United States Environmental Protection Agency
EPA New England
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October 14, 2002

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Commissioner of Public Works and Utilities, City of Pittsfield
Public Information Repositories

RE: Septmeber 2002 Monthly Report
1.5 Mile Reach Removal Action
GE-Pittsfield/Housatonic River Site

Enclosed please find the September 2002 Monthly Report for the 1.5 Mile Reach Removal Action. In accordance with the Consent Decree for the GE-Pittsfield/Housatonic River Site, the United States Environmental Protection Agency (EPA) is performing the 1.5 Mile Reach Removal Action, with General Electric funding a portion of the project through a cost sharing formula.

The EPA has entered into an agreement with the United States Army Corps of Engineers (USACE) to assist in the design and construction of the Removal Action. The USACE subsequently awarded a design-construct contract to Weston Solutions, Inc. (Weston). Weston, with several subcontractors, will be performing the design and construction activities for the 1.5 Mile Reach Removal Action.

If you have any questions, please contact me at (413) 236-0969.

Sincerely,

Dean Tagliaferro
1.5 Mile Reach Removal Action Project Manager

1. OVERVIEW

During September 2002, Weston, EPA/USACE's prime contractor and its subcontractors, initiated site preparation activities along the west bank of Phase 1 of the 1.5 Mile Removal Action, completed site preparation activities on the east bank of the river, began construction of cell 1 by installing sheetpile and bin blocks for isolating remediation cells, initiated excavation of sediments, and constructed a stockpile management area at Building 65. Utility work on the east side of the river was completed, including connection to the main power source and all electrical wiring, hookup, and testing at the water treatment system. In addition, Weston continued vibration monitoring of the Lyman Street bridge and initiated the settlement, air, and water column monitoring programs. Mobilization of equipment, supplies, materials, and personnel to the site continued, erection of the 250-ton crane and installation of sheet piles and bin blocks was initiated, and excavation of sediments at cell 1A and operation of the water treatment system began.

2. CHRONOLOGICAL DESCRIPTION OF THE TASKS PERFORMED

Week of 2 to 6 September No work was performed on Monday, 2 September in observation of the Labor Day Holiday.

- Started removal of existing fence and installation of temporary fence on the west side of the river at the Lyman Street bridge and continued behind parcel I9-4-201. Removal of existing fence was completed along Parcels I9-4-201, I9-4-203, I9-4-25, and I8-24-5.

- Completed video-taping and photographs for the conditions monitoring program.

- Continued installation of the water treatment system including set up of the first and second 150,000-gallon influent tanks, piping, sand filters, carbon vessels, and pumps.

- Continued mobilization of equipment, supplies and personnel.

- Started clearing trees and brush along the west riverbank near the Lyman Street bridge and along parcel I9-4-201.

- Began geotechnical and chemical testing of backfill material sources.

- Completed layout of easement lines along west bank.

Week of 9 to 13 September

- Began clearing trees and brush at parcel I9-4-14 and continued clearing on parcel I9-4-19.

- Re-established easement line behind building at I9-4-201 to ensure correct placement of temporary fencing and work area delineation. Re-established all easement and temporary fence lines behind parcels I8-24-5, I9-4-203, I9-4-25, I8-4-19, and I8-4-14. Completed temporary fence installation on parcels I9-4-25 and I9-4-203.

- Collected samples of bank run gravel, common fill, and structural fill for geotechnical analysis.

- Completed installation of the following water treatment system components: the second 150,000-gallon modular tank, sand filters, carbon vessels, and pumps. Continued treatment system piping installation and began installation of HDPE discharge and influent lines and valves.

- Began installation of electrical system at water treatment system (wiring to transformer, pumps and electrical panels).

- Began construction of the west riverbank gravel access road starting at the end of Cove Street and continued behind parcel I8-24-301 and on parcel I8-24-101.

- Continued removal of existing fence at parcels I9-4-14 and I9-4-19.

- Continued receiving equipment on site including parts for 250-ton crane (cab, boom, counter weights, and tracks), sheet pile driving hammer, sheet piling, crane mats, bin blocks, 4-inch and 6-inch pumps and sound dampening enclosures.

- Constructed the first crane pad on the west riverbank near the Lyman Street bridge.

- Assembled 250-ton crane, conducted load test using sheet piles, and moved crane to crane pad.

- Conducted oversight of material transfer from Building 65 to the Hill 78 OPCA (see Table 1).

- Installed settlement monitoring pins at parcels I8-24-5, I8-5-14, and I8-23-6 (Laundromat and car wash) and began survey of pins.

- Initiated pre-excavation riverbed surveys of cells 1 and 3.

Week of 16 to 20 September

- Continued construction of the access road along the west riverbank on parcels I9-4-14 and I9-4-19.

- Continued installation of temporary fence at parcel I8-24-5, and I9-4-14 and I9-4-19. All temporary and permanent fencing and gate installation was completed.

- Continued clearing trees along west riverbank at parcels I9-4-14, I9-4-19, and I9-4-201.

- Western Mass. Electric Co. completed installation of the electric cables from the existing transformer at the automatic car wash to the new transformer at the water treatment system area. The final hookup was completed at night to avoid disturbance of a local business while power was shut down.

- Installed oil booms and a silt curtain across the river, fence post and rope barrier to delineate exclusion zones, and stairs and railings for access into cells 1 and 3.

- Continued mobilization of equipment (bin blocks, sheet piling driving platform, and miscellaneous sheet pile). Set up sheet pile driving platform in river along centerline of cells 1 and 3.

- Began installation and sealing of bin blocks for cell 1 (upstream wall completed and started centerline wall).

- Installed centerline sheet piling for cell 1 and started installing downstream cutoff wall of cell 1.

- Continued setup of pipes, pumps, and controls for water treatment system. Completed hookup and testing of the electrical system in preparation for water treatment system start up. Installed baffle curtains in the influent holding tanks.

- Initiated daily turbidity monitoring upstream of the Lyman Street bridge and at the Elm Street bridge.

- Received bin blocks and jersey barriers to be used for stockpile management area.

- Completed elevation surveys of settlement monitoring pins at parcels I8-23-6 (Laundromat, self car wash, and vacuum bases) and I9-24-5.

- Installed power to the health and safety trailer.

Week of 23 to 27 September

- Installed bin blocks and jersey barriers inside Building 65 to construct a ramp for dumping of excavated material hauled by site dump trucks. Paved ramp with 4 inches of asphalt.

- Installed polyethylene plastic for stockpile management in Building 65.

- Completed construction of access road on parcels I9-4-14, I9-4-19, I9-4-203 and I9-4-25.

- Completed tree clearing along the riverbank at parcel I9-4-201.

- Conducted shake down of water treatment system.

- Continued grouting and sealing of the cell 1 bin blocks.

- Continued installation of downstream sheet pile cutoff wall for cell 1 and centerline wall for cell 2. Installed intermediate sheet pile cutoff wall to create two small cells out of cell

1. Cell 1A is located beneath the Lyman St. bridge and cell 1B is a 57 foot long cell immediately downstream of cell 1A.

- Initiated dewatering of cell 1A by pumping water into the first holding tank. Started up treatment system for treatment of water from cell 1A. Water sampling of the treatment system was conducted on day 1 of operation, in accordance with the NPDES permit (see Table 2).

- Completed pre-excavation survey in cells 1A and 1B.

- Power washed the rip-rap slope along the east river bank under the Lyman Street bridge in cell 1A and began excavation of sediments in cell 1A. Transported 6 truck loads of sediment to the stockpile management area at Building 65 (approximate daily quantities of sediment are summarized in Table 1).

- Initialized twice-monthly surface water sampling (see table 6).

- Continued mobilization of equipment to site: received dump truck, water truck, and 2 skip buckets.

Week of 28 to 30 September

- Collected samples from the water treatment system on days 3 and 5 of operation in accordance with the NPDES permit (see Table 2).

- Completed removal of all trees along west side of river.

- Continued receiving equipment on site: crane mats and D-39 bulldozer.

- Continued excavation of cell 1A. Excavated material was placed in the Cell 1B for dewatering.

- Oily sheen and NAPL was observed in cell 1A. A sample of NAPL impacted sediment was collected and submitted for analysis.

- Containment of cell 1A failed and water began entering the cell at a rate faster than it could be pumped out. All equipment was removed from the cell and the pumps were shut down.

3. SAMPLING/TEST RESULTS RECEIVED

PCB sample results were received for water samples collected on 26, 28, and 30 September as part of the NPDES sampling for the water treatment system (Table 2); however the non-PCB analytical results are not yet available. Analytical results for backfill materials including sand, processed gravel and common fill are summarized in Table 3. The results of the daily air monitoring program are summarized in Table 4. Table 5 is a summary of daily turbidity monitoring results. Water samples were collected on 26 September for PCB and TSS analysis as part of the water column monitoring program; however, results were not yet available. The results of the water column monitoring program are summarized in Table 6.

4. DIAGRAMS ASSOCIATED WITH THE TASKS PERFORMED

Figure 1 is a map of the Phase I area, and includes layout of cells 1A, 1B, 3 and 4, lot parcel identification numbers, water monitoring locations, access road locations, fence line location, the water treatment system pad location, crane pad location, the effluent discharge location, and the utility trench location.

5. REPORTS RECEIVED AND PREPARED

Weston received a vibration monitoring summary report for the period of 4 September to 27 September from Geosonics, Inc. During this period, the seismographic was set up at the Lyman Street Bridge on continuous seismic mode. Activities occurring near the Lyman street bridge during this period included normal background activities, sheet pile driving, bin block installation and general construction activities. The maximum ground vibration level reached during this period was 0.10 inches per second (ips). This reading occurred on 23 September 2002 at 8:15 a.m. This level represents 5% of the state's recommended limit of 2.0 ips. All readings during this period complied with State Regulations.

6. PHOTO DOCUMENTATION OF ACTIVITIES PERFORMED

See attached Photos.

7. BRIEF DESCRIPTION OF WORK TO BE PERFORMED IN OCTOBER 2002

- Resolve water issue in cell 1A and complete excavation and backfill activities.
- Excavate and backfill cell 1B.
- Continue installation of centerline sheet piles for cells 2 and 4 and install downstream cut-off wall for cell 2.
- Dewater and initiate excavating activities in cell 2.
- Complete tree clearing, and shred/chip wood debris from tree clearing.
- Install chain link fence at parcel I8-24-301.
- Prepare Building 63 as a stockpiling management area.
- Continue operation of water treatment system.
- Continue daily air and turbidity monitoring.
- Initiate PCB-air sampling (once a month), and continue water sampling (twice a month), and water treatment system sampling (weekly).
- Sample and characterize NAPL-impacted materials and prepare to transport materials off site.
- Continue vibration monitoring at Lyman Street bridge.

8. ATTACHMENTS TO THIS REPORT

Table 1. Excavation Quantity Summary Table

Table 2. NPDES Sampling Results for Water Treatment System

Table 3. Backfill Material Testing Results

Table 4. Daily Air Monitoring Results

Table 5. Daily Water Column Turbidity Monitoring Results

Table 6. Summary of Turbidity, PCB, and TSS Water Column Monitoring Results.

Figure 1- Phase I Site Plan

Photodocumentation

Table 1 - Quantity of Material Generated to Date
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

(Results are reported in cubic yards)

		Approximate Quantity Transported to Stockpile Management Area		Approximate Quantity Transported to OPCAs	
Date	Location	non-TSCA	TSCA	Hill 78 (non-TSCA)	Bldg. 71 (TSCA)
Site Preparation Activities					
12/01/01	Lyman Street Utility Relocation Excavation	255			
12/01/01	Drill Cuttings	7			
06/20/02	Drainage Swale Structure Installation	45			
	Total to Date from site preparation activities	307			
09/11/02	Building 65 Stockpile Management Area			270	
Bank Soil and Sediment					
09/26/02	Cell 1A	40			
09/27/02	Cell 1A	20			
	Total to Date from bank soil and sediment	60			
	Project Totals	**367**		**270**	

Note:
Estimated loose, or non-compacted volumes, calculated by counting the number ot trucks transporting material.

Table 2 - NPDES PCB Sampling Results for Water Treatment System
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

(Results are presented in part per billion, ppb)

Sample ID	Location	Date Collected	Aroclor 1016, 1221, 1232, 1242, & 1248	Aroclor 1254	Aroclor 1260	Total PCBs
H2-WW000001-0-2S26	Influent	09/26/2002	ND(0.66)	**7.3**	**2.6 J**	**9.9**
H2-WW000002-0-2S26	Intermediate	09/26/2002	ND(0.013)	**0.026**	**0.024**	**0.050**
H2-WW000003-0-2S26	Effluent	09/26/2002	ND(0.013)	**0.019**	**0.016**	**0.035**
H2-WW000001-0-2S28	Influent	09/28/2002	ND(0.013)	**0.11**	**0.088**	**0.20**
H2-WW000002-0-2S28	Intermediate	09/28/2002	ND(0.013)	**0.015**	**0.019**	**0.034**
H2-WW000003-0-2S28	Effluent	09/28/2002	ND(0.013)	ND(0.013)	**0.014**	**0.014**
H2-WW000001-0-2S30	Influent	09/30/2002	ND(6.9)	**22.0**	**50.0**	**72.0**
H2-WW000002-0-2S30	Intermediate	09/30/2002	ND(0.014)	**0.032**	**0.041**	**0.073**
H2-WW000003-0-2S30	Effluent	09/30/2002	ND(0.012)	ND(0.012)	ND(0.012)	ND(0.012)
Action Level	**Effluent**					**0.50**

Notes:
ND(0.013) - Analyte was not detected. The value in parentheses is the associated detection limit.
Intermediate - sample collected between carbon units which are being operated in series.
9/26/02 - Day 1 sampling
9/28/02 - Day 3 sampling
9/30/02 - Day 5 sampling

Table 3 - Backfill Material Testing Results
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

(Results are presented in part per million, ppm)

Sample ID	H2-OT000028-0-2S05	H2-OT000029-0-2S05	H2-OT000030-0-2S05	
Sample type	Sand	Processed Gravel	Common Fill	Regulatory
Date Collected	09/05/2002	09/05/2002	09/05/2002	Limits (1)
Analyte				
APP IX SEMIVOLATILES				
BIS(2-ETHYLHEXYL) PHTHALATE	**0.018J**	**0.096J**	**0.200 J**	**100**
APP IX VOLATILES				
ACETONE	**0.026**	**0.022**	**0.012**	**3**
BROMOFORM	**.0038 J**	**.0039 J**	**.0036 J**	**0.1**
METHYLENE CHLORIDE	**.0034 J**	**.0012 J**	**.0011 J**	**0.1**
NAPHTHALENE	**.0011 J**	ND	ND	**4**
METALS				
ANTIMONY	**0.22**	**0.19**	**0.16**	**10**
ARSENIC	**3.7**	**3.3**	**4.3**	**30**
BARIUM	**46.6**	**24.0**	**13.8**	**1000**
BERYLLIUM	**0.27**	**0.14**	**0.12**	**0.7**
CADMIUM	**0.17**	**0.14**	**0.15**	**30**
CHROMIUM	**6.3**	**6.0**	**6.5**	**1000**
COBALT	**7.5**	**6.4**	**12.7**	**500**
COPPER	**10.7**	**11.1**	**11.6**	**1000**
LEAD	**4.3**	**4.3**	**5.3**	**300**
NICKEL	**15.0**	**10.6**	**11.9**	**300**
SILVER	**0.47**	**0.14**	ND	**100**
TIN	**0.90**	**0.22**	**0.32**	**10**
VANADIUM	**6.3**	**6.7**	**5.0**	**400**
ZINC	**53.9**	**34.8**	**42.5**	**2500**
ORGANIC				
PETROLEUM HYDROCARBON	ND	ND	ND	**200***
PCBS				
AROCLOR-1254	**0.022**	ND	ND	
AROCLOR-1260	ND	ND	ND	
PCB, TOTAL	**0.022**	ND	ND	**0.1***

Notes:
Only detected constituents are summarized
J - Indicates as estimated value
ND - not detected
(1) - Massachusetts contingency plan S-1 limits
* - Project specific acceptable levels for backfill

Table 4 - Daily Air Monitoring Results
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

Date Collected	Sample Location	Average Site Concentration (mg/m^3)	Average Period (Hours:Min)
	Upwind	0.007	9:32
	Downwind	0.014	9:40
9/18/2002	Background	---	---
	Upwind	0.012	9:26
	Downwind	0.012	9:26
9/19/2002	Background	0.007	9:14
	Upwind	0.027	9:42
	Downwind	0.026	9:42
9/20/2002	Background	0.026	9:40
	Upwind	0.007	9:36
	Downwind	0.005	9:44
9/23/2002	Background	0.003	9:32
	Upwind	0.005	8:02
	Downwind	---	---
9/24/2002	Background	0.009	9:18
	Upwind	0.009	9:07
	Downwind	0.012	8:40
9/25/2002	Background	0.009	8:48
	Upwind	0.010	7:04
	Downwind	0.015	8:35
9/26/2002	Background	0.009	7:44
	Upwind	N/A	N/A
	Downwind	N/A	N/A
9/27/2002	Background	N/A	N/A
	Upwind	0.019	8:36
	Downwind	0.021	8:21
9/30/2002	Background	0.013	7:50
notification level		**0.120**	
action level		**0.150**	

Notes:
N/A - Not available due to precipitation
--- - No reading due to technical difficulties with monitoring equipment

Table 5 - Daily Water Column Turbidity Monitoring Results
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

Location	Date Collected	Estimated Flow (cfs)	Turbidity (ntu)		
			High	Low	Daily Avarage
Upstream of Lyman St. Bridge	9/16/2002	35	7.28*	6.75*	6.99*
Upstream of Elm St. Bridge	9/16/2002	35	9.97*	7.63*	8.93*
Upstream of Lyman St. Bridge	9/17/2002	22	5.81*	3.89*	4.54*
Upstream of Elm St. Bridge	9/17/2002	22	7.3*	4.98*	5.94*
Upstream of Lyman St. Bridge	9/18/2002	19	5.55*	4.32*	5.01*
Upstream of Elm St. Bridge	9/18/2002	19	6.84*	3.95*	5.01*
Upstream of Lyman St. Bridge	9/18/2002	19	15.8**	14.0**	15.3**
Upstream of Elm St. Bridge	9/18/2002	19	15.8**	13.8**	14.7**
Upstream of Lyman St. Bridge	9/19/2002	16	17.2**	16.0**	16.5**
Upstream of Elm St. Bridge	9/19/2002	16	17.3**	13.7**	15.1**
Upstream of Lyman St. Bridge	9/20/2002	14	16.3**	15.0**	15.7**
Upstream of Elm St. Bridge	9/20/2002	14	15.7**	14.0**	14.6**
Upstream of Lyman St. Bridge	9/23/2002	15	18.1**	17.8**	18.0**
Upstream of Elm St. Bridge	9/23/2002	15	17.2**	15.8**	16.3**
Upstream of Lyman St. Bridge	9/24/2002	14	---	---	---
Upstream of Elm St. Bridge	9/24/2002	14	21.6**	21.6**	21.6**
Upstream of Lyman St. Bridge	9/25/2002	14	---	---	---
Upstream of Elm St. Bridge	9/25/2002	14	---	---	---
Upstream of Lyman St. Bridge	9/26/2002	14	9.7**	6.8**	8.1**
Upstream of Elm St. Bridge	9/26/2002	14	11.7**	8.0**	9.4**
Upstream of Lyman St. Bridge	9/27/2002	21	35.6**	19.5**	25.1**
Upstream of Lyman St. Bridge	9/27/2002	21	24.4***	13.4***	17.4***
Upstream of Elm St. Bridge	9/27/2002	21	17.8***	8.2***	17.4***
Upstream of Lyman St. Bridge	9/30/2002	27	16.1**	16.0**	16.1**
Upstream of Lyman St. Bridge	9/30/2002	27	132.3***	7.3***	21.4***
Upstream of Elm St. Bridge	9/30/2002	27	2.0***	1.0***	1.4***

Notes:

Turbidity Action Level - Downstream (Elm Street) ≥ Upstream (Lyman Street) + 50 ntu

--- - No reading due to technical difficulties with monitoring equipment

* - Measurements collected using HF-Scientific DRT-15C Turbidimeter

** - Measurements collected using YSI 6200 Data Acquisition System using 600 OMS sonde with a 6136 Turbidity Probe

***- Measurements collected using a YSI 6820 sonde

cfs - Cubic feet per second

ntu - nephelometric turbidity units

Flow data was obtained from the USGS Station 01197000 in Coltsville, MA at approximately midday.

Table 6 - Summary of Turbidity, PCB, and TSS Water Column Monitoring Results
September 2002 Monthly Report

GE/Housatonic River Project 1.5 Mile Removal Action
Pittsfield, MA

Location	Date	Estimated Flow (cfs)	Turbidity			Water Temp. (°C)	Calculated Flow Beginning (cfs)	Calculated Flow End (cfs)	Sample ID	Total PCB Concentration (ug/l)	Filtered PCB Concentration (ug/l)	TSS
			High	Low	Daily Avarage							
Upstream of Newell St. Bridge	9/26/2002	14	---	---	---	---	N/A	N/A	H0-SW000054-0-2S26	NR	NR	NR
Upstream of Lyman St. Bridge	9/26/2002	14	9.7	6.8	8.1	15.86	---	---	H1-SW000053-0-2S26	NR	NR	NR
Upstream of Elm St. Bridge	9/26/2002	14	11.7	8.0	9.4	15.64	---	---	---	---	---	---
Downstream of Pomeroy Ave. Bridge	9/26/2002	14	---	---	---	---	13.7	14.1	H2-SW000052-0-2S26	NR	NR	NR

Notes:
PCB Action Level - Downstream (Pomeroy Avenue) ≥ Upstream (Lyman Street) + 5 ug/L
N/A - A rating curve is not yet established at the Newell Street Location, therefore, no flow can be calculated
NR - Not yet reported
cfs - Cubic feet per second
ntu - nephelometric turbidity units
--- - No data obtained
Flow data was obtained from the USGS Station 01197000 in Coltsville, MA at approximately midday.
The water column samples are a 9-hour composite samples.
Two flow values calculated, one at the beginning of the sampling event and one at the end of sampling event.
Temperature at Lyman and Elm measured YSI 600 oms system.

East Street

GE Owned

I9-4-25

I9-4-201

I9-4-203

Lyman Street

Beginning of Phase I

Cell 3

Cell 1A

Cell 1B

Cell 4

Cell 2

I9-4-19

Cove Street

I9-4-14

I9-5-14

Holloway Street

Lyman St.

I8-24-301

I8-23-6

Ashley Street

I8-24-5

Root Place

End of Phase I

Pull Box

Day Street

Elm Street

Mabel Street

Conner Avenue

Hassel Street

Elm Street

LEGEND

- Roads
- Hydrology
- Water Treatment Plant*
- Access Roads*
- Asphalt Access Road
- Truck Wash Pad
- Crane Pad
- Property Lines
- Fence line*
- Excavation cells
- Cells not yet constructed
- Water Treatment Effluent Discharge Location
- Water Monitoring Locations
- Buried Electric/Telephone Line*

*Note: As-built features were located using a real time GPS unit

N

Scale in Feet

100 0 100 200

WESTON SOLUTIONS

Figure 1
1.5 Mile Removal Action
First Phase Site Map
September 2002 Monthly Report

Photograph 1 – Placement of Bin Blocks Upstream of Lyman Street as Part of Remediation Cell No. 1A

Photograph 2 – Placement of Sheet Pile Driving Platform in River

Photograph 3 – Installation of Sheet Pile Wall Immediately Downstream of the Lyman Street Bridge

Photograph 4 – Excavation of Sediments at Cell 1A Beneath Lyman Street Bridge