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.: 14387 MEPA Analyst: Ravi Patel Phone: 617-626-1029

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: **LITTLE RIVER STREAM NATURALIZATION & HABITAT RESTORATION**		
Street: **372 Magnolia Ave.**		
Municipality: **Gloucester**	Watershed: **North Coastal**	
Universal Tranverse Mercator Coordinates: **-70.71 42.61**	Latitude: **42°36'35.268" N** Longitude:**70°42'32.886" W**	
Estimated commencement date: **Winter 2009**	Estimated completion date: **Winter 2009**	
Approximate cost: **$ 269,097**	Status of project design: **95** %complete	
Proponent: **City of Gloucester, Community Development Department**		
Street: **3 Pond Road**		
Municipality: **Gloucester**	State: **MA**	Zip Code: **01930**
Name of Contact Person From Whom Copies of this ENF May Be Obtained: **Tim Purinton**		
Firm/Agency: **Riverways Program**	Street: **251 Causeway St.**	
Municipality: **Boston**	State: **MA**	Zip Code: **02114**
Phone: **617-626-1542**	Fax: **617-626-1505**	E-mail: **tim.purinton@state.ma.us**

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):
Massachusetts Riverways Program: $54,850

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 and USACE Section 404, Individual Permit**

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

Alteration of 500 or more linear feet of bank along a fish run or inland bank and alteration of more than 5,000 s.f. of Bordering Vegetated Wetland

- ☐ Land
- ☐ Water
- ☐ Energy
- ☐ 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
LAND			
Total site acreage	.9 acre		
New acres of land altered		.36 acre	
Acres of impervious area	5,975 sq. ft.	-713 sq. ft.	5,262 sq. ft.
Square feet of new bordering vegetated wetlands alteration		2,541 sq. ft. created (net gain)	
Square feet of new other wetland alteration		5,376 sq. ft. existing wetland to be enhanced	
Acres of new non-water dependent use of tidelands or waterways		7,010 sq. ft. saltmarsh created	
STRUCTURES			
Gross square footage	0	0	0
Number of housing units	0	0	0
Maximum height (in feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	0	0	0
WATER/WASTEWATER			
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

State Permits & Approvals

- ☐ Order of Conditions
- ☐ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☐ 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:

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
☒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

Coordination and concurrence with Mass Historical Commission ongoing

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.*)

Please refer to final technical report and plans for further detail and for figures illustrating the project area and design considerations.

A. SITE DESCRIPTION AND PROJECT OBJECTIVES

The Little River watershed is approximately 1.66 square miles, located within the North Coastal Basin. A diverse system of both natural and manmade connections exists between various reservoirs within the Little River watershed. Haskels Pond artificially feeds Dykes Pond through pumping. Dykes Pond sometimes flows towards Mount Ann and sometimes to Lily Pond prior to flowing into Little River.

The City of Gloucester in partnership with the Massachusetts Riverways Program (Riverways), Massachusetts Audubon, and National Oceanic and Atmospheric Administration (NOAA) has identified Little River as a candidate for stream channel restoration and naturalization.

Little River is located adjacent to one of the City of Gloucester's drinking water filtration plants. Headwaters of the river begin at Lily Pond, a 25-acre pond bounded by the MBTA rail line and undeveloped city owned watershed land. The river is approximately one mile in length, and drains to the Annisquam River.

The project consists of the restoration of approximately 600 feet of stream currently channelized within a concrete fish ladder, daylighting a portion of covered stream, and natural channel improvement to enhance instream and river corridor habitat. The attached final technical report provides documentation and justification for the final design of these restoration activities.

In January 2007, Riverways retained Milone & MacBroom, Inc. (MMI) to evaluate various restoration alternatives, culminating in a study published in June 2007 entitled *Stream Naturalization and Restoration Study; Feasibility Assessment and Alternatives Analysis* prepared by Milone & MacBroom, Inc. (MMI). The primary benefit of the restoration is aquatic and riparian habitat enhancement, including improvement of upstream fish passage and creation of spawning habitat. The primary target species for restoration are alewife (*Alosa pseudoharengus*), blueback herring (*Alosa aestivalis*), American eel (*Anguilla rostrate*), rainbow smelt (*Osmerus mordax*), and other resident species. Little River is a documented smelt run (Reback and DiCarlo, 1972) and prior to the construction of the water filtration plant served as a popular location for smelt fishing. Alewives have been monitored in the Little River by volunteers since 2000.

Proposed improvements will seek to improve fish passage and habitat for a diversity of species and to create a more natural stream configuration. Specific project goals and objectives have been identified as follows:

1) Provide for upstream migration of alewife, blueback herring, American eel, and resident species;
2) Create and maximize smelt spawning habitat, complemented by wetlands and resting areas for migrating fish;
3) Daylight as much of the channel as possible;
4) Improve habitat through improvement of the riparian corridor;
5) Reduce localized flooding of the fishway and surrounding areas;
6) Minimize long-term operation and maintenance needs; and
7) Incorporate one or more monitoring locations for education, stewardship, and access purposes.

During this phase of work, final design plans and technical specifications suitable for competitive bidding have been prepared, consistent with the preferred alternative identified in the June 2007 report. In addition, a stand-alone and integrated design for elimination of the treatment plant lagoon has been developed.

B. ALTERNATIVES ANALYSIS

A number of alternatives were identified and analyzed in the June 2007 study by engineers at Milone and MacBroom, Inc. Two composite alternatives were chosen for further analysis. From these composite alternatives, a preferred alternative was identified and carried forward to the Preliminary and Final Design stages. These alternatives are discussed in the following sections.

Previously Analyzed Alternatives

A number of alternatives were developed for the Little River channel, the lagoon area, the Essex Avenue culvert, and the existing fish ladder. From these alternatives, two composite alternatives were selected for further analysis. These alternatives are identified in the Table below.

Summary of Previously Analyzed Alternatives

Alternative	Description
1	Lagoon –Lagoon remains in place.
	Essex Avenue Culvert – Remove section of culvert, daylight section of channel, install new headwall.
	Stream Channel – Stream naturalization without lagoon reclamation.
	Fish Ladder – Abandon and remove existing fish ladder.

2	**Lagoon – Reclaim section of lagoon for restoration.**
	Essex Avenue Culvert – Remove section of culvert, daylight section of channel, install new headwall.
	Stream Channel – Stream naturalization including lagoon reclamation.
	Fish Ladder – Abandon and remove existing fish ladder.

The primary difference between these alternatives is the treatment of the lagoon structure. Under Alternative 1, the lagoon is retained, and the stream channel restoration occurs entirely separate from the lagoon. Under Alternative 2, a section of the lagoon is slated to be removed and restored, while the remainder would remain for use by the Water Treatment Plant.

Chosen Alternative

Alternative 2 was chosen as the preferred alternative, based on the desire to include the reclamation of the sludge lagoon in the design. This alternative was modified from its original form in that the entire lagoon area was considered for restoration. During the feasibility analysis phase, a resting pool was considered for the lagoon area. It was determined that a low-velocity resting pool in the area targeted for enhancement of smelt habitat, which prefer riffling habitat, was not appropriate. An alternate enhancement of the lagoon area has been pursued, in which fresh-water flow from Little River is hydraulically isolated with existing topography from the wetland area. The tidally influenced wetland will likely intercept groundwater, and will create a high-quality natural area with the primary characteristics of a low salt marsh.

A no-action alternative was not considered.

C. MITIGATION AND PRESERVATION OF RESOURCE AREA INTERESTS

Given that this project is a pro-active habitat restoration that seeks to improve natural resource capacity and no conversion of habitat types will take place (e.g. salt marsh replacing bordering vegetated wetland) no mitigation is required or proposed.

This restoration will require temporary alterations to Bank, Land Under Water, Bordering Vegetated Wetlands, Land Subject to Flooding, and Riverfront Area, but will result in a net benefit for all these resources. Please refer to the Project Report for further information on the preservation of resource area interests. Please note issues like Time of Year restrictions, best management construction practices and optimizing work in the dry will be employed and likely conditioned.

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**	**0**	**0**
Roadways, parking, and other paved areas	**5,975 sq.ft.**	**-713 sq. ft.**	**5,262 sq. ft.**
Other altered areas	**0**	**0**	**0**
Undeveloped areas	**16,000 sq.ft.**	**0**	**16,000 sq. ft.**

B. Has any part of the project site been in active agricultural use in the last three years?
___ Yes **X No**; if yes, how many acres of land in agricultural use (with agricultural soils) will be

converted to nonagricultural use?

C. Is any part of the project site currently or proposed to be in active forestry use?
___ Yes **X No**; if yes, please describe current and proposed forestry activities and indicate whether any part of the site is the subject of a DEM-approved forest management plan:

D. Does any part of the project involve conversion of land held for natural resources purposes in accordance with Article 97 of the Amendments to the Constitution of the Commonwealth to any purpose not in accordance with Article 97? ___ Yes **X No**; if yes, describe:

E. Is any part of the project site currently subject to a conservation restriction, preservation restriction, agricultural preservation restriction or watershed preservation restriction? __**Yes X** No; if yes, does the project involve the release or modification of such restriction? ___ Yes **X No**; if yes, describe:

F. Does the project require approval of a new urban redevelopment project or a fundamental change in an existing urban redevelopment project under M.G.L.c.121A? ___ Yes **X No**; if yes, describe:

G. Does the project require approval of a new urban renewal plan or a major modification of an existing urban renewal plan under M.G.L.c.121B? Yes ___ **No X**; if yes, describe:

H. Describe the project's stormwater impacts and, if applicable, measures that the project will take to comply with the standards found in DEP's Stormwater Management Policy:

Construction will adhere to Massachusetts Stormwater Policy Standard #8 and therefore no stormwater impacts are anticipated for the Project. By eliminating impervious surfaces and creating a natural floodplain stormwater infiltration will be enhanced and water quality improved.

I. Is the project site currently being regulated under M.G.L.c.21E or the Massachusetts Contingency Plan? Yes ___ **No X**; if yes, what is the Release Tracking Number (RTN)?

J. If the project is site is within the Chicopee or Nashua watershed, is it within the Quabbin, Ware, or Wachusett subwatershed? ___ Yes **X No**; if yes, is the project site subject to regulation under the Watershed Protection Act? ___ Yes ___ No

K. Describe the project's other impacts on land: **No other impact on land anticipated.**

III.. Consistency

A. Identify the current municipal comprehensive land use plan and the open space plan and describe the consistency of the project and its impacts with that plan(s):

The City of Gloucester, Comprehensive River and Stream Habitat Restoration Report (2002), published by Mass Audubon identified 225 potential restoration projects and the Little River restoration was one of the top ten recommended sites for implementation.

The City of Gloucester Open Space Plan (2003) recognizes the value of marine fisheries and restoration, according to the plan:

> **"It is upon these fragile resources that the food chain of marine life begins. Much of the fish caught in deep waters is linked to these marshes. Cod, pollock, haddock and striped bass are all found in Annisquam River Marshes."**

The Little River is immediately adjacent to and partially contained within the Annisquam River Marsh ecosystem.