Commonwealth of Massachusetts
Executive Office of Environmental Affairs ■ MEPA Office

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs
EOEA No.: 13959
MEPA Analyst: BRIONY ANGUS
Phone: 617-626- X 1629

The information requested on this form must be completed to begin MEPA Review in accordance with the provisions of the Massachusetts Environmental Policy Act, 301 CMR 11.00.

Project Name: Aquatic Habitat Restoration of Nashawannuck Pond		
Street: Between Williston Avenue and Pine Street		
Municipality: Easthampton	Watershed: Connecticut River - Manhan River	
Universal Transverse Mercator Coordinates: 339809 E, 2923743 N	Latitude: 042° 16' N Longitude: 072° 40' W	
Estimated commencement date: Spring 2008	Estimated completion date: Fall 2008	
Approximate cost: $2.47 million	Status of project design: 85 %complete	
Proponent: City of Easthampton		
Street: 50 Payson Avenue		
Municipality: Easthampton	State: MA	Zip Code: 01027
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Ivonne Hall		
Firm/Agency: BEC, Inc.	Street: 296 North Main Street	
Municipality: East Longmeadow	State: MA	Zip Code: 01028
Phone: (413) 525-3822	Fax: (413) 525-8348	E-mail: ihall@b-e-c.com

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

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

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

Is this an Expanded ENF (see 301 CMR 11.05(7)) 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

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): Under the Aquatic Ecosystem Restoration program (Section 206 of the Federal Water Resources Act of 1996), the U.S. Army Corps of Engineers (USACE) will fund 65% of the project ($1.61± million). The Non-Federal portion of the project will be approximately $866,000. The Department of Conservation and Recreation (DCR) has earmarked $100,000 for the project. A real estate credit will be applied to the Non-Federal portion, and The City of Easthampton is paying the remainder of the balance for the project.

Are you requesting coordinated review with any other federal, state, regional, or local agency?
☐Yes ☒No

List Local or Federal Permits and Approvals: Wetlands Permit – Easthampton Conservation Commission, MA DEP; 401 Water Quality Certification; NPDES Construction Permit – US EPA

Which ENF or EIR review threshold(s) does the project meet or exceed (see 301 CMR 11.03):

- ☐ Land
- ☐ Water
- ☐ Energy
- ☐ ACEC
- ☐ Rare Species
- ☐ Wastewater
- ☐ Air
- ☐ Regulations
- ☒ Wetlands, Waterways, & Tidelands
- ☐ Transportation
- ☐ Solid & Hazardous Waste
- ☐ Historical & Archaeological Resources

Summary of Project Size & Environmental Impacts	Existing	Change	Total
LAND			
Total site acreage	37± (pond) 64± (overall disposal site parcel) 101± total		
New acres of land altered		9.6± (pond dredge) 13± (disposal site) 22.6± total	
Acres of impervious area	0	0	0
Square feet of new bordering vegetated wetlands alteration		(temporary) 50± SF	
Square feet of new other wetland alteration		LUW – 9.6± ac	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage	0	0	0
Number of housing units	0	0	0
Maximum height (in feet)	0	0	0
TRANSPORTATION			
Vehicle trips per day	7,144	20±	7,164±
Parking spaces	NA	NA	NA
WASTEWATER			
Gallons/day (GPD) of water use	0	0	0
GPD water withdrawal	0	0	0
GPD wastewater generation/ treatment	0	0	0
Length of water/sewer mains (in miles)	0	0	0

State Permits & Approvals

- ☒ Order of Conditions
- ☐ Superseding Order of Conditions
- ☐ Chapter 91 License
- ☒ 401 Water Quality Certification
- ☐ MHD or MDC Access Permit
- ☐ Water Management Act Permit
- ☐ New Source Approval
- ☐ DEP or MWRA Sewer Connection/ Extension Permit
- ☒ Other Permits (*including Legislative Approvals*) – Specify:

NPDES Construction SWPPP

CONSERVATION LAND: Will the project involve the conversion of public parkland or other Article 97 public natural resources to any purpose not in accordance with Article 97?

☐Yes (Specify_____) ☒No

Will it involve the release of any conservation restriction, preservation restriction, agricultural preservation restriction, or watershed preservation restriction?

☐Yes (Specify_____) ☒No

RARE SPECIES: Does the project site include Estimated Habitat of Rare Species, Vernal Pools, Priority Sites of Rare Species, or Exemplary Natural Communities?

☐Yes (Specify_____) ☒No

HISTORICAL /ARCHAEOLOGICAL RESOURCES: Does the project site include any structure, site or district listed in the State Register of Historic Place or the inventory of Historic and Archaeological Assets of the Commonwealth?

☐Yes ☒No

According to a letter dated December 13, 2002 from the Massachusetts Historical Commission (MHC), a known Native American site (MHC site #19-HS-49) is located beside White Brook, immediately north of the proposed dewatering/ disposal site area (Attachment I). As a result, MHC requested that a cultural resources reconnaissance survey be conducted for the Nashawannuck Pond dredging area, along with an intensive (locational) archaeological survey for the proposed dewatering/disposal site area. In 2004, an intensive archeological survey was performed of White Brook Meadow (PAL report No. 1683, Graves and Mair-September 2004) immediately adjacent to and north of the proposed disposal site, and it found no significant archaeological resources. However, as per request of MHC, a survey will be conducted for Nashawannuck Pond and its disposal site to research the likelihood that archaeological deposits may exist and to locate and identify those resources in the proposed area of dredging and dewatering/disposal. This survey will occur prior to any of the proposed work, and it is anticipated to begin in Summer 2007. The survey will guide the project to avoid adverse effects to potentially significant archaeological resources. If the survey finds any significant archaeological resources within the pond or disposal site, a Notice of Project Change (NPC) will be filed with MEPA by the Proponent.

If yes, does the project involve any demolition or destruction of any listed or inventoried historic or archaeological resources?

☐Yes (Specify_____) ☒No

AREAS OF CRITICAL ENVIRONMENTAL CONCERN: Is the project in or adjacent to an Area of Critical Environmental Concern?

☐Yes (Specify_____) ☒No

PROJECT DESCRIPTION: The project description should include **(a)** a description of the project site, **(b)** a description of both on-site and off-site alternatives and the impacts associated with each alternative, and **(c)** potential on-site and off-site mitigation measures for each alternative (*You may attach one additional page, if necessary.*)

The City of Easthampton and the United States Army Corps of Engineers (USACE) are proposing to restore historic deepwater habitat of Nashawannuck Pond by hydraulically dredging 55,000± cubic yards of accumulated sediment. Section 206 of the Water Resources Development Act of 1996 authorizes a cost-shared program with USACE (65% federal and 35% non-federal with a $5 million per project federal limit) to restore aquatic ecosystems. A project is accepted by USACE for construction after a detailed investigation shows it is technically feasible, environmentally acceptable, and provides cost-effective environmental benefits. The Nashawannuck Pond Aquatic Ecosystem Restoration Project has been shown to meet these requirements and has been approved by the Corp's North Atlantic Division office to proceed to final design and subsequent construction, pending appropriation of federal and non-federal funding.

The Nashawannuck Pond Steering Committee has actively promoted the protection of the pond since 1988, and local citizenry has demonstrated significant interest in restoring this critical natural resource through multiple fundraising efforts. The City of Easthampton, corporate sponsors, public agencies, and private citizens have combined efforts to stabilize, maintain and reduce watershed and perimeter contributions of sediment and nutrients to the pond. In 1992, a gabion weir was installed at White Brook, and a siltation basin was later constructed on Broad Brook. A Section 319 grant in 1998 allowed the completion of stabilization work along the pond's shoreline between the fall of 2000 and the spring of 2001. A second Section 319 grant in 2001 provided the installation of stormwater Best Management Practices (BMPs) which included the construction of three swirl-type basins and eight deep sump catch basins at key stormwater discharge points in the Nashawannuck Pond and Broad Brook watersheds. An outreach and technology transfer program was developed which included a training workshop for regional Department of Public Works (DPW) personnel and the creation of a web page devoted to the restoration of Nashawannuck Pond. Since these measures have been implemented to reduce present and future sediment and nutrient loads to the pond, the next logical step in restoring Nashawannuck Pond is dredging some of the material which was previously accumulated. As a member of the House Appropriations Committee, Congressman John W. Olver (D-1st district) has secured a total of $1.215 million for the funding of this project from fiscal years 2002 through 2005.

The project site is depicted on the site locus (Figure 1) in Attachment II. The anticipated area of dredging is 9.6± acres within the 31± acre pond. The purpose of the proposed project is to restore the aquatic habitat of Nashawannuck Pond by reducing excessive weed growth, which currently diminishes the quality of aquatic habitat for the warm-water fishery that favors this waterbody. The limits of dredging will be to a depth of 12 feet, focusing primarily upon the White Brook and Broad Brook cove areas and the northern and southern ends of the pond. A minimum perimeter buffer of 50 feet has been designated to ensure that waterfowl habitat areas and features will be sustained. Due to the presence of other wildlife habitat features, including snags, bottom structure, and other desirable aquatic and wildlife habitat features, certain coves on the west side of Nashawannuck Pond will be excluded from the proposed dredging. Vegetated wetland areas that now exist within the historic limits of the open water pond are not included in this project.

A Diagnostic/Feasibility Study (BEC, 1990) and an Environmental Assessment by USACE (2006) evaluated improvement alternatives for Nashawannuck Pond such as dredging, plant harvesting, water level control, and herbicide treatment. Plant harvesting and seasonal drawdown were eliminated as improvement options because neither would restore water depth or essential fisheries habitat to the pond. Seasonal drawdown would likely cause a secondary impact to benthic invertebrates and winter habitat for pond dependent species, and would eliminate winter recreational use of the pond. A water level increase would only provide minor improvement to aquatic finfish habitat by restoring water depth to the shallower portions of the pond, and it would not provide any significant restoration of open water. Herbicide treatment in a water body with a high turnover rate like Nashawannuck Pond can be significantly diluted shortly after application, and may not be favorable because the Pond lies within a Zone II Wellhead Protection Area. Furthermore, each of the aforementioned methodologies would require high-level maintenance on an annual or semi-annual basis. On the other hand, hydraulic dredging will provide a long-term solution that will restore at least a portion of the pond to a depth that will inhibit or prohibit growth of rooted aquatic macrophytes. Both the Diagnostic/Feasibility Study and the Environmental Assessment recommended hydraulic dredging, along with the watershed improvements and sediment controls already installed.

Within the main body of the pond, the dredged area will be approximately 1,700 feet long, ranging from 75 to 140 feet wide. Dredging will also continue into portions of the White Brook and Broad Brook coves. Within the White Brook (western) cove, the dredged area will be approximately 600 feet long with a width of about 50 feet. Within the Broad Brook (eastern) cove, the dredged area will be approximately 1,250 feet long and 50 to 250 feet wide. Attachment III includes site

plans for the dredging area and the sediment disposal site, as well as typical cross sections. The dredged bottom will slope downwards from the limits of dredging at a slope of three horizontal to one vertical (3:1), proceeding in this fashion to a depth of twelve feet (or six feet, in the southernmost parts of the White Brook and Broad Brook coves). The amount of sediment to be removed is approximately 55,000 cubic yards, as measured in place. The average thickness of sediment to be dredged is 3.5 feet. The sediment disposal site is a 13.4±-acre city-owned parcel located approximately 6,000 feet to the southwest of Nashawannuck Pond.

Hydraulic dredging will maintain the water level of the pond during excavation, returning pumped water to the pond after treatment to remove sediments. Hydraulic dredging will utilize a barge-mounted, movable boom with a cutterhead and suction line attached. The barge will be crane-lifted into the pond from the city beach and access area along the midpoint of the pond's eastern shoreline, which will avoid bank disturbance. This area is indicated on Sheet C-102 of the Plan Set in Attachment III. The cutterhead will be lowered to the pond's bottom, and a sediment-water slurry (approximately 80-90% water) will be pumped out of the pond through a suction line. The dredged slurry material will be dewatered either by: 1) Mechanical Dewatering using a belt filter press operation; or 2) Gravity Dewatering using open settling basins. Price at construction bid will determine the preferred alternative.

Mechanical dewatering is the alternative presented in the Plan Set of Attachment III. The slurry will be transported via temporary pipeline from the hydraulic dredge to an intermediate facility for solids separation and dewatering adjacent to the pond, and is depicted on Sheet C-102 of the Plan Set in Attachment III. The slurry will enter a sand screw screening operation to remove oversize particles and floating debris, followed by a temporary storage tank where the slurry will be agitated. This suspended slurry will enter another tank for mixing with a polymer coagulant prior to transfer to a flocculation tank, so that solids can be more easily separated from the water. Once the slurry has been so treated, it will be processed through belt filter presses, filter screen belts, and pressure screen rollers, and the clarified water will drain back to the pond through a catch tank. The equipment is all portable and will be erected for the duration of the project and then dismantled and removed. The dried sediment cake will have to pass the paint-filter test in order to be hauled to the city-owned disposal site in covered trucks.

For the gravity dewatering alternative, the sediment and water will be separated at the disposal site. The dredged slurry will be pumped directly from the dredge through a temporary 10-12" diameter high-density polyethylene (HDPE) discharge pipe of continuous length with fused joints. The pipeline will be approximately 6,000 feet in length, laid directly on the ground surface and held in place with staking. In order to maintain discharge velocity and prevent slurry separation within the pipe, temporary booster pumps may be placed in-line with the pipe. In general, no land disturbance will be required other than the potential for temporary burial of the pipeline at any crossings of the park drives. Inconvenience to park patrons will be insignificant. The containment basin at the disposal area will consist of an excavated and bermed holding area in which the slurry is allowed to separate by gravity into sediment and water. The containment basin will be sized to provide adequate quiescent time to allow the solids to settle, plus provide storage volume for the sediments removed. The supernatant will be decanted from the containment basin, and polymer flocculent will added. The flow will then enter a clarification basin where flocculation and further settlement will occur. As noted, 80-90± percent of the slurry will be water, which must be discharged either directly back to the pond or to one of its upgradient tributaries. As the disposal site is located immediately adjacent to White Brook, and is upstream of the pond, return flow is straightforward and will be accomplished without further pumping. For both dewatering alternatives, the water discharged for return to the pond will meet all water quality requirements.

The dredged material will be beneficially reused as fill materials on the city-owned disposal site, which is categorized as a GW-1 groundwater area because it lies within a Zone II for a public water supply. See Attachment IV for data results. Laboratory testing conducted on three sediment samples from Nashawannuck Pond in 2002 indicated metals, polynuclear aromatic hydrocarbons (PAHs), pesticides and extractable petroleum hydrocarbons (EPH) at concentrations below Massachusetts Contingency Plan (MCP) S-1/GW-1 standards. Barium was detected slightly above the MA DEP Identified Background Levels in "Natural" Soils. Volatile organic compounds (VOCs) and polychlorinated biphenyls (PCBs) were not detected. The EPH fractions were summed by assuming the value of the detection limit when a non-detect (ND) was reported, and compared to the total petroleum hydrocarbon (TPH) standard. An EPH sum of 276 mg/kg resulted for one of the samples (sample C), which exceeds the TPH standard of 200 mg/kg. However, when the EPH sums were averaged for samples A, B and C (69, 187 and 276 mg/kg, respectively), the result (177 mg/kg) is below the TPH standard.