

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

Environmental Notification Form

<i>For Office Use Only</i>
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: Jenney Pond Dredging Project		
Street Address: 0 Spring Lane		
Municipality: Plymouth	Watershed: South Coastal	
Universal Transverse Mercator Coordinates: 361,942.54E, 4,645,777.51N	Latitude: 41.9518259501 Longitude: -70.6657490807	
Estimated commencement date: Nov 2021	Estimated completion date: Feb 2022	
Project Type: Pond Dredging	Status of project design: 60 %complete	
Proponent: Town of Plymouth, Department of Marine & Environmental Affairs		
Street Address: 26 Court Street		
Municipality: Plymouth	State: MA	Zip Code: 02360
Name of Contact Person: Matthew Sanford		
Firm/Agency: SLR International Corporation	Street Address: 99 Realty Drive	
Municipality: Cheshire	State: CT	Zip Code: 06410
Phone: 203-271-1773	Fax: 203-272-9733	E-mail: msanford@slrconsulting.org

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 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

(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(3)(b)1.f., alteration of one half or more acres of any other wetlands (Project will cause alteration of 1.16 acres of land under water)

Which State Agency Permits will the project require?

401 Water Quality Certification, Ch. 91 Minor Modification, MHC PNF

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:

No land transfers required. Funding source is the Town of Plymouth.

Summary of Project Size & Environmental Impacts	Existin g	Change	Total
LAND			
Total site acreage	4.1		
New acres of land altered		1.16	
Acres of impervious area	0.87	0	0.87
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		43,666	
Acres of new non-water dependent use of tidelands or waterways		0	
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? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> No			
Has any project on this site been filed with MEPA before? <input type="checkbox"/> Yes (EEA # _____) <input checked="" type="checkbox"/> 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 Town of Plymouth (the “town”) seeks to perform sediment dredging of Jenney Pond (the “pond”), the upstream impoundment to the Jenney (Arms House) Pond Dam (No. MA00907). The town also seeks to replace the existing pedestrian footbridge (Town Brook Park footbridge) over the pond. Jenney Pond is a 4.5-acre impoundment fed by Town Brook that is upstream (south) of Jenney Grist Mill, off of Spring Lane in central Plymouth, Massachusetts. The pond can be visually and practically divided by the Town Brook Park footbridge into a northern section and a southern section. The section north of the footbridge receives the bulk of the sediment deposition, as this is where Town Brook enters the impoundment and flows downstream in a northerly direction towards the dam. This section is approximately one acre in area. The section south of the footbridge is approximately 3.5 acres in areas and does not appear to receive significant sediment deposition from Town Brook.

Records shows the last dredging of the impoundment occurred 53 years ago in 1968 and currently the northern pond section is filled with excessive sediment and nutrient deposits, causing eutrophic conditions and colonization by nuisance aquatic vegetation and algae. Sediment probing in 2019 revealed sediment samples ranging from 0 to 9.3 feet across the entire impoundment, with the average sediment downstream of the footbridge approximately 4± feet thick. This sedimentation is affecting water depths within the pond: in 2014 investigations found the average water depths in the pond to range from three to four feet, and levels by 2019 were reported at under two feet in depth.

The existing footbridge was installed in 1968, at the same time as the last recorded pond dredging, and shows visual evidence of aging and disrepair.

The primary goals of the Jenney Pond dredging project are to improve water quality and fish habitat in the pond by removing an estimated 6,350 cubic yards of sediment within the northern section of the pond and installing fish habitat features including boulder piles, woody debris, and rootwads. Additionally, the existing pedestrian bridge over the pond will be removed and replaced with a new bridge in-kind.

Figure 2-1 of Appendix B and Sheets EX-1, EX-2 and RR-1 of the project plans in Appendix C of the supplemental report provide an overview of existing conditions and regulated resources in the vicinity of the project. Please refer to the Supplemental Information Report, Section 2.0, and relevant technical appendices for more detailed discussion of existing conditions.

Describe the proposed project and its programmatic and physical elements:

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.

Prior to dredging work, temporary construction access will be installed, including two 12-foot-wide temporary access roads with anti-tracking pads connecting the work site to Spring Lane to the east and Willard Street to the north. Minor vegetation clearing limited to herbaceous vegetation and trees up to

3-inches diameter at breast height (DBH) will be required to install the eastern access road. Water quality measures will be installed including a turbidity curtain placed upstream of the pond's northern edge to contain the dredging zone and prevent sediment from being carried downstream to Town Brook. All equipment and fuel storage areas will be located outside of the land subject to flooding/100-year floodplain. Construction staging and storage areas will be located within the paved parking lot west of the pond and contained behind temporary construction gates.

The pond dredging will be completed using hydraulic dredging methods. Hydraulic dredging maintains the water within the pond with no dewatering required. This dredging method requires a collection system for the sediment slurry that is extracted from the pond. Typically, the dewatering areas will consist of geotubes fields or a settling basin.

For this project, a hydraulic dredging discharge line will be installed along the eastern shoreline of Jenney Pond with slurry being pumped into two geotube fields to be located within the park. Approximately 6,350 cubic yards of sediment will be removed from the pond. The finished pond bottom elevation within the dredge area will be 17 feet (NAVD 88). The geotube fields will be located on an existing paved parking lot and a maintained lawn area. The geotube fields will occupy a total area of approximately 8,100 square feet and be underlain by an impervious liner and ringed with concrete jersey barriers. Hydraulic slurry will be pumped into the geotubes. The slurry will be injected with a polymer that will make the suspended solids within the slurry to coagulate/bind into larger particles and drop the sediment out of suspension. This process continues until the geotube bag has reached its full sediment filtering capacity. The geotubes are pervious and the pressure of the pumps and sediment push water through the geotube. This water that is pushed through the geotube is free of sediments and can be returned to the pond. This water will be collected and conveyed within a six-foot-wide plastic lined swale located within the geotube field and will be directed into existing stormwater catch basins and discharged back into the southern portion of Jenney Pond. Flow will be alternated between the two geotubes and sediment will be spread equally amongst the geotubes to allow for even dewatering. The separated sediment will be stockpiled onsite for a suitable amount of time to allow for adequate dewatering, as well as sampling, testing, and approval by necessary authorities. Sediment will be disposed of in accordance with an approved contaminated sediment management/disposal plan.

Following pond dredging, fish habitat features will be installed in the pond. All fish habitat features will be buried at an appropriate depth (logs will be buried at least 2/3 of their height) to limit dislodgement from heavy storm events and placed below the water surface. No habitat features will be located above the water surface.

The existing pedestrian bridge will be disassembled and replaced with a new, prefabricated structure with a similar footprint, as depicted in the attached figures and plans for both the existing and proposed structures (Appendices B and C). The disassembled deck pieces will be removed via crane positioned in the upland adjacent to the pond. The existing timber piers set in the pond bottom will be cut at the mudline and removed by scuba diver. The new structure will span the pond at the same location and have a similar low chord elevation to the existing bridge. The existing bridge low chord elevation currently permits small nonmotorized boats and canoes to pass underneath and the new bridge will similarly maintain navigation through the pond. Furthermore, the new pedestrian bridge will not require any in-water support structures as compared to the current timber bridge that has timber piers within the pond. Replacement of the bridge concurrently with the proposed dredging will limit any construction-related impacts to the site as both project activities will occur within the same general area and can share temporary site accessways.

Following bridge completion and removal of dewatered sediment, all construction materials and accessways will be removed. All disturbed areas will be restored to pre-construction conditions, including the revegetation of disturbed planted areas. All disturbed areas will receive a minimum of 6" of topsoil and be seeded with appropriate seed mixes.

Construction will require temporary and/or permanent impacts to bordering vegetated wetlands, land under water, bordering land subject to flooding, and mean annual high water adjacent to and/or within Town Brook. It is anticipated that construction will commence fall 2021 and be completed by winter to spring 2022.

Figure 2-2 and Sheets LA-1, CS-1, CP-1, and STR-1 of project plans in Appendix C of the Supplemental Information Report provide an overview of the proposed conditions. Please see Supplemental Information Report, Section 3.0, for a complete description of proposed activities; Section 5.0 for discussion of Construction sequence, water handling during construction, and sediment management; and Section 6.0 for a discussion of project impacts to wetlands and waterways.

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:

NOTE: *The purpose of the alternatives analysis is to consider what effect changing the parameters and/or siting of a project, or components thereof, will have on the environment, keeping in mind that the objective of the MEPA review process is to avoid or minimize damage to the environment to the greatest extent feasible. Examples of alternative projects include alternative site locations, alternative site uses, and alternative site configurations.*

The primary goals of the project are to improve water quality and fish habitat in Jenney Pond by dredging the pond to an appropriate depth to restore aquatic conditions such as oxygen, light, and temperature regimes better suited to native aquatic organisms, and to reduce the presence of nuisance vegetation and surplus levels of algae that are typical of unmaintained shallow-water environments. These goals are to be met without impacting the downstream Town Brook and discharge into Plymouth Harbor. The design team has carefully evaluated several dredging alternatives for achieving the goals of the project and include: 1) no action, 2) dredging less material, 3) conventional dry dredging, 4) clamshell dredging, 5) dragline dredging, and 6) chemical treatment of aquatic invasive vegetation with no dredging.

Please see the supplemental information report for a detailed description of all alternatives.

Summary of mitigation measures proposed to offset the impacts of the preferred alternative: Erosion and sedimentation (E&S) controls will be installed and maintained throughout construction in accordance with local, state, and federal requirements. Erosion and sediment controls such as silt fencing, straw bale check dams, construction entrance anti-tracking pads, and temporary construction fencing will be installed as shown on the attached plan drawings to protect resources areas that are adjacent to the work. During construction, measures will be undertaken to minimize erosion on site to the maximum extent feasible. Prior to the commencement of construction, the contractor will prepare and submit a Stormwater Pollution Prevention Plan (SWPPP). Upland bare soil areas exposed during construction at any one time shall be minimized to the maximum extent practicable. Post construction, all disturbed slopes will be stabilized with topsoil and seed, and regionally appropriate native plantings will be installed in any areas of vegetation clearing according to the attached restoration plan in Appendix C, site plans. All E&S controls meet the standards presented in the Massachusetts Executive Office of Environmental Affairs 2003 *Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas*.

If the project is proposed to be constructed in phases, please describe each phase:

The project will be conducted in two phases as outlined in the construction plans included in