Commonwealth of Massachusetts

Executive Office of Energy and Environmental Affairs
Massachusetts Environmental Policy Act (MEPA) Office

Environmental Notification Form

For Office Use Only

EEA#: _____

MEPA Analyst: _____

The information requested on this form must be completed in order to submit a document electronically for review under the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Mill Brook Bogs Wetland Restoration Project		
Street Address: Howland Road		
Municipality: Freetown	Watershed: Taunton	
Universal Transverse Mercator Coordinates:	Latitude: 41.794720º N Longitude: -71.028086º W	
Estimated commencement date:9/21	Estimated completion date:4/22	
Project Type: River and Wetland Restoration	Status of project design: 75 %complete	
Proponent: Massachusetts Department of Fish and Game – Division of Fisheries and Wildlife		
Street Address: 195 Bournedale Road		
Municipality: Buzzards Bay	State: MA	Zip Code: 02532
Name of Contact Person: Megan B. Raymond		
Firm/Agency: SLR International Corporation (SLR) – (Formerly Milone & MacBroom, Inc. (MMI))	Street Address: 195 Church Street, 7th Floor	
Municipality: New Haven	State: CT	Zip Code: 06510
Phone: (203) 344-7887	Fax:	E-mail: mraymond@slrconsulting.com

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

If this is an Expanded Environmental Notification Form (ENF) (see 301 CMR 11.05(7)) or a Notice of Project Change (NPC), are you 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

(Note: Greenhouse Gas Emissions analysis must be included in the Expanded ENF.)

Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?
301 CMR 11.03(1)(a)(1): Direct alteration of 50 or more acres of land; CMR 301 11.03(3)(a,b): alteration of one or more acres of bordering vegetated wetland or alteration of ten or more acres of any other wetland (riverfront area)

Which State Agency Permits will the project require? MA Wetlands Protection Act Notice of Intent; Massachusetts Department of Environmental Protection 401 Water Quality Certification; Massachusetts Department of Environmental Protection Chapter 91 License

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 Division of Ecological Restoration: $300,000.00
USFWS National Coastal Wetlands Conservation Grant to DER: $1,000,000.00

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	230.8 (sum of all project parcels)		
New acres of land altered		157.93 (project area)	
Acres of impervious area	0.09	0	0.09
Square feet of new bordering vegetated wetlands alteration		107.96 acres	
Square feet of new other wetland alteration See project plans sheets RR1 and RR2 for depiction of these activities.		LUW: 3.52 acre RFA: 33.89 acre BLSF:104 acre	
Acres of new non-water dependent use of tidelands or waterways		N/A	
STRUCTURES			
Gross square footage	N/A	N/A	N/A
Number of housing units	N/A	N/A	N/A
Maximum height (feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	N/A	N/A	N/A
Parking spaces	N/A	N/A	N/A
WASTEWATER			
Water Use (Gallons per day)	N/A	N/A	N/A
Water withdrawal (GPD)	N/A	N/A	N/A
Wastewater generation/treatment (GPD)	N/A	N/A	N/A
Length of water mains (miles)	N/A	N/A	N/A
Length of sewer mains (miles)	N/A	N/A	N/A

Has this project been filed with MEPA before?
☐ Yes (EEA #_____) ☒No

Has any project on this site been filed with MEPA before?
☐ Yes (EEA #_____) ☒No

GENERAL PROJECT INFORMATION – all proponents must fill out this section

PROJECT DESCRIPTION:

Describe the existing conditions and land uses on the project site:

The Project will occur within the permanently protected and state-managed Mill Brook Bogs Wildlife Management Area (WMA) located on Howland Road in Freetown (Attachment A, Figure 1). This large protected public open space consists of abandoned cranberry farmland, grasslands, disturbed uplands, forests, swampland, a small perennial stream (Mill Brook), a small public parking lot, and passive recreational access for visitors on the old farm dikes (Attachment A, Figure 2). Cranberry farming ceased on the site in 2012 when USDA's Natural Resources Conservation Service (NRCS) purchased and completed a permanent conservation easement with the private landowner. In 2014, the site was purchased by MassWildlife, and has been managed for public access and passive recreational uses since then. Surrounding land uses include permanently protected swamps and forests, light residential development, and one cranberry farm located upstream.

Active ecological restoration actions will occur within approximately 115.5-acres of retired commercial cranberry farmland. Historical wetlands and Mill Brook within this area are degraded due altered hydrology, fill, and decades of physical and biological simplification (Attachment B, Photographic Log). Legacy farming impacts include eight large earthen dikes, a network of interior and perimeter ditches, two perimeter canals, and dozens of water control structures (WCSs).

Over many decades of prior cranberry farming, soils on the site were significantly altered (Attachment C, Historical Maps). In 2018, NRCS conducted a ground-penetrating radar survey (GPR) and determined that historical wetland soils (peat) are present beneath the agricultural fill layer. The sand 'fill' layer is 12-16 inches. The fill layer and dense cranberry vine mat are now present over native soils. As a result of these impacts, the current condition of the wetland plant communities is degraded, as determined by a comprehensive baseline assessment in 2020 (by Save The Bay, under contract with DER). Moreover, the current condition of Mill Brook, which flows for approximately 1-mile through this former farmland, is also impaired (MA DEP, Class 5 impaired, 2016 List of Integrated Waters, reach MA 62-42; Attachment A, Figure 3).

As a result of the active restoration actions within the former farm, passive wetland restoration will occur as well. To the west of the former cranberry farmland and separated by a 1,700-foot-long earthen dike (planned for removal) is approximately 56-acres of degraded former Atlantic white cedar (AWC) swamp. Today, the area appears to be a vast expanse of partially submerged stumps; the swamp was likely logged prior to dike construction. The dike created a large impoundment for farming operations and submerged the former swamp, preventing its natural recovery. Removal of the earthen dike as part of this Project is expected to repair natural hydrology, lower water levels, and set the stage for passive regeneration of this swampland. The total active and passive wetland restoration area for the Project is approximately 164-acres.

The Mill Brook Bogs WMA is located on the northern edge of the 16,000-acre Southeastern Massachusetts Bioreserve. Restoration actions on the site will expand this network of connected high quality wetlands and forests, as well as recreational trails. These connected lands provide a source for biological recruitment and migration into the restored wetlands on the site. Physically, hydrologically, biologically, and recreationally, the site will leverage and enhance these adjacent protected lands.

Describe the proposed project and its programmatic and physical elements:

The Project involves comprehensive ecological restoration to address the legacy impacts of farming on the site and set the stage for stream and wetland recovery (Attachment D, Project Plans). The Project aims to restore natural hydrologic conditions to support self-sustaining wetlands, eliminate barriers to fish and wildlife movement, address farm-related physical simplification to enhance habitat and expand biota, and provide opportunities passive public recreation. This effort is designated as a state *Priority Project* for river and wetland restoration by the Massachusetts Division of Ecological Restoration (DER), who is providing project management services, technical assistance, and funding to support the goals of the landowner (MassWildlife) and partners. Construction funding has been secured from NRCS and the U.S. Fish and Wildlife Service's (USFWS) National Coastal Wetlands Conservation Grant (NCWCG) program (awarded to DER in 2020; Attachment E).

Specific planned restoration actions to target the legacy impacts of farming include:

- Physically disturbing to the abandoned cranberry mat and agricultural fill layer – using heavy equipment - to uncompact soils, break apart dense vines, and activate buried native seed bank;
- Removing Dikes 2, 4, 6, 7 and 8, and lowering Dikes 1, 3, and 5 (approximately 54,000 CY of total cut material) to restore hydrologic and habitat connectivity;
- Removing 17 water control structures to re-naturalize site hydrology;
- Removing select areas of fill within the former cranberry farm to create shallow open water and wetland habitat features;
- Grading around the perimeter of the site to re-connect adjacent forested areas to the restored wetlands (i.e., closing ditches, smoothing transitions) and facilitate wildlife movement;
- Beneficially re-using cut material on-site to fill the perimeter and interior agricultural ditches, including two bypass canals, to help restore wetland hydrology on the site;
- Beneficially re-using the remainder of cut material to restore a disturbed area of bordering upland on the western side of the site to facilitate sand plain grassland restoration;
- Placing approximately 2,000 pieces of large wood – harvested from upland habitat enhancement areas around the perimeter of the Project by MassWildlife and the Natural Heritage and Endangered Species Project (NHESP) - within the stream and channel and bog surface for habitat enhancement;
- Installing riffle features within the existing bed of Mill Brook to set grade and help reconnect the incised, degraded channel back with its adjacent floodplain;
- Preserving 2 existing irrigation ponds for open water habitat features while adding minor ecological enhancements (e.g., large wood added for turtle basking habitat);
- Installing 2 bridges across Mill Brook (at former WCS locations), and 6 other small bridges within existing dikes, to maintain visitor circulation;
- Installing 2 cobble fords within low spots of the existing perimeter dike (eastern side) to hydrologically connect adjacent wetlands and reduce future path maintenance; and,
- Seeding and installing select plantings to increase biological diversity.

The Project will result in temporary disturbance to all wetland resource areas with the former cranberry farm (Table 1 below). Construction period best management practices will be used to limit unintended environmental impacts, including refueling outside of wetland resource areas, washing equipment prior to use to limit the import of invasive plants/seed, and time of year considerations for sensitive species (i.e., turtles). The planned and coordinated period of disturbance is necessary to address the legacy impacts of farming that prevent natural recovery. In the absence of disturbance, the site will remain degraded due to multiple impacts including soil compaction, altered hydrology, physical simplification, and reduced connectivity. Project implementation will provide restored wetland hydrology, uncompacted soils and activated native seed bank, and improved connectivity within Mill Brook, with the adjacent floodplain, and

between surrounding transitional areas and upland to the restored stream-wetland complex.

Table 1: Wetland Resource Area Changes

Resource Area	Existing area altered during construction	Proposed area after Project completion	Net change
Bank (linear feet)	7,585	8,096	+511
Land Under Water (acres)	2.46	2.57	+0.11
Bordering Vegetated Wetland (acres)	107.95	106.94	- 1.01[1]
Riverfront (acres)	33.94	33.94	0
Bordering Land Subject to Flooding (BLSF)	144	144	0
Other: Surrounding uplands[2] (acres)	6.02	9.7	+3.67

[1] Approximately 3.67 acres of former upland will be restored to create transitional habitat to buffer the wetland restoration area.

[2] Includes transitional grasslands and historic upland areas subject to restoration activities.

The proposed restoration activities will be completed in a single phase require approximately 9 - 12 months to implement. Site access and staging is readily available via existing farm paths, an existing gravel-base public parking area, and an existing MassWildlife maintenance facility including a storage barn and paved parking area. The parking areas are accessible directly from Howland Road. Given these existing conditions, no construction access or staging will need to be constructed for this project. The MassWildlife maintenance facility will be used to store and refuel heavy equipment during the Project implementation phase.

Anticipated permits and environmental review processes associated with the project include:

- An Expanded Environmental Notification Form (EENF) for regulatory coordination under the MEPA process and request a waiver of the mandatory EIR related to area of wetland disturbance
- Notice of Intent to the Freetown Conservation Commission addressing the MA Wetland Protection Act and local Town by-laws.
- 401 Water Quality Certification (Excavation and Fill) to MassDEP
- 404 General Permit Pre-Construction Notice (PCN) to the U.S. Army Corps of Engineers
- Chapter 91 License Mass DEP

NOTE: The project description should summarize both the project's direct and indirect impacts (including construction period impacts) in terms of their magnitude, geographic extent, duration and frequency, and reversibility, as applicable. It should also discuss the infrastructure requirements of the project and the capacity of the municipal and/or regional infrastructure to sustain these requirements into the future.

Describe the on-site project alternatives (and alternative off-site locations, if applicable), considered by the proponent, including at least one feasible alternative that is allowed under current zoning, and the reasons(s) that they were not selected as the preferred alternative:

The Project team considered three (3) alternatives that represent logical potential end points for restoring wetlands and managing public open space at the Mill Brook Bogs WMA. The advantages and disadvantages for each - and the rationale for the preferred alternative - are presented below. Alternative off-site locations are not applicable, as this Project is specific to this location including the presence of historic wetlands, decades of agricultural impacts, land protect status, and opportunity for ecological restoration and long-term open space management. The three considered alternatives are:

1. Comprehensive process-based restoration to address factors limiting wetland recovery (Alternative 1; Preferred Alternative);