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TRC Project Number: 115058

August 7, 2008

Massachusetts Department of Environmental Protection
Southeast Regional Office
20 Riverside Drive
Lakeville, Massachusetts 02347

RE: Immediate Response Action Plan (IRA Plan) and Imminent Hazard Evaluation – PCB Contaminated Wetland Sediments
Wetland to Rear of Keith Middle School
225 Hathaway Boulevard, New Bedford, Massachusetts
Release Tracking Number (RTN) 4-21300

To Whom It May Concern:

Consistent with the requirements of the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000), specifically 310 CMR 40.0424, attached please find an Immediate Response Action Plan (IRA Plan) for the above-referenced IRA condition in New Bedford, Massachusetts. This submittal also includes the following Massachusetts Department of Environmental Protection (MassDEP) transmittal forms as attachments to the IRA Plan:

- BWSC-103 -- Release Notification & Notification Retraction Form
- BWSC-105 -- Immediate Response Action (IRA) Transmittal Form

If you have any questions concerning the IRA Plan or transmittal forms, please do not hesitate to contact me at 978-656-3565 or via e-mail at dsullivan@trcsolutions.com.

Sincerely,

David M. Sullivan, LSP, CHMM
Senior Project Manager

Attachment

cc. D. Fredette, S. Alfonse; Department of Environmental Stewardship
M. Cote, G. Martin; MassDEP Southeast Regional Office

IMMEDIATE RESPONSE ACTION PLAN AND IMMINENT HAZARD EVALUATION

PCB Contaminated Wetland Sediments
Release Tracking Number (RTN) 4-21300
Wetland to Rear of Keith Middle School
225 Hathaway Boulevard
New Bedford, Massachusetts

Prepared for:

Department of Environmental Stewardship
City of New Bedford
133 William Street
New Bedford, Massachusetts 02740

Prepared by:

TRC Environmental Corporation
Wannalancit Mills
650 Suffolk Street
Lowell, Massachusetts 01854
(978) 970-5600

August 2008

Immediate Response Action Plan
and
Imminent Hazard Evaluation

PCB Contaminated Wetland Sediments

Wetland to Rear of Keith Middle School
225 Hathaway Boulevard
New Bedford, Massachusetts

Release Tracking Number (RTN) 4-21300

TRC Project Number: 115058

August 7, 2008

TRC Environmental Corporation (TRC) is submitting this Immediate Response Action Plan (IRA Plan) to the Massachusetts Department of Environmental Protection (MassDEP) on behalf of the City of New Bedford. This IRA Plan is for the detection of polychlorinated biphenyl (PCB) contamination in shallow wetland sediment in excess of a concentration indicating a condition that could pose an Imminent Hazard (IH) as defined in the Massachusetts Contingency Plan (MCP; 310 CMR 40.0000) in accordance with 310 CMR 40.0321(2)(b). The potential IH condition is associated with the sample's concentration, depth below surface, proximity to a school or residential dwelling, and accessibility. The potential IH condition triggered a 2-hour regulatory reporting obligation to the MassDEP in accordance with 310 CMR 40.0321(2) and 310 CMR 40.0311(7), and was reported to MassDEP via telephone on June 9, 2008. MassDEP orally approved IRA assessment activities assigned Release Tracking Number (RTN) 4-21300.

This IRA Plan is organized as follows: Section I (Background) briefly summarizes information on TRC's involvement with the Site, the circumstances of the release, the initial response actions conducted at the Site under MassDEP oral approval, and the objectives of this IRA Plan. Section II (IRA Plan) provides the information required for an IRA Plan under the MCP, specifically 310 CMR 40.0424. Section III (References) lists information sources relied upon in the preparation of this IRA Plan. In addition, Attachment A provides an Imminent Hazard Evaluation and Attachment B contains relevant MassDEP transmittal forms.

I. BACKGROUND

Under the direction of a prior consultant (BETA Group, Incorporated [BETA]), the United States Environmental Protection Agency (EPA) approved remedy for the PCB-contaminated wetland sediments at the McCoy Field/Keith Middle School Site (RTN 4-15685) was the removal of up to 6 inches of impacted sediments with residual PCB concentrations greater than 1 mg/kg at locations within the Site wetlands. The 1 mg/kg concentration represents a self-implementing clean-up level for *Bulk Polychlorinated Biphenyl (PCB) Remediation Waste in High Occupancy Areas* under 40 CFR Part 761.61(a)(4)(i)(A) without further conditions, such as capping. EPA

approval for the wetland and other site-related remedial activities was contingent, in part, upon the preparation and implementation of a Long-Term Monitoring and Maintenance Implementation Plan (LTMMIP) describing the activities that will be conducted for the monitoring and maintenance of the remedy.

In accordance with provisions for wetland sediment monitoring at the KMS wetland site as set forth in the BETA-prepared LTMMIP (dated October 20, 2006), TRC performed sampling of sediment in the wetland to the rear of the KMS Site located at 225 Hathaway Boulevard in New Bedford, Massachusetts (see Figure 1).

A TRC field scientist conducted the sediment sampling on May 27, 2008 in accordance with the LTMMIP. For the annual sediment monitoring, the LTMMIP requires the collection of four randomly selected samples from locations abutting the slope consistent with the sediment sampling protocol in Appendix G of the LTMMIP. TRC used the 44 numbered wetland flag locations documented along the wetland/embankment edge on the 12/11/06 As-Built Plan of Land prepared on behalf of BETA by Land Planning, Incorporated (Land Planning) from the BETA-prepared December 2006 *Final Completion and Inspection Report* as approximate sampling station location identifiers.

TRC randomly selected three locations for sampling. TRC departed from the LTMMIP by collecting one of the four sediment samples from a biased sample location at the bottom of the slope beneath the KMS Site cap slope failure along the southern half of the wetland. The biased sample was collected to check on the potential for a contaminant release associated with the 2007 slope failure[1]. All samples were collected using a hand auger and were collected from a depth of 0 to 6 inches below the top of the sediment surface. All samples were analyzed for PCB Aroclors via SW-846 Method 8082. The sampling locations are illustrated on Figure 2 and the samples were designated as follows (with approximate wetland flag or biased sample locations shown in parentheses):

- SD-01 (Biased sample from toe of slope below slope failure – collected in duplicate)
- SD-02 (Wetland Flag W-8)
- SD-03 (Wetland Flag W-19)
- SD-04 (Wetland Flag W-38)

TRC received the preliminary results of analysis on June 9, 2008. Three (3) out of four (4) samples were non-detect (see Table 1). Sediment sample SD-03 contained total PCBs at a concentration of 16.56 milligrams per kilogram (mg/kg).

The 16.56 mg/kg total PCB concentration exceeds a 10 mg/kg total PCB concentration under the MCP that could pose an IH in accordance with 310 CMR 40.0321(2)(b) due to the sample's

[1] In the spring of 2007, a slope failure occurred on the steep slope above the wetland near the southwestern corner of the Site. The area measures approximately 7 feet by 8 feet where the topsoil has slumped to the bottom of the slope. The black separation fabric that demarcates the underlying contaminated fill from the clean imported fill was not exposed; however, a small (approximately 3 to 4 inch) piece of the orange warning layer was visible in the top left quadrant of the damaged area (when viewed from the wetland). The City plans to implement a repair during summer 2008. The repair will consist of lining the damaged area with a 6-ounce non-woven geotextile fabric and covering the fabric with stone (rip-rap) up to local grade to restore the protective cap thickness and allow flow of storm water through the slope in this area without pressure buildup. The rip-rap is intended to allow free drainage of water and be more resistant to the erosive force of storm water overland run off.

concentration, depth below ground surface, proximity to a school or residential dwelling, and accessibility. The potential IH condition triggered a 2-hour regulatory reporting obligation to MassDEP in accordance with 310 CMR 40.0321(2) and 310 CMR 40.0311(7). TRC immediately consulted with the laboratory (Northeast Analytical [NEA] Laboratories of Schenectady, New York) to confirm the validity of the result. Robert Wagner, NEA's director, reviewed the work conducted by the laboratory and confirmed the result. TRC notified the City's Department of Environmental Stewardship and facilitated regulatory reporting of the potential IH condition to MassDEP via telephone within the regulatory reporting timeframe at approximately 3:15 P.M. on Monday June 9, 2008. MassDEP orally approved an "assessment only" Immediate Response Action (IRA) and assigned Release Tracking Number (RTN) 4-21300.

Further assessment initially implemented by TRC consisted of the following:

- Re-extraction and re-analysis of sample SD-03 by the laboratory to verify the original result.
- Collection of six (6) additional sediment samples on June 10, 2008 which were submitted to the laboratory for analysis on a rush turn-around basis to verify the original result and to help evaluate the extent of contamination.

The six (6) additional samples were collected as follows:

- SD-3R – A repeat sample from the approximate location of SD-03 (sediment).
- SD-3-1.5 – A sample collected at a depth of 1.5 feet at SD-3R/SD-03 (sediment).
- SD-3A – A sample collected 5 feet to the north of SD-03 (sediment).
- SD-3B – A sample collected 5 feet to the east of SD-03 (soil from the adjacent KMS cap).
- SD-3C – A sample collected 5 feet to the south of SD-03 (sediment).
- SD-3D – A sample collected 5 feet to the west of SD-03 (sediment).

All samples, with the exception of SD-3-1.5, were collected from a depth of 0 to 6 inches below the sediment surface (sediment sample SD-3-1.5 was collected from a depth of 1.5 feet below surface). All sediment sample locations were under approximately 4 to 6 inches of water with the exception of SD-3C, which was wet, but not under water. Sample SD-3B is a soil sample collected from the adjacent KMS cap. As noted above, SD-3R was collected in duplicate for quality control (QC) purposes. This follow-up sampling was conducted consistent with the LTMMIP except that 1) one additional sample (i.e., SD-3-1.5) was collected at the approximate location of sediment sample SD-03 at a depth of 1.5 feet below the sediment surface to evaluate the depth of contamination and 2) a duplicate sample was collected from SD-3R for QC purposes.

The results of the analysis of the follow-up sediment and soil samples collected on June 10, 2008 are also presented in Table 1 and the locations are illustrated in Figure 2. The results indicate that a sediment sample collected 5 feet to the south of SD-03 (i.e., SD-3C) contains total PCBs at a concentration below the LTMMIP documented 1.0 mg/kg action level for PCBs in sediment. In addition, no PCBs were detected in cap soil sample SD-3B. However, the samples collected 5 feet to the north and west of SD-03 (samples SD-3A and SD-3D, respectively) each contain total PCBs at concentrations greater than the 1.0 mg/kg action level set forth in the LTMMIP and at concentrations greater than the MassDEP 10 mg/kg potential Imminent Hazard reporting

concentration under the MCP. Also, the analytical results from sediment sample SD-3-1.5 indicates that contamination is also present deeper than the 0 to 6 inch monitoring depth suggested by the LTMMIP and at a concentration greater than the LTMMIP 1.0 mg/kg action level.

Supplemental assessment sampling planned in coordination with the City's Department of Environmental Stewardship and performed by TRC on June 19, 2008 consisted of the collection of additional sediment samples at additional 5-foot to 10-foot increments to the north and west of previous samples SD-3A and SD-3D respectively (see Figure 2), with the laboratory directed to analyze the first 5-foot increment and to keep remaining incremental sediment samples on hold pending the results of the first increment analyses. All sediment samples were collected at a depth of 0 to 6 inches below sediment surface. The following summarizes the June 19, 2008 sediment sampling:

- SD-3E – A sample collected 10 feet to the north of SD-03 (sediment)
- SD-3F – A sample collected 15 feet to the north of SD-03 (sediment)
- SD-3G – A sample collected 25 feet to the north of SD-03 (sediment)
- SD-3H – A sample collected 10 feet to the west of SD-03 (sediment)
- SD-3I – A sample collected 15 feet to the west of SD-03 (sediment)
- SD-3J – A sample collected 20 feet to the west of SD-03 (sediment)

The results of the analysis of the next increment of sediment delineation sampling collected on June 19, 2008 are also presented in Table 1 and the locations are illustrated in Figure 2. The results indicate that all sediment samples collected on June 19, 2008 contain total PCBs at concentrations above the LTMMIP documented 1.0 mg/kg action level for PCBs in sediment. Two samples (SD-3F to the north and SD-3H to the west) also contain total PCBs at concentrations greater than the MassDEP 10 mg/kg potential IH reporting concentration under the MCP (no further IRA related reporting is required since the contamination appears to be consistent with that reported to MassDEP on June 9, 2008). The results indicate that further sampling is required to delineate the extent of the PCB sediment contamination.

Supplemental assessment sampling planned in coordination with the City's Department of Environmental Stewardship currently consists of the following:

- Evaluate the areal extent of shallow sediment (0 to 6 inches below the sediment surface) incrementally.
- Develop an efficient sampling plan to evaluate the depth of impacted sediment as the areal extent of PCB-impacted sediment is delineated.

As results are obtained, the above outlined incremental sampling plan may be adjusted to address the conditions encountered.

II. IMMEDIATE RESPONSE ACTION PLAN (310 CMR 40.0424)

This IRA Plan is organized according to the minimum information needs set forth under 310 CMR 40.0424(1)(a) through (j) of the MCP.

(a) Person Assuming Responsibility for Conducting the IRA

Contact Information for Person Assuming Responsibility for Conducting the IRA	
Name	Scott Alfonse
Address	City of New Bedford Department of Environmental Stewardship 133 William Street New Bedford, Massachusetts 02740
Telephone	508-979-1487
Relationship to Site	Responsible Party (RP)

(b) Description of Release, Threat of Release, Site Conditions, and Surrounding Receptors

Description of Release/Threat of Release

Section I (Background) provides a description of the release, which was discovered during annual sediment sampling conducted as required by the LTMMIP for the KMS Site and wetland remediation.

Site Conditions

The potential IH release condition was initially identified from sediment analysis from a sample (SD-03) collected near wetland flag W-19 where the KMS Site cap slope meets the wetland to the rear (west) of the middle school building. The deciduous wood swamp at this location was characterized by standing water when the initial sediment samples were collected on May 27, 2008. The sample SD-03 had approximately 4 to 6 inches of standing water and was collected from a depth of 0 to 6 inches below the sediment surface.

The sample was collected from an area that was previously remedied and was therefore, presumably not contaminated above a concentration of 1 mg/kg. Based on available documentation, prior remedial actions consisted of the excavation and off-site management of PCB-impacted sediment and the stabilization of the embankment bordering the middle school, and wetland restoration with imported soil and vegetation suitable for wetland settings. Pre-remedial wetland sediment sampled conducted by BETA detected PCB sediment concentrations ranging from 0.014 mg/kg to 11.8 mg/kg (as Aroclor 1254). Assuming proper implementation of the remedial excavation and a sound (uncompromised) embankment, the source of the PCB contamination in the sediments at this location is unknown at this time. Detected PCB sediment

concentrations in samples collected by TRC from May 27, 2008 to June 19, 2008 ranged from 0.143 mg/kg to 33.47 mg/kg as Total PCBs.

The area of the potential IH release condition is partially fenced (fencing is present on the north, south and west sides of the KMS property) as illustrated on Figure 2, but the area is still accessible from the residential area to the west (e.g., Summit Avenue).

Surrounding Receptors

The location where the potential IH condition was detected lies within 500 feet of residential dwellings and a school.

Groundwater categories at this KMS Site include GW-1 (a private water supply well is located within 500 feet at 249 Summit Avenue), actual or potential GW-2 depending upon proximity to occupied structures (groundwater is less than 15 feet below ground surface), and GW-3 (applies to all groundwater throughout the state). However, there are no known impacts to groundwater from PCBs associated with the KMS Site. Recent groundwater monitoring conducted at the KMS site in May 2008 (TRC, 2008) in three monitoring wells did not detect PCBs (the laboratory reporting limit for PCBs for all samples was 0.05 micrograms per liter [µg/L]).

Based on review of on-line MassDEP Priority Resource Map data available from Massachusetts Geographic Information System (MassGIS), the site is not located with a Current or Potential Drinking Water Source Area (MassGIS, 2008).

The release Site is located in a wetland resource area. No other documented sensitive ecological receptor areas (e.g., Areas of Critical Environmental Concern [ACECs]) are known to be located at or near the release Site.

(c) Description of any Immediate Response Actions Undertaken to Date at the Site

At the time of oral notification, MassDEP approved the following response action as an IRA (MassDEP, 2008):

- Assessment and monitoring only, with a written IRA plan to be submitted incorporating the findings of the assessment and monitoring effort.

See Section I (Background) for a description of assessment and monitoring activities conducted to date. Also, an IH evaluation was initiated within 14 days of obtaining knowledge of the potential IH condition. TRCs's risk assessment specialist conducted preliminary calculations using the maximum detected sediment concentrations and default MassDEP exposure assumptions (trespasser scenario) and toxicity criteria on June 17, 2008, satisfying the IH evaluation initiation timeline. The preliminary risk assessment calculations indicate an IH exists (TRC's calculations slightly exceed the Imminent Hazard criteria set forth in the MCP under 310 CMR 40.0955). The IH condition was also evaluated following collection of the additional PCB sediment sampling data. For this supplemental evaluation, a 95 percent upper confidence limit on the arithmetic mean total PCB concentration was used instead of the maximum detected total

PCB concentration. Use of the 95% UCL value in the IH calculation indicates that an IH condition does not exist at the Site (refer to Attachment A for specific details regarding the IH evaluations). However, the IH will be re-evaluated, as needed, as additional data are obtained.

(d) The Reason Why an Immediate Response Action is Required

Initially, an IRA was required due to the detection of total PCBs at a concentration in excess of 10 mg/kg within 6 inches of the surface within 500 feet of a school or residence (310 CMR 40.0321(2)(b)) in a location with uncontrolled access, which could pose an Imminent Hazard due to the sample's concentration, depth below ground surface, proximity to a school or residential dwelling, and accessibility. The potential Imminent Hazard condition triggered a 2-hour regulatory reporting obligation to MassDEP in accordance with 310 CMR 40.0321(2) and 310 CMR 40.0311(7).

(e) Objective(s), Specific Plan(s), and Proposed Schedule for Immediate Response Action.

Objectives

The objective of this IRA Plan is to assess, delineate and control access to sediment contamination as a follow-up to MassDEP orally approved IRA activities initiated June 9, 2008. Once the areal extent of contaminated sediment is delineated, temporary barriers and access limitations (snow fencing and signage) will be emplaced to control the IH condition, with pending diagnosis, remedy, and closure of the release condition to be incorporated (linked) into the comprehensive KMS Site Special Project remedial actions.

Specific Plans

Specific IRA activities planned to be implemented at the Site include the following:

- Complete delineation of the area of impacted sediment; and
- Implementation of temporary barriers and access limitations (snow fencing and signage).

Following control of the IH condition that gave rise to the IRA, TRC will submit an IRA Completion Report. The pending diagnosis, remedy, and closure release condition will then be addressed as part of the comprehensive response actions for the KMS Site under Special Project status and linked under RTN 4-15685.

Proposed Schedule

TRC proposes to implement the proposed IRA activities as soon as possible following MassDEP written or presumptive approval.

(f) Remediation Waste Statement

Remediation waste will not be generated as part of this IRA. Removal actions, if any, will take place as part of comprehensive response actions under the Special Project Designation after the IH condition is adequately controlled and the IRA is completed.

(g) Proposed Environmental Monitoring Plan

TRC proposes to collect a sufficient number of sediment samples from the Site to document site conditions following implementation of the IRA. Since the extent of contamination is not known at this time, the amount of sediment samples required to accomplish delineation is not known. All sediment samples collected as part of this IRA will be analyzed for PCB Aroclors via SW-846 Method 8082

(h) Listing of Federal, State or Local Permits Needed to Conduct the Immediate Response Action.

TRC will coordinate with the City of New Bedford Conservation Commission regarding requirements relative to the Massachusetts Wetlands Protection Act for IRA-related sampling activities and anticipated temporary fence installation.

(i) Seal and Signature of the Licensed Site Professional who Prepared the Immediate Response Action Plan

This IRA Plan has been prepared in accordance with 310 CMR 40.0424 (Immediate Response Action Plans) as set forth in the MCP.

David M. Sullivan, LSP, CHMM
TRC Environmental Corporation
Licensed Site Professional No. 1488

August 7, 2008
Date

Stamp

(j) Such Other Information that the Department May Deem Appropriate and Necessary

See Attachment A for the Imminent Hazard Evaluation.

III. REFERENCES USED TO PREPARE THIS IRA PLAN

MassGIS 2008 — Massachusetts Geographic Information System (MassGIS), On-line MassDEP Priority Resource Map. Accessed July 28, 2008. http://maps.massgis.state.ma.us/21e/viewer.htm

TRC 2008 — Letter to David Fredette, PE, City of New Bedford Department of Environmental Stewardship from David M. Sullivan, LSP, CHMM, TRC Environmental Corporation, Lowell, Massachusetts. Re: Groundwater Monitoring Results, Keith Middle School, New Bedford, Massachusetts. June 11, 2008.

TABLE

Table 1
Summary of Analytical Results for Sediment and Soil Samples - May and June 2008
Keith Middle School
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	SD-01		SD-02	SD-03		SD-04	SD-3-1.5	SD-3A	SD-3B	SD-3C
		Sample Depth (ft.):	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	1.5	0-0.5	0-0.5	0-0.5
		Sample Date:	5/27/2008	5/27/2008	5/27/2008	5/27/2008	5/27/2008 *	5/27/2008	6/10/2008	6/10/2008	6/10/2008	6/10/2008
		TSCA		Field Dup								
PCBs												
(mg/kg)	Aroclor 1016	1	0.275 UJ	0.298 UJ	0.218 UJ	0.485 U	0.302 U	0.0594 U	0.483 UJ	0.264 U	0.0576 U	0.0588 U
	Aroclor 1221	1	0.275 UJ	0.298 UJ	0.218 UJ	0.485 U	0.302 U	0.0594 U	0.483 UJ	0.264 U	0.0576 U	0.0588 U
	Aroclor 1232	1	0.275 UJ	0.298 UJ	0.218 UJ	0.485 U	0.302 U	0.0594 U	0.483 UJ	0.264 U	0.0576 U	0.0588 U
	Aroclor 1242	1	0.275 UJ	0.298 UJ	0.218 UJ	0.485 U	0.302 U	0.0594 U	0.483 UJ	0.264 U	0.0576 U	0.0588 U
	Aroclor 1248	1	0.275 UJ	0.298 UJ	0.218 UJ	0.485 U	0.302 U	0.0594 U	0.483 UJ	0.264 U	0.0576 U	0.0588 U
	Aroclor 1254	1	0.275 UJ	0.298 UJ	0.218 UJ	**15.0 J**	**10.6 J**	0.0594 U	**18.0 J**	**12.9 J**	0.0576 U	**0.143 J**
	Aroclor 1260	1	0.275 UJ	0.298 UJ	0.218 UJ	**1.56 J**	**1.28 J**	0.0594 U	**2.37 J**	**1.68 J**	0.0576 U	0.0588 U
	Total PCBs	1	0.275 UJ	0.298 UJ	0.218 UJ	**16.56 J**	**11.88 J**	0.0594 U	**20.37 J**	**14.58 J**	0.0576 U	**0.143 J**

Notes:

All units in mg/kg unless otherwise specified

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

J - Estimated value.

N/A - Not applicable.

U - Compound was not detected at specified quantitation limit

UJ - Estimated non-detect.

Values in Bold indicate the compound was detected.

Values shown in Bold and shaded type exceed the listed TSCA criteria.

TSCA - Toxic Substances Control Act criteria

* - The sample was reextracted and reanalyzed to confirm the results

Table 1
Summary of Analytical Results for Sediment and Soil Samples - May and June 2008
Keith Middle School
New Bedford, Massachusetts

Analysis	Analyte	Sample ID:	SD-3D	SD-3E	SD-3F	SD-3G	SD-3H	SD-3I	SD-3J	SD-3R	
		Sample Depth (ft.):	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5	0-0.5
		Sample Date:	6/10/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/19/2008	6/10/2008	6/10/2008 Field Dup
		TSCA									
PCBs											
(mg/kg)	Aroclor 1016	1	0.761 U	0.0736 U	0.605 UJ	0.311 UJ	0.288 U	0.221 U	0.231 U	0.424 UJ	0.355 UJ
	Aroclor 1221	1	0.761 U	0.0736 U	0.605 UJ	0.311 UJ	0.288 U	0.221 U	0.231 U	0.424 UJ	0.355 UJ
	Aroclor 1232	1	0.761 U	0.0736 U	0.605 UJ	0.311 UJ	0.288 U	0.221 U	0.231 U	0.424 UJ	0.355 UJ
	Aroclor 1242	1	0.761 U	0.0736 U	0.605 UJ	0.311 UJ	0.288 U	0.221 U	0.231 U	0.424 UJ	0.355 UJ
	Aroclor 1248	1	0.761 U	0.0736 U	0.605 UJ	0.311 UJ	0.288 U	0.221 U	0.231 U	0.424 UJ	0.355 UJ
	Aroclor 1254	1	**29.9 J**	**3.64 J**	**20.2 J**	**7.41 J**	**11.7 J**	**6.12 J**	**5.05 J**	**11.8 J**	**13.9 J**
	Aroclor 1260	1	**3.57 J**	0.0736 U	**2.57 J**	**0.951 J**	0.288 U	**0.673 J**	**0.735 J**	**1.48 J**	**1.76 J**
	Total PCBs	1	**33.47 J**	**3.64 J**	**22.77 J**	**8.361 J**	**11.7 J**	**6.793 J**	**5.785 J**	**13.28 J**	**15.66 J**

Notes:

All units in mg/kg unless otherwise specified.

mg/kg - milligrams per kilogram (dry weight) or parts per million (

J - Estimated value.

N/A - Not applicable.

U - Compound was not detected at specified quantitation limit.

UJ - Estimated non-detect

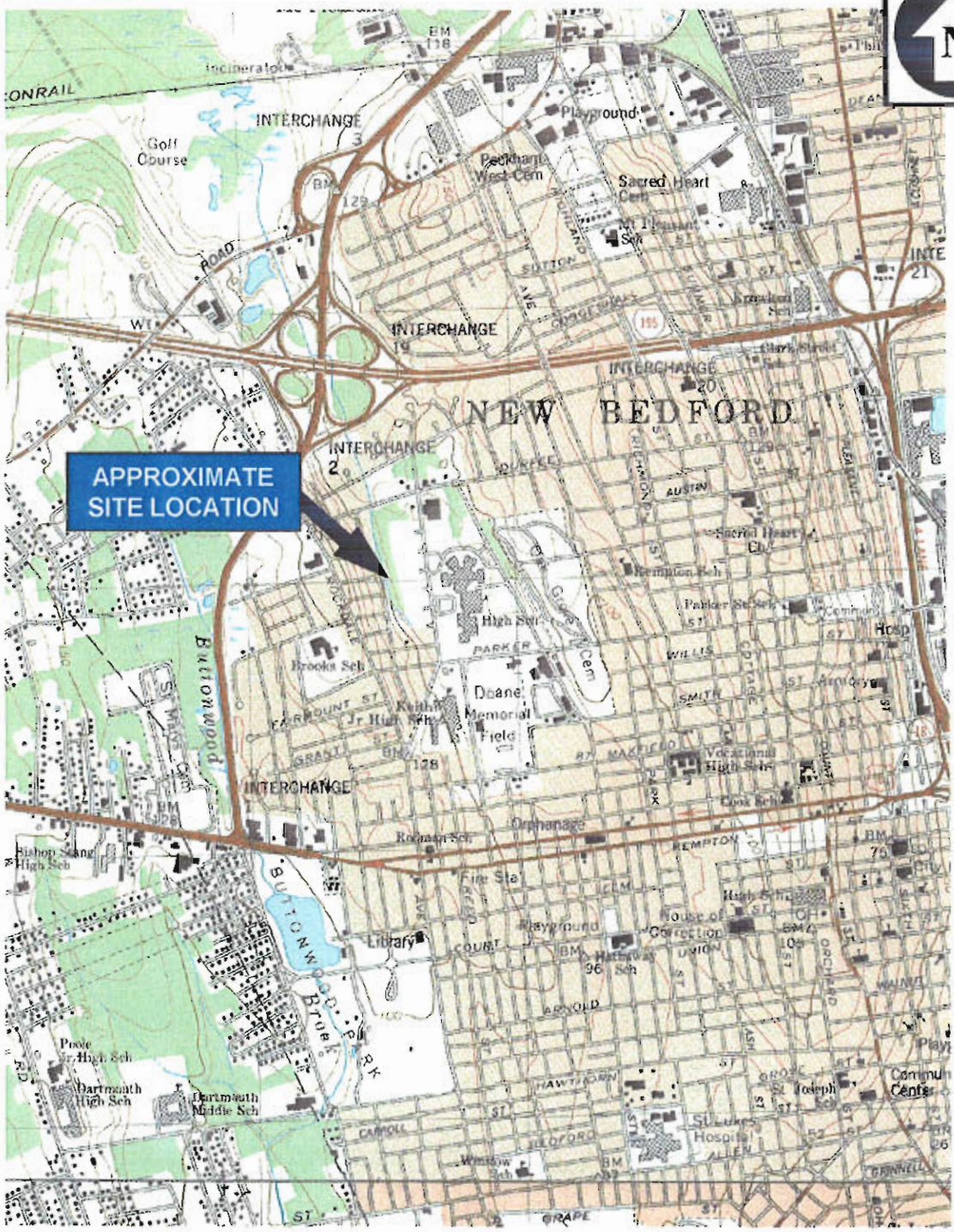
Values in Bold indicate the compound was detected.

Values shown in Bold and shaded type exceed the listed TSCA criteria.

TSCA - Toxic Substances Control Act criteria.

* - The sample was reextracted and reanalyzed to confirm the resul

FIGURES



BASE MAP IS A PORTION OF THE FOLLOWING 7.5' X 15' USGS TOPOGRAPHIC QUADRANGLES: NEW BEDFORD NORTH, MA, 1979; NEW BEDFORD SOUTH, MA 1977

0 1000 2000 3000

scale in feet

QUADRANGLE LOCATION

T:\E_CAD\15058\TOPO KEITH MIDDLE SCHOOL.ppt

KEITH MIDDLE SCHOOL WETLAND
PCB CONTAMINATED SEDIMENTS
NEW BEDFORD, MASSACHUSETTS

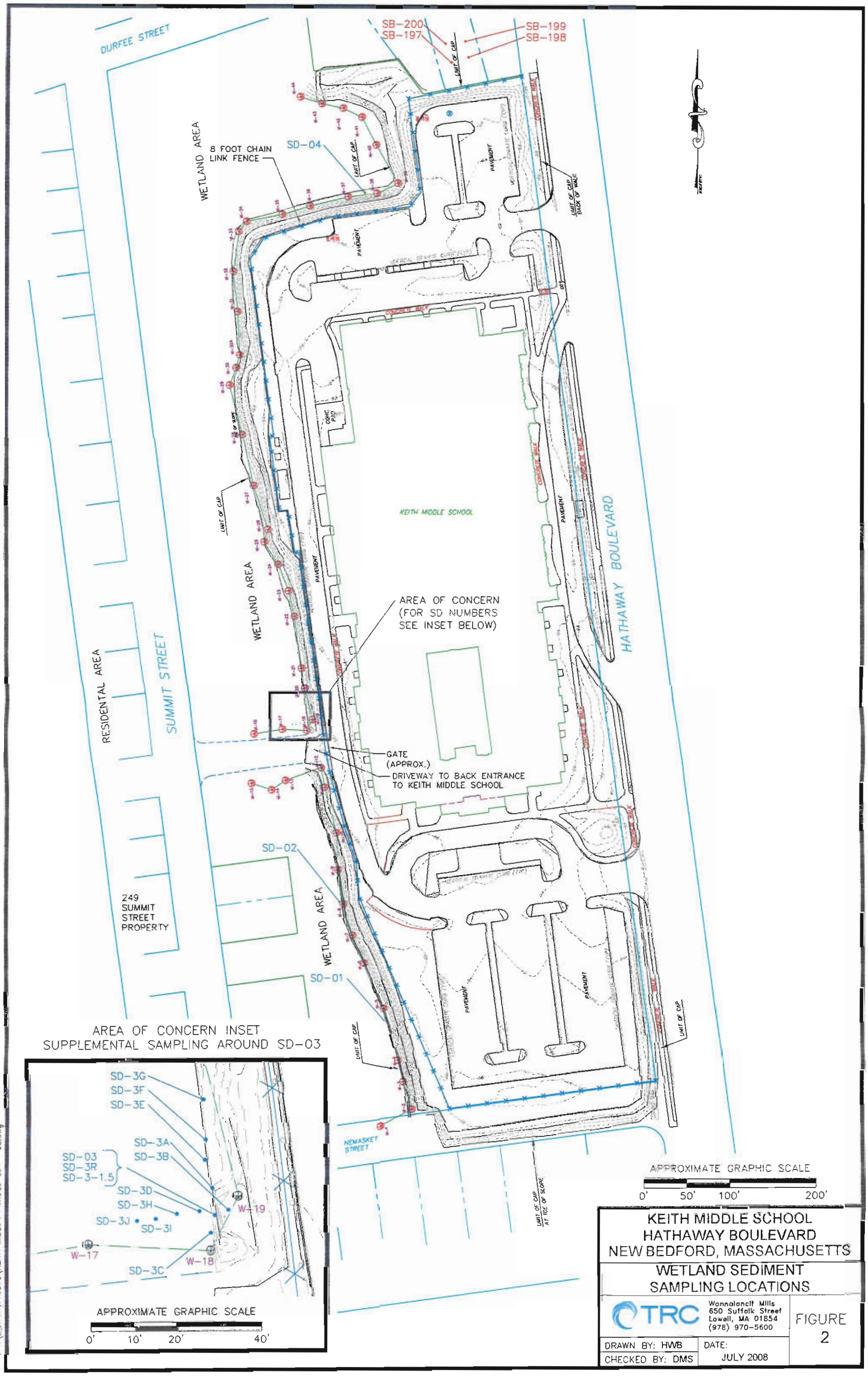
SITE LOCATION MAP

TRC
Wennalancit Mills
650 Suffolk Street
Lowell, MA 01854
978-970-5600

Drawn: HWB
Checked: DS

SCALE: AS SHOWN
Date: JULY 2008

FIGURE 1



AREA OF CONCERN INSET
SUPPLEMENTAL SAMPLING AROUND SD-03

KEITH MIDDLE SCHOOL
HATHAWAY BOULEVARD
NEW BEDFORD, MASSACHUSETTS

WETLAND SEDIMENT
SAMPLING LOCATIONS

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

FIGURE
2

DRAWN BY: HWB	DATE:
CHECKED BY: DMS	JULY 2008

FILE: T:\E_CAD\115056\KEITH MIDDLE SCHOOL SD 7-08.dwg

ATTACHMENT A

IMMINENT HAZARD EVALUATION

IMMINENT HAZARD EVALUATION
SURFACE WETLAND SEDIMENT
KEITH MIDDLE SCHOOL
NEW BEDFORD, MASSACHUSETTS

Due to the potential Imminent Hazard (IH) condition that was triggered at the Site on June 9, 2008 for the detection of polychlorinated biphenyls (PCBs) in shallow wetland sediment to the rear of the Keith Middle School (KMS) at levels above the clean-up level of 1 mg/kg, an IH evaluation was initiated on June 17, 2008. Because only four shallow sediment samples were available at that time (SD-03, SD-3R, SD-3A, and SD-3D) and the delineation of the area of PCB-impacted sediment was not complete, the maximum detected PCB concentration (33.47 mg/kg detected at location SD-3D) was used as the exposure point concentration (EPC) for risk and hazard estimation.

Supplemental sediment sampling was performed on June 19, 2008, resulting in the collection of 6 additional shallow sediment samples for the PCB-impacted area. Therefore, the 95 percent upper confidence limit (95% UCL) on the arithmetic mean concentration has also been used as an EPC for the IH calculation. Samples used for the 95% UCL calculation include SD-03 (plus its re-extraction result treated as a duplicate), SD-3A, SD-3D, SD-3E, SD-3F, SD-3G, SD-3H, SD-3I, and SD-3R (plus its duplicate) for a total of 10 surface sediment samples (0 to 6 inches). Table A-1 provides the summary statistics for surface sediment samples collected within the PCB-impacted area. Table A-2 provides the ProUCL program output for the 95% UCL calculation. Subsequent delineation sampling of the PCB-impacted area provided additional data points for risk evaluation. The most appropriate EPC will be determined following the completion of supplemental delineation sampling at the Site.

The wetland area is located to the rear of the KMS and within 500 feet of residences. There is a fence that separates the wetland area from the KMS, however, the area is accessible from the Summit Avenue residential area. To estimate exposures, a youth (age 8 to 13) was selected for evaluation. This age group conservatively represents school age children likely to be present at the middle school and younger children who may access the area from the residential area. Because the wetland area is a wooded swamp, characterized by the presence of standing water, young children (less than 8 years of age) are unlikely to be taken to this area by their parents or caretakers for recreational activities. However, children older than 8 years of age may he attracted to this area for wildlife exploration (e.g., catching frogs and bugs) as part of their recreational activities. Incidental ingestion of and dermal contact with sediment were quantitatively evaluated. Fugitive dust exposures were not evaluated because the sediments are covered with water and would not likely generate airborne dusts during recreational contact.

Exposure assumptions applicable to the youth trespasser are provided on the risk calculation spreadsheets (Tables A-3 through A-6). Exposure assumptions selected for use are consistent with those used by MassDEP in the trespasser short-form, adjusted to be applicable to the 8 to 13 youth age group. A sediment adherence factor of 1 mg/cm^2 was used, consistent with MassDEP guidance. The exposure frequency of 2 days per week for 30 weeks is a conservative selection

considering the partial fencing around and standing water within the PCB-impacted sediment area.

For the maximum exposure scenario, the estimated cancer risk for the youth recreational user (2E-05) exceeds the MCP cancer risk limit for an IH of 1E-05. The noncarcinogenic hazard of 4 does not exceed the MCP noncarcinogenic limit for an IH of a hazard index (HI) of 10. For the 95% UCL exposure scenario, neither the cancer risk (9E-06) nor the hazard (2) exceed the MCP risk limits for carcinogenic or noncarcingenic endpoints. Because the sediment contamination has not been fully delineated, the most appropriate EPC for the IH evaluation will be determined following completion of site characterization activities.

Table A-1. Summary Statistics for Sediment Samples - May and June 2008
Keith Middle School
New Bedford, Massachusetts

Analysis	Analyte	# of Samples	# of Detects	Freq. of Detects	Min. of Detects (mg/kg)	Max. of Detects (mg/kg)	Location of Max. Detected	Min. of Non-Detects	Max. of Non-Detects	Mean Concentration (mg/kg)	EPC (mg/kg)	EPC Basis
PCBs (mg/kg)	Total PCBs	10	10	100.0%	3.64	33.47	SD-3D	--	--	13.58	18.76	95% Student's-t UCL

Notes:

mg/kg - milligrams per kilogram (dry weight) or parts per million (ppm).

EPC - Exposure point concentration.

UCL - Upper confidence limit.

1	Table A-2			General UCL Statistics for Data Set								
2	User Selected Options											
3	From File			C:\Documents and Settings\pzhou\My Documents\Projects\115058_Keith Middle School_New Bedford\RA								
4	Full Precision			OFF								
5	Confidence Coefficient			95%								
6	Number of Bootstrap Operations			2000								
7												
8												
9	Total PCBs											
10												
11	General Statistics											
12	Number of Valid Observations			10			Number of Distinct Observations					10
13												
14	Raw Statistics						Log-transformed Statistics					
15	Minimum			3.64			Minimum of Log Data					1.3
16	Maximum			33.47			Maximum of Log Data					3.5
17	Mean			13.58			Mean of log Data					2.4
18	Median			12.96			SD of log Data					0.7
19	SD			8.936								
20	Coefficient of Variation			0.658								
21	Skewness			1.31								
22												
23	Relevant UCL Statistics											
24	Normal Distribution Test						Lognormal Distribution Test					
25	Shapiro Wilk Test Statistic			0.885			Shapiro Wilk Test Statistic					1
26	Shapiro Wilk Critical Value			0.842			Shapiro Wilk Critical Value					0.8
27	Data appear Normal at 5% Significance Level						Data appear Lognormal at 5% Significance Level					
28												
29	Assuming Normal Distribution						Assuming Lognormal Distribution					
30	95% Student's-t UCL			18.76			95% H-UCL					24
31	95% UCLs (Adjusted for Skewness)						95% Chebyshev (MVUE) UCL					26
32	95% Adjusted-CLT UCL			19.48			97.5% Chebyshev (MVUE) UCL					32
33	95% Modified-t UCL			18.95			99% Chebyshev (MVUE) UCL					43
34												
35	Gamma Distribution Test						Data Distribution					
36	k star (bias corrected)			2.021			Data appear Normal at 5% Significance Level					
37	Theta Star			6.719								
38	nu star			40.42								
39	Approximate Chi Square Value (.05)			26.85			Nonparametric Statistics					
40	Adjusted Level of Significance			0.0267			95% CLT UCL					18
41	Adjusted Chi Square Value			24.95			95% Jackknife UCL					19
42							95% Standard Bootstrap UCL					18
43	Anderson-Darling Test Statistic			0.221			95% Bootstrap-t UCL					22
44	Anderson-Darling 5% Critical Value			0.733			95% Hall's Bootstrap UCL					46
45	Kolmogorov-Smirnov Test Statistic			0.174			95% Percentile Bootstrap UCL					18
46	Kolmogorov-Smirnov 5% Critical Value			0.269			95% BCA Bootstrap UCL					19
47	Data appear Gamma Distributed at 5% Significance Level						95% Chebyshev(Mean, Sd) UCL					26
48							97.5% Chebyshev(Mean, Sd) UCL					31
49	Assuming Gamma Distribution						99% Chebyshev(Mean, Sd) UCL					42
50	95% Approximate Gamma UCL			20.44								
51	95% Adjusted Gamma UCL			22								
52												
53	Potential UCL to Use						Use 95% Student's-t UCL					19
54												

Table A-3
Youth Recreational User - Maximum
Incidential Ingestion of Sediment
Keith Middle School
New Bedford, MA

		EPC	Exposure Estimates				Toxicity Values		Risk Estimates	
	Constituent	Sediment Concentration (mg/kg)	RAF Ingestion Cancer (--)	LADD Cancer (mg/kg-d)	RAF Ingestion Noncancer (--)	ADD Noncancer (mg/kg-d)	Cancer Slope Factor (Oral) (mg/kg-d)-1	Subchronic Noncancer Reference Dose (Oral) (mg/kg-d)	Cancer Risk (- -)	Hazard Quotient (- -)
1336-36-3	Total PCBs	33.47	0.85	4.7E-07	0.85	1.5E-05	2.0E+00	5.0E-05	9.41E-07	2.96E-01

	Cancer Risk	Hazard Index
TOTAL:	9E-07	3E-01

Where:

LADDcancer = [Soil Concentration x UC x RAF x IR x EF x ED x EP] / [BW x APcancer]
ADDnon-cancer = [Soil Concentration x UC x RAF x IR x EF x ED x EP] / [BW x APnon-cancer]
Cancer Risk = LADDcancer x Slope Factor
Hazard Quotient = ADDnon-cancer / Subchronic Reference Dose

Unit Conversion (CF) =	1.0E-06	kg/mg
Relative Absorption Factor (R	CS	(unitless) [1]
Ingestion Rate (IR) =	50	mg/d [4]
Exposure Duration (ED) =	1	day/event [4]
Exposure Frequency (EF) =	0.164	events/d (2 days per week for 30 weeks per year) [3] - cancer
Exposure Period (EP) =	5	year (ages 8 through 13) [4] - cancer
Body Weight (BW) =	35.5	kg [2] - 8-13 year old - cancer
Averaging Period Cancer (AP	70	years [4]
Averaging Period Noncancer	0.577	years (30 weeks) [4] - subchronic
Exposure Frequency (EF) =	0.286	events/d (2 days per week) [3] - subchronic noncancer
Body Weight (BW) =	27.5	kg [2] - 8-9 year old - subchronic noncancer
Exposure Period (EP) =	0.577	year (30 weeks) [3] - subchronic noncancer

[1] MADEP, 2008
[2] 50th percentile, female; EPA 1997
[3] Best professional judgement
[4] MassDEP, 2007
CS - chemical-specific

Table A-4
Youth Recreational User - Maximum
Dermal Contact with Sediment
Keith Middle School
New Bedford, MA

		EPC	Exposure Estimates				Toxicity Values		Risk Estimates	
Constituent		Sediment Concentration (mg/kg)	RAF Dermal Cancer (--)	LADD Cancer (mg/kg-d)	RAF Dermal Noncancer (--)	ADD Noncancer (mg/kg-d)	Cancer Slope Factor (Oral) (mg/kg-d)-1	Subchronic Noncancer Reference Dose (Oral) (mg/kg-d)	Cancer Risk (--)	Hazard Quotient (--)
1336-36-3	Total PCBs	33.47	0.16	7.2E-06	0.16	1.9E-04	2.0E+00	5.0E-05	1.44E-05	3.71E+00

	Cancer Risk	Hazard Index
TOTAL:	1E-05	4E+00

Where:
LADDcancer = Soil Concentration x UC x SA x SAF x RAF x EF x ED x EP / (BW x APcancer)
ADDnon-cancer = Soil Concentration x UC x SA x SAF x RAF x EF x ED x EP / (BW x APnon-cancer)
Cancer Risk = LADDcancer x Slope Factor
Hazard Quotient = ADDnon-cancer / Subchronic Reference Dose

Unit Conversion (UC1) =	1E-06	kg/mg
Skin Surface Area (SA) =	4067.2	cm^2/d [5] - 8-13 year old - cancer
Sediment Adherence Factor (SAF) =	1	mg/cm2 [6]
Relative Absorption Factor (RAF) =	CS	(unitless) [2]
Exposure Duration (ED) =	1	day/event [4]
Exposure Frequency (EF) =	0.164	events/day (2 day per week for 30 weeks per year) [3] - cancer
Exposure Period (EP) =	5	year (ages 8 through 13)[4] - cancer
Body Weight (BW) =	35.5	kg [1]- 8-13 year old - cancer
Averaging Period Cancer (AP_{cancer}) =	70	years [4]
Averaging Period Noncancer ($AP_{noncancer}$) =	0.577	years (30 weeks) [4] - subchronic
Exposure Frequency (EF) =	0.286	events/d (2 days per week) [3] - subchronic noncancer
Body Weight (BW) =	27.5	kg [1] - 8-9 year old - subchronic noncancer
Skin Surface Area (SA) =	3335.7	cm^2/d [5] - 8-9 year old - subchronic noncancer
Exposure Period (EP) =	0.577	year (30 weeks) [3] - subchronic noncancer

[1] 50th percentile, female; EPA 1997
[2] MADEP, 2008
[3] Best Professional Judgement
[4] MassDEP, 2007
[5] Table B-2; face, forearms, hands, lower legs, feet for females
[6] MADEP, 2002
CS - chemical-specific

Total Receptor Risk/Hazard		
	Cancer Risk	Index
Total	**2E-05**	4E+00

Bold = Cancer Risk >1.0E-05 or Hazard Quotient > 10

Table A-5
Youth Recreational User - 95% UCL
Incidental Ingestion of Sediment
Keith Middle School
New Bedford, MA

		EPC	Exposure Estimates				Toxicity Values		Risk Estimates	
	Constituent	Sediment Concentration (mg/kg)	RAF Ingestion Cancer (--)	LADD Cancer (mg/kg-d)	RAF Ingestion Noncancer (--)	ADD Noncancer (mg/kg-d)	Cancer Slope Factor (Oral) (mg/kg-d)-1	Subchronic Noncancer Reference Dose (Oral) (mg/kg-d)	Cancer Risk (- -)	Hazard Quotient (- -)
1336-36-3	Total PCBs	18.76	0.85	2.6E-07	0.85	8.3E-06	2.0E+00	5.0E-05	5.27E-07	1.66E-01

	Cancer Risk	Hazard Index
TOTAL:	5E-07	2E-01

Where:

LADDcancer = [Soil Concentration x UC x RAF x IR x EF x ED x EP] / [BW x APcancer]
ADDnon-cancer = [Soil Concentration x UC x RAF x IR x EF x ED x EP] / [BW x APnon-cancer]
Cancer Risk = LADDcancer x Slope Factor
Hazard Quotient = ADDnon-cancer / Subchronic Reference Dose

Unit Conversion (CF) =	1.0E-06	kg/mg
Relative Absorption Factor (R	CS	(unitless) [1]
Ingestion Rate (IR) =	50	mg/d [4]
Exposure Duration (ED) =	1	day/event [4]
Exposure Frequency (EF) =	0.164	events/d (2 days per week for 30 weeks per year) [3] - cancer
Exposure Period (EP) =	5	year (ages 8 through 13) [4] - cancer
Body Weight (BW) =	35.5	kg [2] - 8-13 year old - cancer
Averaging Period Cancer (AP	70	years [4]
Averaging Period Noncancer	0.577	years (30 weeks) [4] - subchronic
Exposure Frequency (EF) =	0.286	events/d (2 days per week) [3] - subchronic noncancer
Body Weight (BW) =	27.5	kg [2] - 8-9 year old - subchronic noncancer
Exposure Period (EP) =	0.577	year (30 weeks) [3] - subchronic noncancer

[1] MADEP, 2008
[2] 50th percentile, female; EPA 1997
[3] Best professional judgement
[4] MassDEP, 2007
CS - chemical-specific

Table A-6
Youth Recreational User - 95% UCL
Dermal Contact with Sediment
Keith Middle School
New Bedford, MA

		EPC	Exposure Estimates				Toxicity Values		Risk Estimates	
	Constituent	Sediment Concentration (mg/kg)	RAF Dermal Cancer (--)	LADD Cancer (mg/kg-d)	RAF Dermal Noncancer (--)	ADD Noncancer (mg/kg-d)	Cancer Slope Factor (Oral) (mg/kg-d)-1	Subchronic Noncancer Reference Dose (Oral) (mg/kg-d)	Cancer Risk (--)	Hazard Quotient (--)
1336-36-3	Total PCBs	18.76	0.16	4.0E-06	0.16	1.0E-04	2.0E+00	5.0E-05	8.08E-06	2.08E+00

	Cancer Risk	Hazard Index
TOTAL:	8E-06	2E+00

Where:
LADDcancer = Soil Concentration x UC x SA x SAF x RAF x EF x ED x EP / (BW x APcancer)
ADDnon-cancer = Soil Concentration x UC x SA x SAF x RAF x EF x ED x EP / (BW x APnon-cancer)
Cancer Risk = LADDcancer x Slope Factor
Hazard Quotient = ADDnon-cancer / Subchronic Reference Dose

Unit Conversion (UC1) =	1E-06	kg/mg
Skin Surface Area (SA) =	4067.2	cm^2/d [5] - 8-13 year old - cancer
Sediment Adherence Factor (SAF) =	1	mg/cm2 [6]
Relative Absorption Factor (RAF) =	CS	(unitless) [2]
Exposure Duration (ED) =	1	day/event [4]
Exposure Frequency (EF) =	0.164	events/day (2 day per week for 30 weeks per year) [3] - cancer
Exposure Period (EP) =	5	year (ages 8 through 13)[4] - cancer
Body Weight (BW) =	35.5	kg [1]- 8-13 year old - cancer
Averaging Period Cancer (AP_{cancer}) =	70	years [4]
Averaging Period Noncancer ($AP_{noncancer}$) =	0.577	years (30 weeks) [4] - subchronic
Exposure Frequency (EF) =	0.286	events/d (2 days per week) [3] - subchronic noncancer
Body Weight (BW) =	27.5	kg [1] - 8-9 year old - subchronic noncancer
Skin Surface Area (SA) =	3335.7	cm^2/d [5] - 8-9 year old - subchronic noncancer
Exposure Period (EP) =	0.577	year (30 weeks) [3] - subchronic noncancer

[1] 50th percentile, female; EPA 1997
[2] MADEP, 2008
[3] Best Professional Judgement
[4] MassDEP, 2007
[5] Table B-2; face, forearms, hands, lower legs, feet for females
[6] MADEP, 2002
CS - chemical-specific

Total Receptor Risk/Hazard	Cancer Risk	Index
Total	9E-06	2E+00

Bold = Cancer Risk >1.0E-05 or Hazard Quotient > 10

ATTACHMENT B

MASSACHUSETTS DEPARTMENT OF ENVIRONMENTAL PROTECTION TRANSMITAL FORMS

BWSC-103	Release Notification and Notification Retraction Form
BWSC-105	Immediate Response Action (IRA) Transmittal Form

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

Release Tracking Number: 4 - 21300

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: Keith Middle School Wetland
2. Street Address: 225 Hathaway Boulevard
3. City/Town: New Bedford 4. ZIP Code: 02740-0000
5. UTM Coordinates: a. UTM N: 337,584 b. UTM E: _____

B. THIS FORM IS BEING USED TO: (check one)

[5] 1. Submit a **Release Notification**

[ ] 2. Submit a **Revised Release Notification**

[ ] 3. Submit a **Retraction** of a **Previously Reported Notification** of a release or threat of release including supporting documentation required pursuant to 310 CMR 40.0335 (Section C is not required)

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR):

1. Date and time of Oral Notification, if applicable: 06/09/2008 (mm/dd/yyyy) Time: 03:15 (hh:mm) [ ] AM [5] PM
2. Date and time you obtained knowledge of the Release or TOR: 06/09/2008 (mm/dd/yyyy) Time: 02:00 (hh:mm) [ ] AM [5] PM
3. Date and time release or TOR occurred, if known: _____ (mm/dd/yyyy) Time: _____ (hh:mm) [ ] AM [ ] PM

Check all Notification Thresholds that apply to the Release or Threat of Release:
(for more information see 310 CMR 40.0310 - 40.0315)

4. 2 HOUR REPORTING CONDITIONS
   - [ ] a. Sudden Release
   - [ ] b. Threat of Sudden Release
   - [ ] c. Oil Sheen on Surface Water
   - [ ] d. Poses Imminent Hazard
   - [5] e. Could Pose Imminent Hazard
   - [ ] f. Release Detected in Private Well
   - [ ] g. Release to Storm Drain
   - [ ] h. Sanitary Sewer Release (Imminent Hazard Only)

5. 72 HOUR REPORTING CONDITIONS
   - [ ] a. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/2 Inch
   - [ ] b. Underground Storage Tank (UST) Release
   - [ ] c. Threat of UST Release
   - [ ] d. Release to Groundwater near Water Supply
   - [ ] e. Release to Groundwater near School or Residence
   - [ ] f. Substantial Release Migration

6. 120 DAY REPORTING CONDITIONS
   - [ ] a. Release of Hazardous Material(s) to Soil or Groundwater Exceeding Reportable Concentration(s)
   - [ ] b. Release of Oil to Soil Exceeding Reportable Concentration(s) and Affecting More than 2 Cubic Yards
   - [ ] c. Release of Oil to Groundwater Exceeding Reportable Concentration(s)
   - [ ] d. Subsurface Non-Aqueous Phase Liquid (NAPL) Equal to or Greater than 1/8 Inch and Less than 1/2 Inch

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Release Tracking Number: 4 - 21300

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

C. INFORMATION DESCRIBING THE RELEASE OR THREAT OF RELEASE (TOR): (cont.)

7. List below the Oils (O) or Hazardous Materials (HM) that exceed their Reportable Concentration (RC) or Reportable Quantity (RQ) by the greatest amount.

O or HM Released	CAS Number, if known	O or HM	Amount or Concentration	Units	RCs Exceeded, if Applicable (RCS-1, RCS-2, RCGW-1, RCGW-2)
PCBs	1336-36-3	HM	16.56	MG/KG	

☐ 8. Check here if a list of additional Oil and Hazardous Materials subject to reporting is attached.

D. PERSON REQUIRED TO NOTIFY:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person notifying

2. Name of Organization: City of New Bedford

3. Contact First Name: Scott 4. Last Name: Alfonse

5. Street: 133 William Street 6. Title: Director, Dept. Env. Stew.

7. City/Town: New Bedford 8. State: MA 9. ZIP Code: 02740-0000

10. Telephone: (508) 979-1487 11. Ext.: 12. FAX: (508) 961-3045

☐ 13. Check here if attaching names and addresses of owners of properties affected by the Release or Threat of Release, other than an owner who is submitting this Release Notification (required).

E. RELATIONSHIP OF PERSON TO RELEASE OR THREAT OF RELEASE:

☐ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☒ e. Other RP or PRP Specify: Municipality

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Otherwise Required to Notify Specify Relationship:

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC103

RELEASE NOTIFICATION & NOTIFICATION RETRACTION FORM

Release Tracking Number
4 - 21300

Pursuant to 310 CMR 40.0335 and 310 CMR 40.0371 (Subpart C)

F. CERTIFICATION OF PERSON REQUIRED TO NOTIFY:

1. I, Scott Alfonse, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: Scott Alfonse (Signature) 3. Title: Director, Dept. Env. Stew.

4. For: CITY OF NEW BEDFORD (Name of person or entity recorded in Section D) 5. Date: AUGUST 5, 2008 mm/dd/yyyy

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street:

8. City/Town: 9. State: 10. ZIP Code:

11. Telephone: 12. Ext.: 13. FAX:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 21300

A. RELEASE OR THREAT OF RELEASE LOCATION:

1. Release Name/Location Aid: Keith Middle School Wetland

2. Street Address: 225 Hathaway Boulevard

3. City/Town: New Bedford 4. ZIP Code: 02740

5. UTM Coordinates: a. UTM N: 337,584 b. UTM E: 4,612,274

☐ 6. Check here if a Tier Classification Submittal has been provided to DEP for this disposal site.
☐ a. Tier IA ☐ b. Tier IB ☐ c. Tier IC ☐ d. Tier II

☐ 7. Check here if this location is Adequately Regulated, pursuant to 310 CMR 40.0110-0114. Specify Program (check one):
☐ a. CERCLA ☐ b. HSWA Corrective Action ☐ c. Solid Waste Management
☐ d. RCRA State Program (21C Facilities)

B. THIS FORM IS BEING USED TO: (check all that apply)

1. List Submittal Date of Initial IRA Written Plan (if previously submitted): _____ (mm/dd/yyyy)

☒ 2. Submit an **Initial IRA Plan**.

☐ 3. Submit a **Modified IRA Plan** of a previously submitted written IRA Plan.

☐ 4. Submit an **Imminent Hazard Evaluation**. (check one)
☐ a. An Imminent Hazard exists in connection with this Release or Threat of Release.
☐ b. An Imminent Hazard does not exist in connection with this Release or Threat of Release.
☐ c. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release, and further assessment activities will be undertaken.
☒ d. It is unknown whether an Imminent Hazard exists in connection with this Release or Threat of Release. However, response actions will address those conditions that could pose an Imminent Hazard.

☐ 5. Submit a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard**.

☐ 6. Submit an **IRA Status Report**.

☐ 7. Submit a **Remedial Monitoring Report**. (This report can only be submitted through eDEP.)
a. Type of Report: (check one) ☐ i. Initial Report ☐ ii. Interim Report ☐ iii. Final Report
b. Frequency of Submittal: (check all that apply)
☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.
☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.
☐ iii. A Remedial Monitoring Report(s) submitted concurrent with a IRA Status Report.
c. Number of Remedial Systems and/or Monitoring Programs: _____

A separate BWSC105A, IRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 8. Submit an **IRA Completion Statement**.

☐ a. Check here if future response actions addressing this Release or Threat of Release notification condition will be conducted as part of the Response Actions planned or ongoing at a Site that has already been Tier Classified under a different Release Tracking Number (RTN). When linking RTNs, rescoring via the NRS is required if there is a reasonable likelihood that the addition of the new RTN(s) would change the classification of the site.

b. Provide Release Tracking Number of Tier Classified Site (Primary RTN): ☐ - ☐

These additional response actions must occur according to the deadlines applicable to the Primary RTN. Use the Primary RTN when making all future submittals for the site unless specifically relating to this Immediate Response Action.

☐ 9. Submit a **Revised IRA Completion Statement**.

(All sections of this transmittal form must be filled out unless otherwise noted above)

C. RELEASE OR THREAT OF RELEASE CONDITIONS THAT WARRANT IRA:

1. Identify Media Impacted and Receptors Affected: (check all that apply)

☐ a. Air ☐ b. Basement ☐ c. Critical Exposure Pathway ☐ d. Groundwater ☐ e. Residence

☐ f. Paved Surface ☐ g. Private Well ☐ h. Public Water Supply ☐ i. School ☒ j. Sediments

☐ k. Soil ☐ l. Storm Drain ☐ m. Surface Water ☐ n. Unknown ☐ o. Wetland ☐ p. Zone 2

☐ q. Others Specify: _____

2. Identify Oils and Hazardous Materials Released: (check all that apply)

☐ a. Oils ☐ b. Chlorinated Solvents ☐ c. Heavy Metals

☒ d. Others Specify: PCBs

D. DESCRIPTION OF RESPONSE ACTIONS: (check all that apply, for volumes list cumulative amounts)

☒ 1. Assessment and/or Monitoring Only
☐ 2. Temporary Covers or Caps
☐ 3. Deployment of Absorbent or Containment Materials
☐ 4. Temporary Water Supplies
☐ 5. Structure Venting System
☐ 6. Temporary Evacuation or Relocation of Residents
☐ 7. Product or NAPL Recovery
☒ 8. Fencing and Sign Posting
☐ 9. Groundwater Treatment Systems
☐ 10. Soil Vapor Extraction
☐ 11. Bioremediation
☐ 12. Air Sparging

D. DESCRIPTION OF RESPONSE ACTIONS (cont.): (check all that apply, for volumes list cumulative amounts)

☐ 13. Excavation of Contaminated Soils

☐ a. Re-use, Recycling or Treatment ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: _____

iib. Receiving Facility: _____ Town: _____ State: _____

iii. Describe: _____

☐ b. Store ☐ i. On Site Estimated volume in cubic yards _____

☐ ii. Off Site Estimated volume in cubic yards _____

iia. Receiving Facility: _____ Town: _____ State: _____

iib. Receiving Facility: _____ Town: _____ State: _____

☐ c. Landfill

☐ i. Cover Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

☐ ii. Disposal Estimated volume in cubic yards _____

Receiving Facility: _____ Town: _____ State: _____

☐ 14. Removal of Drums, Tanks or Containers:

a. Describe Quantity and Amount: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

☐ 15. Removal of Other Contaminated Media:

a. Specify Type and Volume: _____

b. Receiving Facility: _____ Town: _____ State: _____

c. Receiving Facility: _____ Town: _____ State: _____

☐ 16. Other Response Actions:

Describe: _____

☐ 17. Use of Innovative Technologies:

Describe: _____

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 21300

E. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B of this form indicates that an **Immediate Response Action Plan** is being submitted*, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) complies(y) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B of this form indicates that an **Imminent Hazard Evaluation** is being submitted*, this Imminent Hazard Evaluation was developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and the assessment activity(ies) undertaken to support this Imminent Hazard Evaluation comply(ies) with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000;

> *if Section B of this form indicates that an **Immediate Response Action Status Report** and/or a **Remedial Monitoring Report** is(are) being submitted*, the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

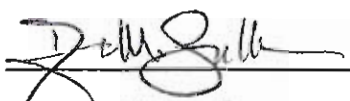
> *if Section B of this form indicates that an **Immediate Response Action Completion Statement** or a request to **Terminate an Active Remedial System or Response Action(s) Taken to Address an Imminent Hazard** is being submitted*, the response action(s) that is(are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is(are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000 and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP #: 1488

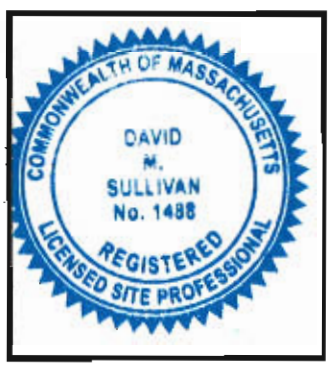
2. First Name: David 3. Last Name: Sullivan

4. Telephone: 978-656-3565 5. Ext.: _____ 6. FAX: 978-453-1995

7. Signature: 

8. Date: August 7, 2008
(mm/dd/yyyy)

9. LSP Stamp:



Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

Release Tracking Number
4 - 21300

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM
Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

F. PERSON UNDERTAKING IRA:

1. Check all that apply: ☐ a. change in contact name ☐ b. change of address ☐ c. change in the person undertaking response actions

2. Name of Organization: City of New Bedford

3. Contact First Name: Scott 4. Last Name: Alfonse

5. Street: 133 William Street 6. Title: Director, Dept. Env. Stew

7. City/Town: New Bedford 8. State: MA 9. ZIP Code: 02740

10. Telephone: 978-979-1487 11. Ext.: 12. FAX: 978-961-3045

G. RELATIONSHIP TO RELEASE OR THREAT OF RELEASE OF PERSON UNDERTAKING IRA:

☐ 1. RP or PRP ☐ a. Owner ☐ b. Operator ☐ c. Generator ☐ d. Transporter

☒ e. Other RP or PRP Specify: Municipality

☐ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

☐ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

☐ 4. Any Other Person Undertaking IRA Specify Relationship:

H. REQUIRED ATTACHMENT AND SUBMITTALS:

☐ 1. Check here if any Remediation Waste, generated as a result of this IRA, will be stored, treated, managed, recycled or reused at the site following submission of the IRA Completion Statement. If this box is checked, you must submit one of the following plans, along with the appropriate transmittal form.

☐ a. A Release Abatement Measure (RAM) Plan (BWSC106) ☐ b. Phase IV Remedy Implementation Plan (BWSC108)

☐ 2. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

☒ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the implementation of an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.

☐ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health were notified of the submittal of a Completion Statement for an Immediate Response Action taken to control, prevent, abate or eliminate an Imminent Hazard.

☐ 5. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to the DEP Regional Office.

☒ 6. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC105

IMMEDIATE RESPONSE ACTION (IRA) TRANSMITTAL FORM

Pursuant to 310 CMR 40.0424 - 40.0427 (Subpart D)

Release Tracking Number: 4 - 21300

I. CERTIFICATION OF PERSON UNDERTAKING IRA:

1. I, Scott Alfonse, attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

2. By: Scott Alfonse (Signature) 3. Title: DIRECTOR, ENV. DEPT.

4. For: CITY OF NEW BEDFORD (Name of person or entity recorded in Section F) 5. Date: AUGUST 5, 2008 (mm/dd/yyyy)

☐ 6. Check here if the address of the person providing certification is different from address recorded in Section F.

7. Street: _____

8. City/Town: _____ 9. State: _____ 10. ZIP Code: _____

11. Telephone: _____ 12. Ext.: _____ 13. FAX: _____

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)