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.: 14465
MEPA Analyst: Anne Canaday
Phone: 617-626- 1035

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: **Godfrey Brook System Renovation**		
Street: **Bound by Walker Ave., Congress St./South Main St., Cape Rd. and Prospect St./Highland St.**		
Municipality: **Milford**	Watershed: **Charles River**	
Universal Tranverse Mercator Coordinates: **197800, 876000 meters**	Latitude: **42°08'04"N** Longitude: **71°31'35"W**	
Estimated commencement date: **Spring 2011**	Estimated completion date: **Winter 2013**	
Approximate cost: **$5.9 million**	Status of project design: 10 %complete	
Proponent: **Town of Milford**		
Street: **52 Main Street**		
Municipality: **Milford**	State: **MA**	Zip Code: **01757**
Name of Contact Person From Whom Copies of this ENF May Be Obtained: **Rosalie Starvish**		
Firm/Agency: **BEC, A GZA Company**	Street: **296 North Main St.**	
Municipality: **East Longmeadow**	State: **MA**	Zip Code: **01028**
Phone: **413-525-3822**	Fax: **413-525-8348**	E-mail: **rstarvish@b-e-c.cor**

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. 10416) ☐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): **Not Applicable**

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; 401 Water Quality Certification; U.S. Army Corps of Engineers Section 404 Programmatic General Permit, Category II.**

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

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

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	5		
New acres of land altered		5	
Acres of impervious area	0	0	0
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		14,850 LF (Bank) 72,000 BLSF	
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

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:

ACOE Section 404 Permit
CGP NOI & SWPPP

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:63 West St. (MIL.522) & 28 Oliver St. (MIL.35) properties abut stream channels) ☐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.*)

Project Description

The proposed project involves the replacement of the deteriorating stone masonry channel walls and bottoms of Godfrey, O'Brien and Hospital Brooks in Milford, MA, in their existing alignments with precast concrete channel sections. Godfrey Brook is an intermittent tributary of the Charles River with a watershed of approximately two square miles (1,320 acres). O'Brien and Hospital Brooks are intermittent tributaries of Godfrey Brook, with sub-watershed sizes of approximately 200 acres and 270 acres, respectively. Due to the dense residential development that has occurred over the last 75 years and the significant portions of the drainage areas that have been rendered impervious, the brooks are intermittent in flowand in essence are an integral component of the municipal stormwater management system. All three brooks are located entirely within the Town of Milford, almost exclusively on privately-owned property.

Except in the extreme upper reaches, where the brooks remain somewhat natural, the channels of Godfrey, O'Brien, and Hospital Brooks typically are lined with stone masonry walls constructed in the 1930sas a Works Projects Administration project. At that time, the channels were configured to accommodate the existing brook flows and were not designedto provide additional capacity for future development in the watershed. As the watershed became urbanized, the stone walls prevented the channels from expanding over time, as natural channels do in response to development in the watershed. Due to age, limited hydraulic capacity, and lack of maintenance by the private landowners, the brooks are a continual maintenance and budgetary concern for the Town of Milford.

The brook channels were field investigated in April of 2006 by twowater resources engineers and an environmental scientist to review general condition and natural habitat characteristics. In general, the condition of the stone walls was highly variable, ranging from fair to extremely poor and failing. While many areas appeared stable, the walls were observed inmany areas to be leaning or threatening to collapse. In at least one area, the walls were observed to have completely fallen into the brook. Some portions of the stone walls have been replaced with walls of mass concreteas emergency repairs where extreme failures have occurred due to heavy storms. Godfrey and O'Brien Brooks are culverted under street crossings in many locations, or bridged with simple slab spans and stone abutments. Residential and commercial development encroaches upon the channels, with buildings very near the channel walls in many locations. The majority of the channels have a stone masonry bottom in addition to the walls, over which a gravel and debris substrate has developed, providing minimal wildlife habitat value. The channels provide a travel corridor and intermittent water source function, with the substrate providing limited habitat for aquatic invertebrates. Parts of the channels have no natural substrate and provide little to no habitat function, while the upstream natural areas provide greater habitat function.

Alternatives A feasibility study was prepared to evaluate potential alternatives for restoration of the stream channelsand is attached ("Godfrey Brook Feasibility Study", BEC, Inc., March 2007). A description of each alternative, as well as the impacts and mitigation measures associated with each alternative are as follows:

1. Emergency Repair of Channel Upon Failure - No major repair or reconstruction of the channels is conducted and the stone masonry walls are repaired piecemeal upon failure of wall segments as has been done in the past. It is reasonable to assume that the amount of maintenance required each year will continue to increase. Deteriorated areas would be patched with new stone masonry to replace/repair existing stone masonry. Typical construction practices would likely be employed

to repair damaged areas. Diversion of flows around the work area could be required, depending on the extent of damage and type of construction methods used for repairs.

Collapse of the stone walls can cause secondary impacts such as flooding and further erosion of areas left unprotected. With development very near the channel walls in most locations, extreme property damage is possible, such as collapse of undermined buildings or other structures. Each failure of the channel walls results in a release of gravel and sediments that are conveyed downstream by high flows in the channel causing erosion, blockage of culverts, and adverse environmental and water quality impacts. The downstream sediment deposition can severely alter aquatic communities, while nutrients, metals, and toxic chemicals that may be associated with the sediment particles may settle with the sediment or detach and become soluble in the water column and be conveyed downstream. This alternative will result in continued failure of the walls, thus it will not reduce or prevent the harmful water quality impact associated with the release of sediment that occurs when the walls collapse.

Impacts to any existing wildlife habitat characteristics within the existing channels would be nominal with this alternative. Repairs similar to those performed in the past may introduce concrete bottoms to the channel, further limiting wildlife benefit. Overall, this option has a neutral to slightly negative impact to the overall in-stream environment, not providing any betterment and potentially allowing the existing degraded habitat to worsen over time.

2. Underground Culvert - Open stream channels are converted to underground culverts. The culverts could be used to convey excess flood flows while baseflow remains in the open channels. At a minimum, the culverts would be sized to accommodate the flows necessary to alleviate pressure from the existing open channels. However,it is important to note that reducing flow in the existing channels will not completely eliminate continued age-related deterioration of the stone masonry walls. Potential interference with underground utilities would be an important consideration. Construction would employ typical methods. All flows would remain in the existing stream until the culvert was finished. Significant land impacts could occur under this alternative.

3. Restore Natural Stream Channel - The stone masonry walls are removed and the channel is restored to a more natural condition, with reconstructed banks. The channel would be constructed with Best Management Practices for bank protection and stabilization, with grade and flow control to allow the channel to function more as a natural stream. The restoration of the existing channels to a more natural condition would involve modifications to the streambed, banks, and floodplain in order to create a stable stream corridor that provides improved riparian, habitat, and water quality conditions. In the project area, feasible options for stream channel restoration are those which would keep the restored channel on the same or similar alignment as the existing channel, due to the amount of development that has encroached upon the majority of the stream channels. Along almost all stream segments it would not be possible to provide any significant naturalized banks or floodplain without costly land acquisitions, limiting the riparian, habitat, and water quality benefits of restoration.

4. Stabilize Existing Channel In Place - The existing channel is reconstructed in place with more stable materials and modern construction practices. The walls would be rebuilt using pre-cast concrete construction. The design would ensure that the channels would have the structural integrity to withstand existing flows with a long design life. Conveyance capacity could be increased in areas where site conditions allow improvements to the cross-sectional area of the stream. This alternative may be implemented in segments, determined either by priority for repair or by working in one direction along the channel. Typical methods would be required to construct this alternative, diverting flows around the active work areas. Replacement of the existing channel with a structurally stable cross-section will benefit water quality by eliminating erosion and sedimentation associated with collapse of the channel walls. The system could be designed to incorporate characteristics that would provide habitat enhancement, such as a natural bottom substrate and permeability to allow for groundwater exchange. The profile could include a variety of in-stream habitat features to create pool-riffle-run habitat. Significant improvements to habitat could be realized in areas that currently have a concrete/masonry lined streambed

Preferred Alternative

A comparison of the alternatives under engineering, environmental, socio-political, and cost considerations indicates that Alternative 4, Stabilize Existing Channel in Place, is the preferred alternative. Temporary impacts during construction will include the potential need for access across private property to transport equipment and materials, disturbance to existing vegetation and pavement, and transport of soil from the project site to neighboring properties by water and wind. The diversion of existing flows around the work area will likely be necessary. The project will incorporate sediment and erosion control measures to minimize soil transport to neighboring properties and downstream areas, in accordance with local and state regulations.

Long term impacts will be beneficial. Replacement of the existing channel with a structurally stable crosssection will benefit water quality by eliminating erosion and sedimentation associated with collapse of the channel walls. The reduction in erosion and sedimentation will reduce the release of nutrients, metals, and toxic chemicals that may be associated with the sediment particles and will benefit downstream aquatic communities