

# ENF Environmental Notification Form

*For Office Use Only*  
*Executive Office of Environmental Affairs*  
 EOE No.: 14209  
 MEPA Analyst: Holly Johnson  
 Phone: 617-626-1023

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: North Beverly Drainage Improvements Projects		
Street: Various streets in Beverly		
Municipality: Beverly	Watershed: North Beverly Brook	
Universal Transverse Mercator Coordinates: 19 03 45 304E ; 47 15 050 N	Latitude: 42° 34' 30.93" N Longitude: 70° 53' 4.48" W	
Estimated commencement date: 7/15/2008	Estimated completion date: December 2009	
Approximate cost: \$5,700,000	Status of project design: 90 %complete	
Proponent: Roland Adams, Engineer - City of Beverly		
Street: City Hall, 191 Cabot Street		
Municipality: Beverly	State: MA	Zip Code: 01915
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Magdalena Löfstedt		
Firm/Agency: Camp Dresser & McKee, Inc.	Street: 50 Hampshire Street	
Municipality: Cambridge	State: MA	Zip Code: 02139
Phone: 617-452-6000	Fax: 617-452-8000	E-mail: lofstedtmh@cdm.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? **Kelleher's Pond**  
 Yes (EOEA No. 11980)  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, the North Beverly Drainage Improvements Project is entirely funded by the City of Beverly.

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

List Local or Federal Permits and Approvals:  
 Army Corps of Engineers Programmatic General Permit (PGP) Category 2  
 NPDES General Permit for Construction Activities  
 Order of Conditions from Beverly Conservation Commission (DEP File No. 5-968)

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
<b>LAND</b>				<input checked="" type="checkbox"/> Order of Conditions <input checked="" 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 type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	1.01 acres			
New acres of land altered		0.02 acre*		
Acres of impervious area	0	0.21 acre**		
Square feet of new bordering vegetated wetlands alteration		2,405 sq. ft. converted to Bank		
Square feet of new other wetland alteration		Land Under Water: <u>18,170 sq.ft.</u> Inland Bank: <u>1,060 l.f.</u> Riverfront Area: <u>2,200 sq.ft.</u> Isolated Wetland (City of Beverly): <u>800 sq. ft.</u>		
Acres of new non-water dependent use of tidelands or waterways		0		
<b>STRUCTURES</b>				
Gross square footage	0	0	0	
Number of housing units	0	0	0	
Maximum height (in feet)	0	0	0	
<b>TRANSPORTATION</b>				
Vehicle trips per day	0	0	0	
Parking spaces	0	0	0	
<b>WATER/WASTEWATER</b>				
Gallons/day (GPD) of water use	0	0	0	
GPD water withdrawal	0	0	0	
GPD wastewater generation/ treatment	0	0	0	
Length of water/sewer mains (in miles)	0	0	0	

\* Channel widening at Lexington Road

**\*\*Construction of new bituminous sidewalk along Tozer Road**

**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.*)

**(a) Description of the Project Site**

The North Beverly Brook drainage area is located in the City of Beverly, Massachusetts. Beverly is bounded by Wenham to the North; Wenham and Manchester-by-the-Sea to the East; Salem and Beverly Harbor to the South; and Danvers to the West. It is located in eastern Essex County, approximately 18 miles northeast of Boston, and covers an area of approximately 15 square miles. The North Beverly Brook drainage area encompasses about 1,000 acres in the northern section of the City draining into the Upper and Lower Shoe Ponds west of the Cummings Center (previously the United Shoe Machinery Corporation factory) prior to its discharge into the Bass River.

**(b) a description of both on-site and off-site alternatives and the impacts associated with each alternative**

The North Beverly Drainage Improvements Projects consist of seven (7) separate and distinct drainage projects designed to alleviate existing flooding problems in the North Beverly drainage area. The improvements include structural and non-structural improvements to the City's drainage system to divert storm flows and increase flow capacity of system elements. Work within wetland resource areas was designed to improve the resource areas' capacity to protect and enhance the flood control and storm damage prevention interests of the Massachusetts Wetlands Protection Act (MGL c.131, s.40)[the Act] while not adversely affecting other interest of the Act. Currently, during large storm events, flooding of public and private properties occurs due to limited flood storage, culvert restrictions, and reduced hydraulic capacity of culverts and the open channel. The City of Beverly allocated funding to remedy these deficiencies to alleviate existing long-standing flooding problems and storm-related flood damage in the North Beverly Brook Drainage area. Camp Dresser & McKee Inc. (CDM) prepared a drainage study for the City of Beverly, dated August 2006, which examined the approximately 1,000-acre North Beverly Brook watershed and identified four alternatives to address flooding within the North Beverly Brook drainage area, ranging from new infrastructure to less intrusive methods such as cleaning existing culverts and sediment removal within the open channel of North Beverly Brook. Three alternatives

involve drainage improvements, including installing new pipes in selected critical flood-prone areas to convey peak rates of runoff during a 10-year 24-hour storm event.

**Alternative 1 (No Action Alternative)** – The no action alternative does not address the existing long-standing flooding problems within the North Beverly Brook watershed. For these reasons, the no action alternative was rejected from further consideration.

**Alternative 2 (Preferred Alternative)** – Alternative 2 involves:

- Remove accumulated sediment to restore the flow capacity of the North Beverly Brook channel; and
- Replace collapsed/damaged pipes with new pipes in selected critical flood-prone areas to convey peak rates of runoff and construct a relief culvert in Tozer Road to convey peak flows in the relief culvert and bypass North Beverly Brook.

**Alternative 3** - Alternative 3 includes same the drainage improvements as proposed in Alternative 2 but in addition it includes constructing extensive amounts of additional relief pipes throughout the drainage area. This alternative would significantly reduce most of the flooding problems up to a 10-year 24-hour storm during mean high tide throughout the North Beverly Brook drainage area. However, it requires an extensive amount of alterations to the environment throughout the drainage area (wetlands resource areas including North Beverly Brook and its tributaries), impacts to commercial and residential properties in the area from noise and traffic; taking of easements; permits from the MBTA to install a large pipe under the railroad tracks; relocation of existing utilities; and increased costs.

**Alternative 4** - The Tozer Road relief drain included in Alternatives 2 and 3 is not part of Alternative 4, which means that larger and more extensive drainage piping would be needed in the Sonning Road, Lexington Drive, and Longmeadow Road areas west of the existing MBTA commuter railroad to convey peak rates of runoff during a 10-year 24-hour storm event and alleviate localized flooding. In addition, the existing culverts beneath Route 128 and the railroad tracks would need to be replaced with larger diameter pipes. This alternative would eliminate most flooding problems up to a 10-year 24-hour storm during mean high tide. However, it requires an extensive amount of new relief piping throughout the drainage area. Extensive impacts, including noise, utility relocation, taking of easements, work under the MBTA commuter railroad track and Route 128, traffic, and disturbances to commercial and residential properties, would result from this alternative.

#### (c) Potential on-site and off-site mitigation measures for each alternative

Mitigation measures to minimize impacts to wetland resource areas are included in Section 8 of the Project Description (Attachment A). In addition, a Stormwater Pollution Prevention Plan (SWPP) will be developed as part of the NPDES General Permit for construction activities. A 4,000-square-foot wetland replication area is provided to mitigate the loss of approximately 2,405 square feet of Bordering Vegetated Wetlands from bank stabilization along the open channel north of Beverly High School, resulting in a replication to impact ratio of 1.67 to 1. To minimize impact to bank, bioengineering techniques will be used for bank stabilization with the use of 2.5 to 1 slopes to match the existing grade. Coconut fiber rolls, or in high velocity areas stone, will be placed at the toe-of- slope to provide a stable base. The side slopes will be finish graded with loam and live willow stakes will be planted to stabilize the soil bank (please refer to Attachment A).