

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

**Environmental Notification Form**

*For Office Use Only*

EEA#: 15774

MEPA Analyst: PAIGE Czepiga

*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: <b>Middle Pond Beach Maintenance Project</b>		
Street Address: <b>Massasoit Park Road</b>		
Municipality: <b>Taunton</b>	Watershed: <b>Middle Taunton River</b>	
Universal Transverse Mercator Coordinates: <b>19N 334960.1 E, 4637165.9 N</b>	Latitude: <b>41.8692</b>	Longitude: <b>-70.9887</b>
Estimated commencement date: <b>Winter 2017</b>	Estimated completion date: <b>Spring 2018</b>	
Project Type: <b>Beach maintenance</b>	Status of project design: <b>75</b> %complete	
Proponent: <b>MassDCR Lakes and Ponds Program</b>		
Street Address: <b>251 Causeway Street, Suite 600</b>		
Municipality: <b>Boston</b>	State: <b>MA</b>	Zip Code: <b>02114</b>
Name of Contact Person: <b>Alex Patterson</b>		
Firm/Agency: <b>ESS Group, Inc.</b>	Street Address: <b>10 Hemingway Drive</b>	
Municipality: <b>East Providence</b>	State: <b>RI</b>	Zip Code: <b>02915</b>
Phone: <b>401-330-1233</b>	Fax: <b>401-434-8158</b>	E-mail: <b>apatterson@essgroup.com</b>

  

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)(b)(1)(d): Alteration of 5,000 or more sf of bordering or isolated vegetated wetlands; and (f): Alteration of one half or more acres of any other wetlands.**

Which State Agency Permits will the project require?  
**Order of Conditions issued by the Taunton Conservation Commission.**  
**Section 401 Water Quality Certification issued by MassDEP.**

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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:

Summary of Project Size & Environmental Impacts	Existing	Change	Total
<b>LAND</b>			
Total site acreage	1.50		
New acres of land altered		1.50	
Acres of impervious area	0	0	0
Square feet of new bordering vegetated wetlands alteration		39,100	
Square feet of new other wetland alteration		24,900	
Acres of new non-water dependent use of tidelands or waterways		0	
<b>STRUCTURES</b>			
Gross square footage	0	0	0
Number of housing units	0	0	0
Maximum height (feet)	0	0	0
<b>TRANSPORTATION</b>			
Vehicle trips per day	0	0	0
Parking spaces	0	0	0
<b>WASTEWATER</b>			
Water Use (Gallons per day)	0	0	0
Water withdrawal (GPD)	0	0	0
Wastewater generation/treatment (GPD)	0	0	0
Length of water mains (miles)	0	0	0
Length of sewer mains (miles)	0	0	0
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:

Middle Pond is one of a series of impoundments of Thompson Brook and other tributaries to the Taunton River, and is located downstream of Big Bearhole Pond and upstream of King's Pond and Lake Rico in Massasoit State Park, Taunton, Massachusetts (Figure 1). Under normal impounded conditions, Middle Pond is an approximately 28-acre waterbody, not including the three small islands located in the western portion of the pond, and has a normal water surface elevation of approximately 43 feet (NAVD 88).

In 2009, the Massasoit State Park campground and beach were closed and Middle Pond was drawn down to discourage the public from swimming. The drawdown decreased the open water area of the pond by approximately eight acres, from roughly 28 acres to 20 acres, and lowered the water surface elevation by approximately five feet, from roughly 43 feet (NAVD 88) to 38 feet (NAVD 88). In the years since the drawdown, vegetated wetlands have developed in the exposed saturated soils or shallows that were part of the former pond basin. In addition, both wetland and upland vegetation has colonized portions of the former beach. The lack of use and availability of funding for maintenance have caused the Middle Pond beach area to fall into state of disrepair.

Several wetland resource areas that fall under the jurisdiction of the Wetlands Protection Act (WPA) and the Taunton Conservation Ordinance occur within and adjacent to Middle Pond. Wetland resource area boundaries were delineated in the field by an ESS wetland scientist in August 2017 in accordance with *Delineating Bordering Vegetated Wetlands under the Massachusetts Wetlands Protection Act and the Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region*. Wetland resource areas present in and in the vicinity of the project area include Land Under Water (LUW), Inland Bank, Bordering Vegetated Wetland (BVW), and Bordering Land Subject to Flooding (BLSF).

Describe the proposed project and its programmatic and physical elements:

DCR has recently secured funding to rehabilitate and re-open the Massasoit State Park campground and maintain the Middle Pond beach for public use. The goal of this project is to return the Middle Pond beach area to a condition similar to that which existed prior to the drawdown of the pond in 2009. To achieve this goal, DCR proposes to remove existing woody and emergent vegetation and associated root and rhizome systems in the upper two feet of soil to create a safe environment for swimming. This work zone encompasses the former beach and the portion of the remaining pond and vegetated wetlands adjacent to the beach. The material removed from this area will be composed and re-used at an upland location elsewhere in Massasoit State Park. Following the removal of this material, clean sand will be placed within the former beach area at the original grade to provide a safe and clean area to be maintained as the public swimming beach in the future.

Consistent with definitions provided in CMR 314 CMR 9.02, the removal of material from the LUW resource area is hereafter referred to as dredging, while the removal of material from BVW and other resource areas is referred to as excavation. The proposed dredging/excavation footprint includes approximately 0.18 acres (8,000 square feet) of LUW, approximately 0.90 acres (39,100 square feet) of BVW, approximately 0.39 acres (16,900 square feet) of BLSF, and approximately 0.42 acres (18,100 square feet) of the 100-foot buffer zone offset from the edge of BVW. The work within the 100-foot buffer zone is inclusive of the excavation footprint within the BLSF as shown on Figure 2 and the project plans. The work zone totals approximately 1.5 acres (65,200 square feet). The work is subject to the limited project provisions under the WPA for the maintenance of beaches (310 CMR 10.53(h)).

The dredging/excavation work will remove the upper two feet of unconsolidated material,

including herbaceous and woody vegetation and the root and rhizome systems. A total of approximately 3,900 cubic yards of material will be removed, including 540 cubic yards of material dredged from LUW, 2,310 cubic yards of material excavated from the BVW, 1,040 cubic yards of material excavated from the BLSF, and 2 cubic yards of material excavated from the 100-foot buffer zone of the BVW outside of the BLSF.

Following the removal of material as described above, approximately 1,040 cubic yards of clean sand will be placed within the Middle Pond beach area in order to restore the original surface elevations of the beach and establish a safe and clean area to be maintained as a public swimming beach on the pond. The surface area and volume of new, clean sand placed within the BLSF and the 100-foot buffer zone of the BVW will be equal to that which was excavated from these areas, such that there will be no net change in the volume of material or ground surface elevations within either the BLSF or the 100-foot buffer zone. No new material will be placed below the current Ordinary High Water mark or within LUW or BVW resource areas in order to preclude the need for authorization by the United States Army Corps of Engineers.

The work associated with the proposed project is expected to take approximately four to six weeks, and will occur during daylight hours (typically 7 am to 6 pm). The schedule will be influenced by weather conditions and the amount of time needed for the dredged/excavated material to thoroughly dewater prior to transport.

Prior to the start of work, the contractor will establish temporary erosion and sedimentation controls, including turbidity curtains, along the perimeter of the work area to limit the spread of total suspended solids (TSS) and increases in turbidity in adjacent undisturbed aquatic habitats. In order to avoid impacts to adjacent areas, Middle Pond will not be further drawn down prior to the start of dredging/excavation activities. Earth moving equipment (including a long-reach excavator) will be used to remove material from the work area. Construction equipment will access the work area via a temporary gravel construction access location as shown on the project plans, which will trap loose sediment from tires and treads. Vehicles leaving the project site at the conclusion of construction will be cleaned of mud and dirt on the vehicle body and wheels by the contractor before entering public roadways. Vehicle mud and dirt carryout that washes onto public roadways will be cleaned up by the contractor as needed.

The removal of material from the dredging/excavation footprint will begin at one end of the work area with the dredged/excavated materials being brought to the temporary material stockpile and dewatering area as shown in the project plans. After the material had sufficiently dewatered, dump trucks will be used to transport the material to the final re-use location within Massasoit State Park. Dredged/excavated material will be managed in accordance with the 401 Water Quality Certification for the project.

Potential impacts are associated with the removal of material from Middle Pond, including temporary displacement of fish and wildlife during dredge operations and direct impacts to benthic habitats and aquatic macroinvertebrates through the removal of the existing substrate. Impacts will be greatest to non-mobile and water-dependent species. There may be some limited mortality of individual organisms from the operation of machinery, most likely of non-mobile aquatic invertebrates; however population-level impacts to species are not anticipated as the work area includes only a relatively small part of the Middle Pond system. In general, impacts associated with the proposed work are expected to be localized, temporary, and subject to natural mitigation.

*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:

***No-Action Alternative:***

The purpose of the proposed project is to rehabilitate and maintain the public swimming beach at Middle Pond so that this area can once again function as an important recreational resource within Massasoit State Park. Under the no-action alternative, the existing degraded swimming beach would not be rehabilitated or maintained as a recreational resource. Woody and emergent vegetation that has grown in and around the swimming beach since the pond was drawn down in 2009 would not be cleared, the layer of muck that has accumulated within the swimming area would not be removed, and the sand within the beach itself would not be replaced with new, clean sand free of vegetation and debris. In this scenario, the Middle Pond beach would continue to exist in a degraded state from a recreational perspective, and would hence continue to be un-usable as a recreational area. The high value potential of the swimming beach as a recreational resource in the state park would not be realized, and the state park campground would lack a safe, designated swimming area.

For these reasons, the no-action alternative was rejected in favor of the preferred alternative.

***Larger Project Footprint:***

Under this scenario, the size of the project footprint would be increased to approximately 2.25 acres, and would extend northwest to the Middle Pond dam and south to include additional LUW and BVW areas.

A larger dredge/excavation footprint was rejected in order to avoid impacts to the Natural Heritage and Endangered Species Program (NHESP) mapped habitat area in the vicinity of the Middle Pond dam, and to limit impacts to wetlands resource areas (BVW, LUW, and Inland Bank) to what is necessary to accomplish the goals of the project.

***Hydraulic Dredging:***

A hydraulic pipeline dredge is a vessel-based dredge which typically contains a cutter-head arm that stirs and loosens bottom sediment as it is moved across an area. The material is hydraulically removed off the bottom in a slurry, which is then pumped through the discharge pipe to the temporary stockpile and dewatering location.

The use of a hydraulic dredge at Middle Pond is undesirable for the following reasons. First, while a hydraulic dredge would be capable of removing material from the LUW resource area, most of the work area is located in BVW and buffer zone areas above the current water line. A hydraulic dredge would be incapable of excavating material from these areas. Second, much of the work area is currently vegetated by emergent and/or woody plants. A hydraulic dredge would be incapable of removing above-ground woody plant material and root and rhizome systems. Finally, even if a hydraulic dredge were capable of removing sediments from the entire work area, this technique would require a larger sediment dewatering containment area located outside of the proposed excavation footprint. Due to the limited space available within and adjacent to the work area and in the interest of limiting impacts to adjacent areas, a larger sediment containment area located outside of the work area would be undesirable.

For these reasons, hydraulic dredging was rejected in favor of the preferred alternative.

***Mechanical Dredging/Excavation with Pond Drawdown:***

Mechanical dredging/excavation entails the use of conventional construction equipment to remove sediment from the work area with a bucket apparatus attached to a crane. Sediment is pushed or lifted to the temporary dewatering stockpile, and then trucked to the final re-use location. Under this alternative, the eastern basin of Middle Pond would be pumped dry to allow access for construction equipment to the deeper portions of the work area.

The use of mechanical dredging with pond drawdown is undesirable at Middle Pond. The size of the work area is relatively small compared to the overall size of the entire Middle Pond system and the eastern basin of the pond. Drawing down the entire eastern basin of the pond would impact BVW and LUW habitats well beyond the limits of the work area, which could negatively impact wetland vegetation, fish, wildlife, and benthic organisms. The installation of a temporary cofferdam

to allow for dewatering only the work area would be impractical, cost-prohibitive, and also result in additional impacts to aquatic habitats outside the proposed work area.

For these reasons, mechanical dredging/excavation with pond drawdown was rejected in favor of the preferred alternative.

***Mechanical Dredging/Excavation without Pond Drawdown – Preferred:***

The preferred alternative entails the use of conventional construction equipment to remove sediment from the work area, and does not entail drawdown of the pond in order to avoid impacts to wetland habitats outside the dredge/excavation footprint. As discussed in the project description, a long-reach excavator will be employed to remove sediments from deeper portions of the work area, precluding the need to draw down the basin to provide direct access to these areas. Turbidity curtains and other erosion and sedimentation controls will be implemented during construction to avoid the spread of TSS or increases in turbidity to aquatic habitats outside the project footprint. This alternative accomplishes the goals of the project while limiting impacts to wetland habitats and avoiding work in the NHESP habitat area near the dam.

For these reasons, this alternative is chosen 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.***

Summarize the mitigation measures proposed to offset the impacts of the preferred alternative:

The following impact avoidance and minimization measures are expected to reduce the potential for negative impacts to fish, wildlife, and habitats as a result of the proposed project.

***Adherence to Stormwater Pollution Prevention Plan (SWPPP).*** A project-specific SWPPP has been developed for this project and is included in the NOI filing. All construction activities will adhere to the provisions of the SWPPP in order to ensure compliance with the Massachusetts Stormwater Standards.

***Dredging/excavation to occur during winter.*** Dredging/excavation work will occur during the winter months (January to March). Scheduling work to take place during the winter is expected to help minimize impacts to fish and wildlife by avoiding work during the breeding season of most species. Conducting work during the winter is also expected to help minimize impacts to wetland habitats as plant species are dormant during this time of year.

***Implementation of erosion and sedimentation controls.*** A temporary erosion and sedimentation control line will be established along the perimeter of the work area before dredging/excavation begins. The use of erosion and sedimentation controls will help minimize impacts to adjacent undisturbed aquatic habitats by controlling the spread of TSS and increases in turbidity. The specific types of erosion and sedimentation controls to be used will be determined by the contractor based on site conditions at the time of work, but may include turbidity curtains, straw bales and silt fence, silt socks, and other methods.

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

The construction sequence will take place in the following order, but some tasks may occur simultaneously or in a different sequence based on the contractor's selected means and methods:

- Establishment of site access and staging
- Establishment of temporary material stockpile and dewatering area and erosion/