

ENF

Environmental Notification Form

EOEA No.: 12774
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: Bridge Creek Salt Marsh Restoration Project		
Street: Route 6A and Old Colony Railroad		
Municipality: Barnstable	Watershed: Cape Cod	
Universal Transverse Mercator Coordinates: 19 Meters NAD27 386488.0 East 4617169.8 North	Latitude: 70° 21' 51.07" West Longitude: 41° 42' 0.50" North	
Estimated commencement date: March 2003	Estimated completion date: December 2003	
Approximate cost: \$550,000	Status of project design: 50% complete	
Proponent: Town of Barnstable, Department of Public Works		
Street: Town Hall, 367 Main Street, Third Floor		
Municipality: Hyannis	State: MA	Zip Code: 02601
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Steve Block, Wetland Scientist		
Firm/Agency: Mass. Wetlands Restoration Program	Street: One Winter Street, 5 th Floor	
Municipality: Boston	State: MA	Zip Code: 02108
Phone: (617) 292-5743	Fax: (617) 292-5850	E-mail: steve.block@state.ma.us

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?

Yes

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):

EOEA Wetlands Restoration Program (\$50,000 grant); Cape Cod Watershed Team (\$50,000); EOTC (donation to be determined)

Are you requesting coordinated review with any other federal, state, regional, or local agency?

Yes (Specify:) No

List Local or Federal Permits and Approvals:

Permit

Order of Conditions

Chapter 91 License

Approval

Barnstable Conservation Commission

DEP – Waterways Program

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 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 checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superceding Order of Conditions <input checked="" type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input checked="" 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: Army Corps of Engineers – Individual Permit Coastal Zone Management – Federal Consistency
Total site acreage	39 acres			
New acres of land altered		0		
Acres of impervious area	0	0	0	
Square feet of new bordering vegetated wetlands alteration		0 sf (direct) (18.6 acres of indirect)		
Square feet of new other wetland alteration (Salt Marsh)		7,920 sf (direct) (20.01 acres of indirect)		
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	0	0	0	
Number of housing units	0	0	0	
Maximum height (in feet)	3.0 ft 4.0 ft	10.0 ft 10.0 ft	7.0 ft 6 ft	
TRANSPORTATION				
Vehicle trips per day	0	0	0	
Parking spaces	0	0	0	
WATER/WASTEWATER				
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	

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: The project area is protected by a Coastal Wetlands Restriction Order by the Department of Environmental Management and is protected in the Order under M.G.L, C. 130, s. 105. The proposed work will not diminish the existing salt marsh, but will enhance the growth of salt marsh vegetation and provide additional habitat for salt marsh species.) 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: The project site is located within the habitat of the Estimated/Priority Habitat for the Diamondback Terrapin (*Malaclemys terrapin*).) 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: The project is located within the boundary of the Sandy Neck/Barnstable ACEC. The boundary of this ACEC extends in a westerly direction along the 100-year floodplain line through Barnstable and Sandwich to Scorton Harbor.) 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 restoration project includes the replacement of two culverts located along Route 6A (King's Highway) and Old Colony Railroad at the Bridge Creek crossing in Barnstable, Massachusetts. The restoration site is a portion of the larger coastal/freshwater wetland system which is tidally connected with Barnstable Harbor. The purpose of the project is to increase the tidal exchange to the upgradient restoration site by enlarging the existing 36-inch culvert under the Old Colony Railroad and the 4x5 foot stone box culvert under Route 6A. The restricted tidal flows within the site have reduced the diversity of vegetation and have created favorable conditions for the colonization and expansive growth of the invasive common reed (*Phragmites australis*) and the conversion of salt marsh to brackish/freshwater wetland. The restoration project is expected to improve the overall wetland and aquatic habitat for approximately 39 acres of coastal/brackish wetland.

The restoration planning for the Bridge Creek site began in 1996, when the U.S. Army Corps of Engineers in cooperation with Coastal America, the Massachusetts Wetlands Restoration Program (MWRP), and the Massachusetts Highway Department conducted a site investigation of the Bridge Creek salt marsh. The findings of the report generated by this visit and subsequent studies indicated that both the railroad and the Route 6A culverts were severely restricting tidal flows to the upstream marsh.

Continuing with this initial planning, the Town of Barnstable and MWRP advanced the studies to include monitoring of tidal datum and hydrologic modeling of various restoration alternatives. Based on these efforts, a recommended alternative was identified that best represents the intent of the restoration planning. The proposed restoration scheme involves replacing the existing culvert structures under the Old Colony Rail and Route 6A with 10-foot x 10-foot box culverts. The selection of this culvert design is based on the desire to achieve a balance

between maximizing the tidal range and frequency within the restoration site, focusing the restoration of wetland areas dominated by *Phragmites*, and avoiding the risk of flooding on adjacent residential properties. Based on detailed hydrologic modeling (HEC-RAS Version 3.0) it was determined that installing one 10-foot x 10-foot culvert at the railroad and Route 6A crossing would allow tidal flow to reach an elevation of 5.48 feet. This design will result in a significant increase in frequency and height of the tidal range within the restoration site and approaches the unrestricted spring high tide elevation of 5.9 feet.

The culvert replacement under the Old Colony Railroad is scheduled for completion in March 2003. This schedule is being driven by a window of opportunity during a period when the Old Colony Rail will be taken temporarily out of service during the repairs to the bridge at the Cape Cod Canal and prior to the diner train beginning its schedule in April. The installation of the 10-foot x 10-foot box culvert at Route 6A will likely be completed during the spring/summer of 2003.

The implementation of both culvert replacements will restore approximately 39.2 acres of degraded marsh and upland habitat. In addition to inhibiting the growth of *Phragmites* within the salt marsh (7.93 acres) the restoration scheme as proposed, will restore brackish marsh to salt marsh (12.14 acres), scrub-shrub wetland to marsh (6.84 acres) and forested wetland to scrub-shrub habitats (11.81 acres). In addition, approximately 0.49 acres of upland area will be reclaimed as scrub-shrub wetland.

The proposed Bridge Creek Salt Marsh Restoration project is consistent with the goals of the *Resolution to Restore Massachusetts Wetlands*. In 1994, the Executive Office of Environmental Affairs (EOEA) and the federal agencies of the Coastal America Partnership U.S. Fish & Wildlife Service, Army Corps of Engineers, National Marine Fisheries Service, Environmental Protection Agency, Federal Highway Administration, and Natural Resources Conservation Service signed a *Resolution to Restore Massachusetts Wetlands*, pledging their commitment to a collaborative approach to restoring the Commonwealth's wetlands. This project is a Coastal America project and is supported by each of the Coastal America partners.

Please refer to Attachment A – Bridge Creek Salt Marsh Restoration Narrative.