

# Notice of Intent Application Stiles Reservoir Aquatic Plant Management Program

Leicester, MA

April, 2017

**Prepared for:**

Stiles Lake Water District  
C/O Jason Lussier  
PO BOX 401  
Rochdale, MA 01542

**Prepared by:**

SOLitude Lake Management  
590 Lake Street  
Shrewsbury, MA 01545

**RECEIVED**

APR 18 2017

Town of Leicester  
Development & Inspectional Services

SOLITUDE  
LAKE MANAGEMENT

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## ***WPA Form 3***

**State of Massachusetts Notice of Intent Application – WPA Form 3  
Notice of Intent Application – Appendix A**



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Leicester

City/Town

**Important:**

When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



Note:  
Before completing this form consult your local Conservation Commission regarding any municipal bylaw or ordinance.

## A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

Stiles Reservoir

a. Street Address

Leicester

b. City/Town

01562

c. Zip Code

Latitude and Longitude:

42.212927

-71.948690

d. Latitude

e. Longitude

41

C3 0

f. Assessors Map/Plat Number

g. Parcel /Lot Number

2. Applicant:

Jason

Lussier

a. First Name

b. Last Name

Stiles Lake Water District

c. Organization

P.O. Box 401

d. Street Address

Rochdale

MA

01542

e. City/Town

f. State

g. Zip Code

vze252t9@charter.net

h. Phone Number

i. Fax Number

j. Email Address

3. Property owner (required if different from applicant): ☐ Check if more than one owner

a. First Name

b. Last Name

c. Organization

d. Street Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email address

4. Representative (if any):

Dominic

Meringolo

a. First Name

b. Last Name

Solitude Lake management

c. Company

590 Lake Street

d. Street Address

Spencer

MA

01562

e. City/Town

f. State

g. Zip Code

508-865-1000

508-865-1220

Dmeringolo@solitudelake.com

h. Phone Number

i. Fax Number

j. Email address

5. Total WPA Fee Paid (from NOI Wetland Fee Transmittal Form):

500.00

237.50

262.50

a. Total Fee Paid

b. State Fee Paid

c. City/Town Fee Paid



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**B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)**

For all projects affecting other Resource Areas, please attach a narrative explaining how the resource area was delineated.

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced

f. ☐ Riverfront Area

1. Name of Waterway (if available) - specify coastal or inland

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

3. Total area of Riverfront Area on the site of the proposed project: \_\_\_\_\_ square feet

4. Proposed alteration of the Riverfront Area:

a. total square feet \_\_\_\_\_ b. square feet within 100 ft. \_\_\_\_\_ c. square feet between 100 ft. and 200 ft. \_\_\_\_\_

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

6. Was the lot where the activity is proposed created prior to August 1, 1996? ☐ Yes ☐ No

3. ☐ Coastal Resource Areas: (See 310 CMR 10.25-10.35)

**Note:** for coastal riverfront areas, please complete **Section B.2.f.** above.





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### C. Other Applicable Standards and Requirements

- ☐ This is a proposal for an Ecological Restoration Limited Project. Skip Section C and complete Appendix A: Ecological Restoration Notice of Intent – Required Actions (310 CMR 10.11).

#### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to [http://maps.massgis.state.ma.us/PRI\\_EST\\_HAB/viewer.htm](http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm).

a. ☐ Yes ☒ No

If yes, include proof of mailing or hand delivery of NOI to:

Natural Heritage and Endangered Species Program  
Division of Fisheries and Wildlife  
1 Rabbit Hill Road  
Westborough, MA 01581

b. Date of map \_\_\_\_\_

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.c, and include requested materials with this Notice of Intent (NOI); *OR* complete Section C.1.f, if applicable. *If MESA supplemental information is not included with the NOI, by completing Section 1 of this form, the NHESP will require a separate MESA filing which may take up to 90 days to review (unless noted exceptions in Section 2 apply, see below).*

- c. Submit Supplemental Information for Endangered Species Review\*

1. ☐ Percentage/acreage of property to be altered:

(a) within wetland Resource Area

\_\_\_\_\_ percentage/acreage

(b) outside Resource Area

\_\_\_\_\_ percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

2. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*

(a) ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

(b) ☐ Photographs representative of the site

\* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/>). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

\*\* MESA projects may not be segmented (321 CMR 10.16). The applicant must disclose full development plans even if such plans are not required as part of the Notice of Intent process.



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### C. Other Applicable Standards and Requirements (cont'd)

**Online Users:**  
Include your document transaction number (provided on your receipt page) with all supplementary information you submit to the Department.

4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
- a. ☐ Yes ☐ No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
- b. ACEC
5. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a. ☐ Yes ☐ No
6. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetlands Restriction Act (M.G.L. c. 131, § 40A) or the Coastal Wetlands Restriction Act (M.G.L. c. 130, § 105)?
- a. ☐ Yes ☐ No
7. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
- a. ☐ Yes. Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) and check if:
1. ☐ Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
  2. ☐ A portion of the site constitutes redevelopment
  3. ☐ Proprietary BMPs are included in the Stormwater Management System.
- b. ☐ No. Check why the project is exempt:
1. ☐ Single-family house
  2. ☐ Emergency road repair
  3. ☐ Small Residential Subdivision (less than or equal to 4 single-family houses or less than or equal to 4 units in multi-family housing project) with no discharge to Critical Areas.

### D. Additional Information

- ☒ This is a proposal for an Ecological Restoration Limited Project. Skip Section D and complete Appendix A: Ecological Restoration Notice of Intent – Minimum Required Documents (310 CMR 10.12).

Applicants must include the following with this Notice of Intent (NOI). See instructions for details.

**Online Users:** Attach the document transaction number (provided on your receipt page) for any of the following information you submit to the Department.

1. ☐ USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the Conservation Commission and the Department to locate the site. (Electronic filers may omit this item.)
2. ☐ Plans identifying the location of proposed activities (including activities proposed to serve as a Bordering Vegetated Wetland [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

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**F. Signatures and Submittal Requirements**

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

Jay R. Lusner  
1. Signature of Applicant

4/12/2017  
2. Date

3. Signature of Property Owner (if different)  
Dominic Morugda Solitude Lake Management  
5. Signature of Representative (if any)

4. Date  
4/14/17  
6. Date

**For Conservation Commission:**

Two copies of the completed Notice of Intent (Form 3), including supporting plans and documents, two copies of the NOI Wetland Fee Transmittal Form, and the city/town fee payment, to the Conservation Commission by certified mail or hand delivery.

**For MassDEP:**

One copy of the completed Notice of Intent (Form 3), including supporting plans and documents, one copy of the NOI Wetland Fee Transmittal Form, and a **copy** of the state fee payment to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery.

**Other:**

If the applicant has checked the "yes" box in any part of Section C, Item 3, above, refer to that section and the Instructions for additional submittal requirements.

The original and copies must be sent simultaneously. Failure by the applicant to send copies in a timely manner may result in dismissal of the Notice of Intent.



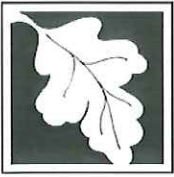


Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 1 (e)	1	500.00	500.00
Step 5/Total Project Fee:			500.00

City/Town share of filling Fee:

c. 1/2 Total Fee plus \$12.50

**To MassDEP Regional Office** (see Instructions): Send a copy of the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)



# WPA Form 3 – Notice of Intent

## Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

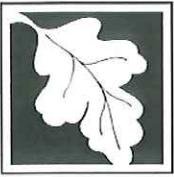
### Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8))

Complete this Eligibility Criteria Checklist **before** filling out a Notice of Intent Application to determine if your project qualifies as a Coastal Ecological Restoration Limited Project. (310 CMR 10.24(8)) Sign the Eligibility Certification at the end of Appendix A, and attach the checklist with supporting documentation and the Eligibility Certification to your Notice of Intent Application.

#### General Eligibility Criteria for All Coastal Ecological Restoration Limited Projects

Notwithstanding the requirements of 310 CMR 10.25 through 10.35, 310 CMR 10.54 through 10.58, and the Wildlife Habitat evaluations in 310 CMR 10.60, the Issuing Authority may issue an Order of Conditions permitting an Ecological Restoration Project listed in 310 CMR 10.24(8)(e) as an Ecological Restoration Limited Project and impose such conditions as will contribute to the interests identified in the WPA M.G.L. provided that the project meets all the requirements in 310 CMR 10.24 (8).

- ☒ The project is an Ecological Restoration Project as defined in 310 CMR 10.04 and is a project type listed below [310 CMR 10.24(8)(e)].
- ☐ Tidal Restoration.
- ☐ Shellfish Habitat Restoration.
- ☒ Other Ecological Restoration Limited Project Type.
- ☐ The project will further at least one of the WPA (M.G.L. c. 131, § 40) interests identified below.
  - ☐ Protection of public or private water supply.
  - ☐ Protection of ground water supply.
  - ☐ Flood control.
  - ☐ Storm damage prevention.
  - ☐ Prevention of pollution.
  - ☐ Protection of land containing shellfish.
  - ☐ Protection of fisheries.
  - ☐ Protection of wildlife habitat.
- ☐ If the project will impact an area located within estimated habitat which is indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands, a NHESP preliminary written determination is attached to the NOI submittal that the project will not have any adverse long-term and short-term effects on specified habitat sites of Rare Species or the project will be carried out in accordance with an approved NHESP habitat management plan.



# WPA Form 3 – Notice of Intent

## Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

### Eligibility Criteria - Coastal Ecological Restoration Limited Projects (310 CMR 10.24(8)) (Cont.)

#### Additional Eligibility Criteria for Specific Coastal Ecological Restoration Limited Project Types

- ☐ In-stream habitat enhancement.
- ☐ Remediation of historic tidal wetland ditching.
- ☐ Eelgrass restoration.
- ☐ Invasive species management.
- ☐ Installation of fish passage structures.
- ☐ Other. Describe: \_\_\_\_\_
- ☐ This project involves the construction, repair, replacement or expansion of public or private infrastructure (310 CMR 10.24(9)).
  - ☐ The NOI attachment labeled \_\_\_\_\_ is an operation and maintenance plan to ensure that the infrastructure will continue to function as designed.
  - ☐ The operation and maintenance plan will be implemented as a continuing condition in the Order of Conditions and the Certificate of Compliance.
- ☐ This project proposes to replace an existing stream crossing (310 CMR 10.24(10)). The crossing complies with the Massachusetts Stream Crossing Standards to the maximum extent practicable with details provided in the NOI. The crossing type:
  - ☐ Replaces an existing non-tidal crossing that is part of an Anadromous/Catadromous Fish Run (310 CMR 10.35)
  - ☐ Replaces an existing tidal crossing that restricts tidal flow. The tidal restriction will be eliminated to the maximum extent practicable.
- ☐ At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the following criteria have been considered site constraints in meeting the standard, undesirable effects or risk in meeting the standard, and the environmental benefit of meeting the standard compared to the cost, by evaluating the following:
  - ☐ The potential for downstream flooding;
  - ☐ Upstream and downstream habitat (in-stream habitat, wetlands);
  - ☐ Potential for erosion and head-cutting;
  - ☐ Stream stability;
  - ☐ Habitat fragmentation caused by the crossing;
  - ☐ The amount of stream mileage made accessible by the improvements;
  - ☐ Storm flow conveyance;





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**  
**Appendix A: Ecological Restoration Limited**  
**Project Checklists**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Eligibility Criteria - Inland Ecological Restoration Limited Project (310**  
**CMR 10.53(4)) (cont.)**

Provided by MassDEP:

MassDEP File Number

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**General Eligibility Criteria for All Inland Ecological Restoration Limited Projects**

- ☒ The project will further at least one of the WPA (M.G.L. c. 131, § 40) interests identified below.
  - ☐ Protection of public or private water supply
  - ☐ Protection of ground water supply
  - ☐ Flood control
  - ☐ Storm damage prevention
  - ☐ Prevention of pollution
  - ☐ Protection of land containing shellfish
  - ☒ Protection of fisheries
  - ☒ Protection of wildlife habitat
- ☐ If the project will impact an area located within estimated habitat which is indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands, a NHESP preliminary written determination is attached to the NOI submittal that the project will have no adverse long-term and short-term effects on specified habitat sites of Rare Species or the project will be carried out in accordance with an approved NHESP habitat management plan.
- ☐ The project will be carried out in accordance with any time of year restrictions or other conditions recommended by the Division of Marine Fisheries for coastal waters and the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3).
- ☐ If the project involves the dredging of 100 cubic yards of sediment or more or dredging of any amount in an Outstanding Resource Water, a Water Quality Certification has been applied for or obtained.
- ☒ The project complies with all applicable provisions of 310 CMR 10.53(1), (2), (7), and (8).



# **WPA Form 3 – Notice of Intent**

## **Appendix A: Ecological Restoration Limited Project Checklists**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

### **Eligibility Criteria - Inland Ecological Restoration Limited Project (310 CMR 10.53(4)) (cont.)**

- ☒ **Other Ecological Restoration Projects** that meet the criteria set forth in 310 CMR 10.53 (4) (a) through (d).

☐ Restoration, enhancement, or management of Rare Species habitat.

☐ Restoration of hydrologic and habitat connectivity.

☒ Removal of aquatic nuisance vegetation to impede eutrophication.

☒ Thinning or planting of vegetation to improve habitat value.

☐ Riparian corridor re-naturalization.

☐ River floodplain re-connection.

☐ In-stream habitat enhancement.

☐ Fill removal and re-grading.

☐ Flow restoration.

☐ Installation of fish passage structures.

☒ Invasive species management.

☐ Other. Describe: \_\_\_\_\_

- ☐ This project involves the construction, repair, replacement or expansion of public or private infrastructure. (310 CMR 10.53(7))

☐ The NOI attachment labeled \_\_\_\_\_ is an operation and maintenance plan to ensure that the infrastructure will continue to function as designed.

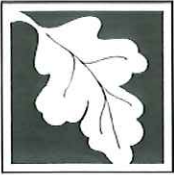
☐ The operation and maintenance plan will be implemented as a continuing condition in the Order of Conditions and the Certificate of Compliance.

- ☐ This project replaces an existing stream crossing (310 CMR 10.53(8)). The crossing type:

☐ Replaces an existing non-tidal crossing designed to comply with the Massachusetts Stream Crossing Standards to the maximum extent practicable with details provided in the NOI.

☐ Replaces an existing tidal crossing that restricts tidal flow. The tidal restriction will be eliminated to the maximum extent practicable.





Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**  
**Appendix A: Ecological Restoration Limited**  
**Project Checklists**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Required Actions (310 CMR 10.11)**

Provided by MassDEP:

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Complete the Required Actions before submitting a Notice of Intent Application for an Ecological Restoration Project and submit a completed copy of this Checklist with the Notice of Intent.

☒ **Massachusetts Environmental Policy Act (MEPA) / Environmental Monitor**

<http://www.mass.gov/eea/agencies/mepa/submitting-notice-to-the-environmental-monitor.html>

For Ecological Restoration Limited Projects, there are no changes to MEPA requirements.

☒ Submit written notification at least 14 days prior to the filing of a Notice of Intent (NOI) to the Environmental Monitor for publication. A copy of the written notification is attached and provides at minimum:

- ☒ A brief description of the proposed project.
- ☒ The anticipated NOI submission date to the conservation commission.
- ☒ The name and address of the conservation commission that will review the NOI.
- ☒ Specific details as to where copies of the NOI may be examined or acquired and where to obtain the date, time, and location of the public hearing.

☐ **Massachusetts Endangered Species Act (MESA) /Wetlands Protection Act Review**

- ☐ Preliminary Massachusetts Endangered Species Act Review from the Natural Heritage and Endangered Species Program (NHESP) has been met and the written determination is attached.
- ☐ Supplemental Information for Endangered Species Review has been submitted.

1. ☐ Percentage/acreage of property to be altered:

a. Within Wetland Resource Area

Percentage/acreage

b. Outside Wetland Resource Area

Percentage/acreage

2. ☐ Assessor's Map or right-of-way plan of site

3. ☐ Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work.

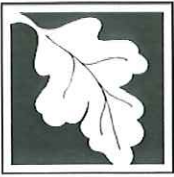
4. ☐ Project description (including description of impacts outside of wetland resource area & buffer zone)

5. ☐ Photographs representative of the site

6. ☐ MESA filing fee (fee information available at

[http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/mesa/mesa\\_fee\\_schedule.htm](http://www.mass.gov/dfwele/dfw/nhosp/regulatory_review/mesa/mesa_fee_schedule.htm))





# **WPA Form 3 – Notice of Intent**

## **Appendix A: Ecological Restoration Limited Project Checklists**

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

### **Required Actions (310 CMR 10.11) (cont.)**

- ☐ If the Rare Species identified is/are likely to continue to be located on or near the project, and if so, whether the Resource Area to be altered is in fact part of the habitat of the Rare Species.
- ☐ That if the project alters Resource Area(s) within the habitat of a Rare Species:
- ☐ The Rare Species is identified;
- ☐ NHESP's recommended changes or conditions necessary to ensure that the project will have no short or long term adverse effect on the habitat of the local population of the Rare Species is provided; or
- ☐ An approved NHESP habitat management plan is attached with this Notice of Intent.

Send the request for a preliminary determination to:  
Natural Heritage & Endangered Species Program  
MA Division of Fisheries & Wildlife  
1 Rabbit Hill Road  
Westborough, MA 01581

#### ☐ **Division of Marine Fisheries**

- ☐ If the project will occur within a coastal waterbody with a restricted Time of Year, [see Appendix B of the Division of Marine Fisheries (DMF) Technical Report TR 47 "Marine Fisheries Time of Year Restrictions (TOYs) for Coastal Alteration Projects" dated April 2011 <http://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/NEGP/MADMFTR-47.pdf>].
- ☐ Obtain a DMF written determination stating:
  - ☐ The proposed work does NOT require a TOY restriction.
  - ☐ The proposed work requires a TOY restriction. Specific recommended TOY restriction and recommended conditions on the proposed work is attached.
- ☐ If the project may affect a diadromous fish run [re: Division of Marine Fisheries (DMF) Technical Reports TR 15 through 18, dated 2004: <http://www.mass.gov/eea/agencies/dfg/dmf/publications/technical.html>]
- ☐ Obtain a DMF written determination stating:
  - ☐ The design specifications and operational plan for the project are compatible with the passage requirements of the fish run.
  - ☐ The design specifications and operational plan for the project are not compatible with the passage requirements of the fish run.



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**WPA Form 3 – Notice of Intent**  
**Appendix A: Ecological Restoration Limited**  
**Project Checklists**

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**Required Actions (310 CMR 10.11) (cont.)**

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**Areas of Critical Environmental Concern (ACECs)**

Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?

☐ Yes ☒ No

If yes, provide name of ACEC (see instructions to WPA Form 3 or  
MassDEP Website for ACEC locations).

Name of ACEC

**Minimum Required Documents (310 CMR 10.12)**

Complete the Required Documents Checklist below and provide supporting materials before submitting a Notice of Intent Application for an Ecological Restoration Project.

- ☒ This Notice of Intent meets all applicable requirements outlined in for Ecological Restoration Projects in 310 CMR 10.12. Use the checklist below to insure that all documentation is included with the NOI.

At a minimum, a Notice of Intent for an Ecological Restoration Project shall include the following:

- ☒ Description of the project's ecological restoration goals;
- ☒ The location of the Ecological Restoration Project;
- ☐ Description of the construction sequence for completing the project;
- ☐ A map of the Areas Subject to Protection Under M.G.L. c. 131, § 40, that will be temporarily or permanently altered by the project or include habitat for Rare Species, Habitat of Potential Regional and Statewide Importance, eel grass beds, or Shellfish Suitability Areas.
- ☐ The method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.) is attached with documentation methodology.
- ☐ List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title

b. Prepared by

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

- ☐ If there is more than one property owner, attach a list of these property owners not listed on this form.
- ☒ Attach NOI Wetland Fee Transmittal Form.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

Provided by MassDEP:

**WPA Form 3 – Notice of Intent**  
**Appendix A: Ecological Restoration Limited**  
**Project Checklists**

MassDEP File Number

Document Transaction Number

Leicester

City/Town

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

**Certification that the Ecological Restoration Project Meets the**  
**Eligibility Criteria**

I hereby certify under penalties of perjury that the Ecological Restoration Project Notice of Intent application does not meet the Eligibility criteria for an Ecological Restoration Order of Conditions set forth in 310 CMR 10.13, but does meet the Eligibility Criteria for a Ecological Restoration Limited Project set forth in 10.24(8) or 10.53(4) whichever is applicable. I certify that I am familiar with the information contained in the application, and that to the best of my knowledge and belief such information is true, complete, and accurate. I further certify that I possess the authority to undertake the proposed activities.

Signature of Applicant or Authorized Agent

Dominic Meringolo, Solitude Lake Management

Printed Name of Applicant or Authorized Agent

4/14/17

Date

The certification must be signed by the applicant; however, it may be signed by a duly authorized agent (named in Item 2) if this form is accompanied by a statement by the applicant designating the agent and agreeing to furnish upon request, supplemental information in support of the application.



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## ***ATTACHMENT A***

### **Abutter Notification**

To: The Environmental Monitor

From: SŌlitude Lake Management

Date: April 12, 2017

Re: Notification of filing an NOI for Stiles Reservoir

Anticipated date of submission: April 19, 2017

The proposed project is seeking approval to initiate an Aquatic Management Program at Stiles Reservoir in Spencer/Leicester, MA. USEPA/State registered herbicides and/or algaecides will be applied to manage non-native and nuisance aquatic vegetation and algae to protect the interests of the Wetlands Protection Act by impeding eutrophication and improving habitat value.

Reviewing Conservation Commission(s):

Leicester Conservation Commission  
3 Washburn Square  
Leicester, MA 01524

Copies of the NOI may be examined or acquired from the Leicester Conservation Commission, or by contacting the applicant's representative, SŌlitude Lake Management, at [info@solitudelake.com](mailto:info@solitudelake.com), or 508-865-1000, Monday and Friday between 9AM and 4PM.

See Conservation Commission website for the meeting schedule for exact dates and agendas.



## **AFFIDAVIT OF SERVICE**

Under the Massachusetts Wetlands Protection Act I, Amanda Mahaney, hereby certify under the pains and penalty of perjury that on April 19, 2017, I mailed a Notification to Abutters in compliance with the second paragraph of the Massachusetts General Laws, Chapter 131, s.40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent was filed under the Massachusetts Wetlands Protection Act by SOLitude Lake Management with the Leicester Conservation Commission on April 19, 2017, for an Aquatic Management Program at Stiles Reservoir in Leicester/Spencer, MA

This form of the notification, and a list of the abutters to whom it was given and their addresses, are attached to this Affidavit of Service.

Amanda Mahaney  
Name

April 19, 2017  
Date





Patriot Properties

## Town of Leicester

04/13/2017

### Abutters List

10:40:59AM

**Filter Used:** DataProperty.ParcelID = '41 A1 0' OR DataProperty.ParcelID = '41 A2 0' OR DataProperty.ParcelID = '41 A3 0' OR DataProperty.ParcelID = '41 A4 0' OR DataProperty.ParcelID = '41 A6 0' OR DataP...

Abutters and Abutters to the Abutters within 300 ft of the subject parcel C3 on Assessors Map 41, Book 16840 Page 344. Slides

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## ***ATTACHMENT B***

### **Project Description**



## 1.0 INTRODUCTION:

The “Applicant”, the Stiles Lake Water District, is seeking approval to begin an aquatic management program at Stiles Reservoir in accordance with the Massachusetts GEIR for lake and pond management. Based on the type, distribution, and density of non-indigenous species in Stiles Reservoir, the restoration goals of the Applicant can best be achieved through the prudent use of USEPA/MA DAR registered herbicides.

For nearly two decades (beginning in 2000’s) SOLitude Lake Management (formerly Lycott Environmental) has been retained by the Stiles Lake Water District to conduct annual vegetation surveys. The Stiles Lake Water District would like to begin management of the aquatic vegetation through a well-documented, integrated management plan, to reduce excessive growth of indigenous and non-indigenous vegetation in the future, and to benefit wildlife and fisheries habitat and biodiversity throughout the resource area.

The proposed project has been filed as an Ecological Restoration Limited Project under 310 CMR 10.53(4) and will protect the interest of the Wetland Protection Act by controlling a nuisance species, improving fish habitat, improving water quality and slowing lake eutrophication.<sup>1</sup>

## 2.0 PROBLEM STATEMENT:

Stiles Reservoir is presently infested with invasive and non-native submersed vegetation, specifically variable-leaf watermilfoil (*Myriophyllum heterophyllum*) and European Naiad (*Najas minor*). It is the determination of the Stiles Lake Water District to reduce and/or eradicate non-indigenous and invasive vegetation in Stiles Reservoir to allow for native vegetation to flourish.

## 3.0 EXISTING CONDITIONS:

As you may be aware, the water level of Stiles Reservoir has been rapidly receding due to underlying issues at the dam since 2014. As observed in the table below, this decline in water depth has allowed for Variable Watermilfoil and European Naiad to gain ground reaching into areas of the lake where in the past, the conditions were uninhabitable for growth.

Invasive Species	2013	2014	2015	2016
Variable Watermilfoil	2.3	19.2	33.9	53.5
European Naiad	3.6	4.4	10.8	0

The principal aquatic plant species in Stiles Reservoir during the most recent survey include: variable watermilfoil (*Myriophyllum heterophyllum*), big-leaf pondweed (*Potamogeton amplifolius*), bladderwort (*Utricularia spp.*), and common waterweed (*Elodea canadensis*). Present species in lower density include thin-leaf pondweed (*Potamogeton pusillus*), tape-grass (*Vallisneria americana*), quillwort (*Isoetes spp.*), variable-leaf pondweed (*Potamogeton gramineus*), arrowhead (*Sagittaria spp.*), and snail-seed pondweed (*Potamogeton bicupulatus*). European Naiad was not observed in 2016 due to its irregular growth pattern and extremely low water levels.

<sup>1</sup> Department of Environmental Protection. Guidance for Aquatic Plant Management in Lake and Ponds as it Relates to the Wetlands Protection Act: April 2004, 1p.





- Protection of groundwater supply – Neutral no interaction as diquat is absorbed to soil particles
- Flood control - Neutral (no significant interaction)
- Storm damage prevention – Neutral (no significant interaction)
- Prevention of pollution – Generally neutral (no significant interaction), but could be a detriment if plant die-off causes low oxygen at the bottom of the lake
- Protection of land containing shellfish - Generally neutral (no significant interaction), but reduced algae might reduce food resources for shellfish, and direct toxicity is possible under unusual circumstances
- Protection of fisheries - Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)
- Protection of wildlife habitat – Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)

**Triclopyr (Renovate® OTF – EPA # 67690-42 or equivalent)<sup>3</sup>**

Triclopyr is a systemic herbicide, which allows for area and species selective controls for milfoils. Carry-over control following treatment with triclopyr can be expected and often lasts multiple seasons. Its mode of action stimulates plant growth while preventing synthesis of essential plant enzymes, resulting in disruption of growth processes. Uptake usually occurs within 6 to 12 hours of exposure with the plants sinking from the water column within 3 to 5 days.

The only temporary water use restrictions are prohibition of treated water for crop irrigation for 120 days, or undetectable by immunoassay testing and a setback from potable water supply intakes. If possible, the pond water level will be lowered prior to treatment to minimize herbicide loss and maximize efficacy. There are no restrictions on swimming, boating, fishing, or livestock watering, but prudent herbicide/algicide management suggests closure of the lake on the day of treatment. The shoreline of the lake will be posted with signs warning of these temporary water use restrictions, prior to treatment.

**Impacts Specific to the Wetlands Protection Act using Triclopyr**

- Protection of public and private water supply – Generally neutral, but may have detriment at high doses (setback of treatment required, with distance based on dose and area treated)
- Protection of groundwater supply – Generally neutral (no significant interaction)
- Storm damage prevention – Neutral (no significant interaction)
- Prevention of pollution – Generally neutral (no significant interaction)
- Protection of land containing shellfish - Generally neutral (no significant interaction)
- Protection of fisheries - Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)
- Protection of wildlife habitat – Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)

**Endothall (Aquathol-K – EPA # 70506-176)**

The USEPA/MA registered herbicide endothall will be applied to the area at or below the permissible label dose. Aquathol-K will be applied to the area for control of nuisance vegetation at the application rate of 2-3 parts per million. Aquathol-K is especially effective on pondweeds. The low application rate, along with timing of the treatment, allow for selectivity of the vegetation controlled. Temporary water use restrictions for Aquathol-K are 1) Do not use treated water for livestock watering or domestic

<sup>3</sup> Commonwealth of Massachusetts Executive Office of Environmental Affairs. *Practical Guide to Lake Management*; 2004. 134-135 p.



- Protection of land containing shellfish - Generally neutral (no significant interaction), but reduced algae might reduce food resources for shellfish, and direct toxicity is possible under unusual circumstances
- Protection of fisheries - Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)
- Protection of wildlife habitat - Possible benefit (habitat enhancement) and possible detriment (food source alteration, loss of cover)

**Algaecides (Captain – EPA #67690-9, SeClear – EPA #67690-55, GreenClean PRO – EPA #70299-15, or equivalent)**

Approval for the use of a copper or peroxide based algaecide is requested in the event that nuisance algae conditions develop, warranting treatment. Copper based algaecides (i.e. CuSO<sub>4</sub>, Captain, SeClear) are widely used and are applied to lakes and ponds throughout North America to control nuisance filamentous and microscopic algae. There are no water use restrictions associated with copper-based algaecides and SLM treats several direct, potable (drinking) water reservoirs and a number of recreation waterbodies in the Commonwealth with these algaecides, on a yearly basis. The concentrated liquid algaecides are first diluted with pond water and are then sprayed throughout the pond area. The application rate is generally 0.2 ppm or less for algae control. If applied, treatment will not exceed 50% of the pond volume.

Peroxide based algaecides (e.i. GreenClean PRO, GreenClean Liquid) are a recent addition to algae management. Similar to copper algaecides, there are no water use restrictions. The concentrated products are diluted with pond water and then sprayed evenly throughout the treatment area. The application rate is 0.5 – 1.5 gallons per acre-foot for algae control. If applied, treatment will not exceed 50% of the pond volume.

**Impacts Specific to the Wetlands Protection Act using Copper<sup>6</sup> and Peroxide algaecides**

- Protection of public and private water supply – Benefit (used to control algae)
- Protection of groundwater supply – Neutral (no significant interaction)
- Flood control - Neutral (no significant interaction)
- Storm damage prevention – Neutral (no significant interaction)
- Prevention of pollution - Generally neutral (no significant interaction), but could be a detriment if algae/plant die-off causes low oxygen at the bottom of the pond or causes release of taste and odor compounds or toxins
- Protection of land containing shellfish - Generally neutral (no significant interaction), but reduced algae might reduce food resources for shellfish, and direct toxicity is possible under unusual circumstances.
- Protection of fisheries - Possible benefit (habitat enhancement) and possible detriment (food source alteration, direct toxicity)
- Protection of wildlife habitat – Possible benefit (habitat enhancement) and possible detriment (food source alteration, direct toxicity)

**Chemical Descriptions**

Detailed information on all the products proposed in this NOI can be found at the **Massachusetts Department of Conservation and Recreation, Lakes and Ponds Program website**. There are links under the Publications tab to the "Generic Environmental Impact Report for Eutrophication and Lake Management in Massachusetts" and the "Practical Guide to Lake Management in Massachusetts."

<sup>6</sup> Commonwealth of Massachusetts Executive Office of Environmental Affairs. *Practical Guide to Lake Management*: 2004. 120-122 p.





*Biological: Not Recommended*

There are no proven biological controls available or approved by the State for the control of the invasive aquatic plant species present at Stiles Reservoir

*Sediment Excavation/Dredging: Not Recommended*

Dredging nutrient rich bottom sediment is sometimes used as a strategy to control excessive weed growth. Conventional (dry) or hydraulic dredging would require the expenditure of hundreds of thousands of dollars in design and permitting fees alone. Dredging may also have severe impacts to aquatic organisms (i.e. fish and macroinvertebrates) in the pond with no guarantees of elimination of invasive vegetation.

*Do Nothing: Not Recommended*

If the invasive and nuisance plant growth is allowed to continue unabated, eutrophication and filling-in at the lake will continue to occur at an accelerated rate due to the annual decomposition of excessive plant material. Anoxic conditions would degrade water quality and potentially impact fish and other aquatic organisms. Stagnant conditions will also increase water temperatures promoting both algal and bacterial growth as well as providing extensive mosquito breeding habitat. The pond's recreational and aesthetic value would be significantly degraded.

## **7.0 COMPLIANCE**

*Massachusetts Wetlands Protection Act:*

The objective of this project is to control invasive species through use of USEPA / MA DAR registered aquatic herbicides.

Controlling densities of native species will typically not adversely affect wildlife habitat and will not negatively impact other interests of the Massachusetts Wetlands Protection Act. No significant alteration to wetland resources areas will occur as a result of the proposed management program; instead the resource areas will be enhanced by controlling the nuisance plant growth. The proposed management activities are consistent with the guidelines in the following documents:

- Final Generic Environmental Impact Report: Eutrophication and Aquatic Plant Management in Massachusetts (June 2004)
- Guidance for Aquatic Plant Management in Lakes and Ponds: As it Relates to the Wetlands Protection Act (April 2004 – DEP Policy/SOP/Guideline # BRP/DWM/WW/G04-1)
- The Practical Guide to Lake Management in Massachusetts (2004)

*DEP License to Apply Chemicals:*

All chemical applications will be performed by Certified Applicators. The USEPA/MA registered aquatic herbicides will be applied at recommended label rates, in accordance with the "Order of Conditions" and DEP "License to Apply Chemicals" permits (BRP WM04). Prior to treatment the shoreline will be posted with signs, warning of all temporary water use restrictions. A site specific "License to Apply Chemicals" for the proposed treatment will be filed with Massachusetts DEP, Office of Watershed Management.

*Massachusetts Environmental Policy Act:*

The strategies proposed in this notice of intent are options approved under the Massachusetts Environmental Protection Act (MEPA) process that was approved in 2004 with the issuance of the



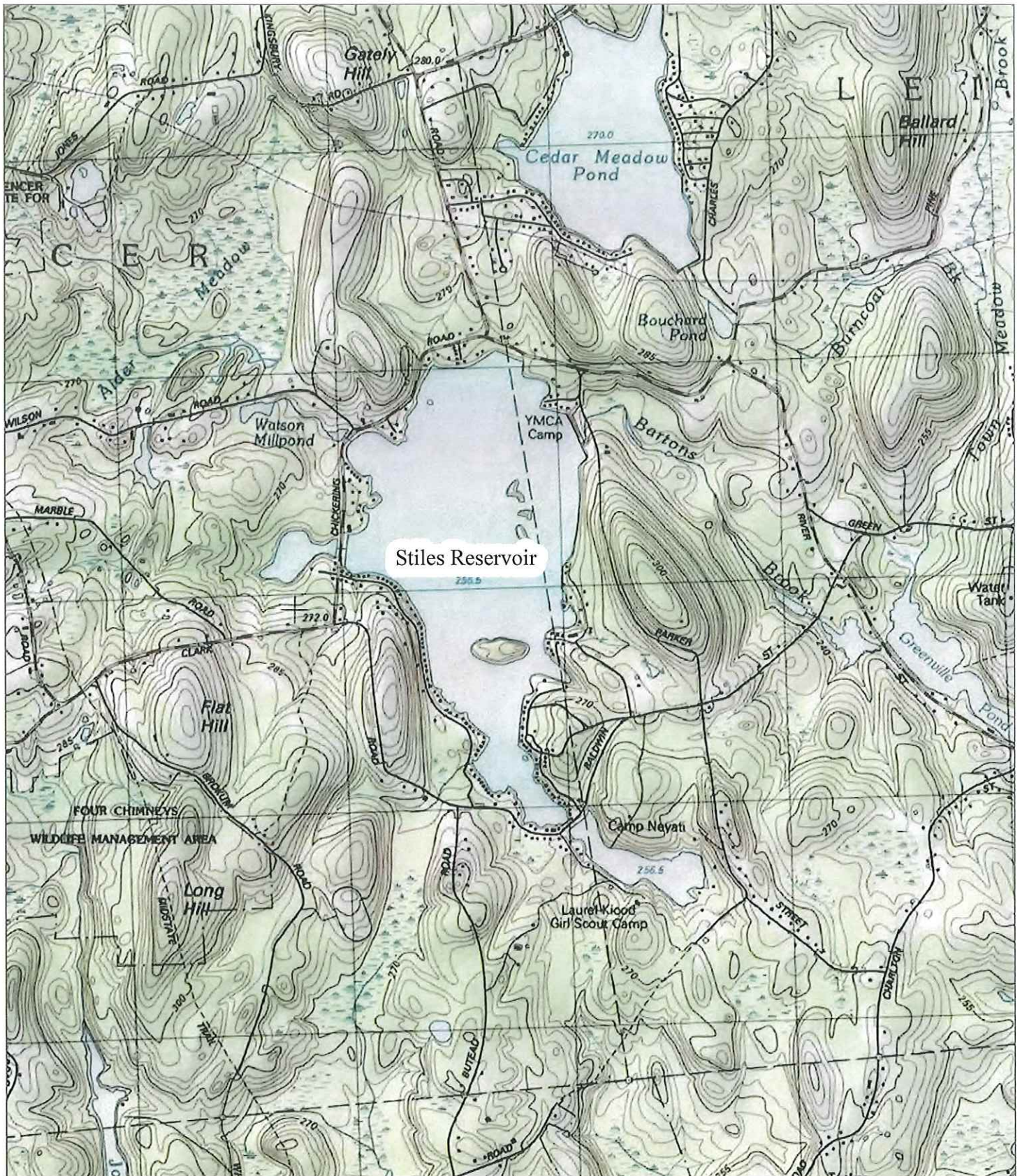
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## ***ATTACHMENT C***

**Figures**



Figure 1: Site Locus



**Stiles Reservoir  
Spencer/Leicester,  
Massachusetts**



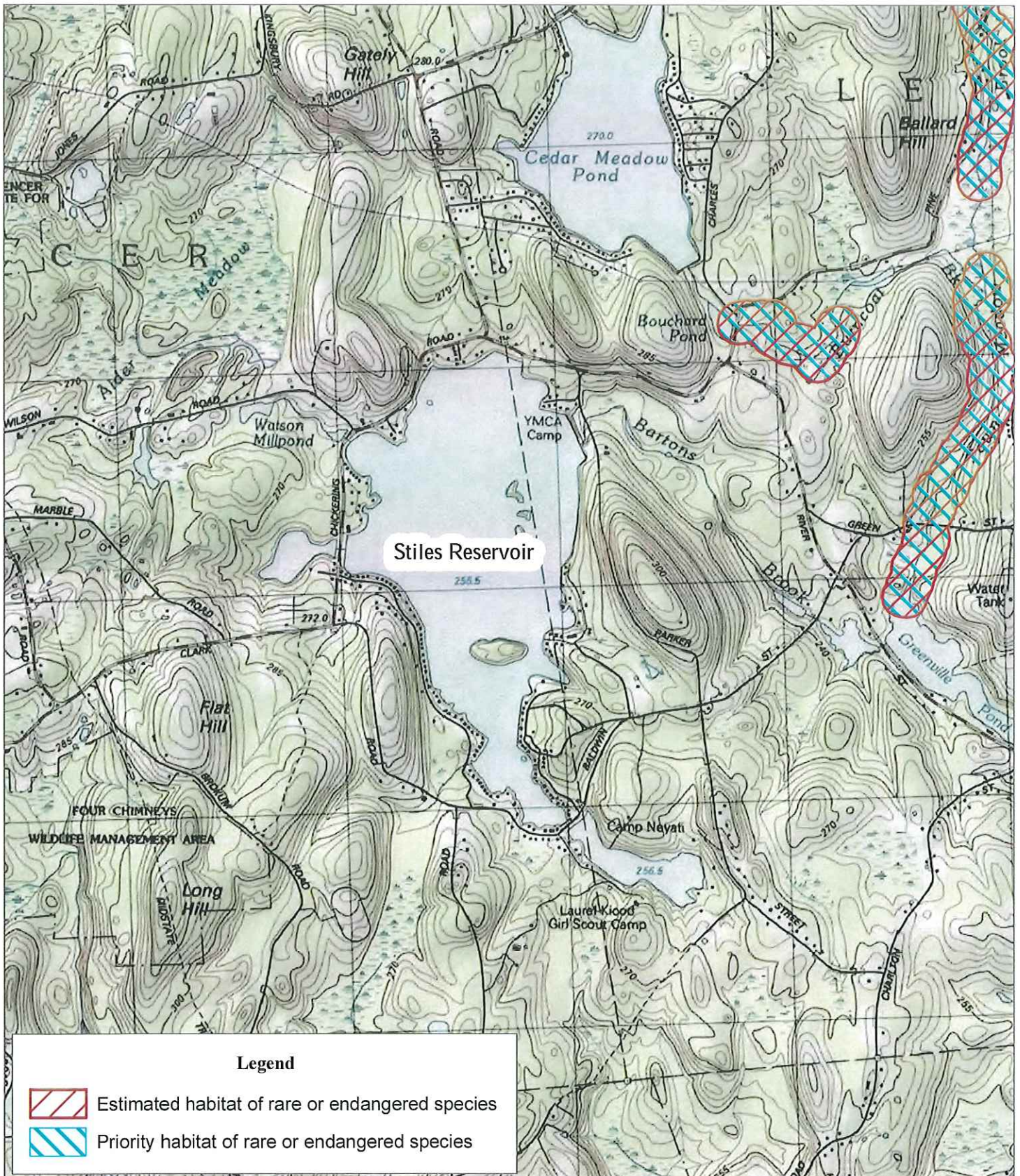
0 900 1,800 3,600  
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**SOLITUDE**  
LAKE MANAGEMENT



Figure 2: Natural Heritage and Endangered Species Program



Stiles Reservoir  
Spencer/Leicester,  
Massachusetts



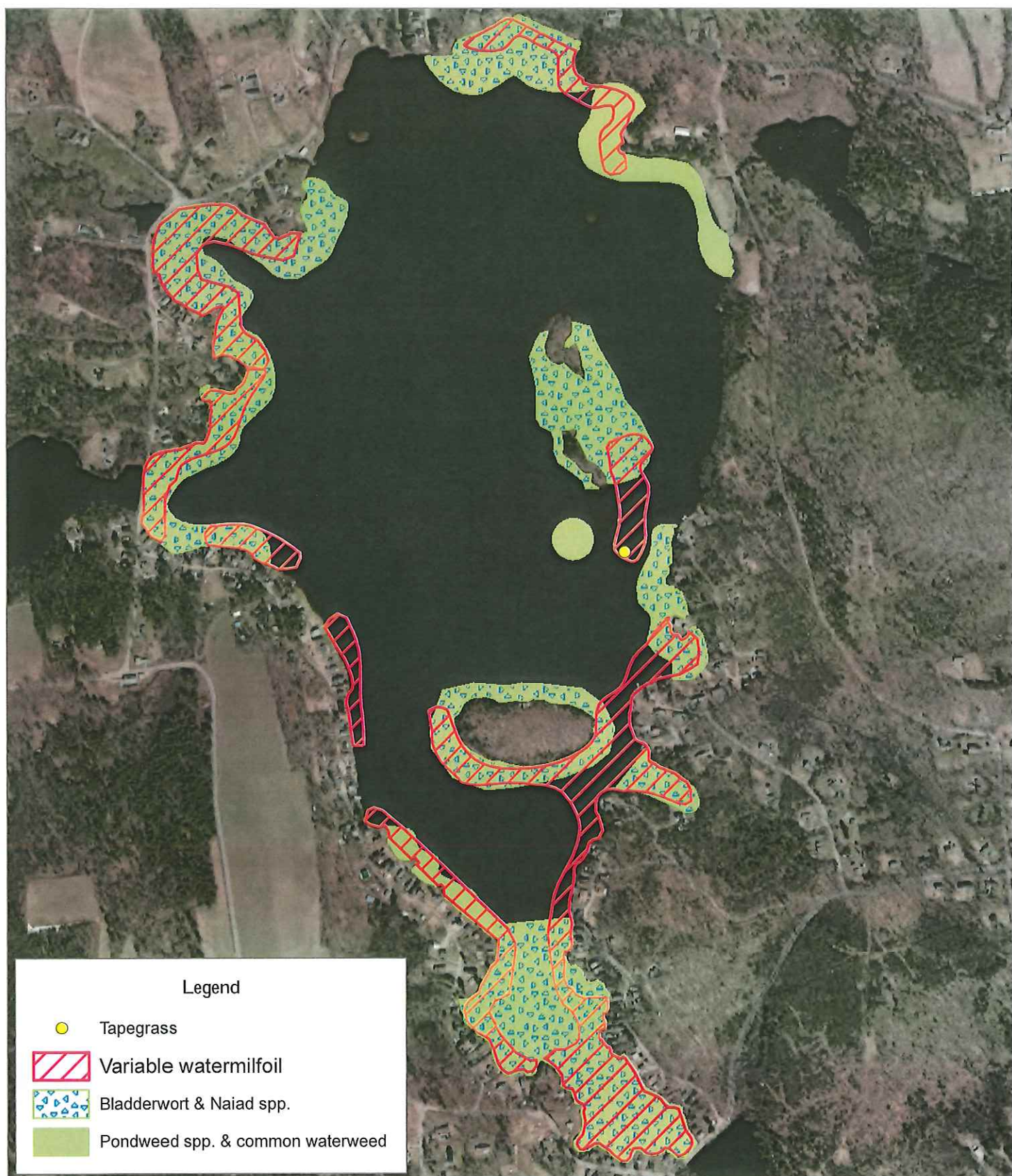
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1:24,000 Feet



**SOLITUDE**  
LAKE MANAGEMENT



Figure 3: Stiles Reservoir Vegetation Distribution



Stiles Reservoir  
Spencer/Leicester,  
Massachusetts



0 375 750 1,500  
1:10,000 Feet



SOLITUDE  
LAKE MANAGEMENT

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## ***ATTACHMENT D***

### **Herbicide/Algaecide Information**

Detailed information on all the herbicides proposed in this NOI can be found at the **Massachusetts Department of Conservation and Recreation, Lakes and Ponds Program website**. There are links under the Publications tab to the "Generic Environmental Impact Report for Eutrophication and Lake Management in Massachusetts" and the "Practical Guide to Lake Management in Massachusetts."

<<http://www.mass.gov/dcr/waterSupply/lakepond/publications.htm>>

Additional information on these herbicides can be found at the **Massachusetts Department of Agricultural Resources website**:

<<http://www.mass.gov/agr/pesticides/water/Aquatic/Herbicides.htm>>