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: **Ellis Brett Pond Dam Repairs**		
Street Address: **331 Oak Street**		
Municipality: **Brockton**	Watershed: **Taunton**	
Universal Transverse Mercator Coordinates: **E: 330969.81, N: 4661909.37, Zone 19T**	Latitude:**42.09107339** Longitude: **-71.04386531**	
Estimated commencement date: **Summer 2023**	Estimated completion date: **Winter 2023**	
Project Type: **Dams**	Status of project design:**90** %complete	
Proponent: **City of Brockton**		
Street Address: **45 Meadow Lane**		
Municipality: **Brockton**	State: **MA**	Zip Code:**02301**
Name of Contact Person: **Andrea Judge**		
Firm/Agency: **Fuss & O'Neill**	Street Address: **317 Iron Horse Way, Suite 204**	
Municipality: **Providence**	State: **RI**	Zip Code: **02908**
Phone: **401-533-5971**	Fax:	E-mail: **ajudge@fando.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 Rollover EIR? (see 301 CMR 11.06(13))	☒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)?

ENF and Other MEPA Review if the Secretary so Requires

- **301 CMR 11.03(3)(b)(1)(d): alteration of 5,000 or more sf of bordering or isolated vegetated wetlands**
- **301 CMR 11.03(b)(b)(1)(f): alteration of ½ or more acres of any other wetlands**

Which State Agency Permits will the project require?

- **Chapter 253 Dam Safety Permit (MassDCR)**
- **Section 401 Water Quality Certification (MassDEP)**

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:
EEA Dam and Seawall Grant $1M.

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	1.7 ac		
New acres of land altered		1.7 ac	
Acres of impervious area	0 ac	0 ac	0 ac
Square feet of new bordering vegetated wetlands alteration		5,490 sf (0.13 ac)	
Square feet of new other wetland alteration		24,580 sf (0.56 ac)	
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 dam is located at latitude 42.09107 North and longitude 71.043856 West in Brockton, Plymouth County, Massachusetts. The dam sits at the southeast end of Ellis Brett Pond along Salisbury Brook, between D.W. Field Parkway and 71 Elmwood Avenue in Brockton Massachusetts. The project is located entirely within D.W. Field Park on the City of Brockton parcel number 032-046.

Ellis Brett Pond Dam consists of a 200-foot long earth embankment with a primary spillway and an earthen dike. The dam has a maximum structural height of approximately 10.5 feet with an embankment width that varies between 20 feet and 50 feet wide. A gravel access path is located along the crest of the dam. The widened section of the embankment crest, to the left of the spillway, is heavily vegetated with low-lying brush. The upstream and downstream embankment slopes are vegetated with small trees and woody brush.

The embankment slopes are generally between 2H:1V to 3H:1V at the upstream side and at the top of the downstream slope, transitioning to approximately 1H:1V to 1.25H:1V at the bottom of the downstream slope.

The primary spillway is located near the right abutment of the dam. The primary spillway is a concrete sluiceway controlled by a two bay concrete stoplog structure with wooden stoplogs on the upstream side. The sluiceway is approximately 10 feet wide and 6.9 feet high. The stoplog structure has a total weir length of approximately 9.8 feet. Flows from the spillway discharge to an apparent boulder and cobble lined scour apron prior to entering the Salisbury Brook. Downstream of the stoplog structure, dry-set stone masonry walls line the channel and support the downstream side of the earthen embankment. The downstream channel conveys flow to Cross Pond.

The dike consists of an approximately 250-foot long earthen embankment. The dike has maximum structural height of five (5) feet. The crest is approximately 15 feet wide and supports a gravel walking path. The upstream and downstream slopes are wooded and are generally sloped between 2H:1V to 3H:1V. The dam has a maximum storage capacity of 32-acre-feet.

Describe the proposed project and its programmatic and physical elements:

In order to address the deficiencies identified during the Phase I Dam Inspection conducted on October 30, 2015, the following repairs are proposed for the dam and dike:

- **Remove remaining brush, stumps and root systems, from within 20 feet of the dam and the dike to comply with current dam safety guidance. Unstable Portions of the dike will be regraded to provide a stable slope, other portions of the dike will not be regraded, voids remaining from the stump removal will be backfilled to restore the existing grade.**
- **Regrade the embankment at the dam and associated dike to have a uniform crest with a downstream and upstream slope of 3H:1V.**
- **Provide vegetated articulated concrete block matting (ACB) designed to handle safely the overtopping depth and flow velocities for the SDF at the dam.**
- **Restore gravel access drive along dike to uniform elevation 148.3 feet (NAVD88)**

(work to be self-performed by the City).

- **Grassy area downgradient of the wetland flags will be restored with a mowable native wetland or conservation seed mix. Areas upgradient of the wetland flags will be restored with an appropriate native upland seed mix.**

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:

As part of the spillway reconstruction alternative, the following alternatives were considered:

Dam Management

- **Alternative 1 – Alternative 1 is no action. The Department of Public Works would continue removing and replacing stoplogs manually during and after storms and the dam would remain a high hazard dam that is unable to pass the SDF. The City is currently under order from the Office of Dam Safety to complete the repairs so deterring repairs is not a feasible alternative.**
- ***Alternative 2 – Alternative 2 involves conducting dam repairs and adding overtopping protection allowing the embankment to safely overtop during the SDF.**
- **Alternative 3 – Alternative 3 is to fully remove the dam but due to the hydrologic attenuation provided by the dam and the increased risk of downstream flooding, this alternative was not recommended.**
- **Alternative 4 – Alternative 4 involves a partial dam removal, lowering the dam elevation and enlarging the spillway. This alternative, however, would reduce the impoundment capacity and increase the risk of downstream flooding, so this alternative was not recommended.**

***Alternative 2 is recommended as the best option in the interest of public safety. This alternative ensures that the dam continues to provide flood attenuation with a decreased risk of flooding to residents and business owners downstream. It is also the most cost effective option and is a suitable long-term solution to maintain the serviceability and address safety concerns at the dam.**

Spillway Management

- **Spillway Alternative 1 – Spillway Alternative 1 consisted of repairing cracks in the spillway but due to the extent and nature of the deterioration of the spillway and the voids behind the training walls, repair was not considered an effective long-term solution.**
- ***Spillway Alternative 2 – Spillway Alternative 2 involves an in-kind spillway replacement and incorporating an automatic, remotely-controlled gate system to control the impoundment.**
- **Spillway Alternative 3 – Increasing Spillway Dimensions**
    - **Spillway Alternative 3, Option 1 involves replacing the spillway with a new, larger spillway to safely pass the SDF and 500-year flood. This option may increase flood flows and flood elevations downstream and is**