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: Chicopee Abbey Brook Restoration Project				
Street Address: 0 Abbey Memorial Drive, Chicopee, MA				
Municipality: Chicopee	Watershed: Chicopee			
Universal Transverse Mercator Coordinates:	Latitude:42.146367			
699112E 4668837N 18T	Longitude:-72.590312			
Estimated commencement date:	Estimated completion date:			
Lower Bemis Pond Dam Removal: 4/1/2022 CELD Abbey Brook Davlighting, Front St Culvert	Lower Bemis Pond Dam Removal: 6/30/2023 CELD Abbey Brook Davlighting, Front St Culvert			
Replacement, Upper Bemis Pond Dam Removal: as	Replacement, Upper Bemis Pond Dam Removal:			
soon as funding is available	timeframe is dependent on availability of funding			
Replacement, Park Improvement, Stream	CELD Abbey Brook Davlighting. Front St Culvert			
Restoration	Replacement, Upper Bemis Pond Dam Removal:			
Conceptual, 25%				
Street Addresse 274 Front Street 4th Floor City Holl Arnow Chicomes, MA 04042				
Municipality: Chicanae	Stata: MA	Zip Codo: 01013		
Name of Contact Person: Emily Tully	State. MA			
Firm/Adepcy: Tighe & Bond	Contact Person. Emily Tully POV: Tighe & Pend			
Municipality: Westfield	State: MA	Zin Code: 01085		
Phone: (413) 875-1622 Fax:	F-mail	· FTully@TigheBond.com		
Does this project meet or exceed a mandatory EIR threshold (see 301 CMP 11 03)? \square Yes \square No				
If this is an Expanded Environmental Notification Form (ENE) (see 301 CMR 11.05/2) or a Notice of				
Project Change (NPC), are you requesting:				
a Single EIR? (see 301 CMR 11.06(8))				
a Special Review Procedure? (see 301CMR 11.09)				
a Waiver of mandatory EIR? (see 301 CMR 11.11)				
a Phase I Walver? (see 301 CMR 11.11)				
Which MEPA review threshold(s) does the project meet or exceed (see 301 CMR 11.03)?				
Capacity: 11.03(3)(a)(1)(a): Alteration of one or more acres of bordering vegetated wetlands:				
11.03(3)(b)(1)(b): Alteration of 500 or more linear feet of inland bank; 11.03(3)(b)(1)(d): Alteration of 5,000				
or more sf of bordering vegetated wetlands; 11.03(3)(b)(1)(f): Alteration of one half or more acres of any				
other wetlands; 11.03(3)(b)(3): Dredging of 10,000 or more cy of material.				
Which State Agency Permits will the project require? MHC PNE and Historical Review: MassDEP 401 Water Quality Certification: MassDEP Wetlands				
Protection Act Order of Conditions (MassDEP, if City of Chicopee Order of Conditions is superseded);				
MassDCR, Office of Dam Safety Chapter 253 Permit				
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 Department of Ecological Restoration (DER) Provisional Project Funding: \$25,000; DER Priority Project Funding: \$70,000; EEA Dam and Seawall Repair or Removal Program – Lower Bemis Pond Dam Removal: \$165,000; federal funding under Clean Water Act Section 319 (\$322,000)

Summary of Project Size	Existing	Change	Total	
& Environmental Impacts				
LAND				
Total site acreage	17.8 acres ^a			
New acres of land altered		5.1 acres		
Acres of impervious area	2.0 acres	No Net Change	2.0 acres	
Square feet of new bordering vegetated wetlands alteration		Temporary: 56,800 sf		
		Permanent: 0 sf ^b		
Square feet of new other wetland alteration		Temporary: 117,600 sf		
		Permanent: 222,150 sf °		
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 #) [XNo]				

a The project site consists of Abbey Brook upstream and downstream of the Lower and Upper Bemis Pond Dams, including a portion of the CELD property as shown on the figures provided in Appendix A.

b Temporary impacts to BVW are associated with construction-period access and restoration activities; there are no anticipated permanent impacts to BVW.

c Temporary impacts to Land Under Water, Bordering Land Subject to Flooding, and Riverfront Area are associated with construction-period access and impacts ; permanent impacts to Land Under Water, Bordering Land Subject to Flooding, and Riverfront Area are anticipated due to the conversion of resource areas during stream restoration post-dam removal.

GENERAL PROJECT INFORMATION – all proponents must fill out this section PROJECT DESCRIPTION:

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

Abbey Brook, the most downstream tributary to the Chicopee River prior to its confluence with the Connecticut River, flows approximately 1.5 miles, south to north, through the cities of Springfield and Chicopee. Abbey Brook currently flows through the Bemis Pond impoundments created by Upper Bemis Pond Dam and Lower Bemis Pond Dam within Frank J. Szot Memorial Park prior to flowing through a 42-inch culvert under Front Street, and then a 72-inch culvert through the Chicopee Electric Light Department (CELD) property that outfalls to the Chicopee River. Abbey Brook is a Category 5 waterbody requiring a Total Maximum Daily Load per the Massachusetts Year 2016 Integrated List of Waters and the draft Massachusetts 2018/2020 Integrated List of Waters due to *Escherichia Coli* bacteria and total suspended solids impairments. Bacteria source tracking performed by the Pioneer Valley Planning Commission (PVPC) identified fecal matter from geese on the lawns surrounding Bemis Pond as a significant bacteria source.

Szot Park is an important open space and active recreation facility for Chicopee residents and visitors, and has been referred to as the jewel of the Chicopee Parks system. Amenities at Szot Park include courts for basketball, bocce and tennis; fields for baseball/softball, football and soccer; a fountain, picnic facilities, play- and spray-grounds, and walking paths. Although the park is a popular location, the portion surrounding Abbey Brook is less so. The southern portion of the brook within the park braids through a marsh surrounded by woods, providing contemplative areas for people and higher ecological value. As it passes further north, closer to the park entrance and active recreational areas, the brook becomes impounded by two dams, Upper Bemis Pond Dam and Lower Bemis Pond Dam, which create two small, shallow impoundments.

Lower Bemis Pond Dam (MA00531) is a Significant Hazard potential, intermediate-sized embankment dam that is currently rated in "poor" condition and needs significant repairs to address identified dam deficiencies. The Department of Conservation and Recreation (DCR) Office of Dam Safety (ODS) has issued a dam safety order for Lower Bemis Pond Dam requiring the City to bring the dam into compliance.

Upper Bemis Pond Dam (MA00069) is a Low Hazard potential, intermediate-sized structure located upstream of Lower Bemis Pond Dam. The dam was rated in "fair" condition at the time of its Phase I inspection in 2011 by GZA GeoEnvironmental; additional deficiencies have since been observed, including erosion of the embankment along the water line on the upstream side of the dam, debris blockage of the erosion adjacent to the upstream spillway training walls, and debris blockage of the stoplogs within the dam's outlet structure.

The Front Street culvert is a small, round culvert that carries Abbey Brook below Front Street. The culvert is 42-inches in diameter at the inlet, which is small relative to the size of the watershed, and has a failing upstream headwall and unknown condition in the interior.

Abbey Brook is currently carried through the CELD property via the CELD culvert. The CELD culvert is 72-inches in diameter, has an inlet south of the CELD parking lot, and conveys flow northwest below the parking lot prior to discharge at the Chicopee River. The culvert is perched with shallow flow depth and no possibility for passage of aquatic organisms.

Jurisdictional wetland resource areas in the vicinity of the project area as protected under the Massachusetts Wetlands Protection Act include Land Under Water, Inland Bank, Bordering Vegetated Wetlands, Bordering Lands Subject to Flooding, Riverfront Area, and Buffer Zone.

Describe the proposed project and its programmatic and physical elements:

The overall goal of the proposed comprehensive project is to restore Abbey Brook to a more natural state by removing Lower and Upper Bemis Pond Dams, upsizing the existing Front Street culvert, and daylighting Abbey Brook at the existing CELD culvert to promote resiliency and ecological connectivity. Additional project goals include improving stormwater management, reducing bacterial impairments and improving water quality, providing more passive recreation amenities at Szot Park, and reducing overall maintenance demands for the Abbey Brook area of Szot Park.

The project will include the following components:

- Removal of Lower Bemis Pond Dam, stormwater improvements, and park improvements. Removal of the Lower Bemis Pond Dam embankment and installation of a new culvert will allow for partial restoration of Abbey Brook between the Front Street culvert and Upper Bemis Pond Dam while addressing the public safety concerns associated with the Lower Bemis Pond Dam. This component will require temporary repairs to Upper Bemis Pond Dam as its hazard class is anticipated to increase following removal of Lower Bemis Pond Dam. The majority of the current Lower Bemis Pond impoundment will be a stream transition adaptive management zone with some strategic armoring features to keep the stream from moving too far east into the park in order to protect existing infrastructure and park facilities. Stormwater improvements include the installation of an offline bioretention basin, and proposed park improvements include construction of a walkway and viewing areas adjacent to Abbey Brook to promote public education and passive interaction with the site.
- Daylighting Abbey Brook at the CELD property. Abbey Brook is proposed to be daylighted through excavating of a channel and removal or filling of the existing 72-inch pipe that currently conveys Abbey Brook through the CELD property. This component will include realignment of existing underground utilities and relocation of a portion of the CELD parking area, but will allow for partial restoration of Abbey Brook between Front Street and the Chicopee River, improvement of stream connectivity and habitat, and reduction of the potential of bank erosion/failure adjacent to the CELD property.
- Resizing the existing culvert at Front Street. This phase includes removal of the existing undersized 42-inch culvert and replacement with a culvert that meets the *Massachusetts River and Stream Crossing Standards* to allow for partial restoration of Abbey Brook at Front Street that will also reduce the probability of Front Street overtopping during a flooding event.
- Removal of Upper Bemis Pond Dam. Removal of the Upper Bemis Pond Dam embankment and installation of a new pedestrian bridge with a walkway over the embankment adjacent to Abbey Brook will allow access to the park east and west of Abbey Brook and will complete the restoration of Abbey Brook in this section of Szot Park, resulting in an open Abbey Brook stream channel from Abbey Memorial Drive to the Chicopee River, other than road crossings that meet the *Massachusetts River and Stream Crossing Standards*.

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:

Lower Bemis Pond Dam is subject to a Dam Safety Order, and the City views this required dam safety work as providing an opportunity to comply with the Dam Safety Order issued by DCR ODS, reduce bacterial impairment, improve stormwater management, and provide passive recreation amenities at Szot Memorial Park integrated with the Abbey Brook restoration. Therefore, off-site alternatives for Lower and Upper Bemis Pond Dam removal were not considered. Note where alternatives are listed the preferred alternative is underlined.

- Alternatives for the scope of the proposed restoration were assessed, including:
 - Repair, removal and addition of bridge, or full embankment removal of Lower Bemis Pond Dam. Alternatives for repair or removal of Lower Bemis Pond Dam were assessed based on improvements to public safety, hydraulic capacity and resiliency, and public access; potential reductions in upstream flooding; water quality improvement opportunities; maintenance requirements; and environmental impacts. No action is not feasible as the Lower Bemis Pond Dam is subject to a Dam Safety Order. Removal of the dam and constructing a bridge/culvert is preferred as a balance between preservation of public access and improvement of aquatic and terrestrial habitat along the stream corridor. In "Phase II engineering Evaluation and Alternatives Analysis for Lower Bemis Pond Dam in Chicopee, Massachusetts" completed by GZA dated May 1, 2018, the alternatives to repair or breach that dam was evaluated in detail. The breach alternative was found to be preferred because it was less expensive and results in less long-term maintenance.
 - o Increasing the culvert size or <u>daylighting Abbey Brook</u> at the CELD culvert. The goals