

**Parker Street Waste Site
Public Information Plan (PIP)
Milestone Report Meeting**

Wednesday, March 2, 2011

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



Agenda

- ❑ **Final Phase II Report – New Bedford High School (NBHS) Campus**
- ❑ **Release Abatement Measure Plan for NBHS Campus**
- ❑ **Updates**
 - *HF-31 Release Abatement Measure (RAM)*
 - *NBHS Immediate Response Action (IRA)*
 - *Tentative PIP meeting schedule*
- ❑ **General Q&A**

Final Phase II Report for NBHS

Phase II History

- ❑ **Interim Phase II Comprehensive Site Assessment**
 - *Covered New Bedford High School (NBHS) and Walsh Field*
 - *Submitted July 21, 2009 (over 5,000 pages)*
 - *No significant risk in top foot.*

- ❑ **Final Comprehensive Site Assessment**
 - *Covers NBHS only*
 - *Submitted to MassDEP on January 4, 2011*
 - *Over 6,200 pages (including lab backup).*
 - *No significant risk in top foot*

- ❑ **Public comment period**
 - *Ends March 13, 2011*

Final Phase II – Summary of Key Elements

- ❑ **Currently safe to occupy/use NBHS and use the campus.**
- ❑ **Comprehensive data analysis**
 - *Built on work conducted by VHB, BETA and TRC*
 - *Hundreds of soil samples across the campus*
- ❑ **Evaluated 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.*

Final Phase II – Summary of Soil Sampling

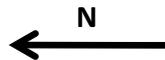
- ❑ **VHB – 22 soil samples for polychlorinated biphenyls (PCBs), polyaromatic hydrocarbons (PAHs), and metals**

- ❑ **BETA - Hundreds of soil samples across the campus**
 - 343 soil borings plus 12 surface soil samples (0-6 inches).
 - PCBs, metals, semi-volatile organic compounds (SVOCs), herbicides, pesticides, and volatile organic compounds (VOCs)
 - Petroleum analyses

- ❑ **TRC – Hundreds of soil samples across the campus**
 - 481 soil borings and 65 surface soil (0-6 inches, 0-1 foot) samples
 - Soil analyses
 - PCBs
 - PAHs
 - Metals
 - VOCs
 - PCB homologs
 - Petroleum
 - Chlorinated dioxins/dibenzofurans
 - PCB congeners

NBHS Campus Soil Boring Locations

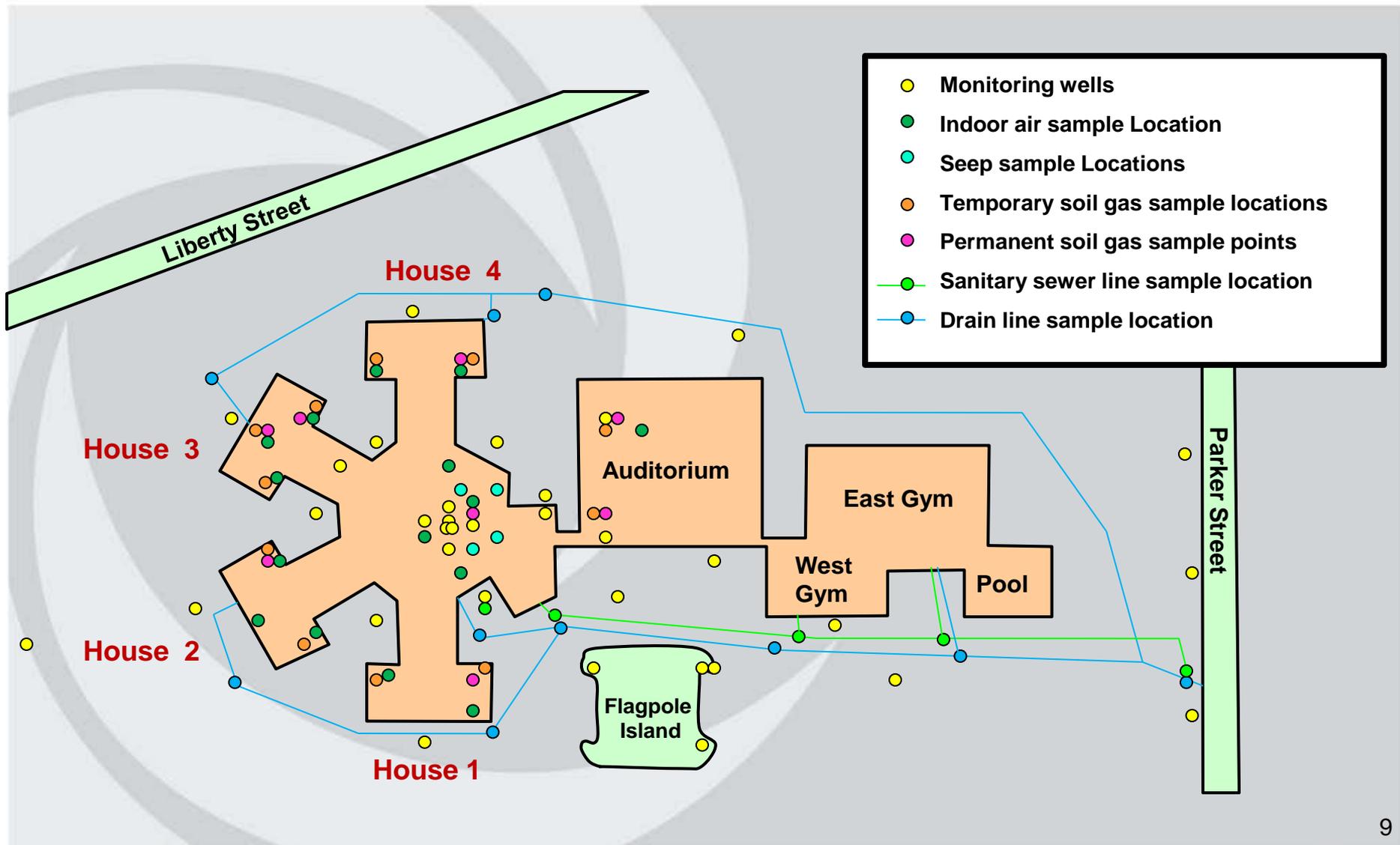
● = Soil Boring Locations



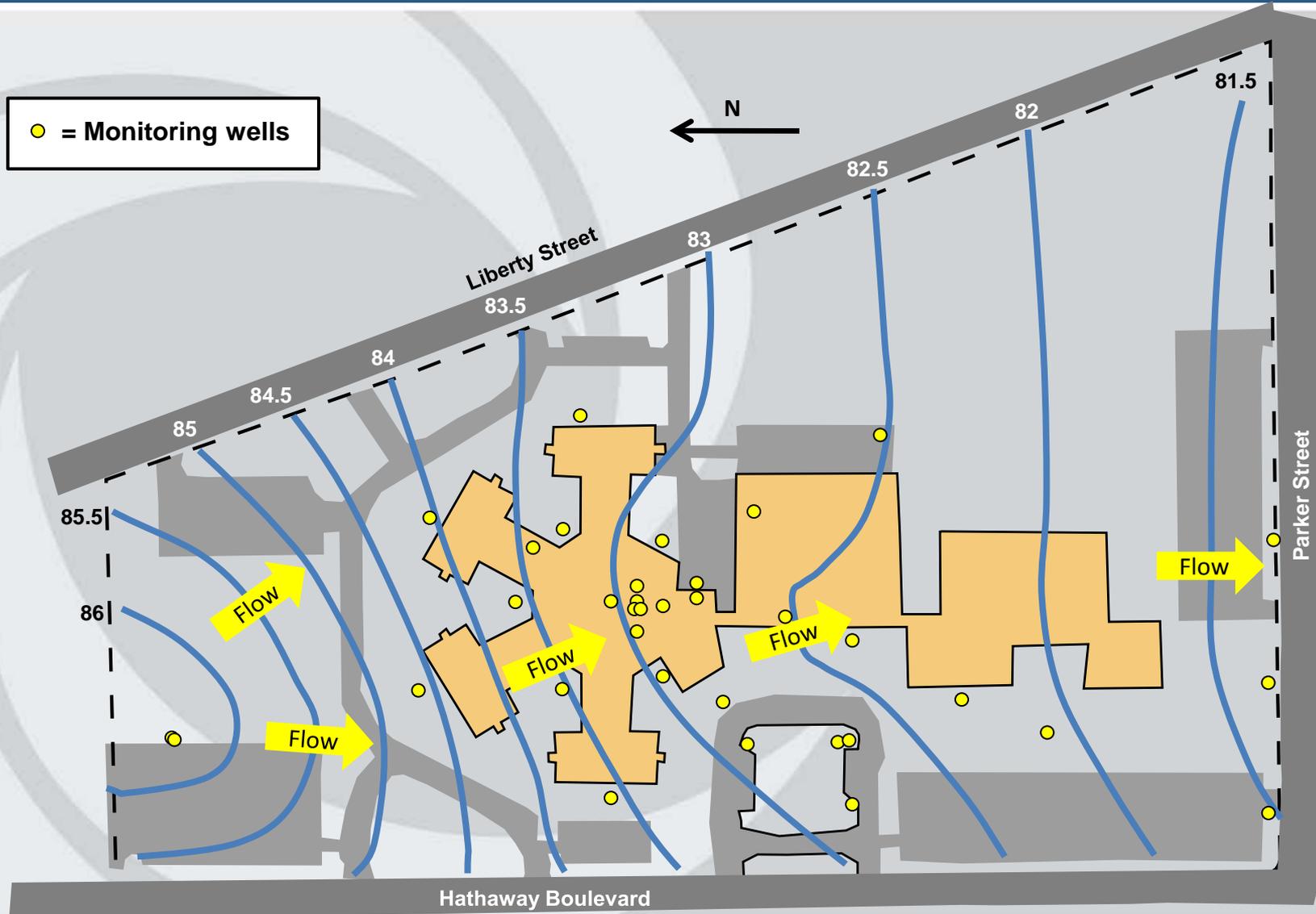
Final Phase II – Summary of Other Phase II Sampling

- ❑ ***Groundwater analyses - 33 wells installed and sampled for:***
 - ***VOCs***
 - ***PAHs***
 - ***Metals***
 - ***PCB***
 - ***Petroleum***
- ❑ ***Soil gas analyses - 12 subslab soil gas points for VOCs***
- ❑ ***Indoor air analyses – 21 indoor air samples for VOCs***

Volatile Organic Compound (VOC) & Groundwater Investigation Locations



NBHS Campus Groundwater Contours



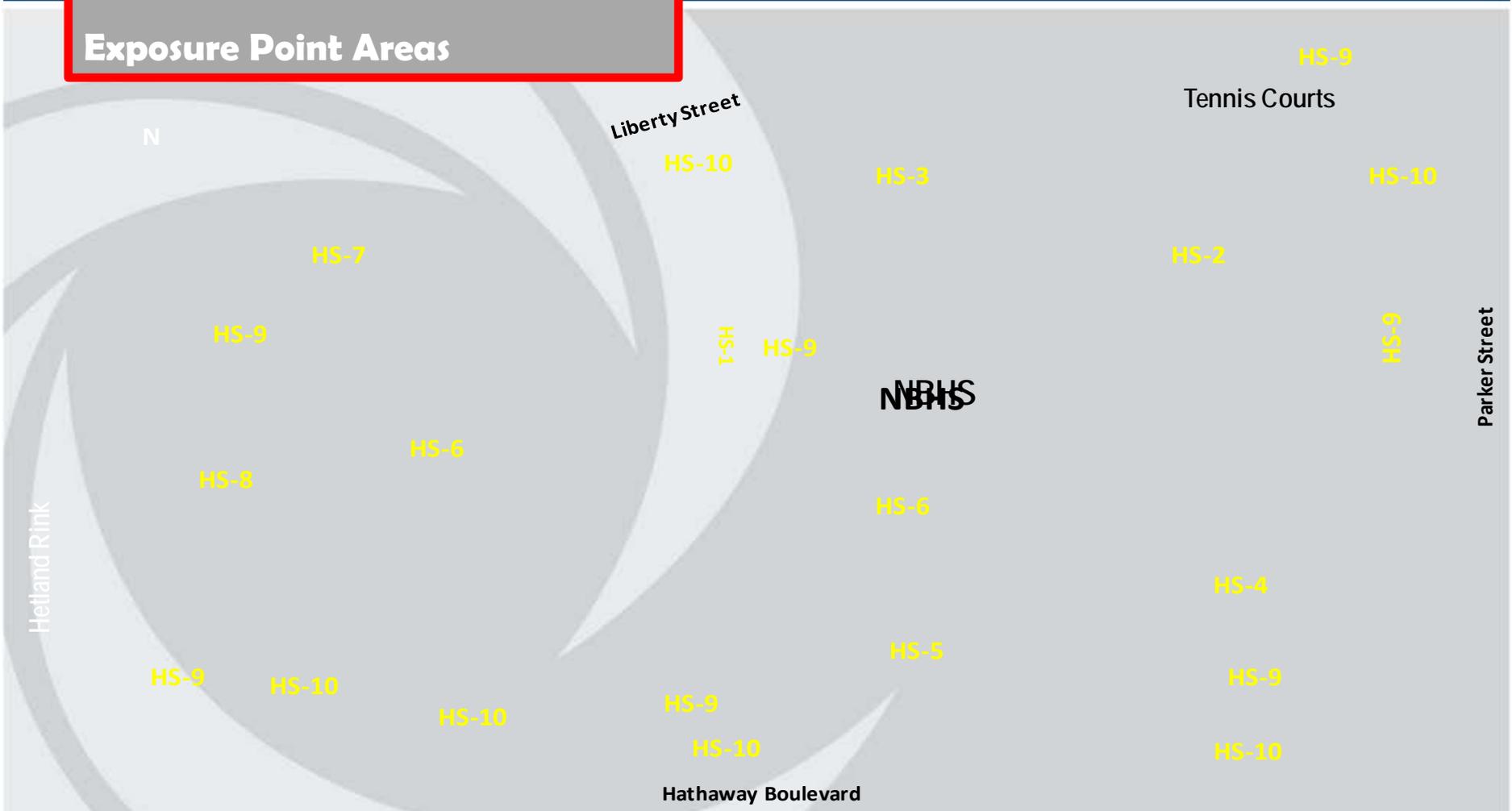
Note: Not to scale. Provided for illustration purposes only. Please refer to Figure 3-1 of Phase II.

Final Phase II – Conclusions

- ❑ **Impacts** - *Site underlain by deposits of potentially impacted fill associated with historical and undocumented waste management practices.*
- ❑ **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.*

New Bedford High School

Exposure Point Areas



HS-1: children's playground
HS-2: fenced athletics fields
HS-3: unfenced field

HS-4: area in front of the gym building
HS-5: flag pole area
HS-6: area surrounding the "houses"

HS-7: student congregation area
HS-8: junior high gym class area
HS-9: soil covered by pavement
HS-10: miscellaneous tree belts

Final Phase II – Soil

- ❑ **Currently safe to occupy NBHS and use the surrounding campus.**
 - **Includes the building occupants**

- ❑ **Staff, students, and visitors use the campus for various reasons.**
 - **Walking across the campus, outdoor gym classes, or cutting grass.**

- ❑ **Considered how people may be potentially exposed to surface soil.**
 - **Surface soils in the 0 to 1 foot depth zone pose No Significant Risk.**
 - **Inhalation, ingestion, skin contact**

- ❑ **Considered intensity of use.**
 - **High school staff (faculty and maintenance personnel), students, and visitors.**
 - **TRC gathered information from long-standing school administrators.**

Final Phase II – Dioxin Discussion

- ❑ *Sampled soil for polychlorinated dibenzo-p-dioxins (dioxins), polychlorinated dibenzofurans (furans) and dioxin-like polychlorinated biphenyls (PCBs).*
- ❑ *Targeted estimated worst-case scenario locations.*
- ❑ *Evaluated cumulative risks and hazards.*
 - *Based on a Method 3 risk characterization*
 - *The sum of dioxin-like PCB Congeners TEQs and dioxin TEQs are associated with No Significant Risk.*
- ❑ *MassDEP January 13, 2011 Letter*
 - *Requested supplemental soil sampling for dioxin.*
 - *Sampling plan in preparation.*

Final Phase II – Groundwater

- ❑ *Chlorinated VOC impacted groundwater under Mechanical Room.*
 - Remedy underway via Modified IRA Plan at well MW-27.

- ❑ *Currently safe for people to occupy NBHS and use the surrounding campus.*
 - Wells MW-27 and MW-28 above Method 1 GW-2 groundwater standards.
 - *Does not extend beyond the limits of the Mechanical Room*
 - No other results above applicable standards
 - No Significant Risk to the health of building occupants.

- ❑ *Evaluated potential exposure via direct contact and vapor intrusion to regularly occupied spaces*
 - No current direct contact risk.
 - No impact to occupied spaces.

Final Phase II – Groundwater

☐ *Vapor intrusion – Impacts limited to Mechanical Room*

- *Soil vapor concentration (PVP-6/Mechanical Room) above screening criteria.*
- *Indoor air concentrations in the Mechanical Room above Indoor Air Threshold Values (IATVs)*
 - *Groundwater seep and/or products containing VOCs in this room.*
 - *Complete vapor intrusion pathway is not present elsewhere at NBHS.*
 - *Negative pressure confines impacts to Mechanical Room.*
- *Groundwater VOCs above Method 1 GW-2 groundwater standards.*
 - *Does not extend beyond the limits of the Mechanical Room.*

Final Phase II – Conclusions Driving Remedy

☐ *Top 3 feet - Soil remediation needed to achieve Site closure*

- *A Condition of No Significant Risk does not exist for potential soil impacts*
 - *Polyaromatic hydrocarbons (PAHs)*
 - *Lead*

☐ *Top 15 feet - Remedial actions needed to achieve Site closure*

- *A Condition of No Significant Risk does not exist for potential soil and groundwater impacts.*
 - *Soil - PAHs and lead*
 - *Groundwater - Localized trichloroethene and vinyl chloride (direct contact) .*

☐ *Upper Concentration Limit (UCL) - SB-308 (3.5 feet)*

- *Benzo(a)pyrene Exposure Point Concentration (EPC) greater than 300 mg/kg.*
 - *No other soil EPC exceeds its respective UCL under the Massachusetts Contingency Plan (MCP).*

Final Phase II – PCBs in Indoor Air

❑ PCBs in NBHS indoor air

- *Indoor air PCB data collection part of investigation occurring at the NBHS building.*
- *Indoor air PCBs sampled in 2008, before PCB abatement conducted in 2010.*
- *Comprehensive round of PCB indoor air sampling conducted over the February 2011 vacation.*
- *Using the maximum detected total PCB concentration in 2008 (0.13 ug/m³), the worst-case risk and hazard associated with total PCBs in indoor air is less than Massachusetts Department of Environmental Protection (MassDEP) criteria.*
- *Extensive mitigation measures implemented since the 2008 sampling event.*
- *See page 7-22 for coverage in the Final Phase II document.*

Release Abatement Measure (RAM) Plan for NBHS Campus

Addresses Soil Impacts on Campus

RAM Plan for NBHS Campus

Combined soil removal and paving approach

- *Public comment period extended to 30 days (ends March 12, 2011).*
- *Conducted when students are not present.*

Soil Excavation

- *Exposure Point Concentrations (EPCs) above Method 1 and 2 S-1 standards*
 - *Top 3 feet in landscaped areas.*
- *Remove Upper Concentration Limit (UCL) soil at SB-308*
 - *Benzo(a)pyrene*

Paving

- *Expanded paving to prevent direct contact exposure to impacted soil.*
 - *Involves earthwork and grading.*
 - *Expanded northern parking area*
 - *Flag pole island*
 - *Other traffic islands and adjacent sidewalks.*

RAM Plan for NBHS Campus

❑ Recycling

- *On-site asphalt/concrete crushing from the removal of existing surfaces.*
- *Reuse of material as construction material*
- *Massachusetts Department of Environmental Protection (MassDEP) asphalt, brick and concrete (ABC) policy and associated solid waste regulations.*

❑ Soil management, Disposal, and Restoration

- *Temporary soil stockpiling and stockpile management at an off-site City-owned location prior to disposal.*
- *Off-site disposal of excavated soil at appropriately licensed facilities.*
- *Backfill excavations with documented contaminant-free fill material.*

NBHS Campus RAM Activity Locations

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



Liberty Street

Parker Street

Hathaway Boulevard

How to comment on Phase II and RAM Plan

☐ Comments Due

- *Release Abatement Measure Plan – March 12, 2011*
- *Final Phase II Report – March 13, 2011*

☐ Review Reports

➤ *Electronically*

- <http://www.newbedford-ma.gov/McCoy/sitemap/sitemap.html>
- Under the “New Bedford High School” button

➤ *Look at a printed copy*

- By appointment at the Department of Environmental Stewardship
 - *Monday to Thursday 8:00am to 4:00pm and Fridays 8:00am to 12:00pm.*
 - *Call 508-991-6188 to make an appointment.*
- At the Lawler Branch Library at 745 Rockdale Ave., New Bedford.

How to comment on Phase II and RAM Plan

Submit comments in writing

➤ *By mail:*

City of New Bedford
Environmental Stewardship Department
133 William Street, Room 304
New Bedford, MA 02740

Please clearly mark to the attention of:
Cheryl Henlin, Environmental Planner

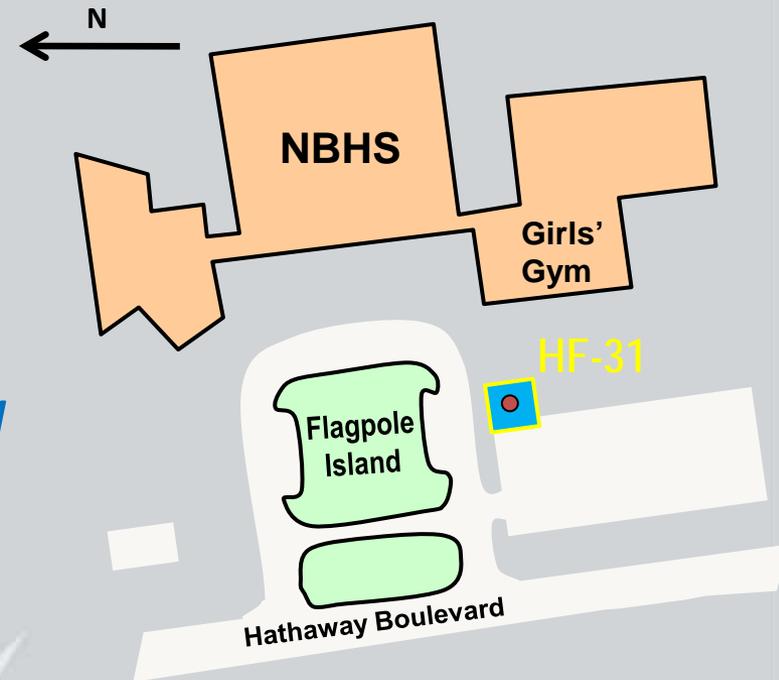
➤ *By e-mail:*

PSWS@newbedford-ma.gov

Updates

Update - HF-31 RAM Soil Removal

- ❑ *PCB impacted soil 1-3 ft below surface*
 - *Release Abatement Measure (RAM) Plan.*
 - *EPA/MassDEP granted approvals.*
 - *Performed during the February vacation.*
- ❑ *Soil management*
 - *Live load, direct ship.*
 - *Toxic Substances Control Act regulated soil*
 - ✓ *Approximately 3 cubic yards shipped to EQ.*
 - *Massachusetts Contingency Plan (MCP) regulated soil*
 - ✓ *Approximately 94 cubic yards shipped to Crapo Hill*



NBHS Immediate Response Action - Update

- ❑ *Immediate Response Action (IRA) activities addressing an undocumented historical release of trichloroethene.*

- ❑ *Newly installed extraction well*
 - *One 4-inch well installed (at MW-27) in December 2010 in the Mechanical Room.*

- ❑ *IRA Plan Modification submitted on January 18, 2011*
 - *This IRA Plan Modification added the following to the prior approved IRA activities:*
 - *Pumping and vacuum extraction (Total Fluid Extraction [TFE]) at MW-27.*
 - *Remove chlorinated VOC-impacted groundwater in the vicinity of MW-27*

 - *First extraction performed during February 2011 break*
 - *Remove chlorinated VOC-impacted groundwater in the vicinity of MW-27*
 - *Off-site disposal by Triumvirate.*

- ❑ *Seepage mitigation*
 - *Additional crack/joint sealing in Mechanical Room during February 2011 break.*

Tentative Schedule of Future PIP Meetings

Site Area/Location	Report	Start of Public Comment Period	Likely Timeframe for Meeting
<i>Walsh and New McCoy Fields</i>	RAOs AULs	March 25, 2011 (or sooner)	TBD Week of April 11th
<i>Acquired Residential Properties</i>	Phase II	May 20, 2011	Week of May 30th or June 6th
<i>Acquired Residential Properties</i> <i>Nemasket Street Lots</i> <i>Keith Middle School wetlands</i>	Phase III Phase II Phase II	August 31, 2011 (all three reports)	Week of Sept. 12th or Sept. 19th

General Q & A

Thank You for Coming!

See you at the next meeting!