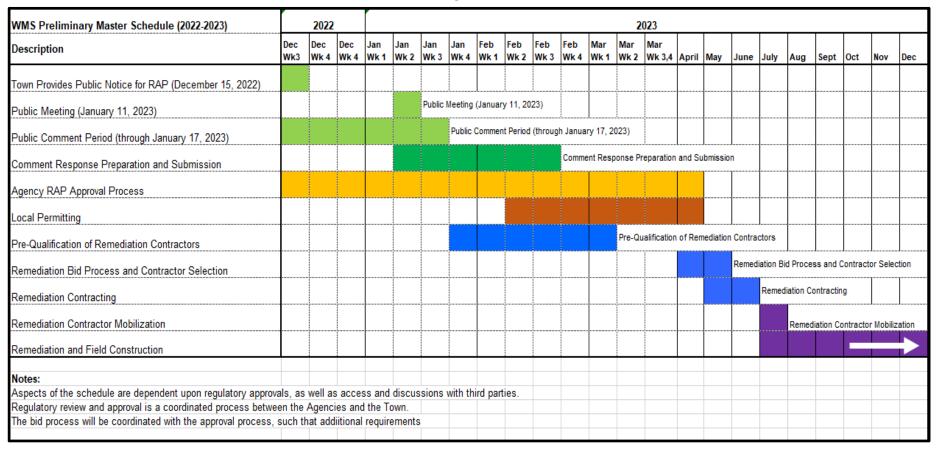
SITE ACCESS FOR CONSTRUCTION VEHICLES





ANTICIPATED NEXT STEPS

Once the Remedial Action Plan (RAP) is approved, we anticipate continued coordination efforts with the BOE as we progress through pre-construction documents and bidding coordination. The RAP and associated project specifications will be included in a contractor bid package.





Questions



