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April 20, 2007

CERTIFICATE OF THE SECRETARY OF ENVIRONMENTAL AFFAIRS
ON THE
ENVIRONMENTAL NOTIFICATION FORM

PROJECT NAME: Paradise Pond Dredging
PROJECT MUNICIPALITY: Northampton
PROJECT WATERSHED: Connecticut River
EOEA NUMBER: 13991
PROJECT PROPONENT: Smith College Physical Plant
DATE NOTICED IN MONITOR: March 21, 2007

Pursuant to the Massachusetts Environmental Policy Act (G. L. c. 30, ss. 61-62H) and Section 11.06 of the MEPA regulations (301 CMR 11.00), I hereby determine that this project **does not require** the preparation of an Environmental Impact Report (EIR).

Project Description

As described in the Environmental Notification Form (ENF), the project involves the dredging of 12,000 cubic yards (cy) of material from Paradise Pond in Northampton. Paradise Pond is a man-made impoundment formed by a dam across the Mill River and is located entirely within the 125 acre campus grounds of Smith College. The pond water surface area is approximately 9.2 acres and is surrounded by a combination of open space, college campus buildings and athletic fields. At Paradise Pond, the Mill River drains an estimated 54 square miles of mostly rural, undeveloped land comprised of steep topography and relatively erosive soils. Sedimentation within the pond has historically been problematic, and the pond has been periodically dredged using conventional excavation techniques following complete draining of the pond to restore a water depth suitable for the recreational use of the pond. The project site occurs within and immediately upstream of the habitat of ten state-listed species protected

pursuant to the Massachusetts Endangered Species Act (MESA).

To address the long-term maintenance and management of Paradise Pond, Smith College has prepared a "Paradise Pond Management Plan" (Baystate Environmental Consultants, 2005), that describes pond management activities including periodic dredging; operation and maintenance of the dam; removal of floating debris; protection and maintenance of pond shoreline and vegetation; maintenance of dock and boathouses; maintenance of campus irrigation systems; and removal of debris downstream of the Lamont footbridge. The Management Plan was submitted to the Northampton Conservation Commission, the Department of Environmental Protection (MassDEP) Western Regional Office, and the Division of Fisheries and Wildlife Natural Heritage and Endangered Species Program (NHESP) in February 2006. The proponent is involved in ongoing consultation with NHESP regarding the impacts of management activities to rare species in the vicinity of the pond. Once this consultation is complete, the proponent anticipates that the Northampton Conservation Commission will issue an Order of Conditions for the Management Plan. The ENF currently under review addresses the dredging specifically.

Jurisdiction

The project is undergoing review pursuant to Section 11.03(3)(b)(1)(f) and 11.03(3)(b)(3) of the MEPA regulations because it will result in the alteration of more than ½ an acre of "any other wetlands" (5.3 +/- acres of Land Under Water) and because it requires the dredging of 10,000 or more cy of material. The project requires a National Pollutant Discharge Elimination System (NPDES) General Construction Permit from the U.S. Environmental Protection Agency (EPA); a 401 Water Quality Certificate (WQC) from the Department of Environmental Protection (MassDEP); a possible Section 404 Dredging Permit from the U.S. Army Corps of Engineers (ACOE); review from NHESP pursuant to the Massachusetts Endangered Species Act (MESA); an Order of Conditions from the Northampton Conservation Commission; and compliance with the City of Northampton Stormwater Ordinance.

The proponent is not seeking financial assistance from the Commonwealth. Therefore, MEPA jurisdiction applies to those aspects of the project within the subject matter of required or potentially required state permits and/or review with the potential to cause damage to the environment. In this case, MEPA jurisdiction extends to wetlands and rare species.

Wetlands/Dredging

The following wetland resource areas are associated with Paradise Pond and the Mill River: Bordering Vegetated Wetlands (BVW), Bank, Land Under Water (LUW), Riverfront Area and Bordering Land Subject to Flooding (BLSF). The project will result in impacts to 5.3 acres of LUW due to the dredging of the pond and 0.2 acres of Riverfront Area for temporary access along an existing jogging path. The proponent will file a Notice of Intent (NOI) for the dredging project with the Northampton Conservation Commission under the limited project provisions of the Wetlands Protection Act. A NOI for the Paradise Pond Management Plan is currently under review by the Northampton Conservation Commission, NHESP and MassDEP (DEP # 246-0580).

The proponent considered several alternative dredging methods during project planning including the no-dredge alternative, the conventional dredging method “in the dry”, and hydraulic dredging. The proponent eliminated the no-dredge alternative from consideration as it would lead to the eventual loss of the pond resource. The conventional dredging alternative requires the drawdown of the pond and would have both short- and long-term negative impacts to the pond and rare species. This method has been utilized during previous dredging efforts at Paradise Pond where sediment transport and deposition downstream of the dam has been documented. Sediment releases have the potential to negatively impact rare species habitat downstream of the pond.

The preferred alternative of 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 use a barge-mounted movable boom with a cutterhead and suction line attached. This methodology will have some short-term impacts to pond aquatic habitat and will present some potential for introduction of turbidity to the pond water column. These short-term impacts are outweighed however by the avoidance of the negative environmental impacts associated with pond drawdown.

The dredged material will be pumped to a dewatering facility which will be staged on a grassed pasture used by Smith College’s equestrian program located south of the pond and athletic fields and along the north side of West Street (Route 66). The sediment dewatering system will be composed of grit chambers and sediment slurry conditioning followed by either geotextile fabric tubes (geotubes) or belt-filter presses for final dewatering. Clarified water will be monitored carefully for turbidity before it is eventually discharged to the Mill River. Dewatered sediments will be reused or disposed of in accordance with the 401 Water Quality Certificate. Laboratory testing conducted on sediment samples from the pond in 2004 indicated that concentrations were low compared with Massachusetts Contingency Plan (MCP) standards.

Rare Species

According to NHESP, Paradise Pond is located upstream of the habitat of the following rare species:

- Spine-crowned Clubtail Dragonfly (Endangered)
- Zebra Clubtail Dragonfly (Threatened)
- Arrow Clubtail Dragonfly (Threatened)
- Skillet Clubtail Dragonfly (Special Concern)
- Stygian Shadowdragon Dragonfly (Special Concern)
- Brook Snaketail Dragonfly (Special Concern)
- Dwarf Wedgemussel (Endangered)
- Triangle Floater Mussel (Special Concern)
- Creeper Mussel (Special Concern)
- Wood Turtle (Special Concern)

These species are state-listed pursuant to the Massachusetts Endangered Species Act (MESA) (MGL c. 131A). The Dwarf Wedgemussel is also federally listed pursuant to the Endangered

Species Act of 1973 (16 USCA §§ 1531-1544) and regulations (50 CFR §§ 17 & 402) administered by the U.S. Fish and Wildlife Service.

The proponent has been working with staff from the NHESP program to ensure that the project will avoid long-term impacts to the above-listed species. According to the ENF, the potential for impacts to rare species habitat is very low as the preferred dredging alternative avoids draining the pond and will utilize a water treatment process that meets water quality standards for surface water discharge. In their comments on the ENF, NHESP states that the currently proposed hydraulic dredging project will likely avoid impacts to state-listed species provided care is taken to ensure that siltation does not occur in downstream areas. The proponent should continue to coordinate with NHESP regarding the long-term pond maintenance operations. The proponent should consider impacts to organisms present in the pond and upstream in addition to those downstream of the pond prior to dredging.

Fish Passage

I strongly encourage the proponent to consider the installation of a fish ladder at the dam to provide passage for fish and/or eels. As stated in their comments on the ENF, the Connecticut River Watershed Council (CRWC) will provide Smith College with information about grant opportunities to fund such a project. The proponent should consult with CRWC and the Massachusetts Riverways program regarding fish passage opportunities at the site.

Conclusion

Following a review of the ENF and the comments entered into the record, I find that the impacts of the project within MEPA jurisdiction do not warrant the preparation of an EIR. I conclude that no further MEPA review is required. The proponents may resolve any remaining issues during the state and local permitting processes.

April 20, 2007

Date



Ian A. Bowles

Comments received:

4/9/2007	Division of Fisheries and Wildlife, Natural Heritage and Endangered Species Program
4/9/2007	Mass Audubon
4/10/2007	Connecticut River Watershed Council
4/10/2007	Department of Environmental Protection, Western Regional Office

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