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.: 13174
MEPA Analyst: Anne Canaday
Phone: 617-626-1035

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: Management of invasive aquatic vegetation in Lake Holland Belchertown, MA			
Street:			
Municipality: Belchertown		Watershed: CT River Basin	
Universal Tranverse Mercator Coordinates: 46 88 100 N; 7 11 700 E		Latitude: 072° 25' 55.4" W Longitude: 042° 19' 00.1" N	
Estimated commencement date: 6/2004		Estimated completion date: 9/2005	
Approximate cost: $6,000.00		Status of project design: 95 %complete	
Proponent: Tri-Lakes Association			
Street: 9 Woodhaven Drive			
Municipality: Belchertown		State: MA	Zip Code: 01007
Name of Contact Person From Whom Copies of this ENF May Be Obtained: Lee Lyman, President			
Firm/Agency: Lycott Environmental Inc.		Street: 600 Charlton Street	
Municipality: Southbridge		State: MA	Zip Code: 01550
Phone: 508-765-0101	Fax: 508-765-1352		E-mail: lycottinc@aol.com

Does this project meet or exceed a mandatory EIR threshold (see 301 CMR 11.03)?
[x] Yes [ ] No

Has this project been filed with MEPA before?
[ ] Yes (EOEA No._____) [x] No

Has any project on this site been filed with MEPA before?
[ ] Yes (EOEA No._____) [x] 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) [x] 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): None

Are you requesting coordinated review with any other federal, state, regional, or local agency?
[x] Yes (Specify DEP, Wetlands Div.) [ ] No

List Local or Federal Permits and Approvals: Order of Conditions File #104-675 and Application to apply herbicides to the water of the Commonwealth

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	12		
New acres of land altered		0	
Acres of impervious area		0	
Square feet of new bordering vegetated wetlands alteration		0	
Square feet of new other wetland alteration		3 acres 130,680sf	
Acres of new non-water dependent use of tidelands or waterways		0	
STRUCTURES			
Gross square footage			
Number of housing units	N/A	N/A	N/A
Maximum height (in feet)	N/A	N/A	N/A
TRANSPORTATION			
Vehicle trips per day	"	"	"
Parking spaces	"	"	"
WASTEWATER			
Gallons/day (GPD) of water use	"	"	"
GPD water withdrawal	"	"	"
GPD wastewater generation/ treatment	"	"	"
Length of water/sewer mains (in miles)	"	"	"

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:

Application to apply herbicides to the waters of the Commonwealth

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.*) For several years the Tri-Lake Watershed Association has noted an increase in the amount of aquatic vegetation in Lake Holland. The principal plant species in this 12-acre water body include Fanwort (Cabomba caroliniana) and Variable Milfoil (Myriophyllum heterophyllum). The secondary aquatic plant species include Watershield (Brasenia), Bladderwort (Utricularia), Slender Pondweed (Potamogeton pusillus), Elodea (Elodea canadensis) and White Lilies (Nymphaea).
The Fanwort and Variable Milfoil have outcompeted the more desirable aquatic plants such as Elodea and Pondweed to the point where the littoral zone is dominated by these two non-indigenous plants. The Fanwort was found growing in ten feet of water approx. 35 feet from shore; the Variable Milfoil was growing in depths up to 22 feet appx. 45 feet from shore. The objective of this management plan is to significantly reduce, if not eliminate, these non-indigenous plant species and allow the other more desirable aquatic plants to become re-established in the littoral zone.

Various alternatives have been considered for the management of the invasive plant species. One alternative for managing the invasive vegetation is to take "no action". This will allow the invasive plants to proliferate and negatively alter the fisheries and wildlife habitat. The current proliferation has altered the fisheries and wildlife habitat and has compromised the safety of swimmers. The lake residents, Conservation Commission and Tri-Lake Association have discussed the implementation of other management alternatives such as mechanical harvesting, suction harvesting, hand harvesting and benthic barriers. These entities discussed the applicable methods with the Friends of Lake Holland at the request of the DEP, but an agreement could not be reached to effectively manage the invasive plant species with harvesting and benthic screening methods. Lake-level drawdown is not an option as the outlet and downstream gradient will not facilitate lowering the water level in Lake Holland. The only viable option to reduce and effectively manage the Fanwort and Variable Milfoil is the use of US EPA registered and state-approved herbicides applied at a concentration that will not adversely affect non-target organisms.

Lycott has found that the use of Sonar AS (active ingredient fluridone) will effectively manage these plant species at a concentration of 12 - 20 ppb for a 45-day period. The initial Sonar AS treatment will be undertaken to acquire a fluridone concentration of 20 ppb. One or two booster treatments will be required to maintain the fluridone concentration at 12 - 20 ppb for 45 days. (Continued . . .)

Continuation of Project Description

Water samples will be collected on a weekly basis after the initial Sonar application to determine the fluridone concentration. The need for booster treatments will be dependent on the fluridone concentration. If the concentration falls below 10 ppb prior to the forty-five day timetable for effective management, a follow-up/booster treatment will be undertaken.

Two to six weeks after the initial Sonar application the Variable Milfoil (*Myriophyllum heterophyllum*), together with the Lilies (*Nymphaea*), Watershield (*Brasenia*), Pondweed (*Potamogeton sp.*) and Elodea (*Elodea canadensis*) will show signs of chlorosis. While the Sonar application will considerably reduce the Variable Milfoil (*Myriophyllum heterophyllum*) growth, it often recovers several weeks after the treatment and the following year. The Lilies (*Nymphaea*), Watershield (*Brasenia*), Pondweed (*Potamogeton sp.*) and Elodea (*Elodea canadensis*) will also recover the following year. It is unlikely that the Bladderwort (*Utricularia*) will be affected by the herbicide at the concentration being proposed.

We anticipate conducting a treatment to the Variable Milfoil (*Myriophyllum heterophyllum*) with the herbicide Reward (active ingredient diquat) at a rate of 1.5 gallons per surface acre approximately six weeks after the initial Sonar application and in subsequent years.

Follow-up biological surveys will be conducted during late summer/early fall utilizing the established GPS coordinates to document the aquatic plant community. The surveys will delineate the aquatic plants and percent of cover. The indigenous aquatic plant population will likely begin to increase in biodiversity in these areas after the second year of management. If the native plant species have not proliferated by the end of 2005, beneficial aquatic plant species such as Nitella will be introduced.

The habitat includes tree branches overhanging the shoreline, a fallen branch in the water, a snag, log and stump. Bass and sunfish are present in the lake. A five-foot setback area has been delineated on the enclosed map, as well as a 50' zone from significant habitat.

The preamble of the regulations for land under water body states that this resource area should be protected and maintained for the reproduction of fisheries and the health of the ecosystem and food chain. If the aquatic vegetation is left unmanaged, the resource area will be compromised, and more extensive management will be needed in the future. We intend to meet the general performance standards by improving the fisheries and wildlife habitat without adverse impacts to fisheries and wildlife habitat functions.