



Town of Becket Conservation Commission
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Commission Follow-Up Questions for Notice of Intent Application, DEP File #102-0446
Intended for Applicant Department of Conservation & Recreation

October 28th, 2019
CC: Site file

- Why is boating safety mentioned as part of the application? This is not a valid factor for consideration by the Conservation Commission.
The primary management of this project is to maintain water quality and support aquatic life. But we should also be concerned with safety of recreational activities.
- What water quality tests that have been conducted and will be conducted should an Order be issued? *Attached is a 2014 report where Dissolved Oxygen and Sechi disk reading were performed which was required for the plant treatment then. Water quality data is not required or recommended for harvesting projects. Removal of excessive plant material in less than 5% of the lake is a benefit to that area.*
- What is the long-term holistic approach for this project, and all activities to be conducted at Buckley Dunton Reservoir? *Bladderwort is a plant that goes through boom and bust cycles. The last time that this plant was an issue was back in 2014. Various lakes throughout the commonwealth show this trend. The lake would be surveyed on annual basis to determine whether or not harvesting and hydro raking would be needed as management for the year.*
- Why was such a small a small area chosen for this work, as compared to the lake as a whole?
The small cove has dense vegetation and is the shallowest area due to the buildup of organic matter. The prevailing wind blows all the vegetation into this small narrow cove. In the fall during plant die-off, this accumulation of plant matter will add large amounts of nutrients and detritus material.
- What damage will the harvester do to existing healthy plant and animal life, both those intended and not intended as part of the project in the application? Will there be impacts soil erosion or soil disturbance within the reservoir?
The harvester will target the dense bladderwort vegetation patches. Other native vegetation in the cove will be avoided. The harvested plants will be offloaded on land near the lake so that any organisms that are inadvertently collected may return to the lake. Harvester produced turbidity typically settles within 24 hours. A turbidity curtain will be placed at the mouth of the cove to prevent any material from entering the main body of the reservoir.

- What tests have been conducted to determine any presence of chemicals or pollutants in the reservoir's soil that would be disturbed should an Order be issued? What are the effects of potentially redistributing these chemicals or pollutants if they are present and are disturbed? *As the harvester does not disturb deep sediments and is not considered 'dredging', sediment sampling is not required.*
- How will the knowledge of an identified natural habitat of endangered species play a role in the implementation of the proposed activity?
Natural Heritage has determined that this project, as currently proposed, will not adversely affect the actual Resource Area Habitat of state-protected rare wildlife species.
- MA DEP, in their latest Integrated List of Waters, does not consider Buckley Dunton impaired by nuisance aquatics or eutrophication. The only impairment is mercury in fish tissue. Please provide recent data to refute MA DEP's assessment of Buckley Dunton and show the waterbody is impacted by accelerated cultural eutrophication.
*Eutrophication can be caused by excessive vegetation. This can occur in a cove or backwater where excessive plant biomass builds up. This process happens over time, the use of a mechanical harvesting and hydro rake would help to **prevent** eutrophication from occurring.*
- One of the major goals of this project listed in the application is to increase open water habitat. The vast majority of Buckley Dunton's 160 acres is open water with limited areas of other habitat as shown on the map of vegetated areas in Buckley Dunton. Please provide justification for eliminating a portion of the limited vegetated areas, thus reducing habitat diversity in Buckley Dunton, to increase the already dominate habitat by a modest percentage and how this will support the interests of the Act over maintaining aquatic habitat diversity dominated by native plant species.
This project will reduce the monoculture plant assemblage and allow for a more diverse makeup of aquatic plants in the cove. By reducing the floating plant cover in the center of the cove, the benthic plants will have the ability to recover and increase the aquatic plant diversity.
- The application states flooding will be reduced by this project. In a quick back of the envelope calculation, using a generous 50% increase of volume in the project area, shows water levels in a 100 year storm would be impacted by less than 1 mm over the 160 acre waterway. The commission has not been able to identify any complaints or concerns about flooding but if there were flooding issues, a more effective flooding control approach would be gained by managing the dam and spillway. Please confirm this work would make a real difference in flooding.
Removing overabundant plant biomass from a small area will allow for more water to be stored in that area.