

**Commonwealth of Massachusetts**  
**Executive Office of Environmental**  
**Affairs ■ MEPA Office**

**ENF Environmental**  
**Notification Form**

*For Office Use Only*  
*Executive Office of Environmental Affairs*  
 EOE No. 14452  
 MEPA Analyst: Aisling Englington  
 Phone: 617-626-1024

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: <b>Little River Streambank Restoration Project at Massachusetts Highway Department District 2 Maintenance Facility No. 26</b>		
Street: <b>219 East Main Street</b>		
Municipality: <b>Westfield</b>	Watershed: <b>Westfield River</b>	
Universal Transverse Mercator Coordinates: <b>4665013.32 N 687293.02 E</b>	Latitude: <b>42°06'55"N</b> Longitude: <b>72°43'47"W</b>	
Estimated commencement date: <b>Fall 2009</b>	Estimated completion date: <b>Fall 2010</b>	
Approximate cost: <b>\$668,624.00</b>	Status of project design: <b>100% design</b>	
Proponent: <b>MassHighway</b>		
Street: <b>10 Park Plaza, Room 4260</b>		
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Name of Contact Person From Whom Copies of this ENF May Be Obtained: <b>Benjamin Nichols</b>		
Firm/Agency: <b>MassHighway</b>	Street: <b>10 Park Plaza, Room 4260</b>	
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02116</b>
Phone: <b>617-973-8245</b>	Fax: <b>617-973-8879</b>	E-mail: <b>benjamin.nichols@state.ma.us</b>

- 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): The Massachusetts Highway Department is funding 100% of the construction costs through the Department's General Maintenance Funds.

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

List Local or Federal Permits and Approvals: Order of Conditions from the Westfield Conservation Commission, U.S. Army Corps of Engineers (ACOE) Section 404 Programmatic General Permit (PGP II), National Pollutant Discharge Elimination System (NPDES) General Permit for Construction Activities, U.S. Fish & Wildlife Determination – obtained per instructions provided on the U.S. Fish and Wildlife Service's New England Field Office website

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03): **The proposed Little River Streambank Restoration Project at the Massachusetts Highway Department Maintenance Facility No. 26 exceeds the 301 CMR 11.03(3)(b)(1)(f) threshold. The project involves the alteration of a ½ acre or more of any other wetland.**

- |                                 |                                       |  |
|---------------------------------|---------------------------------------|--|
| <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
<b>LAND</b>				<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>  <b>MESA (NHESP) Determination (9/8/08) attached</b>
Total site acreage	6.0			
New acres of land altered		1.5		
Acres of impervious area	0.75	0	0.75	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		<b>Bank</b> 3,143 sq ft (402 lf)  <b>LUWW</b> 6,531 sq ft (temp impact)  <b>Riverfront Area</b> 48,418 sq ft  <b>BLSF</b> 96.09 cy		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	N/A	N/A	N/A	
Number of housing units	N/A	N/A	N/A	
Maximum height (in feet)	N/A	N/A	N/A	
<b>TRANSPORTATION</b>				
Vehicle trips per day	N/A	N/A	N/A	
Parking spaces	N/A	N/A	N/A	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	N/A	N/A	N/A	

GPD water withdrawal	N/A	N/A	N/A
GPD wastewater generation/ treatment	N/A	N/A	N/A
Length of water/sewer mains (in miles)	N/A	N/A	N/A

**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

**A Notice of Intent was submitted to the Westfield Conservation Commission in August 2008. A copy was provided to the Massachusetts Natural Heritage and Endangered Species Program (MA NHESP) for review under the Wetlands Protection Act and the Massachusetts Endangered Species Act. The response from the MA NHESP indicated that the proposed project would not result in a prohibited take of state-listed species, or adversely affect the habitat of state-listed species. See Attachment D.**

**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

**MassHighway's Cultural Resources Unit (CRU) staff has reviewed the project for historic impacts in compliance with 33 CFR Part 325, Appendix C and M.G.L. Chapter 9, Sections 26-27C as amended by Chapter 254 of the Acts of 1988. On February 27, 2006, the Massachusetts Historical Commission concurred with the finding of MassHighway's CRU that this project is unlikely to affect significant historic or archaeological resources. No further project review is warranted under State Chapter 254.**

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 Massachusetts Highway Department (MassHighway) is proposing a bank stabilization project on the bank of the Little River at the District 2 Maintenance Facility No. 26 in Westfield.

**Existing Conditions:** MassHighway Maintenance Facility No. 26 is located at 219 East Main Street in Westfield, Massachusetts (see Figure 1). The Little River fronts the southern boundary of the site. The north side of the site is bound by East Main Street, Mainline Drive to the east, Noble Street to the west, and industrial use by Columbia Manufacturing Inc., to the south of the project site. The facility currently contains three buildings; an office and garage building, a salt shed and a sand and salt shed. The facility is used primarily to store salt and sand for winter road maintenance. During winter, sand/salt trucks enter the site to fill up during storm events. For the remainder of the year, the site is not extensively used.

The 6-acre site consists of paved areas and an old field/maintained lawn (see Figure 2). The site is generally flat and is approximately 13 feet above the normal water level of the Little River. The facility is located on the banks of the Little River, approximately 2,000 feet upstream from its confluence with the Westfield River. The bank of the river, adjacent to the state-owned facility, is nearly vertical in some areas and the stream is actively eroding the bank near the maintenance facility. The severe recession of the river bank has caused a portion of the paved area to be undercut and to fall into the river. Large pieces of asphalt pavement can be seen on the river bank at the edge of the stream. Several trees have also fallen into the river.

**Purpose and Need:** The facility, including the salt shed located approximately 36 feet from the river bank is at risk of being lost if the river is allowed to continue to erode the river bank. Restoration work is needed to stabilize the stream bank in order to protect the stream bank, stabilize the yard area, and improve riparian habitat.

**Proposed Improvements:** MassHighway proposes to use bioengineering restoration techniques on the southern side of the project site along the Little River to restore and stabilize approximately 402 linear feet of bank, adjacent to the facility. The following work is proposed:

**Lower Slope of Bank:**

- The lower slope will be stabilized with riprap from one-foot below mean water level (86.0 feet) (NGVD 1929) to three feet above the bankfull elevation (92.0 feet);
- The slope of the outer face of the riprap will be set at approximately 1:1 to mimic existing conditions. The stone will be placed to maintain channel dimensions. Hence, excavation of approximately 4 feet of bank material prior to riprap placement will be required;
- Riprap will grade from coarser to finer graded material with increasing elevations;
- A footing of riprap will be located at the base of the slope to reduce the potential of undermining the bank; and
- Live stakes of silky dogwood (*Cornus amomum*) and bankers willow (*Salix x cotteti*) will be installed throughout the lower slope to establish an overgrowing shrub community.

**Middle Slope of Bank:**

- The middle slope will involve work above bankfull elevation (92 feet) to 95 feet.
- The middle slope will be stabilized with vegetated geogrids (soil lifts wrapped with geotextile fabric) with a live brush layer planted below the lower lift.
- The bank will be excavated back approximately 4 feet prior to geogrid placement.

- Geogrids will consist of approximately one foot of compacted topsoil placed on a geotextile.
- Soil geogrids will be terraced back to achieve a 1:1 slope that approximately matches the riprap slopes.
- The recommended plantings for this area are gray dogwood (*Cornus racemosa*), pussy willow (*Salix discolor*) and speckled alder (*Alnus incana*). This entire slope will be seeded with an upland erosion control mix. It is expected that the woody species will dominate the geogrid within several years, seeding in from adjacent sites, and expanding from the brush layer.

#### Upper Slope of Bank:

- Work in the upper layer will involve work in elevations greater than 95 feet.
- The upper slope will be regraded to a slope of 2:1 with approximately 8 inches of topsoil.
- Soil will be covered with a biodegradable erosion control mat and seeded with upland erosion control seed mix.
- Shrubs and saplings recommended for this layer will include staghorn sumac (*Rhus typhina*), gray birch (*Betula populifolia*), black cherry (*Prunus serotina*), cottonwood (*Populus deltoides*), black willow (*Salix nigra*) and arrow-wood (*Viburnum dentatum*).

During construction, a 420-foot cofferdam will be installed along the limit of work within the Little River. The cofferdam will temporarily divert the flow of water by reducing the width of the channel while restoration work along the bank is taking place. Water from within the cofferdam will be periodically pumped around the work area to lower water levels in the work area. Water will be pumped into a dewatering area located on the southwestern end of the site. The pump will be suspended off the bottom and screened to prevent sucking up of sediments and entrainment of aquatic organisms.

A 267-foot grassed swale is also proposed along the top of the Bank, in the southwestern end of the site. This swale will be effective at collecting and treating stormwater runoff from the depot facility. The swale will be constructed at the top of the bank and will consist of a slight berm and excavation to define the flow path of stormwater runoff. The swale will be grassed to stabilize the swale and to increase treatment potential by trapping, filtering and by absorbing particulate and associate pollutants. A grassed swale is designed to remove up to 70 percent of total suspended solids (TSS). The swale will also collect the site runoff and direct it away from the steep embankment. This will prevent concentrated flow of water down the slope, causing gullies to erode the reconstructed streambank.

MassHighway will also regrade and repave the existing paved areas of the site to rehabilitate the severely deteriorated pavement and direct stormwater to the swale.

**Avoidance and Minimization of Impacts:** Proposed work will occur within Land Under Water Bodies and Waterways, Bank, Bordering Land Subject to Flooding, and Riverfront Area, regulated under the Wetlands Protection Act (310 CMR 10.00) (see Figure 3 and Attachment C). However, wetland resource areas will be protected from impacts during the restoration work, through the implementation of an erosion and sediment control program. This program includes provisions to minimize areas of disturbance through phasing and

sequencing, limit erosion through stabilization, and prevent sediment from leaving the site by installing structural controls. Project-generated runoff will be collected and treated in accordance with policies developed by MassHighway and the Massachusetts Department of Environmental Protection (DEP) documented in MassHighway's Stormwater Management Handbook.

**Alternatives:** A No Build Alternative, three restoration alternatives (including the proposed action), and a site relocation alternative were considered. The No Build Alternative included no restoration work, allowing the river to continue to undercut the stream bank. Eventually, this would lead to the loss of MassHighway's maintenance facility. The first restoration alternative involved using vegetative slope stabilization methods without riprap. This alternative would likely stabilize the bank in the short-term but the force of water would comprise the bank in the long-term requiring additional work and potentially greater wetland impacts. A second restoration alternative involved using only riprap on the entire slope. However, this alternative was rejected as the riprap would eliminate all ecological and habitat value. Relocation of the MassHighway maintenance facility was also considered as an alternative. This alternative is substantially more expensive, and would not mitigate the erosion at the stream bank leaving aquatic resources vulnerable to further turbidity during storm events.

The restoration alternative that was chosen is a combination of riprap and bioengineering vegetative slope stabilization techniques. The riprap, to be installed on the lowest portion of the bank, will stabilize the bank and will protect the slope during future storm events. The vegetation, to be planted in the higher portion of the slope, will stabilize the bank and provide high wildlife habitat. This alternative results in minimal impacts to the wetland resources, improves wildlife habitat, and stabilizes the riverbank for the future.

**MEPA Review:** The project requires the preparation and filing of an Environmental Notification Form (ENF) pursuant to the Massachusetts Environmental Policy Act (MEPA) and its implementing regulation at 301 CMR 11.03(3)(b)(1)(f) because it involves the alteration of ½ or more acres of any other wetland. The proposed project will alter 48,418 square feet of Riverfront Area, 3,143 square feet of Bank, and temporarily 6,531 square feet of Land Under Water Bodies and Waterways. This totals 58,092 square feet (approximately 1.3 acres) of "other wetland" impacts. In addition to this, there is 96.09 cubic yards of impact to Bordering Land Subject to Flooding.