Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF

Environmental Notification Form

For Office Use Only Executive Office of Environmental Affairs
EOEA No.: 12942
Deirdre Buckley 626-1044

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: Island Road culvert replacement		
Street: Island Rd		
Municipality: Essex	Watershed: North Coastal	
Universal Tranverse Mercator Coordinates:	Latitude: 42° 39' 14"N Longitude: 70° 47' 06"W	
Estimated commencement date: Jan 2003	Estimated completion date: Feb 2003	
Approximate cost: $37,000	Status of project design: 95 % complete	
Proponent: Town of Essex, Department of Public Works		
Street: 44 Centennial Road/P.O. Box 949 Essex, MA 01929 (978) 768-6262		
Municipality: Essex	State: MA	Zip Code: 01929
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Stephan Gersh		
Firm/Agency:	Street: PO Box 949, 1 Conomo Pt Rd	
Municipality: Essex	State: MA	Zip Code: 01929
Phone: 978-768-7822	Fax: 978-768-3649	E-mail: sgersh@cove.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
☐ Yes X ☐ No

Has this project been filed with MEPA before?
☐ Yes (EOEA No._____) X ☐ No

Has any project on this site been filed with MEPA before?
☐ Yes (EOEA No._____) X ☐ No

Is this an Expanded ENF (see 301 CMR 11.05(7)) requesting:

a Single EIR? (see 301 CMR 11.06(8))	☐ Yes	X ☐ No
a Special Review Procedure? (see 301CMR 11.09)	☐ Yes	X ☐ No
a Waiver of mandatory EIR? (see 301 CMR 11.11)	☐ Yes	X ☐ No
a Phase I Waiver? (see 301 CMR 11.11)	☐ Yes	X ☐ 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) Not applicable

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

List Local or Federal Permits and Approvals: Order of Conditions, MA DEP CH 91 License, MACZM Consistency Review, ACOE S.404/S.10 permit, S. 401 Water Quality Certification and amended Wetland Restriction Order under M.G.L. c. 130 § 105.

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

☐ Land
☐ Water
☐ Energy
X ACEC
☐ Rare Species
☐ Wastewater
☐ Air
☐ Regulations
☐ Wetlands, Waterways, & Tidelands
☐ Transportation
☐ Solid & Hazardous Waste
☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	**Existing**	**Change**	**Total**	**State Permits & Approvals**
LAND				X Order of Conditions ☐ Superseding Order of Conditions X Chapter 91 License X 401 Water Quality Certification ☐ MHD or MDC Access Permit ☐ Water Management Act Permit ☐ New Source Approval ☐ DEP or MWRA Sewer Connection/ Extension Permit ☐ Other Permits (*including Legislative Approvals*) – Specify:
Total site acreage	~20			
New acres of land altered		< 1		
Acres of impervious area	0	0	0	
Square feet of new bordering vegetated wetlands alteration		0		
Square feet of new other wetland alteration		< 500		
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)	0	0	0	
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_____) X☐No

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

☐Yes (Specify_____) X☐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_____) X☐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_____) X☐No

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources? ☐Yes (Specify_____) X☐No

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

X☐Yes (Specify: Parker River/ Essex Bay__) ☐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

A Site description:

Island Road, Essex MA, is a low-lying causeway extending from Route 133 to a dead end town landing at Essex Bay. The construction of Island Road in the early 1900's prevented daily sheet flow tidal action to upstream salt marshes. A 24-inch corrugated metal culvert was installed under Island Road attempting to avert flooding of the road, in turn allowing for minimal tidal exchange. Project team members documented and measured a 14-inch difference in high tide elevations upstream and downstream from the culvert during a spring tide cycle in March 2002. Reduced tidal flow has caused sediment to build up in tidal creeks adjacent to the culvert, has allowed invasive vegetation to out compete native salt marsh plants within the marsh, and has diminished use of the marsh by fish and other estuarine wildlife species.

Work description:
The project will involve the replacement of the undersized, corroded culvert under Island Road, with a new 3' x 5' reinforced concrete box culvert. The new culvert will be 38 feet long. Both the upstream and downstream inverts will be placed at an elevation of 2.0 feet NGVD, allowing free passage of tides and greater access to the upstream marsh for fish. There are no low-lying houses or structures upstream endangered by flooding from restored tidal flow. Approximately 20 acres of degraded marsh on both sides of the culvert will benefit from restored tidal flow.

In order to accommodate the larger size of the new culvert and correct the angle of water flow, (decreasing long term erosion) the new box culvert will be placed in slightly different footprint (larger and different angle) but will largely overlap the original culvert footprint. A man-made unnecessary pool created by the Essex DPW in the 1970's (8' x 10' x 2' deep) adjacent to the existing culvert will be filled in with the dredged spoil and salvaged marsh soil and vegetative plugs salvaged by hand (volunteers) (~ 6cy) from the channel and new culvert. Once the old artifical pool is filled in with dredged materials and salvaged vegetated plugs with *Spartina alterniflora* it is expected to become a healthy functioning part of the saltmarsh.

Additional work will include the stabilization the road banks and removal of approximately **41** cy of eroded roadbed materials (sand and gravel) deposited into the creeks to restore tidal flow. In order to properly line up the new culvert with existing channels, the new culvert will be placed in a slightly different position then the existing culvert, with the eastern end being moved about nine feet northward. Approximately 65 linear feet on the west side and 20 linear feet on the east side of the culvert and from saltmarsh adjacent to the road will be dredged using only hand tools and volunteer labor. These materials will be used restore the man-made pool back to salt marsh.

This is a proactive salt marsh restoration project supported by EOEA's MA Wetlands Restoration Program, Mass Corporate Wetlands Restoration Partnership, the NOAA/NMFS Habitat Restoration Center, MA Audubon, NRCS/USDA, MassBays Eight Towns and the Bay committee, Ducks Unlimited and the Town of Essex.

B Alternatives to the proposed restoration include 1) no action and 2) replacing the deteriorating culvert with an identical sized pipe in the same footprint and leaving the eroded roadbed material in place. However, the existing placement of the old culvert is not lined up with the channel system and is not sufficiently sized to convey normal tidal flow. The run-off from roadbed material deposited onto the existing saltmarsh and into the channel system is preventing necessary tidal flow and diminishing fish passage to the remainder of the saltmarsh. This alternative was deemed insufficient for ample tidal flow.

Because the impacts of the preferred alternative are all positive in that more resource areas will be re-created by decreasing the existing 14 inch tidal restriction, the no-action alternative was dismissed. The short-term impacts mitigated by salvaging the saltmarsh peat excavated from other areas of this site the saltmarsh loss will be equalized with the saltmarsh gain while simultaneously increasing saltmarsh functions.

LAND SECTION – all proponents must fill out this section

I. Thresholds / Permits

A. Does the project meet or exceed any review thresholds related to **land** (see 301 CMR 11.03(1) ___ Yes __X_ No; if yes, specify each threshold:

II. Impacts and Permits

A. Describe, in acres, the current and proposed character of the project site, as follows:

	Existing	Change	Total
Footprint of buildings	____0____	_____	_____