**NOTICE OF PUBLIC HEARING**
**SUDBURY CONSERVATION COMMISSION**

The Sudbury Conservation Commission will hold a public hearing on a Notice of Intent proposing implementation of a long-term vegetation management plan for the invasive water chestnut in the Sudbury River, between Sherman's Bridge Road and Route 27, Sudbury MA, pursuant to the Wetlands Protection Act and Sudbury Wetlands Administration Bylaw. US Fish and Wildlife Service, applicant. The hearing will be held on Monday, May 9, 2022 at 6:45 pm, via remote participation on Zoom. Copies of the application may be reviewed on the Conservation Department web page at:

https://sudbury.ma.us/conservationcommission/meeting/conservation-commission-meeting-monday-may-9-2022/

Please contact the Conservation Office with any questions at 978-440-5470.

SUDBURY CONSERVATION COMMISSION
April 26, 2022

404 Wyman Street, Suite 375, Waltham, Massachusetts 02451 • 781.419.7696
10 Hemingway Drive, 2nd Floor, East Providence, Rhode Island 02915 • 401.434.5560
environmental consulting & engineering services

April 21, 2022

Mr. David Henkels
Chair
Sudbury Conservation Commission
275 Old Lancaster Road
Sudbury, MA 01776

***Re:*** ***Notice of Intent***
***Water Chestnut Management Plan***
***Sudbury River, Sudbury, Massachusetts***
***ESS Project No. 480491.0000.0000***

Dear Mr. Henkels,

Enclosed, please find one original and one paper copy of the Notice of Intent (NOI) application for the Sudbury River Water Chestnut Management Plan. ESS Group, LLC (ESS) has prepared this NOI application on behalf of the U.S. Fish and Wildlife Service (USFWS) for compliance with the Massachusetts Wetlands Protection Act (WPA) and the Sudbury Administration Wetlands Bylaw.

A copy of the complete NOI application has been submitted to the MassDEP Northeast Regional Office and to the Massachusetts Natural Heritage and Endangered Species Program (NHESP). We anticipate that this matter will be heard at the May 9, 2022 Sudbury Conservation Commission meeting, The check for the local portion of the WPA filing fee has also been enclosed.

If you have any questions, please contact me at (781) 419-7701 or mobrien@trccompanies.com. Thank you for your attention to this matter.

Sincerely,

**ESS GROUP, LLC**

Margaret O'Brien
Environmental Scientist

C: Stephanie Koch, USFWS
MassDEP Northeast Regional Office
NHESP

# Sudbury River Management Plan

## Notice of Intent

### Sudbury and Wayland, Massachusetts

**PREPARED FOR:**
U.S. Fish and Wildlife Service
73 Weir Hill Road
Sudbury, Massachusetts 01776

**PREPARED BY:**
ESS Group, LLC
10 Hemingway Drive, 2nd Floor
East Providence, Rhode Island 02915

**SUBMITTED TO:**
Sudbury Conservation Commission
275 Old Lancaster Road
Sudbury, MA 01776

Wayland Conservation Commission
41 Cochituate Road
Wayland, MA 01778

ESS Project No. 480491.0000.0000
April 21, 2022

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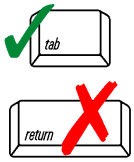
**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# 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
Sudbury/ Wayland
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):

Sudbury River — a. Street Address
Sudbury/ Wayland — b. City/Town
c. Zip Code

Latitude and Longitude:
d. Latitude
e. Longitude

N/A — f. Assessors Map/Plat Number
N/A — g. Parcel /Lot Number

2. Applicant:

Stephanie — a. First Name
Koch — b. Last Name
U.S. Fish and Wildlife Service — c. Organization
73 Weir Hill Road — d. Street Address
Sudbury — e. City/Town
MA — f. State
01776 — g. Zip Code
978-579-4036 — h. Phone Number
978-443-2898 — i. Fax Number
stephanie_koch@fws.gov — j. Email Address

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

See attached list — 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):

Margaret — a. First Name
O'Brien — b. Last Name
ESS Group, LLC — c. Company
404 Wyman Street — d. Street Address
Waltham — e. City/Town
MA — f. State
02451 — g. Zip Code
781-419-7707 — h. Phone Number
i. Fax Number
mobrien@trccompanies.com — j. Email address

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

$500 — a. Total Fee Paid
$237.50 — b. State Fee Paid
$262.50 x 2 — c. City/Town Fee Paid

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

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

Provided by MassDEP:

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## A. General Information (continued)

6. General Project Description:

The USFWS is proposing to implement a long-term vegetation management plan at the Sudbury River between Sherman's Bridge Road and Route 27. The goal of the long-term management plan is to manage the dense growth of the invasive aquatic plant, water chestnut. Aquatic plant management actions include herbicide treatments to the water chestnut foliage and hand harvesting as needed.

7a. Project Type Checklist: (Limited Project Types see Section A. 7b.)

1. ☐ Single Family Home
2. ☐ Residential Subdivision
3. ☐ Commercial/Industrial
4. ☐ Dock/Pier
5. ☐ Utilities
6. ☐ Coastal engineering Structure
7. ☐ Agriculture (e.g., cranberries, forestry)
8. ☐ Transportation
9. ☒ Other

7b. Is any portion of the proposed activity eligible to be treated as a limited project (including Ecological Restoration Limited Project) subject to 310 CMR 10.24 (coastal) or 310 CMR 10.53 (inland)?

1. ☒ Yes ☐ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

310 CMR 10.53(4)(e)(5): Other Ecological Restoration Projects: Removal of nuisance aquatic vegetation to restore habitat value to the river.

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

| a. County | b. Certificate # (if registered land) |
|---|---|
| Middlesex | |
| **c. Book** | **d. Page Number** |
| Various | Various |

## B. Buffer Zone & Resource Area Impacts (temporary & permanent)

1. ☐ Buffer Zone Only – Check if the project is located only in the Buffer Zone of a Bordering Vegetated Wetland, Inland Bank, or Coastal Resource Area.
2. ☒ Inland Resource Areas (see 310 CMR 10.54-10.58; if not applicable, go to Section B.3, Coastal Resource Areas).

Check all that apply below. Attach narrative and any supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

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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. ☐ Bank | 1. linear feet | 2. linear feet |
| b. ☐ Bordering Vegetated Wetland | 1. square feet | 2. square feet |
| c. ☒ Land Under Waterbodies and Waterways | Up to approx. 58 acres<br>1. square feet<br>3. cubic yards dredged | N/A<br>2. square feet |

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| d. ☐ Bordering Land Subject to Flooding | 1. square feet<br>3. cubic feet of flood storage lost | 2. square feet<br>4. cubic feet replaced |
| e. ☐ Isolated Land Subject to Flooding | 1. square feet<br>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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## B. Buffer Zone & Resource Area Impacts (temporary & permanent) (cont'd)

Check all that apply below. Attach narrative and supporting documentation describing how the project will meet all performance standards for each of the resource areas altered, including standards requiring consideration of alternative project design or location.

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

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| a. ☐ Designated Port Areas | Indicate size under Land Under the Ocean, below | |
| b. ☐ Land Under the Ocean | 1. square feet<br>2. cubic yards dredged | |
| c. ☐ Barrier Beach | Indicate size under Coastal Beaches and/or Coastal Dunes below | |
| d. ☐ Coastal Beaches | 1. square feet | 2. cubic yards beach nourishment |
| e. ☐ Coastal Dunes | 1. square feet | 2. cubic yards dune nourishment |

| Resource Area | Size of Proposed Alteration | Proposed Replacement (if any) |
|---|---|---|
| f. ☐ Coastal Banks | 1. linear feet | |
| g. ☐ Rocky Intertidal Shores | 1. square feet | |
| h. ☐ Salt Marshes | 1. square feet | 2. sq ft restoration, rehab., creation |
| i. ☐ Land Under Salt Ponds | 1. square feet<br>2. cubic yards dredged | |
| j. ☐ Land Containing Shellfish | 1. square feet | |
| k. ☐ Fish Runs | Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above<br>1. cubic yards dredged | |
| l. ☐ Land Subject to Coastal Storm Flowage | 1. square feet | |

4. ☐ Restoration/Enhancement

If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings

**Massachusetts Department of Environmental Protection**
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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 Limited Project Checklists – 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.

   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.2.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 https://www.mass.gov/ma-endangered-species-act-mesa-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.

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

(c) ☐ MESA filing fee (fee information available at https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review).
Make check payable to "Commonwealth of Massachusetts - NHESP" and ***mail to NHESP*** at above address

*Projects altering **10 or more acres** of land, also submit:*

(d) ☐ Vegetation cover type map of site

(e) ☐ Project plans showing Priority & Estimated Habitat boundaries

(f) OR Check One of the Following

1. ☐ Project is exempt from MESA review.
Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/exemptions-from-review-for-projectsactivities-in-priority-habitat; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59.)

2. ☐ Separate MESA review ongoing. a. NHESP Tracking # b. Date submitted to NHESP

3. ☐ Separate MESA review completed.
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

a. ☐ Not applicable – project is in inland resource area only b. ☐ Yes ☐ No

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

South Shore - Cohasset to Rhode Island border, and the Cape & Islands:

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: dmf.envreview-north@mass.gov

Also if yes, the project may require a Chapter 91 license. For coastal towns in the Northeast Region, please contact MassDEP's Boston Office. For coastal towns in the Southeast Region, please contact MassDEP's Southeast Regional Office.

c. ☐ Is this an aquaculture project? d. ☐ Yes ☐ No

If yes, include a copy of the Division of Marine Fisheries Certification Letter (M.G.L. c. 130, § 57).

**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
Sudbury/ Wayland
City/Town

## 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**
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# WPA Form 3 – Notice of Intent

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Provided by MassDEP:

MassDEP File Number

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Sudbury/ Wayland
City/Town

## D. Additional Information (cont'd)

3. ☐ Identify 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.), and attach documentation of the methodology.

4. ☐ 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

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☐ Attach NOI Wetland Fee Transmittal Form

9. ☐ Attach Stormwater Report, if needed.

## E. Fees

1. ☐ Fee Exempt: No filing fee shall be assessed for projects of any city, town, county, or district of the Commonwealth, federally recognized Indian tribe housing authority, municipal housing authority, or the Massachusetts Bay Transportation Authority.

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:

| | |
|---|---|
| 1235576 (Sudbury), 1235577 (Wayland) | 4/20/2022 |
| 2. Municipal Check Number | 3. Check date |
| 1235568 | 4/20/2022 |
| 4. State Check Number | 5. Check date |
| TRC | |
| 6. Payor name on check: First Name | 7. Payor name on check: Last Name |

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

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Provided by MassDEP:

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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.

STEPHANIE KOCH

Digitally signed by STEPHANIE KOCH
Date: 2022.04.19 11:32:17 -04'00'

1. Signature of Applicant

2. Date: 4/20/22

3. Signature of Property Owner (if different)

4. Date: April 19, 2022

5. Signature of Representative (if any)

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.

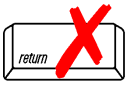
# Wetlands Fee Transmittal Form

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# NOI Wetland Fee Transmittal Form

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

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


## A. Applicant Information

1. Location of Project:

| | |
|---|---|
| Sudbury River | Sudbury/ Wayland |
| a. Street Address | b. City/Town |
| 1235568, 1235576, 1235577 | $500 |
| c. Check number | d. Fee amount |

2. Applicant Mailing Address:

| | | |
|---|---|---|
| Stephanie | Koch | |
| a. First Name | b. Last Name | |
| U.S. Fish and Wildlife Service | | |
| c. Organization | | |
| 73 Weir Hill Road | | |
| d. Mailing Address | | |
| Sudbury | MA | 01776 |
| e. City/Town | f. State | g. Zip Code |
| 978-579-4036 | 978-443-2898 | stephanie_koch@fws.gov |
| h. Phone Number | i. Fax Number | j. Email Address |

3. Property Owner (if different):

| | | |
|---|---|---|
| See attached sheet | | |
| a. First Name | b. Last Name | |
| | | |
| c. Organization | | |
| | | |
| d. Mailing Address | | |
| | | |
| e. City/Town | f. State | g. Zip Code |
| | | |
| h. Phone Number | i. Fax Number | j. Email Address |

## B. Fees

To calculate filing fees, refer to the category fee list and examples in the instructions for filling out WPA Form 3 (Notice of Intent).

Fee should be calculated using the following process & worksheet. ***Please see Instructions before filling out worksheet.***

**Step 1/Type of Activity:** Describe each type of activity that will occur in wetland resource area and buffer zone.

**Step 2/Number of Activities**: Identify the number of each type of activity.

**Step 3/Individual Activity Fee:** Identify each activity fee from the six project categories listed in the instructions.

**Step 4/Subtotal Activity Fee:** Multiply the number of activities (identified in Step 2) times the fee per category (identified in Step 3) to reach a subtotal fee amount. Note: If any of these activities are in a Riverfront Area in addition to another Resource Area or the Buffer Zone, the fee per activity should be multiplied by 1.5 and then added to the subtotal amount.

**Step 5/Total Project Fee:** Determine the total project fee by adding the subtotal amounts from Step 4.

**Step 6/Fee Payments:** To calculate the state share of the fee, divide the total fee in half and subtract $12.50. To calculate the city/town share of the fee, divide the total fee in half and add $12.50.

**Massachusetts Department of Environmental Protection**
Bureau of Resource Protection - Wetlands

# NOI Wetland Fee Transmittal Form

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

## B. Fees (continued)

| Step 1/Type of Activity | Step 2/Number of Activities | Step 3/Individual Activity Fee | Step 4/Subtotal Activity Fee |
|---|---|---|---|
| Category 2- Control Aquatic Vegetation | 1 | $500 | $500 |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |
| | | | |

**Step 5/Total Project Fee:**

**Step 6/Fee Payments:**

| | |
|---|---|
| Total Project Fee: | $500 (a. Total Fee from Step 5) |
| State share of filing Fee: | $237.50 (b. 1/2 Total Fee **less $**12.50) |
| City/Town share of filling Fee: | $262.50 (c. 1/2 Total Fee **plus** $12.50) |

## C. Submittal Requirements

a.) Complete pages 1 and 2 and send with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts.

Department of Environmental Protection
Box 4062
Boston, MA 02211

b.) **To the Conservation Commission:** Send the Notice of Intent or Abbreviated Notice of Intent; a **copy** of this form; and the city/town fee payment.

**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, Appendix A – Ecological Restoration Limited Projects Checklist

**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 Checklist

Provided by MassDEP:

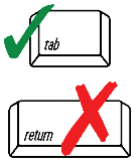
MassDEP File Number

Document Transaction Number

Sudbury/ Wayland
City/Town

This Ecological Restoration Limited Project Eligibility Checklist guides the applicant in determining if their project is eligible to file as an Inland or Coastal Ecological Restoration Limited Project (310 CMR 10.53(4) or 310 CMR 10.24(8) respectively). These criteria must be met when submitting the Ecological Restoration Limited Project Notice of Intent to ensure that the restoration and improvement of the natural capacity of a Resource Area(s) to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

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




**Regulatory Features of All Coastal and Inland Ecological Restoration Limited Projects**

(a) May result in the temporary or permanent loss of/or conversion of Resource Area: An Ecological Restoration Limited Project that meets the requirements of 310 CMR 10.24(8) may result in the temporary or permanent loss of Resource Areas and/or the conversion of one Resource Area to another when such loss is necessary to the achievement of the project's ecological restoration goals.

(b) Exemption from wildlife habitat evaluation: A NOI for an Ecological Restoration Limited Project that meets the minimum requirements for Ecological Restoration Projects and for a MassDEP Combined Application outlined in 310 CMR 10.12(1) and (2) is exempt from providing a wildlife habitat evaluation (310 CMR 10.60).

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

(c) The following are considerations for applicants filing an Ecological Restoration Limited Project NOI and for the issuing authority approving a project as an Ecological Restoration Limited Project:

- ☐ The condition of existing and historic Resource Areas proposed for restoration.
- ☐ Evidence of the extent and severity of the impairment(s) that reduce the capacity of the Resource Areas to protect and sustain the interests identified in M.G.L. c. 131, § 40.
- ☐ The magnitude and significance of the benefits of the Ecological Restoration Project in improving the capacity of the affected Resource Areas to protect and sustain the other interests identified in M.G.L. c. 131, § 40.
- ☐ The magnitude and significance of the impacts of the Ecological Restoration Project on existing Resource Areas that may be modified, converted and/or lost and the interests for which said Resource Areas are presumed significant in 310 CMR 10.00, and the extent to which the project will:
  a. avoid adverse impacts to Resource Areas and the interests identified in M.G.L. c. 131, § 40, that can be avoided without impeding the achievement of the project's ecological restoration goals.
  b. minimize adverse impacts to Resource Areas and the interests identified in M.G.L. c. 131, § 40, that are necessary to the achievement of the project's ecological restoration goals.
  c. utilize best management practices such as erosion and siltation controls and proper construction sequencing to avoid and minimize adverse construction impacts to resource areas and the interests identified in M.G.L. c. 131, § 40.

**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

Provided by MassDEP:

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## 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

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

**General Eligibility Criteria for All Coastal Ecological Restoration Limited Projects** (cont.)

☐ If the project is located in a Coastal Dune or Barrier Beach, the project avoids and minimizes armoring of the Coastal Dune or Barrier Beach to the maximum extent practicable.

☐ The project complies with all applicable provisions of 310 CMR 10.24(1) through (6) and 310 CMR 10.24(9) and (10).

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

These additional criteria must be met to qualify as an Ecological Restoration Limited Project to ensure that the restoration and improvement of the natural capacity of a Resource Area to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

☐ This Ecological Restoration Limited Project application meets the eligibility criteria for Ecological Restoration Limited Project [310 CMR 10.24(8)(a) through (d) and as proposed, furthers at least one of the WPA interests is for the project type identified below.

☐ **Tidal Restoration Projects**

☐ A project to restore tidal flow that will not significantly increase flooding or storm damage impacts to the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure.

☐ **Shellfish Habitat Restoration Projects**

☐ The project has received a Special Projects Permit from the Division of Marine Fisheries or, if a municipality, has received a shellfish propagation permit.

☐ The project is made of cultch (e.g., shellfish shells from oyster, surf or ocean clam) or is a structure manufactured specifically for shellfish enhancement (e.g., reef blocks, reef balls, racks, floats, rafts, suspended gear).

☐ **Other Ecological Restoration Projects** that meet the criteria set forth in 310 CMR 10.24(8)(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.

☐ Fill removal and re-grading.

☐ Riparian corridor re-naturalization.

☐ River floodplain re-connection.

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

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## 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 consider 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;

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

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

- ☐ Engineering design constraints specific to the crossing;
- ☐ Hydrologic constraints specific to the crossing;
- ☐ Impacts to wetlands that would occur by improving the crossing;
- ☐ Potential to affect property and infrastructure; and
- ☐ Cost of replacement.

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

Complete this Eligibility Criteria Checklist ***before*** filling out a Notice of Intent Application to determine if your project qualifies as an Inland Ecological Restoration Limited Project. (310 CMR 10.53(4)) 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 Inland Ecological Restoration Limited Projects**

Notwithstanding the requirements of any other provision of 310 CMR 10.25 through 10.35, 310 CMR 10.54 through 10.58, and 310 CMR 10.60, the Issuing Authority may issue an Order of Conditions permitting an Ecological Restoration Project listed in 310 CMR 10.53(4)(e) as an Ecological Restoration Limited Project and impose such conditions as will contribute to the interests identified in M.G.L. c. 131, § 40, provided that:

☒ The project is an Ecological Restoration Project as defined in 310 CMR 10.04 and is a project type listed below [310 CMR 10.53(4)(e)].

- ☐ Dam Removal
- ☐ Freshwater Stream Crossing Repair and Replacement
- ☐ Stream Daylighting
- ☐ Tidal Restoration
- ☐ Rare Species Habitat Restoration
- ☐ Restoring Fish Passageways
- ☒ Other (describe project type): Removal of aquatic nuisance vegetation to restore aquatic habitat within the river (310 CMR 10.53[4][e][5])

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

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

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

**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).

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

**Additional Eligibility Criteria for Specific Inland Ecological Restoration Limited Project Types**

These additional criteria must be met to qualify as an Ecological Restoration Limited Project to ensure that the restoration and improvement of the natural capacity of a Resource Area to protect and sustain the interests identified in the WPA is **necessary** to achieve the project's ecological restoration goals.

☒ This project application meets the eligibility criteria for Ecological Restoration Limited Project in accordance with [310 CMR 10.53(4)(a) through (d) and as proposed, furthers at least one of the WPA interests is for the project type identified below:

☐ **Dam Removal**

☐ Project is consistent with MassDEP's 2007 Dam Removal Guidance.

☐ **Freshwater Stream Crossing Repair and Replacement**. The project as proposed and the NOI describes how:

☐ Meeting the eligibility criteria set forth in 310 CMR 10.13 would result in significant stream instability or flooding hazard that cannot otherwise be mitigated, and site constraints make it impossible to meet said criteria.

☐ The project design ensures that the stability of the bank is NOT impaired.

☐ To the maximum extent practicable, the project provides for the restoration of the stream upstream and downstream of the structure as needed to restore stream continuity and eliminate barriers to aquatic organism movement.

☐ The project complies with the requirements of 310 CMR 10.53(7) and (8).

☐ **Stream Daylighting Projects**

☐ The project meets the eligibility criteria for Ecological Restoration Limited Project [310 CMR 10.53(4)(a) through (d)] and as proposed the NOI describes how the proposed project meets to the maximum extent practicable, consistent with the project's ecological restoration goals, all the performance standards for Bank and Land Under Water Bodies and Waterways.

☐ The project meets the requirements of 310 CMR 10.12(1) and (2) and a wildlife habitat evaluation is not included in the NOI.

☐ **Tidal Restoration Project**

☐ Restores tidal flow.

☐ the project, including any proposed flood mitigation measures, will not significantly increase flooding or storm damage to the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure.

## 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.

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

☐ At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the following criteria have been consider 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;
- ☐ Engineering design constraints specific to the crossing;
- ☐ Hydrologic constraints specific to the crossing;
- ☐ Impacts to wetlands that would occur by improving the crossing;
- ☐ Potential to affect property and infrastructure; and
- ☐ Cost of replacement.

**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

Provided by MassDEP:

MassDEP File Number

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Sudbury/ Wayland
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## Required Actions (310 CMR 10.11)

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**
https://www.mass.gov/service-details/the-environmental-monitor

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 https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review)

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

Make check payable to "Commonwealth of Massachusetts - NHESP" and mail to NHESP:

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

7. Projects altering 10 or more acres of land, also submit:

   a. ☐ Vegetation cover type map of site

   b. ☐ Project plans showing Priority & Estimated Habitat boundaries

OR Check One of the Following:

1. ☒ Project is exempt from MESA review.

Attach applicant letter indicating which MESA exemption applies. (See 321 CMR 10.14, https://www.mass.gov/service-details/ma-endangered-species-act-mesa-overview; the NOI must still be sent to NHESP if the project is within estimated habitat pursuant to 310 CMR 10.37 and 10.59 – see C4 below)

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking # _____ b. Date submitted to NHESP _____

3. ☐ Separate MESA review completed. Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

☒ **Estimated Habitat Map of State-Listed Rare Wetlands Wildlife**

If a portion of the proposed project is 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), complete the portion below. To view habitat maps, see the **Massachusetts Natural Heritage Atlas** or view the maps electronically at: https://www.mass.gov/guides/masswildlife-publications#-massachusetts-natural-heritage-atlas-

☒ A preliminary written determination from Natural Heritage and Endangered Species Program (NHESP) must be obtained indicating that:

☒ Project will NOT have long- or short-term adverse effect on the actual Resource Area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP.

☐ Project will have long- or short-term adverse effect on the actual Resource Area located within estimated habitat indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetlands Wildlife published by NHESP. A copy of NHESP's written preliminary determination in accordance with 310 CMR 10.11(2) is attached. This specifies:

☐ Date of the map: _____

## 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 https://www.nae.usace.army.mil/Portals/74/docs/regulatory/StateGeneralPermits/MA/TR-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: https://www.mass.gov/service-details/marine-fisheries-technical-reports]

☐ 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.

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

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

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

Send the request for a written or electronic determination to:

South Shore – Cohasset to Rhode Island border, and the Cape & Islands:
Division of Marine Fisheries –
South Coast Field Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: DMF.EnvReview-South@state.ma.us

North Shore – Hull to New Hampshire border:
Division of Marine Fisheries –
North Shore Field Station
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

☐ **Division of Fisheries and Wildlife –** https://www.mass.gov/orgs/division-of-fisheries-and-wildlife

☐ Projects that involve silt-generating, in-water work that will impact a non-tidal perennial river or stream and the in-water work will not occur between May 1 and August 30.

☐ Obtain a written determination from the Division of Fisheries and Wildlife (DFW) as to whether the proposed work requires a TOY restriction.

☐ The proposed work does NOT require a TOY restriction.

☐ The proposed work requires a TOY restriction. The DFW determination with TOY restriction and other conditions is attached.

☐ **MassDEP Water Quality Certification**

☐ Project involves dredging of 100 cubic yards or more in a Resource Area or dredging of any amount in an Outstanding Resource Water (ORW). A copy and proof of the MassDEP Water Quality Certification pursuant to 314 CMR 9.00 is attached to the NOI.

☐ This project is a Combined Permit Application for 401 Dredging and Restoration (BRP WW 26).

☐ **MassDEP Wetlands Restriction Order**

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)?

☐ Yes ☐ No

☐ **Department of Conservation and Recreation**

**Office of Dam Safety**

☐ For Dam Removal Projects, obtain a written determination from the Department of Conservation and Recreation Office of Dam Safety that the dam is not subject to the jurisdiction of the Office under 302 CMR 10.00, a written determination that the dam removal does not require a permit under 302 CMR 10.00 or a permit authorizing the dam removal in accordance with 302 CMR 10.00 has been issued.

# WPA Form 3 – Notice of Intent
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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

**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 ensure 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.

Fig. 1 - Locus, Fig. 2 - Wetland Resource Areas, Fig. 3 - Wetland Resource Areas - Boat Launch

a. Plan Title

Fig. 4 - 2017 Water Chestnut Beds, Fig. 5 - NHESP Habitats

Tierney Latham

b. Prepared by

c. Signed and Stamped by

April 2022

Varies

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

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

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury/ Wayland
City/Town

## Minimum Required Documents (310 CMR 10.12)

☐ An evaluation of any flood impacts that may affect the built environment, including without limitation, buildings, wells, septic systems, roads or other man-made structures or infrastructure as well as any proposed flood impact mitigation measures;

☒ A plan for invasive species prevention and control;

☒ The Natural Heritage and Endangered Species Program written determination in accordance with 310 CMR 10.11(2), if needed;

☐ Any Time of Year restrictions and/or other conditions recommended by the Division of Marine Fisheries or the Division of Fisheries and Wildlife in accordance with 310 CMR 10.11(3), (4), (5), if needed;

☒ Proof that notice was published in the Environmental Monitor as required by 310 CMR 10.11(1;

☒ A certification by the applicant under the penalties of perjury that the project meets the eligibility criteria set forth in 310 CMR 10.13;

☐ If the Ecological Restoration Project involves the construction, repair, replacement or expansion of infrastructure, an operation and maintenance plan to ensure that the infrastructure will continue to function as designed;

☐ If the project involves dredging of 100 cubic yards or more or dredging of any amount in an Outstanding Resource Water, a Water Quality Certification issued by the Department pursuant to 314 CMR 9.00;

☐ If the Ecological Restoration Project involves work on a stream crossing, information sufficient to make the showing required by 310 CMR 10.24(10) for work in a coastal resource area and 310 CMR 10.53(8) for work in an inland resource area; and

☐ If the Ecological Restoration Project involves work on a stream crossing, baseline photo-points that capture longitudinal views of the crossing inlet, the crossing outlet and the upstream and downstream channel beds during low flow conditions. The latitude and longitude coordinates of the photo-points shall be included in the baseline data.

☐ This project is subject to provisions of the MassDEP Stormwater Management Standards. A copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR 10.05(6)(k)-(q) is attached.

☒ Provide information as the whether the project has the potential to impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.

**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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury/ Wayland
City/Town

## 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.

STEPHANIE KOCH

Digitally signed by STEPHANIE KOCH
Date: 2022.04.19 11:34:52 -04'00'

Signature of Applicant or Authorized Agent

Printed Name of Applicant or Authorized Agent

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.

# List of Additional Property Owners

**List of Sudbury Property Owners**

| | |
|---|---|
| First Name | Stephanie |
| Last Name | Koch |
| Organization | U.S. Fish and Wildlife Service |
| Street Address | 73 Weir Hill Road |
| City/Town | Sudbury |
| State | MA |
| Zip Code | 01776 |
| Phone Number | 978-579-4036 |
| Fax Number | 978-443-2898 |
| Email Address | stephanie_koch@fws.gov |

| | |
|---|---|
| First Name | Priscilla |
| Last Name | Geigis |
| Organization | Massachusetts Department of Conservation and Recreation |
| Street Address | 251 Causeway Street, Suite 600 |
| City/Town | Boston |
| State | MA |
| Zip Code | 02114 |
| Phone Number | 617-626-1250 |
| Fax Number | -- |
| Email Address | Priscilla.geigis@mass.gov |

# Abutter Notification Materials

# Notification to Abutters
# Under the Massachusetts Wetlands Protection Act
# and the Sudbury Wetlands Administrative Bylaw

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40, you are hereby notified of the following:

A. The name of the **Applicant** is U.S. Fish and Wildlife Service

B. The Applicant has filed a Notice of Intent with the Sudbury Conservation Commission seeking permission to work in an Area Subject to Protection (Wetland Resource Area and/or Buffer Zone) under the Massachusetts Wetlands Protection Act (General Laws Chapter 131, Sec.40) and the Town of Sudbury Wetlands Administrative Bylaw.

C. The **address** of the lot where the activity is proposed: Various, Sudbury River

D. The **proposed activity** is: Herbicide application and hand harvesting to control invasive species, water chestnut, on the Sudbury River.

E. A **Public Hearing** regarding this Notice of Intent will be held on:
**Monday,** May 9, 2022 **at 6:45 PM.**

F. **Public Participation will be via Virtual Means Only** - In light of the ongoing COVID-19 coronavirus outbreak, Governor Baker issued an emergency Order on March 12, 2020, allowing public bodies greater flexibility in utilizing technology in the conduct of meetings under the Open Meeting Law. The Town of Sudbury Conservation Commission greatly values the participation of its citizens in the public meeting process, but given the current circumstances and recommendations at both the state and federal levels to limit or avoid public gatherings, including Governor Baker's ban on gatherings of more than 10 people, together with the present closure of Sudbury Town Hall and other public buildings to the public, the Town has decided to implement the "remote participation" procedures allowed under Governor Baker's emergency Order for all boards, committees, and commissions.

**G The public may participate in this meeting via Remote Participation:**

From your computer, smart phone or tablet:

- https://us02web.zoom.us/j/83278091591
- Meeting ID: 832 7809 1591
- From your phone: **978-639-3366** or **470 250 9358**

H Copies of the Notice of Intent may be examined by visiting this Website:
https://sudbury.ma.us/conservationcommission/meetings/

I. Copies of the Notice of Intent may be obtained from either The Applicant, or the Applicant's representative Margaret O'Brien (ESS Group, LLC), by calling this telephone number: 781-419-7707 between the hours of 8:30 AM - 4:30 PM

Note: Public Hearing Notice, including its date, time, and place, will be published at least 5 days in advance in either the Sudbury Crier or MetroWest newspapers (at the applicant's expense).

**TOWN OF SUDBURY 100-FT ABUTTERS LIST**

| Map Parcel ID | SITE_ADDR | CITY | ZIP | OWNER 1 | Owner 2 | Owner Mailing Address |
|---|---|---|---|---|---|---|
| F14-0016 | 17 LINCOLN LN | SUDBURY | 01776 | HANIG ROBERT L & MILADA | Trustees of the Lincoln Lane, Realty Trust | 17 Lincoln Lane, Sudbury, MA 01776 |
| G12-0010 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0009 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| H12-0100 | 0 WATER ROW | SUDBURY | 01776 | COMMONWEALTH OF MASSACHUSETTS | | 100 Cambridge Street, 9th Floor, Boston, MA 02114 |
| G12-0008 | 130 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F13-0012 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0019 | 0 LINCOLN RD | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G13-0003 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F13-0013 | 0 LINCOLN LN | SUDBURY | 01776 | PERSONS UNKNOWN | | Sudbury, MA 01776 |
| G12-0016 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G12-0014 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F13-0015 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F13-0014 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0011 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0013 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| H12-0001 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0015 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G12-0011 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G12-0012 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G12-0013 | 0 WATER ROW | SUDBURY | 01776 | UNIITED STATES OF AMERICA | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G12-0015 | 0 WATER ROW | SUDBURY | 01776 | UNITED STATES OF AMERICA | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G13-0001 | 0 WATER ROW | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| G13-0002 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0020 | 0 LINCOLN RD | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |
| F14-0018 | 0 LINCOLN LN | SUDBURY | 01776 | USA - DEPT OF INTERIOR | | 300 Westgate Center Drive, Hadley, MA 01035 |

## O'Brien, Margaret

**From:** Gerry, Cynthia <GerryC@sudbury.ma.us>
**Sent:** Tuesday, April 12, 2022 12:29 PM
**To:** O'Brien, Margaret; Assessors, Board of
**Subject:** [EXTERNAL] RE: Verifying 100-FT Abutters List
**Attachments:** Copy of Sudbury_100-ft_Abutters List_20220407.xlsx



The parcel list compiled and sent to the Sudbury Assessor's Office for verification has been reviewed and is consistent with the assessors ownership records as of April 12, 2022.
Cynthia Gerry
Director of Assessing
Town of Sudbury

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**From:** O'Brien, Margaret <MOBrien@trccompanies.com>
**Sent:** Tuesday, April 12, 2022 11:51 AM
**To:** Assessors, Board of <Assessors@sudbury.ma.us>
**Subject:** Verifying 100-FT Abutters List

Hello,

I am reaching out to see if the Assessor's Office can verify a 100-foot abutters list (see attached). This abutters list is being compiled because of a Notice of Intent filing with the Conservation Commission. The work proposed will be along the main channel of the Sudbury River; therefore, 100 feet was drawn from the proposed work area rather than the parcel boundary.

Please let me know if you have any questions.

Best,
Margaret

**Margaret O'Brien | Environmental Scientist**
**ESS Group, LLC – A TRC Company**
404 Wyman Street, Suite 375, Waltham, MA 02451 | p 781.419.7707
mobrien@TRCCompanies..com Note new email address effective March 7, 2022

LinkedIn | Twitter | www.trccompanies.com
LinkedIn | Twitter | Instagram | www.essgroup.com

# Project Narrative

## 1.0 INTRODUCTION

ESS Group, LLC (ESS) has prepared this Notice of Intent (NOI) on behalf of the U.S. Fish and Wildlife Service (USFWS) for the proposed implementation of the Sudbury River Vegetation Management Plan for an approximate three-mile stretch of the Sudbury River located in the Great Meadows National Wildlife Refuge (NWR) between Route 27 and Sherman's Bridge Road in Sudbury and Wayland, Massachusetts (Figure 1). The Great Meadows NWR, which is comprised of 3,850 acres of valuable conservation land, the majority of which being valuable freshwater wetlands, is managed by the U.S. Fish and Wildlife Service (USFWS). The goal of management is to provide native habitat for fish and wildlife, including migratory birds. The Sudbury River running through the Great Meadows NWR has historically suffered from extensive growths of the invasive aquatic plant species, water chestnut (*Trapa natans*).

Water chestnut is an annual, rooted, floating leaf plant. Its floating leaves form a rosette found at the water's surface while stems can reach depths of up to 15 feet below the water's surface. Nuts anchor the plant to the waterbody bottom. Water chestnuts are particularly hardy species, as each nut can produce 10 to 15 plants and each plant may produce up to 20 seeds. Therefore, when left unmanaged, water chestnuts can grow exponentially and quickly take over the water body.

Water chestnut in the Sudbury River between Route 27 and Sherman's Bridge Road has been managed through mechanical harvesting from 2005 through 2019. Mechanical harvesting efforts were paused after 2019. Mechanical harvesting did not prove to be successful in greatly reducing water chestnut infestation. Additionally, other challenges with mechanical harvesting included the requirement of specialized trained staff, the cost of running and maintaining the harvester, and the possibility of spreading other aquatic invasive species (i.e. milfoil). Therefore, alternative management methods (i.e. the use of herbicide) are being sought after to significantly reduce the density and distribution of water chestnut.

Based on observations from the last mechanical harvest in 2019, water chestnut was observed to be dense, covering more than 60% of open water in some areas. Plant surveys last in 2017 conducted indicated approximately one-third of the three-mile stretch contained water chestnut. Due to the prolific nature of the species and the lack of management efforts since 2019, it is believed that the water chestnut population has increased greatly. The widespread and dense growths of water chestnut in the Sudbury River can impact native plant communities, wildlife habitat, and water quality. The management of invasive plant growth in Sudbury River is intended to address the following goals:

- Restore aquatic habitat and ecological function of the river
- Improve water quality

The USFWS is seeking an Order of Conditions from the Conservation Commission from the Town of Sudbury and Wayland so that they may proceed with management actions to control water chestnut populations. Proposed management actions include the use of herbicide applications. Since the proposed restoration actions will occur within a jurisdictional wetland resource area, this filing is made pursuant to the Massachusetts Wetlands Protection Act (WPA) (M.G.L. c. 131 §40) and its implementing regulations (310 CMR 10.00) as well as the Town of Sudbury Administrative Wetlands Bylaw and the Town of Wayland Wetlands and Water Resources Bylaw Chapter 194 and its implementing regulations. Wetland resource area present in and around the project area include Land Under Water (LUW) (310 CMR 10.56), Bordering Vegetated Wetland (BVW) (310 CMR 10.55), Inland Bank (310 CMR 10.54), Bordering Land Subject to Flooding (310 CMR 10.57) and Riverfront Area (310 CMR 10.58) (Figures 2 and 3).

## 2.0 EXISTING CONDITIONS

The Sudbury River is approximately 41 miles long originating in Westborough and ending in Concord where it merges with the Assabet River. The area of proposed management consists of approximately three-miles of river stretching between Route 27 and the Sherman's Bridge Road in Sudbury and Wayland, Massachusetts. The shoreline of the river is surrounded by the Great Meadows NWR.

The most recent invasive plant survey of the area was conducted by USFWS in 2017. The survey documented moderate to dense growth of water chestnut mainly in the southern third of the project area, occupying an area of approximately 58 acres. The northern two-thirds of the river appeared to be mainly devoid of water chestnut as of 2017 (Figure 4). However, ESS expects that based on the aggressive nature of the species and lack of management since 2019 that water chestnut cover has increased since the 2017 plant survey and likely could have expanded downstream.

Sudbury River is not designated as an Outstanding Resource Water (ORW) and is not located in an Area of Critical Environmental Concern (ACEC). Sudbury River is not a public drinking water supply and is not located in a Zone A, B, or C Surface Water Protection Area. The river is not located within an Interim Wellhead Protection area or Zone I Wellhead Protection Area but is located within a Zone II Wellhead Protection Area. According to the FEMA flood maps, the project area is located within a special flood hazard area.

### 2.1 Wetland Resource Areas

Several areas subject to protection under the WPA are located in and around Sudbury River, including Inland Bank, Bordering Vegetated Wetland (BVW), Land Under Water (LUW), Bordering Land Subject to Flooding (BLSF), Riverfront Area, and 100-foot buffer zones. The approximate boundaries of these resource areas were determined based on aerial imagery interpretation and a review of publicly available geospatial data layers published by MassGIS. Work is only proposed within the main channel of the Sudbury River therefore within LUW. No other resource areas are expected to be impacted. LUW resource area and adjacent Inland Bank are depicted in Figure 2. Figure 3 depicts the boat launch area and all surrounding resource areas.

#### Inland Bank

Inland Bank is defined at 310 CMR 10.54 as the land which contains water within a waterbody or waterway and is located between the mean annual low water level and the mean annual high-water level of a waterbody or waterway. When Bordering Vegetated Wetland (BVW) is present, Inland Bank is located between the LUW and the BVW. Inland Bank provides habitat for vegetation and a variety of animals, including small mammals, reptiles, and amphibians. The inland bank of the Sudbury River is located between LUW and BVW and is vegetated.

There will be no impacts to the Inland Bank as a result of the proposed project.

#### Bordering Vegetated Wetland

BVW is defined in 310 CMR 10.55 as freshwater wetlands which border on creeks, rivers, streams, ponds and lakes and are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. BVW is located on both sides of the river throughout the entire project area reach.

No impacts to the BVW adjacent to the river are anticipated.

**Land Under Water**

Per 310 CMR 10.56, LUW is the land which occurs below the mean annual low water level of a waterbody, which provides substrate for aquatic plant growth and habitat for aquatic animals. The land under Sudbury River is considered LUW and occurs within the river channel. The LUW area associated with the three-mile stretch of the Sudbury River is approximately 58 acres in size based on the wetland delineation used. There is moderate to dense growth of water chestnut, particularly in the southern portion of the reach, within the LUW of Sudbury River.

The proposed project will beneficially impact the LUW of the Sudbury River through the removal of water chestnut which currently grows in the LUW and out-competes native and desirable aquatic vegetation. Removal of water chestnut will also improve dissolved oxygen through increasing oxygen circulation at the water's surface. Work is proposed to stay within the limits of the main channel.

**Bordering Land Subject to Flooding**

Bordering Land Subject to Flooding (BLSF) is defined in 310 CMR 10.57 as an area which floods from a rise in a bordering waterway or waterbody. According to Federal Emergency Management Agency (FEMA) flood zone data, the Sudbury River is located within a regulated flood zone (FEMA Flood Map No. 25017C0369F and 25017C0388F, Effective Date July 7, 2014).

Proposed work will be within LUW and will stay within the main channel. Proposed work is not anticipated to affect BLSF or alter the flood water storage capacity of the area.

**Riverfront Area**

Riverfront Area as defined in 310 CMR 10.58 is the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away. Riverfront Areas serve to protect surface and groundwater supplies, control flooding, and provide wildlife habitat. The Sudbury River has an associated 200-foot Riverfront Area.

No impacts to Riverfront Area are anticipated.

**Buffer Zones**

The Inland Bank of the river and BVW have an associated 100-foot buffer zone under the WPA. No impacts to buffer zones are anticipated.

## 2.2 State-listed Species

Massachusetts Natural Heritage and Endangered Species Program (NHESP) databases were reviewed to determine whether any portion of the proposed project area is mapped as habitat for state-listed species. Current NHESP data indicates that Sudbury River is located within Estimated and Priority Habitat of Rare Species (PH 1395) (Figure 5).

Please see Section 6.2 for a discussion of the project's compliance with the Massachusetts Endangered Species Act (MESA).

## 3.0 PROJECT DESCRIPTION

The USFWS is seeking approval from the Sudbury and Wayland Conservation Commissions for the use of herbicide application and hand harvesting to manage the invasive water chestnut species.

Initial management actions are expected to take place in the summer of 2022, with follow up management in subsequent seasons to gain effective control of the water chestnut beds within the river. Entrance and exit to the river by boat is proposed at Sherman's Bridge Road Landing in Wayland, Massachusetts (Figure 3). The proposed management action is described in more detail in the following sections.

### 3.1 Pre and Post-management Survey

A pre-management survey is expected to be performed prior to herbicide applications in June of 2022 and in subsequent seasons. The survey will be performed by boat and will include visual observations and use of a throw-rake. The goal of the survey will be to document the distribution of invasive species throughout the project area in the Sudbury River. Data from the survey will be used to determine treatment areas of herbicide applications.

Following herbicide applications, a post-management survey will be conducted to assess the efficacy of management methods.

### 3.2 Herbicide Treatments

In the short-term, herbicide treatment is usually the most cost-effective means by which to rapidly achieve the goal of reducing aquatic weed biomass over a large area. Herbicides may also be used over the long-term as part of a comprehensive management plan to treat areas of recurring infestations that are not readily controllable through other means. The use of non-herbicide treatment methods, such as mechanical harvesting, have previously been employed in the Site area. However, mechanical harvesting methods were proven to be ineffective in controlling the water chestnut populations.

USFWS is seeking approval for the use of the herbicide, imazamox, to target water chestnut growth on the Sudbury River. Herbicide product labels are included in this filing as Attachment A. In all cases, herbicides would only be applied to the Sudbury River by a Massachusetts-licensed herbicide applicator in strict accordance with the product label and only after obtaining a License to Apply Herbicide.

- **Imazamox**: Imazamox (trade name Clearcast) is a widely used systemic herbicide in both upland and aquatic environments. This herbicide is effective on select species of emergent vegetation as a foliar spray. The treatment should be applied during dry conditions to maximize uptake by the plant. Imazamox has shown excellent efficacy on water chestnut growth throughout Massachusetts and has been used on other similar river systems including Nashua River, and other portions of the Sudbury River.

Imazamox will be paired with methylated seed oil surfactant (MSO) to create an herbicide mixture that will be applied through foliar application directly to water chestnut beds. The surfactant will act as a sticking agent which will increase plant uptake and herbicide efficacy.

Herbicide application is proposed to be conducted in three treatments. One in late June to early July, the second in early to late July, and the third in late July to early August. The goal of the first application will be create boat lanes within dense beds and the subsequent applications will treat remaining water chestnut plants. A similar schedule is expected to be utilized in 2023 and beyond as needed. The

Sudbury River will also be posted by the herbicide applicator prior to treatment in accordance with the label requirements and the License to Apply Herbicides to Waters of the Commonwealth (BRP WM 04).

### 3.3 Hand Harvesting

Hand harvesting techniques are proposed for use at the Sudbury River where water chestnut control is only needed over small areas. Hand harvesting can be useful to control small areas of re-growth as a follow-up to other management techniques or where application of herbicides would be inefficient or cost prohibitive. The selective nature of hand harvesting allows for desirable native plants to remain in place while nuisance or exotic species are removed. Hand harvesting would likely be conducted from a small watercraft. In all cases, pulled plants and fragments would be disposed of and composted away from waterbodies or wetlands to prevent material from re-entering surface waters and to achieve the additional benefit of removing nutrients (contained in the decaying plants) from the system.

## 4.0 ALTERNATIVE ANALYSIS

Alternatives to the use of herbicide on the Sudbury River have been considered and include to continue mechanical harvesting and to not manage the species.

### 4.1 Mechanical Harvesting

Mechanical harvesting has been used from 2005 to 2019 on the Sudbury River to manage the water chestnut population. Mechanical harvesting can be a useful management action to control water chestnuts. However, the use of mechanical harvesting on the Sudbury River has proven to not be technically or economically feasible. USFWs formerly operated the mechanical harvester which was very costly to operate and maintain. Additionally, it required very specialized staff to operate. Finally, there were concerns that the use of the harvester was inadvertently spreading other invasive species along the river, such as milfoil.

### 4.2 No Alteration

Water chestnut is an incredibly hardy invasive species that can rapidly take over river systems. By not treating water chestnut, they can quickly take over the Sudbury River and the seeds can travel downstream to further spread the invasive. They can crowd out native species in the area which in result can be harmful to wildlife habitat. They can also decrease water quality by affecting the dissolved oxygen levels of the river. The floating leaves of water chestnut found at the water's surface creates shading and reduces the ability for oxygen to be incorporated into the water column; therefore, reducing diffusion of oxygen in the water and lowering dissolved oxygen levels. This can create a potentially anoxic environment for surrounding wildlife. In order to protect the biological integrity of the Sudbury River within the Great Meadows NWR, a "no alteration" alternative is not recommended.

## 5.0 IMPACT AVOIDANCE AND MINIMIZATION

All work for the proposed project will take place within the LUW. Other resource areas around the river, which includes Inland Bank, BVW, BLSF, and Riverfront Area, will not be impacted.

### 5.1 Herbicide Treatments

The herbicides proposed for use at Sudbury River (Clearcast) have been approved for use in Massachusetts waters by Massachusetts Department of Agricultural Resources (MDAR), Massachusetts Department of Environmental Protection (MassDEP), and the United States Environmental Protection Agency (EPA). Herbicides would only be applied by a Massachusetts-licensed herbicide applicator with a

valid License to Apply Herbicides issued by MassDEP. Herbicide application will be conducted strictly in accordance with the product labels and safety data sheets, using the minimum effective dose to achieve the desired control of target species (Attachment A). The LUW resource area will be beneficially impacted through the management of water chestnut. Eliminating dense water chestnut beds will create additional habitat for, and increase the proportion of, a more diverse native plant assemblage which will improve water quality and provide higher quality fish and wildlife habitat.

Notice of herbicide application will be posted by the herbicide applicator prior to treatment. There are no restrictions for use of a recreational waterbody following treatment with Clearcast; however, the herbicide applicator may post to restrict recreation on the day of herbicide treatment as standard practice.

### 5.2 Hand Harvesting

The use of hand harvesting for control of nuisance aquatic plant species will beneficially impact the LUW of Sudbury River by removing and controlling the spread of invasive water chestnut. Since harvesting can be targeted to individual plants, minimal impacts to non-target plant species are anticipated. The harvesting of water chestnut will create additional habitat for, and increase the proportion of, beneficial native plants in the Sudbury River. Harvested plants will be removed and disposed of or composed away from the river to avoid re-introducing them, and to achieve the additional benefit of removing nutrients from the waterbody (stored in the plant tissue).

Hand harvesting may be accompanied by a temporary increase in turbidity and total suspended solids due to incidental sediment disturbance through the removal of rooted plants. This effect is expected to be very localized and temporary. Following the completion of hand harvesting, any disturbed sediments are expected to quickly settle to the bottom of the river. Temporary impacts to fisheries from harvesting activities are expected to be highly localized to the immediate vicinity of the control activity. Fish may temporarily demonstrate attraction to or avoidance of active work areas but are otherwise not expected to be adversely affected.

## 6.0 REGULATORY COMPLIANCE

### 6.1 Massachusetts Wetlands Protection Act

The WPA (M.G.L. c. 131, § 40) and its implementing regulations (310 CMR 10.00) provide for the protection of wetland resource areas and the public benefits provided by these areas as identified by the Act. The proposed project is subject to the WPA and its implementing regulations because it will take place within LUW associated with the Sudbury River, which is an area subject to protection under the WPA.

#### 6.1.1 Ecological Restoration Limited Project Provisions

The primary purpose of the proposed project is to restore and improve the natural capacity of a wetland resource area, specifically the LUW and Riverfront Area, including protection of pollution, protection of fishers, and protection of wildlife habitat which are interests identified in the WPA in M.G.L. c. 131 §40. This project is therefore eligible to be reviewed as an Ecological Restoration Limited Project pursuant to 310 CMR 10.53(4)(e)(5): Other Restoration Projects. Pursuant to 310 CMR 10.11(1), at least two weeks prior to filing an NOI for an Ecological Restoration Limited Project, the Applicant must submit written notification of the proposed filing for publication in the Environmental Monitor. In accordance with this provision, notice was provided to the Massachusetts Environmental Policy Act (MEPA) office on March 23, 2022 (Attachment B). This project has been designed to be consistent with the

*Eutrophication and Aquatic Plant Management Final Generic Environmental Impact Report* (EEA 2004a).

Projects seeking review as Ecological Restoration Limited Projects must comply with the provisions in 310 CMR 10.53(4)(a). The project's compliance with these provisions is discussed below.

**310 CMR 10.53(4)(a)(1):** *The Issuing Authority determines that the project is an Ecological Restoration Project as defined in 310 CMR 10.04.*

The term "Ecological Restoration Project" is defined in 310 CMR 10.04 as "*a project whose primary purpose is to restore or otherwise improve the natural capacity of a Resource Area(s) to protect and sustain the interests identified in M.G.L. c. 131, § 40, when such interests have been degraded or destroyed by anthropogenic influences*." As stated in Section 1.0, one of the goals of this project is to improve the natural capacity of the resource area to protect fish and wildlife habitat through management of the invasive water chestnut. Therefore, the project meets the definition of an Ecological Restoration Project under 310 CMR 10.04.

**310 CMR 10.53(4)(a)(2):** *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 Wildlife *published by the Natural Heritage and Endangered Species Program (Program), the applicant has obtained a preliminary written determination from the Program in accordance with 310 CMR 10.11(2) 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 a habitat management plan that has been approved in writing by the Natural Heritage and Endangered Species Program and submitted with the Notice of Intent.*

As stated in Section 2.2, the project is located within estimated habitat of rare wildlife. NHESP has provided a preliminary response and has concluded that the project will not have any adverse long-term or short-term effects. Refer to Section 6.2 for more information.

**310 CMR 10.53(4)(a)(3):** *The applicant demonstrates that 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).*

The proposed project is not located in coastal waters (310 CMR 10.11(3)) and will not involve silt-generating, in water work that will impact a non-tidal perennial river or stream (310 CMR 10.11(5)).

**310 CMR 10.53(4)(a)(4):** *If the project involves the dredging of 100 cubic yards of sediment or more or dredging of any amount in an Outstanding Resource Water, the applicant has applied for or obtained a Water Quality Certification by the Department.*

The project does not involve dredging.

**310 CMR 10.53(4)(a)(5):** *The project complies with all applicable provisions of 310 CMR 10.53(1), (2), (7), and (8).*

310 CMR 10.53(1) states in part: "*If the Issuing Authority determines that a Resource Area is significant to an interest identified in M.G.L. c. 131, § 40 for which no presumption is stated in the Preamble to the*

*applicable section, the Issuing Authority shall impose such conditions as are necessary to contribute to the protection of such interests. … "*

The Applicant will comply with all conditions imposed on the project by the Issuing Authority. Erosion and sedimentation controls will not be necessary during aquatic plant management as no construction or other land-disturbing activities are proposed.

310 CMR 10.53(2) states: "*When the site of a proposed project is subject to a Restriction Order which has been duly recorded under the provisions of M.G.L. c. 131, § 40A, such a project shall conform to both the provisions contained in that Order and 310 CMR 10.51 through 10.60.*"

The project site is not subject to a Wetlands Restriction Order.

310 CMR 10.53(7) states: "*The Notice of Intent for any projects involving the construction, repair, replacement or expansion of public or private infrastructure shall include an operation and maintenance plan to ensure that the infrastructure will continue to function as designed. Implementation of the operation and maintenance plan as approved by the Issuing Authority shall be a continuing condition that shall be set forth in the Order of Conditions and the Certificate of Compliance.*"

The proposed project does not involve the construction, repair, replacement, or expansion of public or private infrastructure.

310 CMR 10.53(8) states: "*Any person proposing the replacement of an existing stream crossing shall demonstrate to the Issuing Authority that the impacts of the crossing have been avoided where possible, and when not possible have been minimized and that mitigation measures have been provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40.*"

The project does not involve stream crossings.

### 6.1.2 Land Under Water

The management actions proposed as part of this plan (i.e. herbicide treatments and hand harvesting) could potentially occur throughout Sudbury River during the course of the management program and impact the LUW.

The activities described in this NOI do not entail the construction of structures, soil-disturbing activities, dredging or filling, or similar physical alterations to the land; therefore, the work will not impair the water carrying capacity within the defined channel. The project does not entail silt-generating work in surface waters, new stormwater discharges to surface waters or groundwater, or the installation of new impervious surfaces. All products proposed for use have been approved by state and federal regulators and will be used in accordance with label restrictions. Therefore, the activities described in this NOI will not impair the quality of surface water or groundwater. Removal of invasive vegetation is expected to improve the capacity of the LUW resource area to protect the interests identified in the WPA, including protection of fisheries and wildlife habitat.

### 6.1.3 Other Resource Areas

As discussed in Section 5.0, the proposed work will not occur within or impact Inland Bank, Bordering Vegetated Wetland, Bordering Land Subject to Flooding, Riverfront area or the buffer zone.

## 6.2 Massachusetts Endangered Species Act

Projects which are filed as Ecological Restoration Limited Projects and located within Estimated Habitat must obtain a preliminary written determination from NHESP prior to filing the NOI. In accordance with this provision, ESS provided NHESP with project information on March 28, 2022. NHESP responded in an email dated April 4, 2022 (Attachment C) indicating that the project is not likely to result in a take of a state-listed species and hence would not require a permit pursuant to 321 CMR 10.23.

NHESP identified four state-listed marsh birds that are of a concern at the site. Based on their preliminary review, NHESP requested that all treatments end by September 1st to protect nesting season of the marsh birds. Additionally, NHESP required that all herbicide use stay within the outlined river channel (Figure 1). USFWS intends to comply with the specified time-of-year and lateral extent restrictions.

A copy of this NOI including all figures and attachments has been sent to NHESP for review.

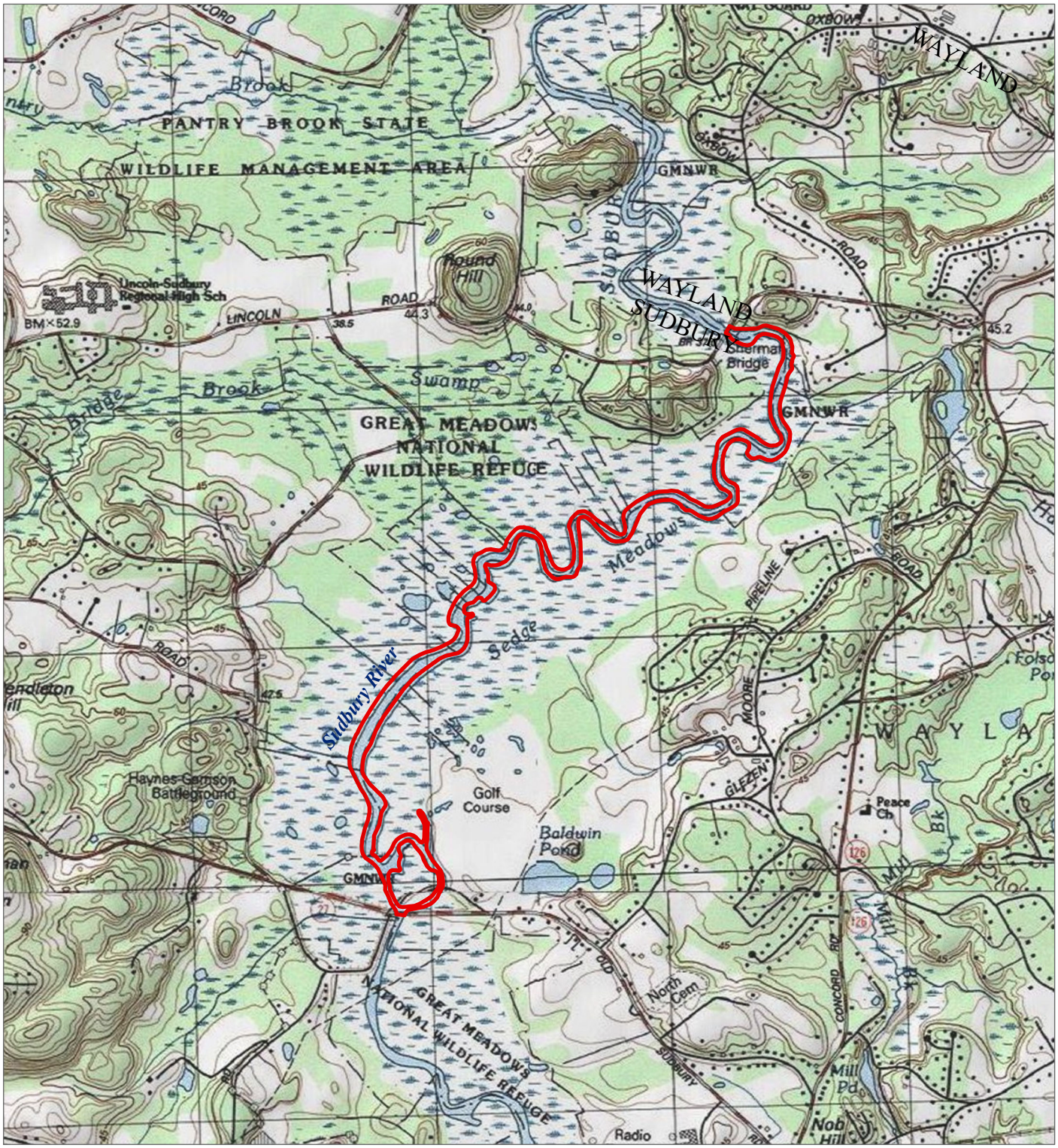
## 6.3 Town of Sudbury and Wayland Wetlands Bylaws

The project is subject to the Sudbury Administrative Wetlands Bylaw and the Wayland Chapter 194 Wetlands and Water Resources Bylaw because the project will take place within an area under the jurisdiction of the bylaws. ESS has reviewed both town bylaws. The project intends to comply with the town regulations as applicable.

## 7.0 REFERENCES

[EEA] Commonwealth of Massachusetts, Executive Office of Environmental Affairs. 2004a. Eutrophication and Aquatic Plant Management Final Generic Environmental Impact Report. https://www.mass.gov/files/documents/2016/08/sd/eutrophication-and-aquatic-plant-management-in-massachusetts-final-generic-environmental-impact-report-mattson.pdf

# Figures




Project Area

0 500 1,000 1,500

FEET

BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: MASSGIS, HYDROGRAPHY, 2020

PROJECT: **WATER CHESTNUT PLANT MANAGEMENT**

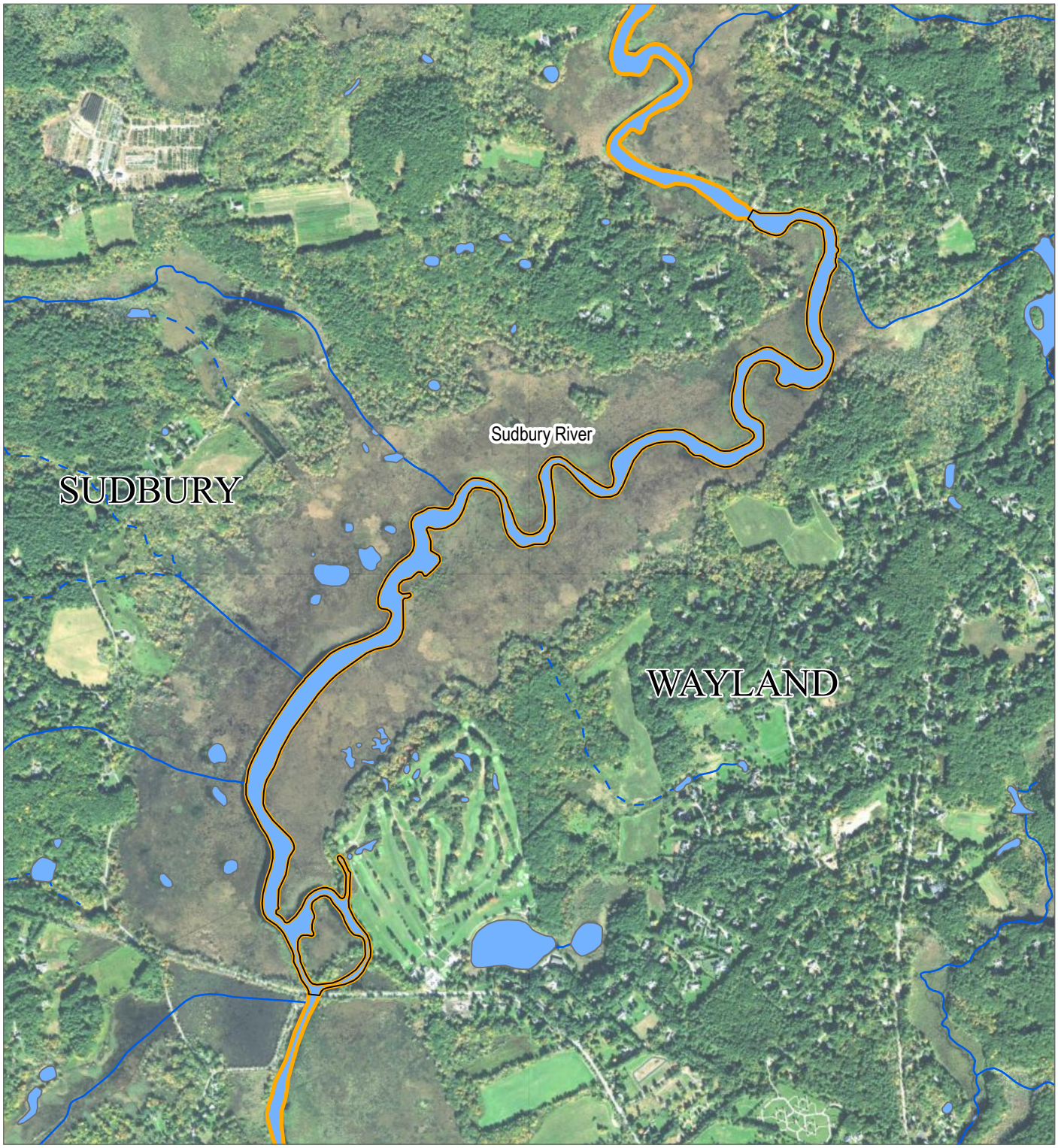
**SUDBURY AND WAYLAND, MA**

TITLE: **PROJECT LOCUS**

| | | | |
|---|---|---|---|
| DRAWN BY: | T. LATHAM | PROJ. NO.: | 480491 |
| CHECKED BY: | S. DEHAINAUT | | |
| APPROVED BY: | M. O'BRIEN | | **FIGURE #1** |
| DATE: | APRIL 2022 | | |

TRC
10 HEMINGWAY DRIVE
2ND FLOOR
EAST PROVIDENCE, RI 02915
PHONE: 401.330.1236

FILE: 480491_GREATMEADOWSNOI_FIG01_PROJECTLOCUS




Sudbury River Project Locus
Perennial stream
Intermittent stream
Land Under Water
Inland Bank

BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: MASSGIS, HYDROGRAPHY, 2019

0 500 1,000 FEET

PROJECT: **WATER CHESTNUT PLANT MANAGEMENT**
**SUDBURY AND WAYLAND, MA**

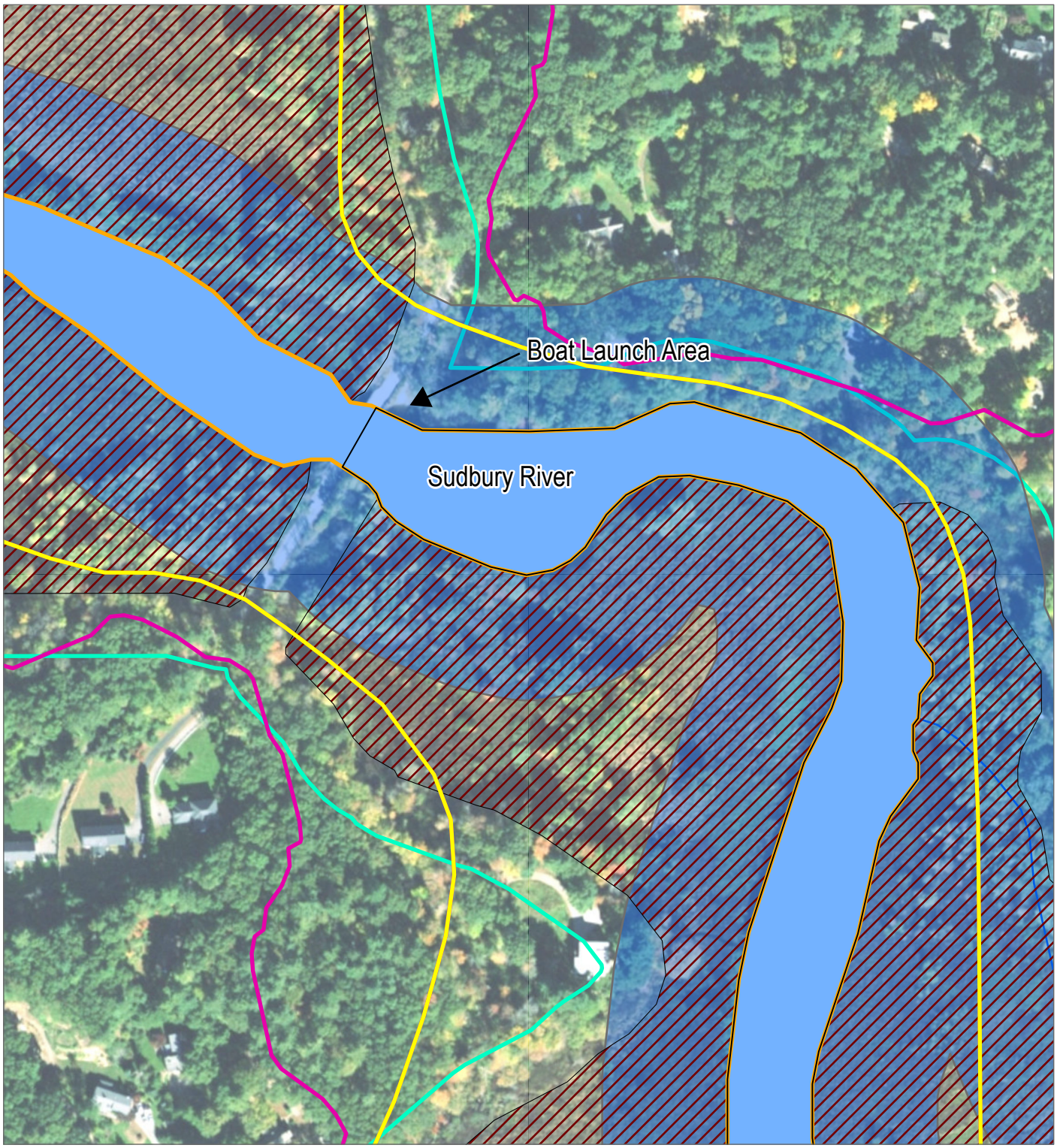
TITLE: **WETLAND RESOURCE AREAS**

| | | | |
|---|---|---|---|
| DRAWN BY: | T. LATHAM | PROJ. NO.: | 480491 |
| CHECKED BY: | S. DEHAINAUT | | |
| APPROVED BY: | M. O'BRIEN | | **FIGURE #2** |
| DATE: | APRIL 2022 | | |

TRC
10 HEMINGWAY DRIVE
2ND FLOOR
EAST PROVIDENCE, RI 02915
PHONE: 401.330.1236

FILE: 480491_GREATMEADOWSNOI_FIG02_WETLANDS

COORDINATE SYSTEM: NAD 1983 2011 STATEPLANE MASSACHUSETTS MNLD FIPS 2001 FTUS; MAP ROTATION: 0
-- SAVED BY: JBERTHERMAN ON 4/18/2022 10:28:07 AM; FILE PATH: T:\1-PROJECTS\WATERWETLAND\480491_GREATMEADOWS\12-APRX\480491_GREATMEADOWSNOI\480491_GREATMEADOWSNOI_FIG02_WETLANDS.APRX; LAYOUT NAME: FIGURE 2 LAYOUT




- Perennial Stream
- Sudbury River Project Locus
- 100-Foot Wetland Buffer
- Bordering Vegetated Wetland
- 200-Foot Riverfront Area
- Land Under Water
- Bordering Land Subject to Flooding
- Floodway
- Inland Bank

BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: MASSGIS, HYDROGRAPHY, 2019
MASSGIS/FEMA, NFHL, 2017

0 100 200 FEET

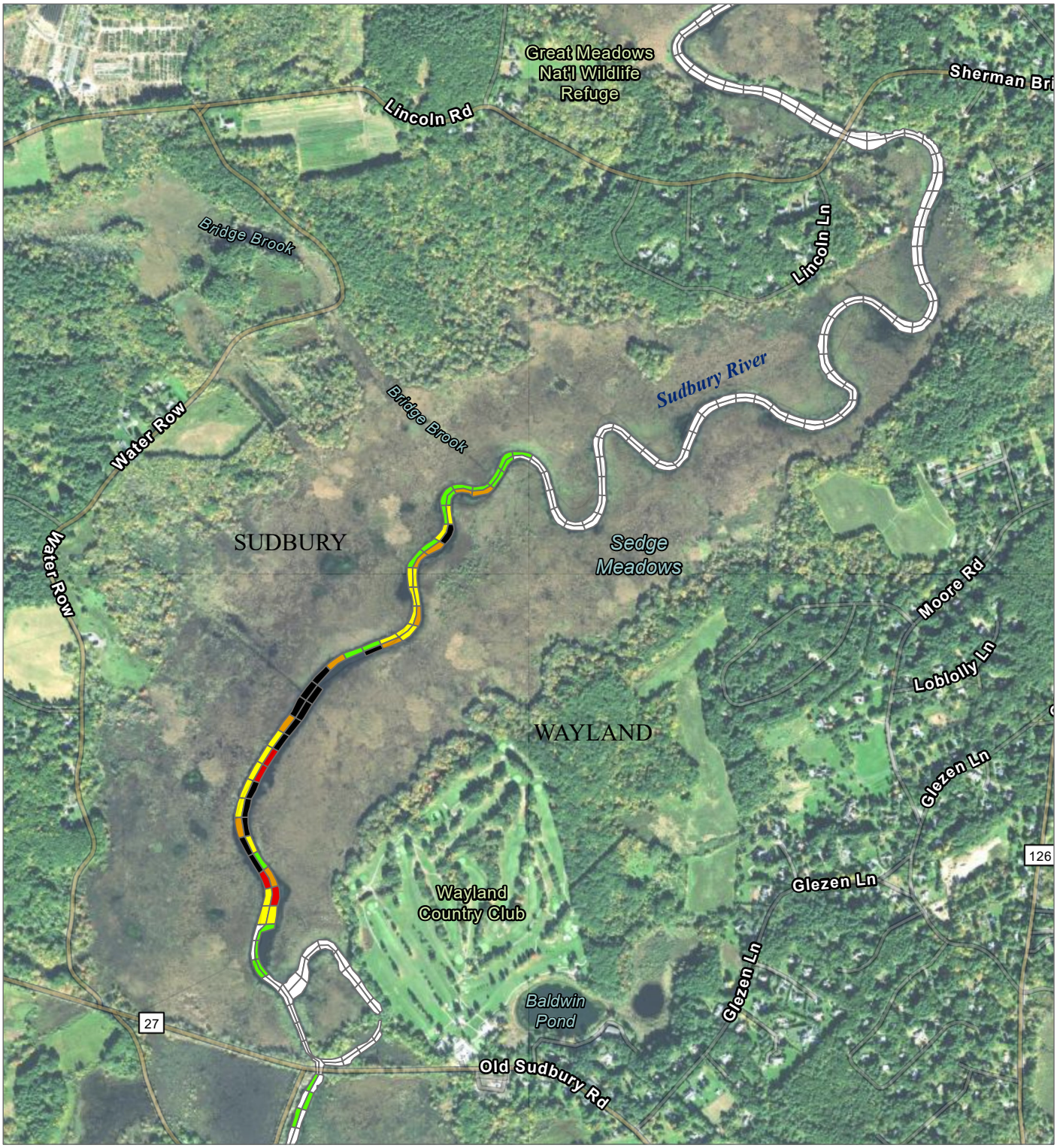
PROJECT: **WATER CHESTNUT PLANT MANAGEMENT**
**SUDBURY AND WAYLAND, MA**

TITLE: **WETLAND RESOURCE AREAS BOAT LAUNCH**

| | | | |
|---|---|---|---|
| DRAWN BY: | T. LATHAM | PROJ. NO.: | 480491 |
| CHECKED BY: | S. DEHAINAUT | | |
| APPROVED BY: | M. O'BRIEN | | **FIGURE #3** |
| DATE: | APRIL 2022 | | |

TRC
10 HEMINGWAY DRIVE
2ND FLOOR
EAST PROVIDENCE, RI 02915
PHONE: 401.330.1236

FILE: 480491_GREATMEADOWSNOI_FIG03_WETLANDSLAUNCH




Water Chestnut Presence

- Clean
- <1%
- 1-10%
- 10-25%
- 25-60%
- >60%

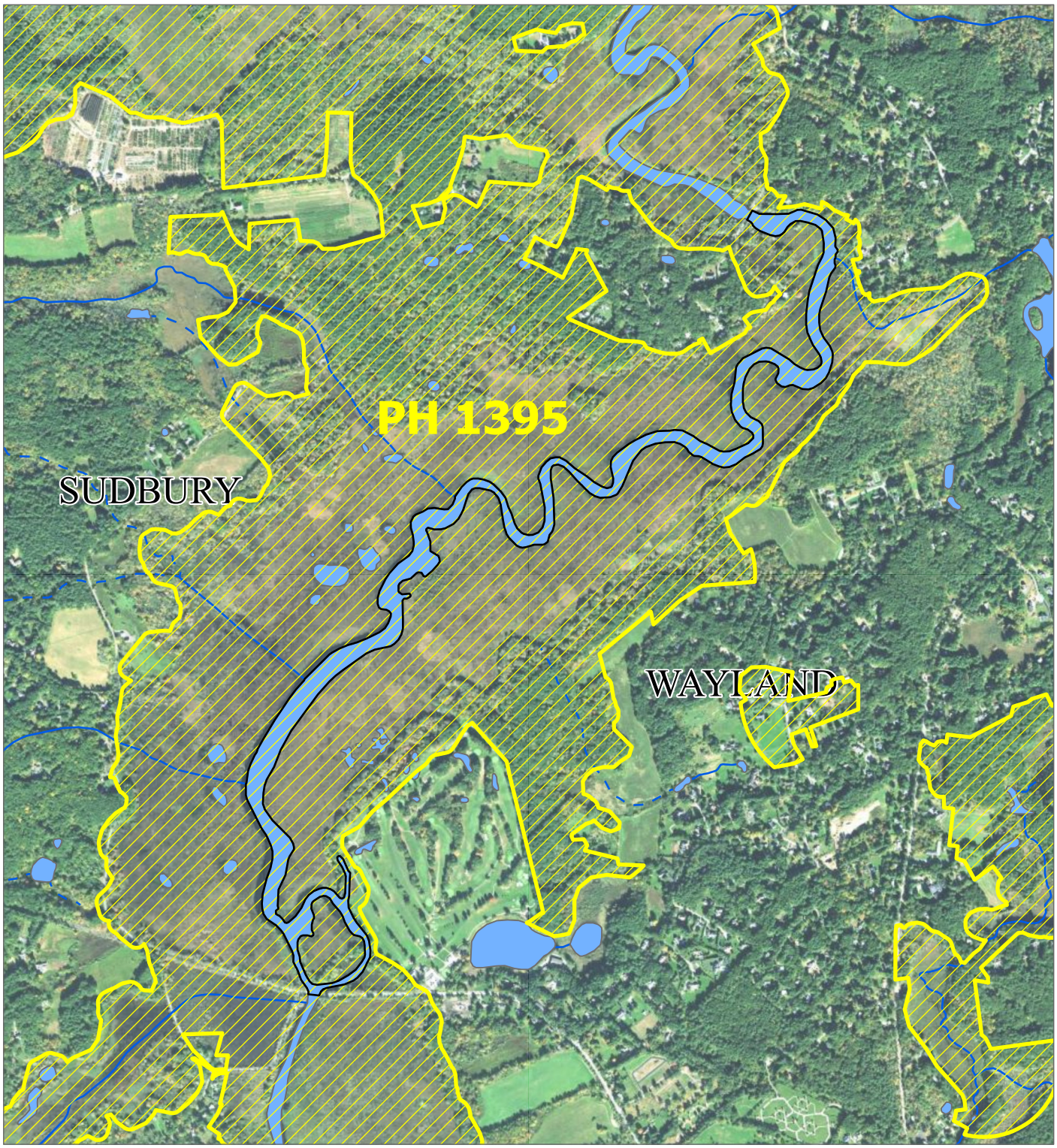
BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: USFWS, SUDBURY RIVER INVASIVES SURVEY, 2017

0 500 1,000 FEET

| | |
|---|---|
| PROJECT: | WATER CHESTNUT PLANT MANAGEMENT<br>SUDBURY AND WAYLAND, MA |
| TITLE: | 2017 MAPPED WATER CHESTNUT BEDS |
| DRAWN BY: T. LATHAM | PROJ. NO.: 480491 |
| CHECKED BY: S.DEHAINAUT | FIGURE #4 |
| APPROVED BY: M. O'BRIEN | |
| DATE: APRIL 2022 | |

TRC
10 HEMINGWAY DRIVE
2ND FLOOR
EAST PROVIDENCE, RI 02915
PHONE: 401.330.1236

FILE: 480491_GREATMEADOWSNOI_FIG04_WATERCHESTNUT




Sudbury River Project Locus
Perennial stream
Intermittent stream
Land Under Water
NHESP Priority Habitats of Rare Species/Estimated Habitats of Rare Wildlife

PROJECT: **WATER CHESTNUT PLANT MANAGEMENT**
**SUDBURY AND WAYLAND, MA**

TITLE: **NHESP HABITATS**

| | | | |
|---|---|---|---|
| DRAWN BY: | T. LATHAM | PROJ. NO.: | 480491 |
| CHECKED BY: | S. DEHAINAUT | | |
| APPROVED BY: | M. O'BRIEN | | **FIGURE #5** |
| DATE: | APRIL 2022 | | |

BASE MAP: USGS COLOR ORTHO IMAGERY
DATA SOURCES: MASSGIS, HYDROGRAPHY, 2019
MASSGIS, NHESP DATA, 2021

0 500 1,000 FEET

TRC
10 HEMINGWAY DRIVE
2ND FLOOR
EAST PROVIDENCE, RI 02915
PHONE: 401.330.1236

FILE: 480491_GREATMEADOWSNOI_FIG05_NHESP

COORDINATE SYSTEM: NAD 1983 2011 STATEPLANE MASSACHUSETTS MNLD FIPS 2001 FTUS; MAP ROTATION: 0
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# Attachment A

## Herbicide Product Labels

# Clearcast®

## Herbicide

SPECIMEN

SePRO

GROUP 2 HERBICIDE

**FOR THE CONTROL OF VEGETATION IN AND AROUND AQUATIC AND NON-CROPLAND SITES INCLUDING AREAS THAT MAY BE GRAZED OR CUT FOR HAY**

| | |
|---|---|
| **Active Ingredient:** | |
| ammonium salt of imazamox 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid† | 12.1% |
| **Other Ingredients** | 87.9% |
| **TOTAL** | 100.0% |

† Equivalent to 11.4% 2-[4,5-dihydro-4-methyl-4-(1-methylethyl)-5-oxo-1*H*-imidazol-2-yl]-5-(methoxymethyl)-3-pyridinecarboxylic acid

1 gallon contains 1.0 pound of active ingredient as the free acid

**Keep Out of Reach of Children**

**CAUTION/PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

See inside for complete Precautionary Statements, Directions for Use, Conditions of Sale and Warranty, and state-specific crop and/or use site restrictions.

Notice: Read the entire label before using. Use only according to label directions. Before buying or using this product, read Warranty Disclaimer and Misuse statements inside label booklet. If terms are unacceptable, return at once unopened.

EPA Reg. No. 241-437-67690
EPA Est. No. 067690-NC-002
NVA 2016-04-299-0160

FPL20161026
166801

Manufactured for:
SePRO Corporation 11550 N. Meridian St., Ste. 600, Carmel, IN 46032 U.S.A.

**Keep Out of Reach of Children**

**CAUTION/PRECAUCIÓN**

Si usted no entiende la etiqueta, busque a alguien para que se la explique a usted en detalle. (If you do not understand this label, find someone to explain it to you in detail.)

| FIRST AID | |
|---|---|
| **If on skin or clothing** | • Take off contaminated clothing.<br>• Rinse skin immediately with plenty of water for 15 to 20 minutes.<br>• Call a poison control center or doctor for treatment advice. |
| **If in eyes** | • Hold eyes open and rinse slowly and gently with water for 15 to 20 minutes.<br>• Remove contact lenses, if present, after the first 5 minutes; then continue rinsing eyes.<br>• Call a poison control center or doctor for treatment advice. |
| **If inhaled** | • Move person to fresh air.<br>• If person is not breathing, call 911 or an ambulance; then give artificial respiration, preferably mouth to mouth if possible.<br>• Call a poison control center or doctor for further treatment advice. |

**HOTLINE NUMBER**

Have the product container or label with you when calling a poison control center or doctor or going for treatment. In case of an emergency endangering life or property involving this product, call **INFOTRAC** for emergency medical treatment information: **1-800-535-5053**.

## PRECAUTIONARY STATEMENTS

### HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**CAUTION.** Harmful if absorbed through skin or inhaled. Causes moderate eye irritation. Avoid breathing spray mist. Avoid contact with skin, eyes or clothing.

### PERSONAL PROTECTIVE EQUIPMENT (PPE)

**Applicators and other handlers must wear:**

- Long-sleeved shirt and long pants;
- Chemical-resistant gloves such as barrier laminate, butyl rubber ≥14 mils, nitrile rubber ≥ 14 mils, neoprene rubber ≥ 14 mils, natural rubber (includes natural rubber blends and laminates) ≥ 14 mils, polyethylene, polyvinyl chloride (PVC) ≥ 14 mils, or Viton ≥ 14 mils;
- Shoes plus socks.

Follow manufacturer's instructions for cleaning and maintaining PPE. If no such instructions for washables exist, use detergent and hot water. Keep and wash PPE separately from other laundry.

### USER SAFETY RECOMMENDATIONS

**Users should:**

- Wash hands before eating, drinking, chewing gum, using tobacco or using the toilet.
- Remove clothing/PPE immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.
- Remove PPE immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

### ENVIRONMENTAL HAZARDS

This pesticide may be hazardous to plants outside the treated area. **DO NOT** apply to water except as specified in this label. **DO NOT** contaminate water when disposing of equipment washwaters and rinsate.

## DIRECTIONS FOR USE

It is a violation of federal law to use this product in a manner inconsistent with its labeling. This labeling must be in the possession of the user at the time of pesticide application.

**DO NOT** apply this product in a way that will contact workers or other persons, either directly or through drift. Only protected handlers may be in the area during application. For any requirements specific to your state or tribe, consult the agency responsible for pesticide regulation.

Ensure spray drift to nontarget susceptible species does not occur.

**DO NOT** apply **Clearcast®** Herbicide in any manner not specifically described in this label.

Observe all cautions and limitations on this label and on the labels of products used in combination with **Clearcast.**
**DO NOT** use **Clearcast** other than in accordance with the instructions set forth on this label. Keep containers closed to avoid spills and contamination.

### STORAGE AND DISPOSAL

**DO NOT** contaminate food, feed or water by storage or disposal.
**Pesticide Storage**
Keep from freezing. **DO NOT** store below 32°F.
**Pesticide Disposal**
Wastes resulting from the use of this product may be disposed of on-site or at an approved waste disposal facility.
**Container Handling**
**Nonrefillable Container. DO NOT** reuse or refill this container. Triple rinse or pressure rinse container (or equivalent) promptly after emptying; then offer for recycling, if available, or reconditioning, if appropriate, or puncture and dispose of in a sanitary landfill, or by incineration, or by other procedures approved by state and local authorities.
**Triple rinse containers small enough to shake (capacity ≤ 5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank, or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.
**Triple rinse containers too large to shake (capacity >5 gallons) as follows:** Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application

## STORAGE AND DISPOSAL *(continued)*

equipment or a mix tank, or store rinsate for later use or disposal. Repeat this procedure two more times.

**Pressure rinse as follows:** Empty the remaining contents into application equipment or mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank, or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

**Refillable Container.** Refill this container with pesticide only.

**DO NOT** reuse this container for any other purpose. Triple rinsing the container before final disposal is the responsibility of the person disposing of the container. Cleaning before refilling is the responsibility of the refiller.

**Triple rinse as follows:** To clean the container before final disposal, empty the remaining contents from this container into application equipment or mix tank. Fill the container about 10% full with water. Agitate vigorously or recirculate water with the pump for 2 minutes. Pour or pump rinsate into application equipment or rinsate collection system. Repeat this rinsing procedure two more times.

When this container is empty, replace the cap and seal all openings that have been opened during use; return the container to the point of purchase or to a designated location. This container must only be refilled with a pesticide product. Prior to refilling, inspect carefully for damage such as cracks, punctures, abrasions, worn-out threads and closure devices. Check for leaks after refilling and before transport. **DO NOT** transport if this container is damaged or leaking. If the container is damaged, or leaking, or obsolete and not returned to the point of purchase or to a designated location, triple rinse emptied container and offer for recycling, if available, or dispose of container in compliance with state and local regulations.

## IN CASE OF EMERGENCY

In case of large-scale spill of this product, call INFOTRAC at 1-800-535-5053.

In case of medical emergency regarding this product, call:

- Your local doctor for immediate treatment
- Your local poison control center (hospital)
- INFOTRAC: 1-800-535-5053

**Steps to take if material is released or spilled:**

- Dike and contain the spill with inert material (sand, earth, etc.) and transfer liquid and solid diking material to separate containers for disposal.
- Remove contaminated clothing, and wash affected skin areas with soap and water.
- Wash clothing before reuse.
- Keep the spill out of all sewers and open bodies of water.

## PRODUCT INFORMATION

**Clearcast® herbicide** is an aqueous formulation that may be diluted in water and either applied directly to water for the control/suppression of certain submerged aquatic vegetation or applied as a broadcast or spot spray to floating and emergent vegetation. Aquatic sites that may be treated include estuarine and marine sites, ponds, lakes, reservoirs, wetlands, marshes, swamps, bayous, arroyos, ditches, canals, streams, rivers, creeks and other slow-moving or quiescent bodies of water. **Clearcast** may also be used during drawdown conditions. **Clearcast** may also be applied for terrestrial and riparian vegetation control in industrial noncropland sites, and railroad, utility, and highway rights-of-way. Industrial noncropland sites include utility plant sites, tank farms, pumping installations, storage areas, fence rows and ditch banks. **Clearcast** may also be used for the establishment and maintenance of wildlife openings. **Clearcast** may also be used on those sites listed above that may be grazed or cut for hay.

**Clearcast** is quickly absorbed by foliage and/or plant roots and rapidly translocated to the growing points stopping growth. Susceptible plants may develop a yellow appearance or general discoloration and will eventually die or be severely growth inhibited.

**Clearcast** is herbicidally active on many submerged, emergent and floating broadleaf and monocot aquatic plants. The relative levels of control and selectivity can be manipulated by using a choice of rates and herbicide placement (water injected or floating/emergent foliar application).

To help maintain the utility of herbicide programs, the use of herbicides with different modes of action is effective in managing weed resistance.

### Spray Adjuvants

Applications of **Clearcast** to emergent, floating or shoreline species require the use of a spray adjuvant. Always use a spray adjuvant that is appropriate for aquatic sites.

**Nonionic Surfactants** - Use a nonionic surfactant at 0.25% volume/volume (v/v) or higher (see manufacturer's label) of the spray solution (0.25% v/v is equivalent to 1 quart in 100 gallons). For best results, select a nonionic surfactant with an HLB (hydrophilic to lipophilic balance) ratio between 12 and 17 with at least 70% surfactant in the formulated product (alcohols, fatty acids, oils, ethylene glycol or diethylene glycol should not be considered as surfactants to meet the above requirements).

**Methylated Seed Oils or Vegetable Oil Concentrates** - Instead of a surfactant, a methylated seed oil or vegetable-based seed oil concentrate may be used at 1.5 to 2 pints per acre. When using spray volumes greater than 30 gallons per acre, mix methylated seed oil or vegetable-based seed oil concentrates at 1% of the total spray volume, or alternatively use a nonionic surfactant as described above. Research indicates that these oils may aid in **Clearcast** deposition and uptake by plants under stress.

**Silicone-based Surfactants** - See manufacturer's label for specific rates. Silicone-based surfactants may reduce the surface tension of the spray droplet allowing greater spreading on the leaf surface as compared to conventional nonionic surfactants. However, some silicone-based surfactants may dry too quickly, limiting herbicide uptake.

**Invert Emulsions** – **Clearcast** can be applied as an invert emulsion. The spray solution results in an invert (water-in-oil) spray emulsion designed to minimize spray drift and spray runoff, resulting in more herbicide on the target foliage. The spray emulsion may be formed in a single tank (batch mixing) or injected (in-line mixing). Consult the invert chemical label for proper mixing directions.

**Other** - An antifoaming agent, spray pattern indicator, sinking agent or drift-reducing agent may be applied at the product labeled rate if necessary or desired.

### Spray Drift Requirements for Aerial Application

- Applicators are required to use a coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater for release heights below 10 feet. Applicators are required to use a very coarse or coarser droplet size or, if specifically using a spinning atomizer nozzle, applicators are required to use a VMD of 475 microns or greater for release heights above 10 feet. Applicators must consider the effects of nozzle orientation and flight speed when determining droplet size.
- Applicators are required to use upwind swath displacement.
- The boom length must not exceed 60% of the fixed wingspan or 90% of the rotor blade diameter to reduce spray drift.
- **DO NOT** apply when wind speed is greater than 10 mph.
- If applying at wind speeds less than 3 mph, the applicator must determine if
  1. Conditions of temperature inversion exist **or**
  2. Stable atmospheric conditions exist at or below nozzle height.

**DO NOT** make applications into areas of temperature inversions or stable atmospheric conditions.

### Spray Drift Requirements for Ground Boom Application

- Applicators are required to use a nozzle height below 4 feet above the ground or plant canopy and coarse or coarser droplet size (ASABE S572) or, if specifically using a spinning atomizer nozzle, applicators are required to use a volume mean diameter (VMD) of 385 microns or greater.
- Applications with wind speeds greater than 10 mph are prohibited.
- Applications into temperature inversions are prohibited.

**DO NOT** apply when wind conditions may result in drift, when temperature inversion conditions exist, or when spray may be carried to sensitive areas. See *Managing Off-target Movement* section for more drift reduction recommendations.

## AQUATIC USE DIRECTIONS

**Clearcast® herbicide** may be applied directly to the water for the control of submerged aquatic plant species and some emergent and floating species, or as a foliar application specifically for emergent and floating species.

**DO NOT exceed maximum use rate per application:**

- Water treatment - 500 parts per billion (ppb) (173 fl ozs of **Clearcast** per acre foot)
- Foliar broadcast application – 1 gallon per acre (1.0 lb ae/A)
- Foliar spot application - up to 5% **Clearcast** by volume

**Clearcast** may be applied by surface and aerial equipment including both fixed-wing aircraft and helicopter.

## Foliar Application

**Targeted Emergent and/or Floating Vegetation Application**
To make surface applications targeting emergent or floating vegetation, uniformly apply with properly calibrated broadcast or spot treatment equipment in 10 or more gallons of water per acre. Spot treatments can be made with up to 5% **Clearcast** by volume. To ensure thorough spray coverage, higher spray volumes may be required when treating areas with large and/or dense vegetation. Use an appropriate spray pressure to minimize the drift potential depending upon spray equipment, conditions and application objectives.

**Foliar Treatment of Emergent and Floating Vegetation Guidelines**
- Always use a surfactant for foliar applications of emergent and floating weeds.
- Foliar applications of **Clearcast** may be made as a broadcast spray or as a spot spray with a percent spray solution ranging from 0.25% to 5% **Clearcast** by volume.
- Control will be reduced if spray is washed off foliage by wave action.

In aquatic sites, those application techniques described in the *Terrestrial Use Directions section may be used to treat emergent vegetation.*

## Application to Water

**Water Application to Target Submerged and/or Emergent/Floating Vegetation**
**Clearcast** may be broadcast-applied to the water surface or injected below the water surface. **Clearcast** may be applied as undiluted product or diluted with water prior to application. Under surface-matted conditions, inject **Clearcast** below the water surface to achieve better product distribution.

Apply **Clearcast** to water to achieve a final concentration of the active ingredient of no more than 500 ppb. Multiple applications of Clearcast may be made during the annual growth cycle to maintain the desired vegetation response.

| Clearcast Rates Per Treated Surface Acre | | | | |
|---|---|---|---|---|
| Average Water Depth of Treatment Site (feet) | Desired Active Ingredient Concentration (ppb)† | | | |
| | 50 | 100 | 200 | 500 |
| | Clearcast Rate per Treated Surface Acre (fl ozs) | | | |
| 1 | 17 | 35 | 69 | 173 |
| 2 | 35 | 69 | 138 | 346 |
| 3 | 52 | 104 | 207 | 518 |
| 4 | 70 | 138 | 277 | 691 |
| 5 | 87 | 173 | 346 | 864 |
| 6 | 104 | 207 | 415 | 1,037 |
| 7 | 122 | 242 | 484 | 1,210 |
| 8 | 139 | 277 | 553 | 1,382 |
| 9 | 157 | 311 | 622 | 1,555 |
| 10 | 174 | 346 | 691 | 1,728 |

†**Clearcast** contains 1.0 pound of active ingredient per gallon. There are 128 fl ozs in one gallon.

## Aerial Application

**Clearcast** may be applied by both fixed-wing aircraft and helicopter. There is no minimum spray volume when making applications directly to the water. For applications targeting emergent and/or floating vegetation, uniformly apply with properly calibrated equipment in 5 or more gallons of water per surface acre. For best results, make aerial applications using a minimum of 20 gallons per acre.

## Drawdown Application

**Clearcast** may be used in drawdown situations to provide postemergence and/or preemergence control/suppression of aquatic vegetation. Apply **Clearcast** as a broadcast spray at rates up to 1 gallon/A or as a spot spray treatment with up to 5% **Clearcast** by volume. Make applications when water has receded and exposed soil is moist to dry. For postemergence (foliar) applications, wait at least two weeks after application before reintroducing water. When treating irrigation canals, the initial flush of recharge water after application must not be used for irrigation purposes.

## RESTRICTIONS

- **DO NOT** apply **Clearcast** to achieve a total active ingredient concentration in the water greater than 500 ppb.
- **DO NOT** apply more than 1 gallon of **Clearcast** per surface acre for the control of emergent and floating vegetation.

## Irrigation Restrictions

- **DO NOT** use treated water to irrigate greenhouses, nurseries or hydroponics until the imazamox concentration has been determined by an acceptable method to be less than or equal to 1.0 ppb.
- **DO NOT** plant sugar beets, onions, potatoes or non-**CLEARFIELD®** canola in soils that have been previously irrigated with **Clearcast**-treated water until a soil bioassay successfully demonstrates acceptable levels of crop tolerance. The only exception to this restriction is if the water is from foliar applications to emergent and/or floating vegetation in flowing water sites where it has been applied at less than or equal to 1.5 quarts per acre to waters with an average depth of greater than or equal to 4 feet.
- **DO NOT** use **Clearcast**-treated waters resulting in a concentration greater than 50 ppb for irrigation of established (emerged) plants until residue levels have been shown to be less than or equal to 50 ppb by an acceptable method.
- **DO NOT** make **Clearcast** applications in and around golf course irrigation, sod farm irrigation, and vineyard irrigation waterbodies without testing potential irrigation water prior to irrigation and confirming the imazamox concentration to be less than or equal to 1.0 ppb.
- In still or quiescent waters, do not use **Clearcast**-treated water resulting in a concentration greater than 10 ppb for irrigation of newly seeded or newly established plants until residue levels have been shown to be less than or equal to 10 ppb by an acceptable method.
- Wait 24 hours before irrigating from still or quiescent waters after making a **Clearcast** application for submerged vegetation less than 100 feet from an irrigation intake.
- Wait 24 hours before irrigating from still and quiescent waters after making a **Clearcast** application to emergent and/or floating vegetation if greater than 25% of the surface area of the water body has been treated or application was made less than 100 feet from an irrigation intake.
- Flowing waters may be used to irrigate allowable sites with no restrictions when **Clearcast** is applied at less than or equal to 2 quarts per acre to waters with an average depth of greater than or equal to 4 feet.
- After application of **Clearcast** to dry irrigation canals/ditches, the initial flush of water during recharge must not be used for irrigation purposes unless the imazamox concentration has been determined by an acceptable method to be less than 25 ppb.

**Clearcast** applied at less than or equal to 2 quarts per acre in or on waters with a minimum average depth greater than or equal to 4 feet will result in **Clearcast** concentrations less than 50 ppb.

## Other Water Use Restrictions

There are no restrictions on livestock watering, swimming, fishing, domestic use, or use of treated water for agricultural sprays.

## Potable Water

**Clearcast** may be applied to potable water sources at concentrations up to 500 ppb to within a distance of ¼ mile from an active potable water intake. Within ¼ mile of an active potable water intake, **Clearcast** may be applied, but water concentrations resulting from injection and/or foliar applications may not exceed 50 ppb. If water concentrations greater than 50 ppb are required, the potable water intake must be shut and, if necessary, an alternate water supply be made available until the water concentration can be shown to be less than 50 ppb by an acceptable method.

## Endangered Plant Species

To prevent potential negative impacts to endangered plant species, **DO NOT** apply **Clearcast** in a way that adversely affects federally listed endangered and threatened species.

## WEEDS CONTROLLED OR SUPPRESSED BY CLEARCAST

Efficacy and selectivity of **Clearcast** is dependent upon many factors including: dose, time of year, stage of plant growth, plant susceptibility, method of application, and water movement. Rate selection will be partially dependent on characteristics of the treatment area and whether growth regulation or control is desired. Some areas may require a repeat application to control or suppress regrowth. Consult SePRO Corporation to determine best treatment protocols to manage individual species and to meet specific aquatic plant management objectives.

| **Emergent, Floating, and Shoreline Species Controlled with Foliar Application** | | | |
|---|---|---|---|
| **Common Name** | **Scientific Name** | **Rate (fl ozs/A)** | **Comments** |
| Alligatorweed | *Alternanthera philoxeroides* | 64 to 128 | Repeat applications may be necessary. Add 1 qt/A of AquaPro® herbicide for quicker brownout. |
| American lotus | *Nelumbo lutea* | 64 to 128 | |
| Arrowhead | *Sagittaria* spp. | 32 to 64 | |
| Cattail | *Typha* spp. | 32 to 64 | Apply after full green up through killing frost. |
| Chinese tallowtree | *Sapium sebiferum* | 64 to 128 | |
| Common reed | *Phragmites* spp. | 96 to 128 | Use 1 qt/A methylated seed oil (MSO); apply in late vegetative stage up to killing frost. Also apply as a spot treatment using 1% to 2% **Clearcast** per spray volume. Older stands of phragmites and stands growing in water may be more difficult to control and will require follow-up applications. |
| Common salvinia | *Salvinia minima* | 32 to 64 | Apply with MSO or MSO + silicone-based surfactant; retreatment will be necessary. |
| Floating heart | *Nymphoides* spp. | 64 to 128 | Also apply as a spot treatment using 2% to 5% **Clearcast** and 1% MSO per spray volume. |
| Floating pennywort | *Hydrocotyle ranunculoides* | 32 to 64 | Repeat applications may be necessary. |
| Flowering rush | *Butomus umbellatus* | 64 to 128 | |
| Four-leaf clover | *Marsilea* spp. | 32 to 64 | |
| Frog's bit,<br>Sponge plant | *Lymnobium* spp. | 16 to 32 | |
| Giant cane | *Arundo donax* | 64 to 128 | |
| Japanese knotweed | *Polygonum cuspidatum* | 64 to 128 | |
| Mexican lily | *Nymphaea mexicana* | 32 to 64 | |
| Mosquito fern | *Azolla* spp. | – | Apply using 2% to 5% Clearcast and 1% MSO by volume. |
| Parrotfeather | *Myriophyllum aquaticum* | 64 to 128 | Apply only to emergent vegetation. |
| Pickerelweed | *Pontederia cordata* | 32 to 64 | |
| Saltcedar | *Tamarix* spp. | 64 to 128 | Also apply using 2% to 5% **Clearcast** and 1% MSO per spray volume. |
| Smartweed, ladysthumb<br>Smartweed, Pennsylvania<br>Smartweed, swamp | *Polygonum persicaria,*<br>*Persicaria maculosa*<br>*Polygonum pensylvanicum,*<br>*Persicaria pensylvanica*<br>*Polygonum coccineum,*<br>*Persicaria amphibia* | 64 to 128 | |
| Spatterdock | *Nuphar lutea* | 64 to 128 | |
| Variable-leaf milfoil | *Myriophyllum heterophyllum* | 64 to 128 | Apply with MSO (1% v/v) as an emergent foliar treatment when plants have emerged on the surface. Also apply as a spot treatment using 1% to 3% **Clearcast** per spray volume. |
| Water chestnut | *Trapa natans* | 64 to 128 | Apply with MSO to emergent part of plant. Also apply as a spot treatment using 2% to 5% Clearcast per spray volume. |
| Water hyacinth | *Eichhornia crassipes* | 16 to 32 | |
| Water lettuce | *Pistia stratiotes* | 48 to 96 | |
| Water lily | *Nymphaea* spp. | 32 to 64 | |
| Water primrose | *Ludwigia* spp. | 32 to 64 | Add 1 qt/A of AquaPro® herbicide for quicker brownout. |
| Watershield | *Brasenia schreberi* | 48 to 64 | |
| Wild taro | *Colocasia esculenta* | 96 to 128 | |

### Species Susceptible to Water-injected Applications

The following categories are provided to define species that may be growth regulated or controlled with 50 to 500 ppb **Clearcast® herbicide** following in-water applications: susceptible, moderately susceptible, and less susceptible. The rates associated with each susceptibility category, including the **Special Weed Control** section, are provided as guidance with the overriding allowance that an application rate from 50 to 500 ppb may be used depending on the aquatic vegetation management objective and the characteristics of the aquatic vegetation and water body being treated.

Some species that are susceptible to foliar applications of **Clearcast** may be less susceptible to in-water applications. Use of higher rates are necessary to achieve desired control/suppression in areas of greater water exchange; when treating more mature or less susceptible plants; when targeting more difficult-to-control aquatic species; and when treating small areas in larger bodies of water (partial or spot treatments). Lower concentrations are generally used when conducting early season large-scale treatments; when greater selectivity is desired; and treating larger areas, more immature or susceptible plants, and areas with less potential for rapid water exchange.

Use of lower rates may increase selectivity on some species within the same category. Effects on susceptible plants can range from control to growth regulation depending on treatment site characteristics, exposure time, and application rate. Susceptible plant species may exhibit herbicide stress or reduced growth during active treatment phases. Whole lake applications with lower rates may provide plant growth regulation or greater selectivity while higher rates will generally provide broader activity.

### Susceptible Vascular Aquatic Plants (50 to 200 ppb)

| Common Name | Scientific Name |
|---|---|
| Curlyleaf pondweed | *Potamogeton crispus* |
| Eurasian watermilfoil | *Myriophyllum spicatum* |
| Hydrilla | *Hydrilla verticillata* |
| Sago pondweed | *Stuckenia pectinata* |
| Water hyacinth | *Eichhornia crassipes* |
| Water stargrass | *Heteranthera dubia* |

### Moderately Susceptible Vascular Aquatic Plants (100 to 300 ppb)

| Common Name | Scientific Name |
|---|---|
| American pondweed | *Potamogeton nodosus* |
| Bladderwort | *Utricularia* spp. |
| Frog's bit | *Lymnobium spongia* |
| Illinois pondweed | *Potamogeton illinoensis* |
| Pickerelweed | *Pontederia cordata* |
| Salvinia | *Salvinia* spp. |
| Spikerush | *Eleocharis baldwinii* |
| Variable-leaf milfoil | *Myriophyllum heterophyllum* |
| Wigeon grass | *Ruppia maritima* |

### Less Susceptible Vascular Aquatic Plants (200 to 500 ppb)

| Common Name | Scientific Name |
|---|---|
| Bulrush | *Schoenoplectus californicus* |
| Cattail | *Typha* spp. |
| Coontail | *Ceratophyllum demersum* |
| Eelgrass, Japanese | *Zostera japonica* |
| Egeria | *Egeria densa* |
| Flowering rush | *Butomus umbellatus* |
| Southern naiad | *Najas guadalupensis* |
| Spatterdock | *Nuphar lutea* |
| Water lily | *Nymphaea odorata* |
| Watershield | *Brasenia schreberi* |

### Special Weed Control

**Eurasian Watermilfoil.** Apply **Clearcast herbicide** at 100 to 200 ppb to actively growing plants early in the growing season. Applications made to mature Eurasian watermilfoil (vegetation topped out) may require multiple applications.

**Hydrilla.** Apply **Clearcast** at 150 to 200 ppb to actively growing plants early in the growing season. Applications made prior to topped-out hydrilla may require repeat application. A single application of 50 to 75 ppb can be used to suppress and growth-regulate hydrilla for up to 10 to 12 weeks. If desired, an additional 50 to 75 ppb can be applied to extend the period of growth suppression when normal hydrilla growth resumes.

**Japanese Eelgrass.** Japanese eelgrass is a submerged aquatic plant which can be found in tidal and intertidal areas. Clearcast herbicide may be applied directly to the water or directly to the plant (e.g. at low tide).

• **Low-tide application** - To make applications when the plant is exposed at low tide, uniformly apply with properly calibrated broadcast or spot treatment equipment in 10 or more gallons of water per acre. An appropriate spray adjuvant approved for aquatic use may be used but is not required. Spot treatments can be made with up to 5% Clearcast by volume. To ensure thorough spray coverage, higher spray volumes may be required when treating areas with large and/or dense vegetation. Use an appropriate spray pressure to minimize drift potential depending upon spray equipment, conditions, and application objectives. Apply 4 fl ozs to 32 fl ozs Clearcast/A. Use the lower rate for management of seedlings. An appropriate aquatic use spray adjuvant may be used but is not required.

• **In-water application** - When Japanese eelgrass is submerged, Clearcast may be broadcast-applied to the water surface or injected below the water surface. Clearcast may be applied as undiluted product or diluted with water before application. Under surface-matted conditions, inject Clearcast below the water surface to achieve better product distribution. Apply Clearcast to water to achieve a final concentration of the active ingredient of no more than 500 ppb. Multiple applications of Clearcast may be made during the annual growth cycle to maintain the desired vegetation response.

**Sago Pondweed.** In dry ditches (drainage and irrigation), sago pondweed may be controlled or growth-suppressed with soil-applied **Clearcast** at 64 to 128 fl ozs/A. In irrigation canals, apply **Clearcast** after drawdown and prior to water recharge.

## TERRESTRIAL USE DIRECTIONS

## Restrictions

- The maximum amount of active ingredient that can be applied is 1 gallon (equivalent to 1 pound of active ingredient as the free acid) per acre per year.
- **DO NOT** exceed 2 applications of **Clearcast** per year.

**Clearcast** may be applied with ground and aerial equipment including both fixed-wing aircraft and helicopter. Applications may be made using foliar broadcast spray, foliar spot spray, injection (hack and squirt), frill and girdle, cut stump, or basal methods.

### Broadcast Spray Application

**DO NOT** apply more than 1 gallon of **Clearcast** per acre per year.

### Foliar Spot Application

Apply **Clearcast** as a percent solution, containing up to 5% **Clearcast** by volume.

### Injection (Hack and Squirt), Frill and Girdle, and Cut Stump Application

Treatments may be made using up to 100% **Clearcast** by volume.

### Basal Application

Treatments can be made using up to 25% **Clearcast** by volume. Basal applications require the use of a good emulsion system to maintain **Clearcast** in a stable emulsion with the penetrating agent being used.

All foliar applications of **Clearcast** require the use of a spray adjuvant. Refer to *Spray Adjuvants* section for additional information.

### Managing Off-target Movement

The following information is general guidance for managing and minimizing off-target exposure of this product. Specific use directions in this label may vary from these general guidelines depending on the application method and objectives and should supersede the information provided below.

Avoiding spray drift at the application site is the responsibility of the applicator. The interaction of many equipment-related and weather-related factors determines the potential for spray drift. The applicator and the grower are responsible for considering all these factors when making decisions.

The following drift management requirements must be followed to avoid off-target drift movement from aerial applications:

1. The distance of the outermost nozzles on the boom must not exceed ¾ the length of the fixed wingspan or 90% of rotor blade diameter.
2. Nozzles must always point backward parallel with the airstream and never be pointed downward more than 45 degrees.
3. **DO NOT** apply if wind speed is greater than 10 mph, except when making injection or subsurface applications to water.

Where states have more stringent regulations, they must be observed.

The applicator must be familiar with and take into account the information covered in the following aerial drift reduction advisory information.

### Information on Droplet Size

The most effective way to reduce drift potential is to apply large droplets. The best drift management strategy is to apply the largest droplets that provide sufficient coverage and control. Applying larger droplets reduces drift potential but will not prevent drift if applications are made improperly or under unfavorable environmental conditions (see *Wind; Temperature and Humidity;* and *Temperature Inversions*).

### Controlling Droplet Size:

- **Volume** - Use high flow rate nozzles to apply the highest practical spray volume. Nozzles with higher rated flows produce larger droplets.
- **Pressure – DO NOT** exceed the nozzle manufacturer's recommended pressures. For many nozzle types, lower pressure produces larger droplets. When higher flow rates are needed, use higher flow rate nozzles instead of increasing pressure.
- **Number of Nozzles** - Use the minimum number of nozzles that provides uniform coverage.

- **Nozzle Orientation** - Orienting nozzles so that the spray is released parallel to the airstream produces larger droplets than other orientations and is recommended practice. Significant deflection from the horizontal will reduce droplet size and increase drift potential.
- **Nozzle Type** - Use a nozzle type that is designed for the intended application. With most nozzle types, narrower spray angles produce larger droplets. Consider using low-drift nozzles. Solid-stream nozzles oriented straight back produce the largest droplets and the lowest drift.

### Boom Length

For some use patterns, reducing the effective boom length to less than ¾ of the fixed wingspan or 90% of rotor blade diameter may further reduce drift without reducing swath width.

### Application Height

Applications must not be made at a height greater than 10 feet above the top of the largest plants unless a greater height is required for aircraft safety. Making applications at the lowest height that is safe reduces exposure of droplets to evaporation and wind.

### Swath Adjustment

When applications are made with a crosswind, the swath will be displaced downwind. Therefore, on the upwind and downwind edges of the field, the applicator must compensate for this displacement by adjusting the path of the aircraft upwind. Swath adjustment distance should increase with increasing drift potential (higher wind, smaller droplets, etc.).

### Wind

Drift potential is lowest between wind speeds of 2 to 10 mph. However, many factors, including droplet size and equipment type, determine drift potential at any given speed. Application must be avoided below 2 mph due to variable wind direction and high inversion potential.

**NOTE:** Local terrain can influence wind patterns. Every applicator must be familiar with local wind patterns and how they affect spray drift.

### Temperature and Humidity

When making applications in low relative humidity, set up equipment to produce larger droplets to compensate for evaporation. Droplet evaporation is most severe when conditions are both hot and dry.

### Temperature Inversions

Applications must not occur during a temperature inversion because drift potential is high. Temperature inversions restrict vertical air mixing that causes small suspended droplets to remain in a concentrated cloud. This cloud can move in unpredictable directions due to the light, variable winds common during inversions. Temperature inversions are characterized by increasing temperatures with altitude and are common on nights with limited cloud cover and light-to-no wind. They begin to form as the sun sets and often continue into the morning. Their presence can be indicated by ground fog; however, if fog is not present, inversions can also be identified by the movement of smoke from a ground source or an aircraft smoke generator. Smoke that layers and moves laterally in a concentrated cloud (under low wind conditions) indicates an inversion, while smoke that moves upward and rapidly dissipates indicates good vertical air mixing.

### Sensitive Areas

The pesticide must only be applied when the potential for drift to adjacent sensitive areas (e.g. residential areas, bodies of water, known habitat for threatened or endangered species, or crops) is minimal (e.g. when wind is blowing away from the sensitive areas).

To the extent consistent with the applicable law, applicator is responsible for any loss or damage which results from spraying **Clearcast** in a manner other than directed in this label. In addition, applicator must follow all applicable state and local regulations and ordinances in regard to spraying.

**Clearcast** may be used for the control of the following plant species. **Clearcast** may be effective for the control or suppression of additional plant species not listed below. The use of **Clearcast** for the control or suppression of undesirable plants not listed below may be done at the discretion of the user.

**To the extent consistent with applicable law, the user assumes responsibility for any lack of control or suppression associated with application to weeds not listed on this label.**

| Weeds Controlled | | | |
|---|---|---|---|
| **Common Name** | **Scientific Name** | **Rate Foliar** (fl ozs/A) | **Comments** |
| Alligator weed | *Alternanthera philoxeroides* | 64 to 128 | Addition of AquaPro® herbicide will improve efficacy. |
| Annual ryegrass | *Lolium multiflorum* | 16 to 32 | |
| Artichoke, Jerusalem | *Helianthus tuberosus* | 64 to 128 | |
| Bedstraw | *Galium aparine* | 64 to 128 | |
| Beet, wild | *Beta procumbens* | 64 to 128 | |
| Brazilian pepper* Christmasberry* | *Schinus terebinthifolius* | 96 to 128 | Also apply using 2% to 5% Clearcast per spray volume |
| Buckwheat, wild | *Polygonum convolvulus* | 64 to 128 | |
| Buttercup | *Ranunculus* spp. | 64 to 128 | |
| California bulrush* | *Schoenoplectus californicus* | 64 to 128 | |
| Camphor tree* | *Cinnamomum camphora* | 2% to 5% v/v | |
| Canola, volunteer (non-**Clearfield®**) | *Brassica campestris* *Brassica napus* | 64 to 128 | |
| Cattail | *Typha* spp. | 32 to 64 | |
| Chickweed, common | *Stellaria media* | 64 to 128 | |
| Chinese tallowtree; Popcorn tree | *Sapium sebiferum* | 64 to 128 | See Special Weed Control section. |
| Cocklebur, common | *Xanthium strumarium* | 64 to 128 | |
| Filaree, redstem Filaree, whitestem | *Erodium cicutarium* *Erodium moschatum* | 64 to 128 | |
| Flixweed | *Descurainia sophia* | 64 to 128 | |
| Giant ragweed** | *Ambrosia trifida* | 32 to 64 | |
| Henbit | *Lamium amplexicaule* | 64 to 128 | |
| Jamaican nightshade* | *Solanum jamaicense* | 2% to 5% v/v | |
| Japanese stiltgrass | *Microstegium vimineum* | 32 to 64 | Use MSO at 1% by spray volume. Clearcast will provide some residual control of subsequent seedling emergence. |
| Jimsonweed | *Datura stramonium* | 64 to 128 | |

*continued*

| Weeds Controlled *(continued)* | | | |
|---|---|---|---|
| **Common Name** | **Scientific Name** | **Rate Foliar** (fl ozs/A) | **Comments** |
| Johnsongrass, rhizome<br>Johnsongrass, seedling | *Sorghum halepense* | 32 to 64<br>16 to 32 | |
| Knotweed, prostrate | *Polygonum aviculare* | 64 to 128 | |
| Kochia | *Kochia scoparia* | 64 to 128 | |
| Lambsquarters, common | *Chenopodium album* | 64 to 128 | |
| Lettuce, miner's | *Montia perfoliata* | 64 to 128 | |
| Mallow, common<br>Mallow, Venice | *Malva neglecta Hibiscus trionum* | 64 to 128 | |
| Mustard spp. | *Brassica* spp. | 64 to 128 | |
| Nettle, burning | *Urtica urens* | 64 to 128 | |
| Nettleleaf goosefoot | *Chenopodium murale* | 64 to 128 | |
| Nightshade, black<br>Nightshade, Eastern black<br>Nightshade, hairy | *Solanum nigrum*<br>*Solanum ptycanthum*<br>*Solanum sarrachoides* | 64 to 128 | |
| Old world climbing fern* | *Lygodium microphyllum* | 5% v/v | |
| Pennycress,field | *Thlaspi arvense* | 64 to 128 | |
| Phragmites* | *Phragmites australis* | | Use 1 qt/A methylated seed oil (MSO); apply in late vegetative stage up to killing frost. Also apply as a spot treatment using 1% to 2% Clearcast per spray volume. Older stands of phragmites and stands growing in water may be more difficult to control and will require follow-up applications. |
| Pigweed, prostrate<br>Pigweed, redroot<br>Pigweed, smooth<br>Pigweed, spiny | *Amaranthus blitoides*<br>*Amaranthus retroflexus*<br>*Amaranthus hybridus*<br>*Amaranthus spinosus* | 64 to 128 | |
| Puncturvine | *Tribulus terrestris* | 64 to 128 | |
| Purple loosestrife* | *Lythrum salicaria* | 32 to 64 | |
| Purslane, common | *Portulaca oleracea* | 64 to 128 | |
| Radish, wild | *Raphanus raphanistrum* | 64 to 128 | |
| Ragweed, common<br>Ragweed, giant | *Ambrosia artemisiifolia*<br>*Ambrosia trifida* | 64 to 128 | |
| Rocket, London<br>Rocket, yellow | *Sisymbrium irio*<br>*Barbarea vulgaris* | 64 to 128 | |
| Saltcedar* | *Tamarix* spp. | 64 to 128 | Also apply using 2% to 5% Clearcast and 1% MSO per spray volume. |
| Sedge*, purple<br>Sedge*, yellow | *Cyperus rotundus*<br>*Cyperus esculentus* | 32 to 64 | Also apply using 2% to 5% Clearcast per spray volume. |
| Shepherd's-purse | *Capsella bursa-pastoris* | 64 to 128 | |
| Smartweed, ladysthumb<br>Smartweed, Pennsylvania<br>Smartweed, swamp | *Polygonum persicaria,*<br>*Persicaria maculosa*<br>*Polygonum pensylvanicum,*<br>*Persicaria pensylvanica*<br>*Polygonum coccineum,*<br>*Persicaria amphibia* | 64 to 128 | |
| Spike rush* | *Eleocharis* spp. | 64 to 128 | |
| Spurge, prostrate | *Euphorbia maculata* | 64 to 128 | |
| Sunflower, common | *Helianthus annuus* | 64 to 128 | |
| Swinecress | *Coronopus didymus* | 64 to 128 | |
| Tansymustard, green | *Descurainia pinnata* | 64 to 128 | |
| Taro | *Taro* spp. | 64 to 128<br>5% v/v | |
| Thistle, Russian | *Salsola iberica* | 64 to 128 | |
| Tropical soda apple* | *Solanum viarum* | 2% to 5% v/v | |
| Water primrose | *Ludwigia* spp. | 32 to 64 | Addition of **AquaPro® herbicide** will improve efficacy. |
| Wetland nightshade* | *Solanum tampicense* | 2% to 5% v/v | |
| Whitetop* Hoary cress* | *Cardaria draba* | 8 to 16 | |
| Willoweed panicle | *Epilobium brachycarpum* | 64 to 128 | |
| Velvetleaf | *Abutilon theophrasti* | 64 to 128 | |
| * Use not permitted in California unless otherwise directed by supplemental labeling<br>** Suppression of larger, well-established plants | | | |

In general, the use of methylated seed oil (MSO) at 1% v/v will provide the best control with foliar applications.

## Special Weed Control - Chinese tallowtree

**Clearcast** at 64 to 128 fl ozs/A or 0.5 to 2.0% v/v may be applied as a foliar application for selective control of Chinese tallowtree in and around tolerant tree species. Control Chinese tallowtree with foliar applications using aerial, handgun, or backpack application methods. When treating Chinese tallowtree, ensure that application method and spray volume provide adequate coverage of targeted Chinese tallowtree plants. Add methylated seed oil at 32 fl ozs/A for broadcast applications, or at 1% v/v for spot backpack and handgun applications. Tolerant hardwood species may exhibit varying degrees of leaf discoloration and temporary injury.

## Areas that may be Grazed or Cut for Hay

Apply **Clearcast** to listed aquatic and terrestrial noncrop sites that may be grazed or cut for hay at a maximum use rate of 1 gallon per acre of **Clearcast** or 5% (v/v) spray solution for spot treatments. There are no grazing or haying restrictions.

**Warranty Disclaimer:** SePRO Corporation warrants that this product conforms to the chemical description on the product label. Testing and research have also determined that this product is reasonably fit for the uses described on the product label. To the extent consistent with applicable law, SePRO Corporation makes no other express or implied warranty of fitness or merchantability nor any other express or implied warranty and any such warranties are expressly disclaimed.

**Misuse:** Federal law prohibits the use of this product in a manner inconsistent with its label directions. To the extent consistent with applicable law, the buyer assumes responsibility for any adverse consequences if this product is not used according to its label directions. In no case shall SePRO Corporation be liable for any losses or damages resulting from the use, handling or application of this product in a manner inconsistent with its label.

For additional important labeling information regarding SePRO Corporation's Terms and Conditions of Use, Inherent Risks of Use and Limitation of Remedies, please visit *http://www.seprolabels.com/terms/* or scan the image below.



**SePRO Corporation**
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Carmel, IN 46032, U.S.A.

# Attachment B

# Environmental Monitor Notice

The Applicant (U.S. Fish and Wildlife Service, USFWS) will file a Notice of Intent (NOI) for the Sudbury River Vegetation Management Plan with the Sudbury and Wayland Conservation Commissions on or around April 8, 2022. The Applicant is proposing to implement a vegetation management program at Great Meadows National Wildlife Refuge for the Sudbury River between Sherman's Bridge Road and Route 27 to manage the dense growth of the invasive aquatic plant water chestnut (*Trapa natans*). Management actions include herbicide treatment. The project will improve water quality and aquatic habitats that support fish and wildlife species and will restore the natural capacity of the resource area to protect the interests identified in the Wetlands Protection Act (M.G.L. c. 131 §40). The anticipated public hearing dates are on or about April 25, 2022 in Sudbury and April 27, 2022 in Wayland.

The reviewing conservation commissions will be the Sudbury Conservation Commission located at the Department of Public Works Building, 275 Old Lancaster Road, Sudbury, MA 01776, (978) 440-5471 and the Wayland Conservation Commission located at 41 Cochituate Road, Wayland, MA 01778, (508) 358-3669. To obtain additional information regarding the dates, times, and locations of the public hearings, please check the Sudbury and Wayland Conservation Commission websites. To obtain more information regarding this application or to obtain an electronic copy of the application, contact the Applicant's representative, ESS Group, LLC at mobrien@trccompanies.com or (781) 419-7707.

# Attachment C

## NHESP Response

## O'Brien, Margaret

**From:** Marold, Misty-Anne (FWE) <misty-anne.marold@state.ma.us>
**Sent:** Monday, April 4, 2022 5:04 PM
**To:** O'Brien, Margaret
**Cc:** Ladewig, Matthew; Cheeseman, Melany (FWE)
**Subject:** RE: [EXTERNAL] RE: USFWS Sudbury River- Pre-Filing Consultation 05-18039



*RE: USFWS Sudbury River- Pre-Filing Consultation 05-18039*

Hi Margaret,

Thanks for contacting us. We don't have concerns about the proposed product, Imazamox, from a toxicity perspective on adults of the four state-listed marsh birds at this site (3 Endangered, 1 Special Concern). But, the impact to vegetation cover during the nesting season would normally raise concerns during the nesting season is April 1-September 30. If, however, the USFWS only intents to treat the red outlined "river channel" shown on Figure #1 Project Locus *and* all treatments would end by September 1, then we would anticipate that this could qualify as habitat management pursuant to 321 CMR 10. 14 (written request, no fee).

The proposal to treat is shown on parcels NOT owned by the USFWS. Based on the L3 data, there are several parcels owned by the Town of Sudbury (west of 245 Water Row) and one each by the MA Department of Conservation & Recreation and Wayland Country Club & Gold Course (to the south near Route 27). So, the formal MESA exemption request will need to have approval from each of these parties for the MESA review or the treatment areas would need to be modified to avoid non-USFWS lands.

Best, Misty-Anne

Misty-Anne R. Marold (*she/her/hers*)
Senior Endangered Species Review Biologist
Massachusetts Division of Fisheries & Wildlife
Natural Heritage Endangered Species Program
1 North Drive, Rabbit Hill Road
Westborough, MA 01581
misty-anne.marold@mass.gov

**From:** O'Brien, Margaret <MOBrien@trccompanies.com>
**Sent:** Monday, April 4, 2022 1:44 PM
**To:** Cheeseman, Melany (FWE) <Melany.Cheeseman@mass.gov>; Marold, Misty-Anne (FWE) <misty-