

ENF Environmental Notification Form

For Office Use Only
Executive Office of Environmental Affairs
 EOE No.: **14310**
 MEPA Analyst: **Bill GAGE**
 Phone: 617-626-**1025**

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: Allen Pond Dredging Project		
Street: 233 Baker Street		
Municipality: Walpole	Watershed: Neponset	
Universal Transverse Mercator Coordinates: 315559 E 4667377 N	Latitude: 42.140.323 N Longitude: 71.236.546 W	
Estimated commencement date: Fall 2008	Estimated completion date: Spring 2010	
Approximate cost: \$450,000	Status of project design: 75 %complete	
Proponent: Walpole Country Club		
Street: 233 Baker Street		
Municipality: Walpole	State: MA	Zip Code: 02081
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Thomas Liddy		
Firm/Agency: ESS Group, Inc.	Street: 888 Worcester Street	
Municipality: Wellesley	State: MA	Zip Code: 02482
Phone: 781 431-0500	Fax: 781 431-7434	E-mail: tliddy@essgroup.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):

NA

Are you requesting coordinated review with any other federal, state, regional, or local agency?
 Yes (Specify _____) No

List Local or Federal Permits and Approvals: USACE 404 dredging permit, EPA NPDES, Order of Conditions

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

- | | | |
|---------------------------------|---------------------------------------|--|
| <input type="checkbox"/> Land | <input type="checkbox"/> Rare Species | <input checked="" type="checkbox"/> Wetlands, Waterways, & Tidelands |
| <input type="checkbox"/> Water | <input type="checkbox"/> Wastewater | <input type="checkbox"/> Transportation |
| <input type="checkbox"/> Energy | <input type="checkbox"/> Air | <input type="checkbox"/> Solid & Hazardous Waste |
| <input type="checkbox"/> ACEC | <input type="checkbox"/> Regulations | <input type="checkbox"/> Historical & Archaeological Resources |

Summary of Project Size & Environmental Impacts	Existing	Change	Total	State Permits & Approvals
LAND				<input checked="" type="checkbox"/> Order of Conditions <input type="checkbox"/> Superseding Order of Conditions <input type="checkbox"/> Chapter 91 License <input checked="" type="checkbox"/> 401 Water Quality Certification <input type="checkbox"/> MHD or MDC Access Permit <input type="checkbox"/> Water Management Act Permit <input type="checkbox"/> New Source Approval <input type="checkbox"/> DEP or MWRA Sewer Connection/Extension Permit <input type="checkbox"/> Other Permits <i>(including Legislative Approvals) – Specify:</i>
Total site acreage	~95 acres			
New acres of land altered		0		
Acres of impervious area	~2.5	0	~2.5	
Square feet of new bordering vegetated wetlands alteration				
Square feet of new other wetland alteration				
Acres of new non-water dependent use of tidelands or waterways		0		
STRUCTURES				
Gross square footage	0	0		
Number of housing units	0	0		
Maximum height (in feet)	0	0		
TRANSPORTATION				
Vehicle trips per day	0	0		
Parking spaces	0	0		
WATER/WASTEWATER				
Gallons/day (GPD) of water use	0	0		
GPD water withdrawal	0	0		
GPD wastewater generation/treatment	0	0		
Length of water/sewer mains (in miles)	0	0		

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 (Specify _____) No

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.)

PROJECT DESCRIPTION

Project Site – Allen Pond (the pond) is a 3.5 acre (150,639 feet²) impounded pond system. The pond exhibits a highly eutrophic condition resulting from the effects of excessive sedimentation accumulating within the pond basin at a calculated rate in excess of 20 tons/year (ESS, 2003). The primary source of sedimentation has been attributed to a neighboring gravel/excavation operation which has ceased operations. The source of sediment has been controlled however the excessive sedimentation accumulating in the pond has reduced the total volume of water by approximately 2.8 million gallons. In addition, the sediment has accumulated in the pond and has converted the original pond bottom (Land Under Water) to Bordering Vegetated Wetlands (BVW), which supports the growth of nuisance aquatic weeds, including waterweed (*Elodea canadensis*), water lily (*Nymphaea odorata*), cattails (*Typha latifolia*), as well as purple loosestrife (*Lythrum salicaria*), an exotic and highly invasive species.

The pond is located at the bottom of a small valley, surrounded by the low rolling hills of the golf course, and is impounded by a causeway on its northwestern shore. Adjacent land use consists of residential development, country club facilities, upland forest, and a maintained golf course fairway and greens. The pond is fed by Spring Brook, which discharges into the southern end of the pond. The western branch of Spring Brook originates approximately one quarter mile to the south and east of the pond, in a wooded, hilly area west of Route 95. The eastern branch (Sansone Branch) originates from a spring located downgradient of the former Sansone Sand and Gravel property. The Gutierrez Branch is an additional stream which feeds into the Sansone Branch of Spring Brook downstream of the former Sansone property and upstream of the confluence with the west branch of Spring Brook. See Figure 1.

The pond contains two outlets. Outlet 1 is located at the western end of the pond. Outlet 2 is located at the northern end of the pond. Both outlets discharge to a large wetland system and several other downstream water bodies. Water levels within the pond are controlled at both outlets through the use of sandbags.

Allen Pond was originally constructed to provide the primary water supply for golf course irrigation, but in addition provides fisheries support. The loss of pond volume resulting from sedimentation has significantly impaired the pond's function of providing water supply for irrigation. Overall water quality is also being degraded, with increased levels of total suspended solids (TSS), reduced water clarity, and reduced dissolved oxygen available, which has impaired the pond's functional capacity to support fisheries.

Project Purpose - The applicant proposes to remove excessive sedimentation (upstream sediment contributions originating on the former Sansone property have ceased and ongoing stormwater controls have been installed) and limit the long-term excessive growth of nuisance and invasive species by dredging approximately 23,000 cys of sediment from the pond and converting an area of BVW to deep marsh. The proposed project will reduce the overall sediment that has accumulated in the pond, restore pond

depth/storage capacity (current capacity is approximately 1.8 million gallons, which would increase to approximately 4.6 million gallons) and reduce proliferation of nuisance and invasive species. Implementation of the proposed project will also restore the natural capacity of the pond to function as a water supply and a fisheries resource.

Alternatives – Source control of upstream sediment contributions having been achieved, the proposed project is specific to the restoration of Allen Pond, which will require the removal of excessive sedimentation and control of nuisance and invasive species. The applicant has considered the following alternatives: (1) No Action; (2) Dredging with short-term management of nuisance and invasive species; and (3) Dredging with long-term management of nuisance and invasive species through conversion of BVW to deep marsh.

The No Action alternative will result in continued degradation and reduced natural capacity of the pond to function as a water supply and a fisheries resource.

Dredging with Periodic Management of Nuisance and Invasive Species will provide some immediate benefits, but will not provide a long-term solution or permanent restoration of the pond. Drawdown dredging would be implemented in stages, drawing water down over two dredging seasons to expose bottom sediments, which would be removed and de-watered on shore for on-site reuse in accordance with a 401 Water Quality Certificate, MassDEP's "Guidance for Aquatic Plant Management in Lakes and Ponds As It Relates to the Wetlands Protection Act," and Best Management Practices (BMPs) for work in resource areas. Periodic management of extensive nuisance and invasive species would include harvesting through manual cutting, mechanical cutting, and hydro-raking.

This alternative was rejected for several reasons. The dredging of the accumulated sediments would achieve a greater storage volume in the pond, but the continued proliferation of nuisance and invasive species would continue to impact water quality. Short-term management creates its own impacts through substrate disruption that is inevitable with physical controls. In addition, manual cutting, mechanical cutting, and hydro-raking may, after several years of effort, be effective when target plants reproduce by seed and harvesting is timed to eliminate annual seed production. Seasonal harvesting is much less effective as a long-term management program with plants that reproduce by vegetative propagation. Finally, without consistent implementation, harvesting will not be effective in controlling nuisance and invasive species.

Dredging with Management of Nuisance and Invasive Species By Conversion of BVW to Land Under Water (Deep Marsh) is the preferred project alternative. Drawdown dredging would be implemented as described above, but would also include dredging to a depth of 8 – 10 feet and altering approximately 30,030 square feet of BVW to reduce the area of littoral zone available for the establishment of nuisance and invasive rooted plant growth.

The benefits to this approach include achieving a greater storage volume in the pond, restoring portions of the pond that have been colonized by nuisance and invasive species, and establishing a level of "source control" so as to permanently limit the capacity for re-establishment of nuisance and invasive species. The overall water quality, biological integrity, and overall capacity of the pond to function as a source of water supply and a fisheries resource.

Mitigation Measures - Impacts associated with drawdown dredging are anticipated to be temporary and of short duration and would largely be mitigated naturally. The applicant will commence drawdown activity over two seasons, between November 1 and December 1, and complete pond refill by April 1. This schedule will minimize impacts to fish spawning and other non-target organisms that may have water level requirements for reproduction. Upstream and downstream flow rates during drawdown and refill will be managed to ensure sufficient flow rates to maintain fisheries and, as practicable, drawdown rates will not exceed 3 inches of elevation change/day.