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: Quinapoxet Dam Removal		
Street Address: River Road		
Municipality: West Boylston	Watershed: Nashua	
Universal Transverse Mercator Coordinates: 404,7859.63E 1,505,642.69N	Latitude:42.387224 Longitude:-71.802536	
Estimated commencement date: 10/1/2022	Estimated completion date: 5/30/2023	
Project Type: Dam Removal	Status of project design: 60 % complete	
Proponent: Massachusetts Water Resources Authority		
Street Address: 100 First Avenue, Building 39		
Municipality: Boston	State: MA	Zip Code: 02129
Name of Contact Person: Matt Sanford		
Firm/Agency: Milone & MacBroom, Inc.	Street Address: 99 Realty Drive	
Municipality: Cheshire	State: CT	Zip Code: 06410
Phone: 203-271-1773	Fax: 203-272-9733	E-mail: msanford@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(3)(a)4., structural alteration of an existing dam that causes an expansion of 20% or decrease in impoundment capacity – removal of 250-feet of existing dam
301 CMR 11.03(3)(b)1.b., alteration of 500 or more linear feet of bank along a fish run or inland bank – alteration of 2,190 feet of inland bank
301 CMR 11.03(3)(b)1.f., alteration of one half or more acres of any other wetlands – alteration of 0.79 acres of bordering vegetated wetlands

Which State Agency Permits will the project require?

Order of Conditions; 401 Water Quality Certification; Chapter 91 Waterways License; Chapter 253 Dam Safety Permit; MHC

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 are likely from various agencies and grants.

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	2.85 acres		
New acres of land altered		0 acres	
Acres of impervious area	0.06 acres	0.04 acres	0.02 acres
Square feet of new bordering vegetated wetlands alteration		+ 34, 385 SF	
Square feet of new other wetland alteration		0 acres	
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 Quinapoxet Dam (MA#02523) is located due east of State Route 190 in West Boylston, Massachusetts. Adjacent to the dam is the Oakdale Transfer Facility at the outlet of the Quabbin Aqueduct. The dam is located upstream of two sediment basins serving the Wachusett Reservoir. The first being the Quinapoxet Basin, formed by the railroad causeway, and the second, downstream basin is called the Thomas Basin. The current dam acts as a barrier to fish passage. The proposed project will restore fish passage through this reach.

The dam impoundment extends approximately 500 feet upstream of the structure. The impoundment is shallow and fairly narrow. The rocky cobble bottom river is located within an unnumbered FEMA designated floodplain.

The dam includes a 250-foot long, 18-foot high earthen embankment and a 135-foot long, 6-foot high stone masonry and concrete horseshoe-shaped spillway weir that spans the Quinapoxet River from bank to bank: the earthen embankment portion of the dam is adjacent to the terminus of MWRA's Quabbin Aqueduct at the Oakdale Power Station. A concrete pool/weir fishway, 86 feet long and 4 feet wide, is located along the northern abutment.

The primary goals of the Quinapoxet River Dam removal project are to remove the Quinapoxet Dam, to restore the Quinapoxet River in-stream habitat, enable fish and wildlife passage, maintain public river access, maintain flood control, protect water quality, ensure climate change resiliency, and reduce long-term maintenance costs

Figure 1 of Appendix A and Sheets EX-1 of the project plans in Appendix B of the report provide an overview of existing conditions 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.

The dam was constructed below the pre-existing grade of the riverbed, and material downstream of the dam was dredged to create the 9-foot-high drop. As such, removal of the dam will not involve the magnitude of sediment management that many dam removals face. Instead, it will be native substrate that is to be removed from behind the dam.

The plan includes removal of the wingwalls and spillway as well as cut, fill and grading extending approximately 600 feet upstream and fill immediately downstream of the dam. The creation of riffles and pools upstream of the existing dam will provide adequate water depths and appropriate flow velocities favorable for fish passage. The target fish species are trout and landlocked salmon. The channel width will decrease around the impoundment upstream of the dam as well as

downstream of the dam. Several vegetated point bars exist downstream of the dam. These point bars will be mechanically dredged. The result will be a uniform stream width in the area of the existing dam.

Approximately 3,950 cubic yards of material will be removed from the channel. Most of the clean dredging sediment, 2,530 cubic yards, will be relocated to the southern bank of the Quinapoxet River. The relocation of sediment will be used to formalize an earthen berm between the main channel and the Quabbin aqueduct outlet. This action, as well as creating a uniform channel width, will directly impact 1490 linear feet of inland banks and decrease the total inland banks within the project site by 120 feet. Approximately 1.81 acres of Land under water resource areas will be directly impacted. These alterations include the conversion of Land under water into bordering vegetated wetlands. There are no direct impacts to bordering vegetated wetlands, however the conversion of land under water will result in an additional 0.79 acres of bordering vegetated wetlands. Bordering land subject to flooding and riverfront area will increase by 0.62 acres as the channel is reconstructed to a uniform width. This will result in portions of land under water are converted to bordering vegetated wetlands. Existing conditions within the project site include 2,799 square feet of impervious surface. With the removal of the spillway, wingwalls, and concrete fish ladder, and the addition of the walkway adjacent to the Quabbin aqueduct Shaft 1 building the proposed impervious surface will be decreased to approximately 869 square feet.

All disturbed upland areas will receive a minimum of 6” of topsoil and be seeded with appropriate seed mixes. To further restore the watercourse, boulders of various size will be relocated within the Quinapoxet River. These boulders will reduce flow velocities and serve as habitat refuge for fishery species. These channel improvements have been designed to be sustainable long-term. If additional boulders are necessary, they will be obtained via the contractor.

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 Quinapoxet River. It is anticipated that construction will commence October 2022 and be completed By May 2023. The removal of the dam will occur in three phases. Phase 1 includes the cofferdamming of low flows around the southern portion of the dam and the partial removal of the dam. Phase 2 will disassemble the remaining dam, fish ladder, and appurtenances as well as remove the downstream islands and reconstruct the channel. Phase 3 will finalize the berm between the reconstructed channel and the Quabbin aqueduct outlet.

Figure 1-7 and Sheets SP-4, SP-5, and SP-6 of project plans in Appendix B 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:

The goals of the project include the restoration of free passage of fish and wildlife, naturalization of riverine hydrology, management of sediment during and after construction, and protection of water quality. These Goals are to be met by removing the dam and modifying the channel without impacting the MWRA and Massachusetts Department of Conservation and Recreation (DCR) water supply mission, the operations of the Quabbin Shaft #1 facility, or the downstream Wachusett Reservoir. The design team has carefully evaluated several channel design alternatives for achieving the goals of the project and include: