

New Bedford High School Staff Meeting

Thursday, May 19, 2011

David M. Sullivan, LSP
TRC Environmental Corporation
Lowell, Massachusetts



Agenda

- Final Phase II Report – New Bedford High School (NBHS) Campus**
- Dioxin**
- Soil Remediation for NBHS Campus**
- Groundwater**
- Polychlorinated Biphenyls (PCBs) in Indoor Air**
- General Q&A***

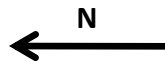
Final Phase II – Summary of Key Elements

❑ Comprehensive analysis of soil, groundwater, subslab soil vapor, & indoor air:

- *Soil - Polychlorinated biphenyls, lead, and polyaromatic hydrocarbons deeper than 1 foot below ground surface.*
- *Groundwater/subslab vapor - Trichloroethene and vinyl chloride*
- *Indoor air – No impact to occupied spaces from groundwater.*

NBHS Campus Soil Boring Locations

● = Soil Boring Locations

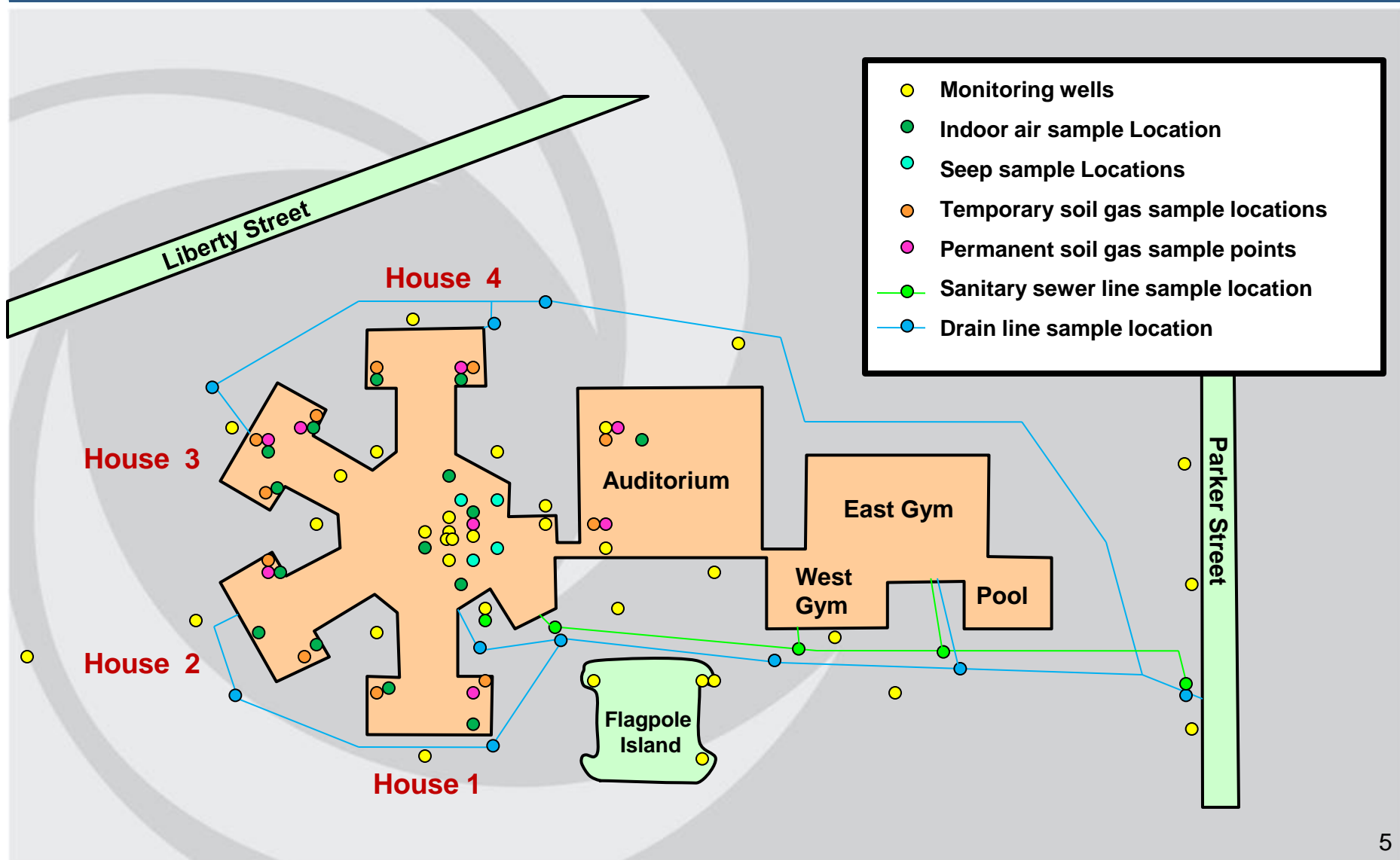


Liberty Street

Parker Street

Hathaway Boulevard

Volatile Organic Compound (VOC) & Groundwater Investigation Locations



Final Phase II – Conclusions

☐ *Impacts –*

- *Site underlain by deposits of potentially impacted fill associated with historical and undocumented waste management practices.*
- *Currently safe to occupy NBHS and use the surrounding campus.*
 - *Staff, students, and visitors*
 - *Surface soils in the 0 to 1 foot depth zone pose No Significant Risk.*

☐ *Media –*

- *Soil, groundwater (VOCs), soil vapor (VOCs), indoor air (VOCs).*





☐ *Absence of Imminent Hazard –*

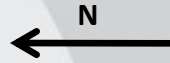
- *No Imminent Hazard conditions exist at the Site based on all data collected.*

Dioxin Discussion

- ❑ **Sampled NBHS soil for dioxins in five locations in April 2010**
- ❑ **Targeted estimated worst-case scenario locations.**
- ❑ **Evaluated cumulative risks and hazards.**
 - *No Significant Risk*
- ❑ **MassDEP January 13, 2011 Letter.**
 - *Requested supplemental soil sampling for dioxin.*
 - *Sampling plan submitted for approval in April 2011.*

NBHS Campus Soil Remediation

-  = Areas Proposed to be Excavated
-  = Proposed Paved Areas
-  = Existing Paved Areas
-  = Proposed Areas to be Repaved



Liberty Street

Parker Street

Hathaway Boulevard

HF-31

Groundwater

- ❑ **Chlorinated Volatile Organic Compound (VOC) groundwater impacts under Mechanical Room.**
 - **Remedy underway via Modified IRA Plan (January 2011).**

- ❑ **Currently safe to occupy NBHS and the surrounding campus.**
 - **Groundwater samples from wells in the Mechanical Room exceed standards.**
 - **No other sub-slab results above applicable standards.**
 - **No Significant Risk to the health of building occupants.**

- ❑ **Potential exposure evaluation**
 - **Direct contact and vapor intrusion to regularly occupied spaces.**
 - **No current direct contact risk.**
 - **No impact to occupied spaces.**

Immediate Response Action (IRA) Update

- ❑ *One 4-inch well (MW-27R) installed in December 2010 in the Mechanical Room.*
- ❑ *Pumping and vacuum extraction (Total Fluid Extraction [TFE]) at MW-27R.*
- ❑ *Remove chlorinated VOC-impacted groundwater in the vicinity of MW-27R.*
 - *Approximately 2,290 gallons removed to date.*
 - *Chlorinated VOC-impacted groundwater concentrations significantly reduced.*
 - *Additional remediation options under evaluation for Mechanical Room Area.*
- ❑ *Seepage mitigation*
 - *Additional crack/joint sealing in Mechanical Room during February and April 2011 breaks.*

NBHS Immediate Response Action - Update

- ❑ ***Additional indoor air sampling for volatile organic compounds (VOCs)***
 - ***Indoor air samples collected from three rooms adjacent to Mechanical Room***
 - ***B-106, B-109, and B-147***
 - ***Results indicate No Significant Risk (occupational scenario)***

PCBs in Indoor Air

❑ PCBs in NBHS indoor air

- *Indoor air PCB data collection part of NBHS building investigation.*
- *Indoor air PCBs sampled in 2008 following vent cleaning and repair.*
- *Several measures implemented since the 2008 sampling event.*

❑ ***Comprehensive round of PCB indoor air sampling during 2011 February vacation.***

- *Fifty-nine air samples from inside the building.*
- *Two samples were collected outside to compare ambient air levels.*
- *20 out of 26 prior locations re-sampled*

❑ ***Sample locations selected in collaboration with EPA.***

- *Plan dated 11/23/2010 and posted on the City's website*

NBHS PCB Indoor Air Monitoring – February 2011

- ❑ *Results of February 2011 monitoring (published in staff fact sheet)*
 - *Three rooms (A-110-1, A-315-1, A-203-2) above 0.3 µg/m³ total PCBs.*
 - *Acceptable Long-Term Average Exposure Concentration.*
 - *Occupational exposure (8 hours per day, 250 days per year, for 25 years).*
 - *Five rooms (A-112-2, A-311-2, A-307-3, A-212-4, A-315-4) above 0.05 µg/m³*
 - *EPA level prompting investigation regarding the potential sources of PCBs.*
 - *Remaining results below the levels discussed above, or not detected at all.*
 - *15 were at similar levels or lower than levels that were detected in 2008.*
 - *As a precaution, rooms A-110-1, A-315-1, and A-203-2 will be closed until testing determines levels are below 0.3 µg/m³ total PCBs.*

NBHS PCB Indoor Air Monitoring

☐ *Activities during the April 2011 Vacation*

- *TRC identified light fixtures with old ballast impacts.*
 - *Easily accessible light fixture trays were removed from Rooms A-110-1, A-315-1, A-203-2, and A-307-3 on an expedited basis.*
 - *TRC also worked with School Department staff to evaluate and increase air flow in all 8 rooms to introduce more outdoor air.*
- *Air samples were re-collected during the April vacation in the eight rooms.*
- *Some reductions in air concentrations.*
- *Follow-up actions are in the planning stages.*
- *It is safe for students and staff to continue using rooms A-112-2, A-311-2, A-307-3, A-212-4, and A-315-4 while the potential sources are under evaluation.*
- *Summer 2011 Remediation – Light fixtures, auditorium seating, and small areas of paint (three classrooms).*

Thank you for your attention!

Questions are Welcome!