

ENF Environmental Notification Form

For Office Use Only
 Executive Office of Environmental Affairs
 EOE No.: 13612
 MEPA Analyst: ANNE CANADAY
 Phone: 617-626-1035

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: MBTA Lynn Bus Garage Dual Phase Extraction System		
Street: 985 Western Avenue		
Municipality: Lynn	Watershed: Saugus River	
Universal Transverse Mercator Coordinates: 4,702,036 meters North 337,714.8 meters East	Latitude: 42° 27' 20.2" North	Longitude: 70° 58' 25" West
Estimated commencement date: Jan 2006	Estimated completion date: August 2006	
Approximate cost: \$2 million	Status of project design: 90	%complete
Proponent: Massachusetts Bay Transportation Authority		
Street: 10 Park Plaza		
Municipality: Boston	State: MA	Zip Code: 02116
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Frank Ricciardi		
Firm/Agency: Weston & Sampson	Street: 5 Centennial Drive	
Municipality: Peabody	State: MA	Zip Code: 01960
Phone: 978-532-1900	Fax: 978-977-0100	E-mail: ricciarf@wseinc.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 301 CMR 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): _____ Project will be funded through the use of MBTA Revenue Bonds.

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

List Local or Federal Permits and Approvals: Lynn Water and Sewer Commission Industrial Wastewater Discharge Permit (pending); Lynn Street Opening Permit; Lynn Fire Dept. Tank Installation Permit

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 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 checked="" 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 type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input 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 (including Legislative Approvals) – Specify: DEP Soils Management Plan Approval MA Inspectional Services Department Building Permit Construction Site Dewatering permit (if necessary)
Total site acreage	2.4 ac			
New acres of land altered		0		
Acres of impervious area	2.4	0	2.4	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		0		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	0	400	400	
Number of housing units	0	0	0	
Maximum height (in feet)	0	9.5	9.5	
TRANSPORTATION				
Vehicle trips per day	N/A	N/A	N/A	
Parking spaces	N/A	N/A	N/A	
WATER/WASTEWATER				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	(1)	86,400	86,400	
GPD wastewater generation/ treatment	(1)	86,400	86,400	
Length of water/sewer mains (in miles)	0	0	0	

(1) A minimal withdrawal of water and generation of wastewater is derived from the Immediate Response Action (IRA) to recover fuel oil floating on the groundwater. In recovering the fuel oil, a small amount of groundwater water is also extracted, treated and then discharges to the Lynn Sewer System. This recovery effort will be replaced by the proposed Dual Phase Extraction System herein proposed.

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 Rumney Marshes ACEC) 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.*)

Proposed Work Description

Introduction

The proposed work involves the construction of a remediation system to recover and mitigate migration of #1 diesel fuel petroleum product (product) from historic product releases at MBTA's Bus Garage (Site) in Lynn, Massachusetts. The source of product contamination is associated with a former underground storage tank (UST) and piping system at the Bus Yard, located south/southwest of the Bus Garage building (refer to attached Existing Conditions/Product Location Plan). Product has migrated from the source area off-site to the west towards Camden Street. The work that will take place within Camden Street, where the land surface elevation is below eight (8) feet (NGVD 1929), is within Rumney Marshes Area of Critical Environmental Concern (ACEC). The ACEC boundary is defined by the 100-year flood elevation of eight (8) feet (NGVD 1929) (FEMA FIRM, February 1, 1985). The proposed work will replace three existing wells currently used as an Immediate Response Action (IRA) to recover fuel oil from this release during the planning and preparation for the more comprehensive proposed remediation system. Work within the MBTA parcel is above elevation eight (8) feet (NGVD 1929), and therefore outside the ACEC. This project is necessary to improve groundwater conditions and recover product from the site.

Site Location and Description

The MBTA Lynn Bus Garage property consists of an approximately 2.4-acre parcel of land located at 985 Western Avenue (Route 107) in Lynn, Massachusetts (Locus Map). The Site is adjacent to a gasoline station to the north (969 Western Avenue), the MBTA employee parking lot to the south (1033-1063 Western Avenue), Western Avenue and the General Electric Facility to the east (1000 Western Avenue), and Camden Street and residential properties to the west.

Remediation System

This remedial action encompasses a strategy to maximize recovery of product using an active dual phase extraction (DPE) system. The DPE system will be used to: 1) recover product from the source area, 2) provide hydraulic containment to limit migration of product, 3) recover organic vapors

from the subsurface mitigating the potential migration of contaminants towards Camden Street; and 4) reduce the levels of residual soil contamination by the induced air flow that will stimulate biodegradation.

Thirteen new extraction wells will be installed throughout the Bus Yard and on Camden Street (refer to attached Proposed Remedial Site Plan for the proposed recovery well locations), replacing the existing three wells used in the IRA. The extraction wells will be equipped with drop tubes connected to a vacuum source to recover product, soil vapor, and a minimal amount of groundwater. The extraction wells will also be used to stabilize the groundwater elevation at an optimal level for product and vapor extraction, and to protect against product migration.

The existing remediation trailer and product recovery shed will be removed from the Bus Yard and a new prefabricated equipment building will be installed at the Bus Yard in the same general location as the existing trailer and shed (i.e., against the fence along Camden Street).

Liquids (product and groundwater) and vapors recovered from the drop tubes in the extraction wells will be conveyed to a manifold inside the equipment building. The product/groundwater/vapor will then enter an air/water separator/knock-out tank. From there, a blower will convey the soil vapor through a catalytic oxidizer or vapor-phase activated carbon canisters for removal of organic compounds. Treated air will be discharged to the atmosphere. Product and groundwater from the knock-out tank will be pumped to an oil/water separator. Separated product will be transferred and stored in an aboveground storage tank (AST) and the recovered groundwater will be treated with a sequestering agent to prevent precipitation of dissolved iron and manganese. A transfer pump will then convey sequestered groundwater through particulate filters, an air stripper (discussed below), and finally liquid-phase granular activated carbon (LGAC) canisters. Air emissions will be destroyed/treated using a catalytic oxidizer or vapor-phase activated carbon canisters.

Treated groundwater will be discharged to the City of Lynn Sewer System in accordance with a City of Lynn Groundwater Discharge Permit.

Operation and Maintenance

The system will be monitored by a PLC that will dial out to an operation and maintenance contractor under alarm conditions. The system has been designed with interlocking controls to prevent upset conditions and to monitor for any leaks or pressure changes. The floor of the building will be recessed 6" to provide secondary containment of 110% of the maximum anticipated fluid volume being processed in the building. This secondary containment feature will be monitored with a leak detection probe. Regular monitoring of the Site and of the treatment system components will be required as well as routine maintenance activities. These activities will include (but are not limited to):

- 1 Regular changing of the bag-style particulate filters
- 2 Regular sample collections of the groundwater treatment trains to ensure air stripper and carbon function as well as to comply with the requirements of the City of Lynn groundwater discharge permit
- 3 Periodic replacement of the liquid activated carbon (performed on an as needed basis)
- 4 Periodic redevelopment of the extraction wells (due to iron fouling, performed on an as needed basis)

Additional maintenance activities may be required due to equipment malfunction and other unforeseen circumstances. These issues will be dealt with as they are encountered.