



## ENVIRONMENTAL FACT SHEET

Paul F. Walsh Field Varsity Baseball Field and Spectator Area  
Parker and Hunter Streets, New Bedford, MA

City of New Bedford/TRC, February 2010

### **Is it safe for people to use the varsity baseball field and spectator area at Walsh Field given the City's ongoing investigation of historic waste disposal in this area and the potential for soil contamination?**

Yes. The City's environmental consultant, TRC Environmental (TRC), evaluated whether the exposed surface soils at the varsity field and adjacent spectator area at Walsh Field, shown in Figure 1, posed risk for baseball players, coaches, other baseball staff, and spectators. Exposed surface soils are within the top foot of the ground surface and not covered by pavement or clean fill material. To evaluate potential exposures, TRC collected soil samples from within one foot of the ground surface and had them analyzed for chemicals identified at the Parker Street Waste Site. Results were compared to two sets of values established by the Massachusetts Department of Environmental Protection (MassDEP): (1) soil cleanup standards for residential use, and (2) natural background concentrations of chemicals in soil, which represent natural, undisturbed conditions. This comparison is shown in Table 1. In the top foot of soil, the concentration for arsenic exceeds the MassDEP residential standard, which is an acceptable exposure concentration for residential areas. However, the standard is based, in part, on an assumption that the property is used for residences. If the property was used for residences, people living there would be present more frequently and over a longer period of time than those who currently use the varsity field and spectator area. Therefore, results were also used to evaluate risk associated with current use of the varsity field and spectator area. Based on this evaluation, concentrations of all chemicals in the top foot of soil are not associated with significant risk as defined by MassDEP. The conclusion of "no significant risk" for the top foot of soil at the field and spectator area is based on standard procedures and criteria established and published by the MassDEP. "No significant risk" is a level of risk that requires no further action under Massachusetts regulations. However, higher chemical concentrations have been detected more than one foot below the ground surface and beneath clean fill material that will require additional remedial action during the summer of 2010.

### **What chemicals have been found at the varsity baseball field and spectator area at Walsh Field and how deep are they located?**

In 2009, TRC detected arsenic concentrations at the varsity baseball field that warranted swift removal of soil and placement of clean fill material in accordance with MassDEP regulations and guidance. Subsequent to this cleanup, TRC collected additional soil samples from the varsity field and spectator area to determine if additional cleanup action is needed. TRC has collected 159 soil samples from within the top foot of soil at the varsity baseball field and spectator area in which arsenic and other metals have been detected and, less frequently, polychlorinated biphenyls (PCBs) and polyaromatic hydrocarbons (PAHs). All of these chemicals have been detected in the top foot of soil at concentrations that do not pose a significant risk to the health of people using the varsity field. These chemicals also were detected in an additional 350 soil samples collected from depths greater

than one foot below ground surface and from areas made inaccessible by pavement or clean fill material. These samples were collected to find out where the chemicals are located. People would not contact these soils unless an extensive excavation or disruption of paved areas occurred as part of a future redevelopment.

**How might people be exposed to soil at the varsity field and spectator area at Walsh Field and why did TRC conclude that they would not be exposed to contamination that could harm their health?**

Baseball players, coaches, and others using the field might contact the surface layer of soil on the varsity field if it sticks to their skin as a result of direct contact or excessive dust, enters the air as dust and is inhaled, or is eaten. Spectators similarly may contact the surface layer of soil in the spectator area adjacent to the varsity field, but fencing prevents spectators from entering the varsity field. TRC evaluated the degree to which people using the varsity field and spectator area could be exposed to chemicals in exposed surface soil (soil that is not beneath pavement or clean fill material). Whether chemicals pose a risk to people using the property depends on the amount of chemical they are exposed to and the chemical's potential to impact health. TRC determined that the exposure concentrations for exposed surface soils do not pose a significant risk for people using the varsity field and spectator area. Higher chemical concentrations have been detected more than one foot below the ground surface or beneath clean fill material that will require additional remedial action, but players and spectators will not come into contact with these chemicals.

**How can we be certain that the work performed by the City is complete and accurate?**

The City uses a highly qualified and experienced environmental consulting team to gather and interpret data from Walsh Field. Dave Sullivan serves as TRC's project manager. Mr. Sullivan is a Certified Hazardous Materials Manager (CHMM) and is a Licensed Site Professional, or LSP. LSPs are the scientists and engineers licensed by the Commonwealth of Massachusetts to oversee the assessment and cleanup of contamination that has been released into the environment. LSPs are governed by the Board of Registration of Hazardous Waste Site Cleanup Professionals. The consulting team also includes Dr. Donna Vorhees, of the Science Collaborative. Dr. Vorhees holds a master's degree and doctoral degree in Environmental Health from the Harvard School of Public Health and has particular expertise in PCBs. The work performed by the City's consulting team is coordinated by the scientists and engineers with the City's Environmental Stewardship Department, and is closely overseen by scientists and engineers at federal and state regulatory agencies, where applicable, including the U.S. Environmental Protection Agency, the MassDEP, and the Massachusetts Department of Public Health.

**Who should I contact if I have additional questions?**

Cheryl Henlin, City of New Bedford Environmental Stewardship Department, at (508) 991-6188 or email [cheryl.henlin@newbedford-ma.gov](mailto:cheryl.henlin@newbedford-ma.gov)

Molly Cote, MassDEP at (508) 946-2792 or email [molly.cote@state.ma.us](mailto:molly.cote@state.ma.us)

Kim Tisa, USEPA at (617) 918-1527 or email [tisa.kimberly@epa.gov](mailto:tisa.kimberly@epa.gov)

**Table 1. Comparison of Chemical Concentrations in Soil with Massachusetts Department of Environmental Protection Standards and Natural Background (mg/kg, dw) <sup>(1)</sup>**

*Varsity Field and Spectator Area, Walsh Field, New Bedford High School*

Chemical	Lowest Applicable MassDEP Residential Standard	MassDEP Natural Background Concentration that represents undisturbed, natural conditions <sup>(2)</sup>	Exposure Point Concentration (EPC), which is the average concentration in exposed surface soil across the varsity field and the spectator area	
			VARSITY FIELD (0 to 1 foot) below the ground surface	SPECTATOR AREA (0 to 1 feet) below the ground surface
<b>Polycyclic Aromatic Hydrocarbons (PAHs)</b>				
Anthracene	1,000	1	All results below MassDEP natural background	
Benzo(a)anthracene	7	2	All results below MassDEP natural background	
Benzo(a)pyrene	2	2	All results below MassDEP natural background	
Benzo(b)fluoranthene	7	2	All results below MassDEP natural background	
Benzo(g,h,i)perylene	1,000	1	All results below MassDEP natural background	
Benzo(k)fluoranthene	70	1	All results below MassDEP natural background	
Chrysene	70	2	All results below MassDEP natural background	
Fluoranthene	1,000	4	All results below MassDEP natural background	
Indeno(1,2,3-cd)pyrene	7	1	All results below MassDEP natural background	
Phenanthrene	500	3	All results below MassDEP natural background	
Pyrene	1,000	4	All results below MassDEP natural background	
<b>Total PCBs</b>				
PCBs	2	not available	0.056	0.049
<b>Metals</b>				
Arsenic	20	20	<b><u>46</u></b> <sup>(3)</sup>	All results below MassDEP natural background
Barium	1,000	50	<b><u>74</u></b> <sup>(4)</sup>	<b><u>73</u></b> <sup>(4)</sup>
Beryllium	100	0.4	All results below MassDEP natural background	Not detected in any sample
Cadmium	2	2	All results below MassDEP natural background	
Chromium III	1000	30	26	All results below MassDEP natural background
Lead	300	100	58	86
Mercury	20	0.3	All results below MassDEP natural background	
Nickel	20	20	14	All results below MassDEP natural background
Silver	100	0.6	0.76	<b><u>1.5</u></b> <sup>(4)</sup>
Vanadium	600	30	23	All results below MassDEP natural background
Zinc	2,500	100	52	All results below MassDEP natural background

**Notes:**

<sup>(1)</sup> mg/kg, dw = milligram per kilogram, dry weight

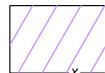
<sup>(2)</sup> Source of MassDEP natural background concentrations: MassDEP. 2002. Technical Update: Background Levels of Polycyclic Aromatic Hydrocarbons and Metals in Soil Updates: Section 2.3 Guidance for Disposal Site Risk Characterization – In Support of the Massachusetts Contingency Plan (1992).

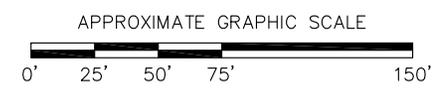
<sup>(3)</sup> Bold, underlined concentration exceeds the applicable MassDEP standard. However, given current uses of the varsity field and spectator area, the concentrations of all chemicals in the top foot of soil are not associated with significant risk as defined by MassDEP.

<sup>(4)</sup> Underlined concentrations exceed MassDEP's background concentration, but are not associated with significant risk as defined by MassDEP.



LEGEND:

 APPROXIMATE SPECTATOR AREA



**WALSH FIELD  
 VARSITY DIAMOND  
 NEW BEDFORD, MASSACHUSETTS**

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**SPECTATOR AREA**

 Wannalancit Mills  
 650 Suffolk Street  
 Lowell, MA 01854  
 (978) 970-5600

FIGURE  
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DRAWN BY: HWB	DATE:
CHECKED BY: JBS	FEB 2010