

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs
 EOE No.: 13820
 MEPA Analyst: Bill GAGE
 Phone: 617-626-1025

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: City of Brockton, Thatcher Street Landfill, Final Closure Project Contaminated Sediment Removal and Wetland Restoration		
Street: 413 Thatcher Street		
Municipality: Brockton	Watershed: Taunton	
Universal Transverse Mercator Coordinates: N46,056,709m E3,035,545m	Latitude: 42°-04'-08"	Longitude: 70°-59'-24"
Estimated commencement date: July 2006	Estimated completion date: July 2006	
Approximate cost: \$30,000	Status of project design: 100 %complete	
Proponent: City of Brockton, Mayor's Office		
Street: City Hall, 45 School Street		
Municipality: Brockton	State: MA	Zip Code: 02301
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Michael Quatromoni		
Firm/Agency: SITEC Environmental, Inc.	Street: 769 Plain Street	
Municipality: Marshfield	State: MA	Zip Code: 02050
Phone: (781) 319-0100	Fax: (781) 834-4783	E-mail: mquatromoni@sitec-engineering.com

- Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
 Yes No
- Has this project been filed with MEPA before?
 Yes (EOEA No. _____) No
- Has any project on this site been filed with MEPA before?
 Yes (EOEA No. _____) No
- Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:
- a Single EIR? (see 301 CMR 11.06(8)) Yes No
 - a Special Review Procedure? (see 301CMR 11.09) Yes No
 - a Waiver of mandatory EIR? (see 301 CMR 11.11) Yes No
 - a Phase I Waiver? (see 301 CMR 11.11) Yes No

Identify any financial assistance or land transfer from an agency of the Commonwealth, including the agency name and the amount of funding or land area (in acres): None

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify _____) No

List Local or Federal Permits and Approvals: The City of Brockton and New England Landfill Solutions, LLC (Contractor) have entered into and Administrative Consent Order with the DEP for the final closure of the landfill. Two (2) Orders of Conditions have been obtained from the Brockton Conservation Commission for cap construction work within 100' of BVW. The Army Corps of Engineers granted authorization for the PCB contaminated sediment removal and wetland restoration on February 1, 2006 as a Category 2 Activity under the Massachusetts Programmatic General Permit (Permit No. NAE-2006-112). A 401 Water Quality Certification will be required from the DEP along with a separate Order of Conditions from the Brockton Conservation Commission.

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- | | | |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/ Extension Permit <input checked="" type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i> <ul style="list-style-type: none"> • Army Corps of Engineers – Massachusetts Programmatic General Permit. (Permit No. NAE-2006-112).
Total site acreage	71 Acres			
New acres of land altered				
Acres of impervious area				
Square feet of new bordering vegetated wetlands alteration		21,875 SF Temporary Alteration		
Square feet of new other wetland alteration				
Acres of new non-water dependent use of tidelands or waterways				
STRUCTURES				
Gross square footage				
Number of housing units				
Maximum height (in feet)				
TRANSPORTATION				
Vehicle trips per day				
Parking spaces				
WATER/WASTEWATER				
Gallons/day (GPD) of water use				
GPD water withdrawal				
GPD wastewater generation/ treatment				
Length of water/sewer mains (in miles)				

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

- Yes (Specify _____) No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation

restriction, or watershed preservation restriction?

Yes (Specify _____) No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

Yes (Specify _____) No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

Yes (Specify _____) No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

Yes (Specify _____) No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

Yes (Specify _____) No

PROJECT DESCRIPTION: The project description should include (a) a description of the project site, (b) a description of both on-site and off-site alternatives and the impacts associated with each alternative, and (c) potential on-site and off-site mitigation measures for each alternative (You may attach one additional page, if necessary.)

The City of Brockton is in the process of completing the final closure and environmental assessment of the Thatcher Street Landfill. During this process, PCB contaminated sediments were detected within a limited area of wetland (designated as Wetland "B") located at the southeast corner of the landfill. Refer to the USGS Locus Map in Attachment B. This Environmental Notification Form (ENF) is being submitted for the remediation of these PCB contaminated sediments along with the full restoration of the affected wetland.

The Army Corps of Engineers has reviewed and approved the application for the proposed work within Wetlands B. A copy of this permit is included within this application and can be found in Attachment A. The following sections describe the proposed activities to be performed to complete PCB removal and wetland restoration.

1.0 WETLAND AREA "B"

Wetland area "B" is located at the southeast corner of the landfill between the landfill area referred to as the "ball field" and the paved access road that leads to the City of Brockton's wastewater pumping station. The locations of the "B" Series wetland flags (numbers B₁ through B₂₇) are shown on a plan entitled *Wetlands area B-Existing & Proposed Conditions*, which can be found in Attachment B. A well-defined drainage ditch exists along side the upper portion access road that appears to have been formed by both the construction of the road and the earlier burial of waste and/or earth moving activities in the ball field area. A large portion of the ditch supports a limited variety of wetlands plant species. The area is dominated by a plant community of phragmites. The lower and less defined portion of the ditch, beyond the ball field area heading toward the pump station building, supports more varied wetlands plant species. A second connecting drainage ditch was observed along the southerly boundary of the ball field area at the end of Southfield Drive that drains in an easterly direction towards the wetland in front of the pump station. This wetland ultimately drains to the east side of the access road through an existing culvert beneath the road just in front of the pump station building. The inlet end of this culvert appears to be severely clogged with vegetation and is in need of cleaning to restore positive drainage flow. The wetlands appear to have established up to the edge of the landfill along the easterly drainage ditch and the southerly limit of the landfill opposite the end of Southfield Drive.

2.0 ENVIRONMENTAL REMEDIATION

SITEC Environmental, Inc. is performing a Comprehensive Site Assessment (CSA), in accordance with DEP regulations and technical guidance documents, as part of the landfill closure process. As part of this assessment, sediment samples had been collected from within low lying areas around the landfill to determine if there was landfill related impact. During these investigations, reportable concentrations of Polychlorinated Bi-phenols (PCBs) were detected within the "B" wetland area located to the south of the ball field. PCBs were also detected within the drainage ditch that runs between the pump station access road and the Ball Field landfill area. Below is a summary table of the initial samples taken along with their associated collection dates.

PARAMETER	RESULTS (mg/kg)										
	9/26/03	10/3/03	12/30/03	2/13/04	3/9/04	3/9/04	3/9/04	3/9/04	3/9/04	3/9/04	3/9/04
	SS-09 ¹	SD-3	SD-3	SD-10	SD-9	SD-11	SD-13	SD-14	SD-16	SD-17	SD-18
Polychlorinated Bi-phenols (PCBs)											
Aroclor 1016	0.106 U	0.072 U	0.062 U	0.65 U	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.069 U
Aroclor 1221	0.106 U	0.072 U	0.062 U	0.65 U	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.069 U
Aroclor 1232	0.106 U	0.072 U	0.062 U	0.65 U	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.069 U
Aroclor 1242	1.106 U	0.072 U	0.062 U	0.65 U	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.069 U
Aroclor 1248	0.106 U	0.072 U	0.062 U	0.48	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.069 U
Aroclor 1254	0.11	8.2	8.8	0.65 U	0.39	1.5	0.67	2.5	0.39	0.78	2.4
Aroclor 1260	0.106 U	0.072 U	1.8	0.65 U	0.066 U	0.26 U	0.24 U	0.081 U	0.071 U	0.053 U	0.8
Total PCBs	0.11	8.2	10.6	0.48	0.39	1.5	0.67	2.5	0.39	0.78	3.2

¹=Collected by Nover-Armstrong Associates, Inc.; U=Analyzed but not found; detection limit listed; Shaded regions indicate exceedances of MCP Method 1 Standards

The full extent of the PCB impacted sediment has been determined by conducting further testing in adjacent down gradient locations. Subsequent samples were collected from a wetland area located on the east side of the access road. No reportable detection of PCB's was encountered in these additional sediment samples indicating that the contamination is limited to sediments directly adjacent to the landfill within wetland "B".

PCBs were not detected at any other location sampled at the landfill perimeter. We have consulted with the Department and it has been established that the removal of the PCB contaminated sediments from the wetland is an appropriate remedial action to be taken as part of this landfill closure project. The locations where the PCBs were detected and the reported concentrations (in parts per million, ppm) are shown on the attached drawing, *Proposed PCB Contaminated Sediment Removal & Wetlands Restoration Area Plan*.

Prior to beginning remediation activities, erosions controls will be installed to isolate the work area and prevent to further migration of sediments. This actual remediation involves the excavation of surficial sediments within the ditch and from within the wetland, the segregation of sediments that are suitable for placed within the adjacent landfill prior to cap construction and the removal sediments from the site that are not suitable for on-site disposal according to DEP Policy, COMM-97-001, "The Reuse and Disposal of Contaminated Soils at Massachusetts Landfills". These unsuitable materials will be transported to a licensed facility for proper treatment and disposal.

Low-level concentrations of PCBs were detected within the drainage ditch as indicated in the dark hatched areas on the drawing. Sample locations SD-9, SD-10, SD-11, SD-3 and SD-14 had concentrations of 0.39, 0.48, 1.50, 0.67, 10.60, and 2.50 ppm respectively. A six-inch depth of sediment will be removed from the bottom of the ditch from SD-9 to a point beyond SD-14. Excavated sediments with PCB concentrations less than 2 ppm will be determined suitable for placement within the landfill according to DEP Policy. These sediments will be excavated from the landfill side of the ditch to minimize handling. Sediments with PCB concentrations greater than 2 ppm will be loaded onto trucks and removed from the site. The excavation of the sediments within the southerly portion of the ditch and from within the easterly side of the wetland area will be accomplished from the paved access road to the extent possible to minimize disturbance to the wetland. Upon completion of sediment removal, confirmatory sampling will be performed throughout the ditch and wetland to determine if all of the impacted sediments had been removed. Additional excavation will be performed if warranted. Material transportation off site will be done under a Bill of Lading following all DEP protocols for site remediation. The excavation work and material handling will be performed following a site-specific health and safety plan to be prepared for the project. The PCB remediation will be done under the direction of a Licensed Site Professional (LSP). Once the remediation is complete, the affected wetland areas will be restored as discussed below:

3.0 WETLANDS RESTORATION

Wetland areas disturbed during the removal of PCB contaminated sediments will be restored to their approximate original grade so as to preserve the hydrological functions, including flood protection and groundwater recharge. Granular fill be used as backfill up to six inches below the final grade within areas where excess excavation may be required. Final grades will be achieved using six inches of topsoil with a minimum of 10% organic matter. Drainage channels will then be re-established through the work area to continue the conveyance of stormwater runoff to the existing culvert beneath the access road in front of the pump station. Once the final grades are established, the disturbed areas will receive an application of Flood Plain Wildlife Seed Mix ERNMX-154 or a similar mix. The existing wetland area now appears to be dominated by the phragmites plant species. Utilization of this mix will result in a more diverse plant community. The restored areas will be re-seeded as necessary to ensure that the area is fully stabilized and supporting vegetative growth.