



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
 Nantucket

 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):

Consue Springs Nantucket 02554
 a. Street Address b. City/Town c. Zip Code
 Latitude and Longitude: N41.276598 W-70.092672
 d. Latitude e. Longitude
55 404, 404.1, 404.2, 390, 414, 415
 f. Assessors Map/Plat Number g. Parcel /Lot Number

2. Applicant:

Rachael Freeman
 a. First Name b. Last Name
Nantucket Land Bank
 c. Organization
22 Broad Street
 d. Street Address
Nantucket MA 02554
 e. City/Town f. State g. Zip Code
508-228-7240 508-228-9369 rfreeman@nantucketlandbank.org
 h. Phone Number i. Fax Number j. Email Address

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

a. First Name _____ b. Last Name _____
 c. Organization _____
 d. Street Address _____
 e. City/Town _____ f. State _____ g. Zip Code _____
 h. Phone Number _____ i. Fax Number _____ j. Email address _____

4. Representative (if any):

a. First Name _____ b. Last Name _____
 c. Company _____
 d. Street Address _____
 e. City/Town _____ f. State _____ g. Zip Code _____
 h. Phone Number _____ i. Fax Number _____ j. Email address _____

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

0 (Nantucket Land Bank is exempt) 0 b. State Fee Paid 0 c. City/Town Fee Paid



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A. General Information (continued)

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6. General Project Description:

Control of Phragmites in Consue Springs on Nantucket using foliar spray with Imazamox in year 1. Follow up foliar spray in years 2 through 10 as warranted. Possible removal of Phragmites stems and root systems by manual or mechanical means as warranted in years 2 and/or 3. Japanese knotweed is present on the perimeters of the site and will initially be treated using foliar spray with Glyphosate. As the density of aboveground stems decreases the treatment technique may be changed to a more targeted application such as a foliar wipe. Similar to Phragmites, we expect that herbicide applications will have significantly impacted areas of Japanese knotweed within 3 years but that it may take up to 10 years of treatment for complete restoration of the site.

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

- | | |
|---|---|
| 1. <input type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input checked="" type="checkbox"/> 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)

Removal of aquatic invasive vegetation.

2. Limited Project Type

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:

Nantucket

a. County

Please see attached Appendix A for complete list

b. Certificate # (if registered land)

c. Book

d. Page Number

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

- 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.
- 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.



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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.

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bank, Bordering Vegetated Wetland, and Land Under Waterbodies and Waterways.

Table with 3 columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Bordering Land Subject to Flooding, Isolated Land Subject to Flooding, and Riverfront Area.

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)



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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.

Table with columns: Resource Area, Size of Proposed Alteration, Proposed Replacement (if any). Rows include Designated Port Areas, Land Under the Ocean, Barrier Beach, Coastal Beaches, Coastal Dunes, Coastal Banks, Rocky Intertidal Shores, Salt Marshes, Land Under Salt Ponds, Land Containing Shellfish, Fish Runs, Land Subject to Coastal Storm Flowage, and Restoration/Enhancement.



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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

- 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://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/priority_habitat/online_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**

If yes, the project is also subject to Massachusetts Endangered Species Act (MESA) review (321 CMR 10.18). To qualify for a streamlined, 30-day, MESA/Wetlands Protection Act review, please complete Section C.1.C, and include requested materials with this Notice of Intent (NOI); OR complete Section C.1.d, 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).*

- Submit Supplemental Information for Endangered Species Review*
 - Percentage/acreage of property to be altered:
 - within wetland Resource Area _____
 - outside Resource Area _____ percentage/acreage
 - Assessor's Map or right-of-way plan of site
 - 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 **
 - Project description (including description of impacts outside of wetland resource area & buffer zone)
 - Photographs representative of the site

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

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



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

(c) MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm).
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, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; 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 or hand delivery of NOI to either:

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

North Shore - Hull to New Hampshire:

Division of Marine Fisheries - Southeast Marine Fisheries Station
Attn: Environmental Reviewer
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694

Division of Marine Fisheries - North Shore Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930

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.



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

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

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.
 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.



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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:

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



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MassDEP FileNumber

Document Transaction Number

Nantucket

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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.

1. Signature of Applicant

2. Date

4. Date

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.



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 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:

Consue Springs Nantucket
 a. Street Address b. City/Town
None The Nantucket Land Bank is fee exempt
 c. Check number d. Fee amount

2. Applicant Mailing Address:

Rachael Freeman
 a. First Name b. Last Name
Nantucket Land Bank
 c. Organization
22 Broad Street
 d. Mailing Address
Nantucket MA 02554
 e. City/Town f. State g. Zip Code
 h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

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

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.

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



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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 |
|--------------------------------------|-----------------------------|--------------------------------|------------------------------|
| <u>Control of aquatic vegetation</u> | <u>1</u> | <u>Exempt</u> | <u>Exempt</u> |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |
| _____ | _____ | _____ | _____ |

Step 5/Total Project Fee: 0

Step 6/Fee Payments:

| | |
|---------------------------------|--------------------------------------|
| Total Project Fee: | <u>0</u> |
| | a. Total Fee from Step 5 |
| State share of filing Fee: | <u>0</u> |
| | b. 1/2 Total Fee less \$12.50 |
| City/Town share of filling Fee: | <u>0</u> |
| | 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 – Notice of Intent

Appendix A: Ecological Restoration Limited Project Checklists

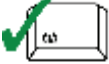
Nantucket
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Eligibility Checklist

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.



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

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 (310 CMR 10.60), but still must meet the general performance standards for Bank [310 CMR 10.54(4)(a)5]; Land Under Water Bodies and Waterways [310 CMR 10.56(4)(a)4], and Wildlife Habitat Evaluation [310 CMR 10.60].
- (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
 - 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.

Eligibility Criteria - Coastal Ecological Restoration Limited Projects



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Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
(310 CMR 10.24(8))

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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.

Eligibility Criteria - Coastal Ecological Restoration Limited Projects



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Appendix A: Ecological Restoration Limited Project Checklists

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(310 CMR 10.24(8)) (Cont.)

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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.

Eligibility Criteria - Coastal Ecological Restoration Limited Projects



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Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
(310 CMR 10.24(8)) (Cont.)

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Additional Eligibility Criteria for Specific Coastal Ecological Restoration Limited Project Types

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

Eligibility Criteria - Coastal Ecological Restoration Limited Projects



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Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
(310 CMR 10.24(8)) (Cont.)

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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 B, 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): Invasive species (Phragmites and Japanese Knotweed) control

Eligibility Criteria - Inland Ecological Restoration Limited Project (310



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Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
CMR 10.53(4)) (cont.)

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General Eligibility Criteria for All Inland Ecological Restoration Limited Projects

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

Eligibility Criteria - Inland Ecological Restoration Limited Project (310



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Appendix A: Ecological Restoration Limited Project Checklists

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
CMR 10.53(4) (cont.)

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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



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

CMR 10.53(4) (cont.)

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- 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.
 - 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



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- 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.

Required Actions (310 CMR 10.11)



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

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.

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- Massachusetts Environmental Policy Act (MEPA) / Environmental Monitor**
<http://www.mass.gov/eea/agencies/mepa/submitting-notices-to-the-environmental-monitor.html>

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

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

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

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

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

- Supplemental Information for Endangered Species Review has been submitted.

1. Percentage/acreage of property to be altered:

| | | |
|---------------------------------|--|--------------------|
| a. Within Wetland Resource Area | | Percentage/acreage |
|---------------------------------|--|--------------------|

| | | |
|----------------------------------|--|--------------------|
| b. Outside Wetland Resource Area | | Percentage/acreage |
|----------------------------------|--|--------------------|

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

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

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

5. Photographs representative of the site

6. MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm)

Required Actions (310 CMR 10.11) (cont.)



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

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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, <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review/mass-endangered-species-act-mesa/>; 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: <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/regulatory-review>

- 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.)



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

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

Division of Marine Fisheries

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

Required Actions (310 CMR 10.11) (cont.)



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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
1213 Purchase Street – 3rd Floor
New Bedford, MA 02740-6694
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** – <http://www.mass.gov/eea/agencies/dfg/dfw/>
 - 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.

Required Actions (310 CMR 10.11) (cont.)



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Areas of Critical Environmental Concern (ACECs)

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

- Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations).

Name of ACEC

Minimum Required Documents (310 CMR 10.12)

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

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

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

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

- List the titles and dates for all plans and other materials submitted with this NOI.

a. Plan Title

b. Prepared by

c. Signed and Stamped by

d. Final Revision Date

e. Scale

- _____
f. Additional Plan or Document Title

g. Date

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

- Attach NOI Wetland Fee Transmittal Form.

Minimum Required Documents (310 CMR 10.12)



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- 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 to whether the project has the potential to impact private water supply wells including agricultural or aquacultural wells or surface water withdrawal points.

Certification that the Ecological Restoration Project Meets the



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Eligibility Criteria

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

Signature of Applicant or Authorized Agent

Rachael Freeman for the Nantucket Land Bank

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.

INTRODUCTION

The “Applicant,” the Nantucket Islands Land Bank, is seeking approval to perform a project involving foliar herbicide spray for control of Phragmites and Japanese knotweed at Consue Springs on Nantucket Island (Figures 1 and 2). The total contiguous area of salt marsh grading into bordering vegetated wetland is approximately 57 acres, with treatment being proposed on 4.69 acres. The 4.69 acres proposed for treatment is dominated by Phragmites with approximately 0.49 acres of Japanese knotweed on the upland perimeter.

Phragmites australis

In the past, Phragmites control projects have mostly involved labor intensive methods such as “clip and drip”, which do minimize non-target impacts but are impractical for larger scale control efforts. As a result, Phragmites coverage on Nantucket has expanded substantially over the last decade. A pilot or demonstration project at Long Pond, near the Massasoit Bridge, was conducted in 2015 using foliar spray of glyphosate. A similar treatment of Phragmites around White Goose Cove, also in Long Pond, was conducted in 2016 with follow up at treated areas in 2017. While monitoring for those projects continues, results to date indicate progress in Phragmites control with minimal detected non-target impacts. This project seeks to control Phragmites at Consue Springs using a similar method, but is proposing to use the active ingredient imazamox instead of glyphosate.

The proposed treatment area is concentrated in three main patches with Phragmites-dominated banks connecting them (Figure 3). The main patches are located south of Duck Pond, the northern portion of the Land Bank property east of the Washington Street bike path, and finally the southern edge of the Town of Nantucket’s property. These last two patches are connected by a stand of Phragmites which runs along the bike path.

Further expansion of Phragmites can be expected if no action is taken, though much of the wetland and shoreline are already Phragmites-dominated. Although this project will take several years to reach completion and follow up action will be necessary to maintain control of this invasive species, it is intended to minimize Phragmites and has the potential to eliminate that species from Consue Springs with a diligent treatment plan.

The patches of Phragmites growing in the wetland, salt marsh, and pond edge compromises habitat, access, and scenic views of Consue Springs. These growths have expanded substantially over the last decade in the absence of a control program. The impetus for this project is to prevent further expansion of Phragmites and allow the native plant community to regain dominance. As such this project qualifies as an Ecological Restoration Limited Project under the current regulations for implementing the Wetlands Protection Act (WPA). Phragmites is an invasive species with well-known negative impacts on biodiversity and habitat. All other recent Phragmites control projects have been handled on Nantucket as Ecological Restoration projects and this application will remain consistent with that approach.

The basic premise of this project, which is similar to treatments at Long Pond, Miacomet and Hummock Ponds, is that Phragmites can be treated with a foliar spray and that a reasonable degree of control can be achieved with little preparatory action and limited follow up activity. Cutting of the Phragmites and supplemental treatment for at least two years after initial treatment are viewed as integral to longer term control, and it may be desirable to remove or at least disturb root systems the year after initial treatment, depending on the degree of regrowth. Negative impacts on non-target resources have been minimal and temporary. Waiting to address this aggressively expanding Phragmites population at Consue Springs has already resulted in lost habitat and much more loss can be expected. The expense of control will rise with time and impacted area. This project is as much preventive as it is restorative.

Figure 1. Consue Springs Locus Map

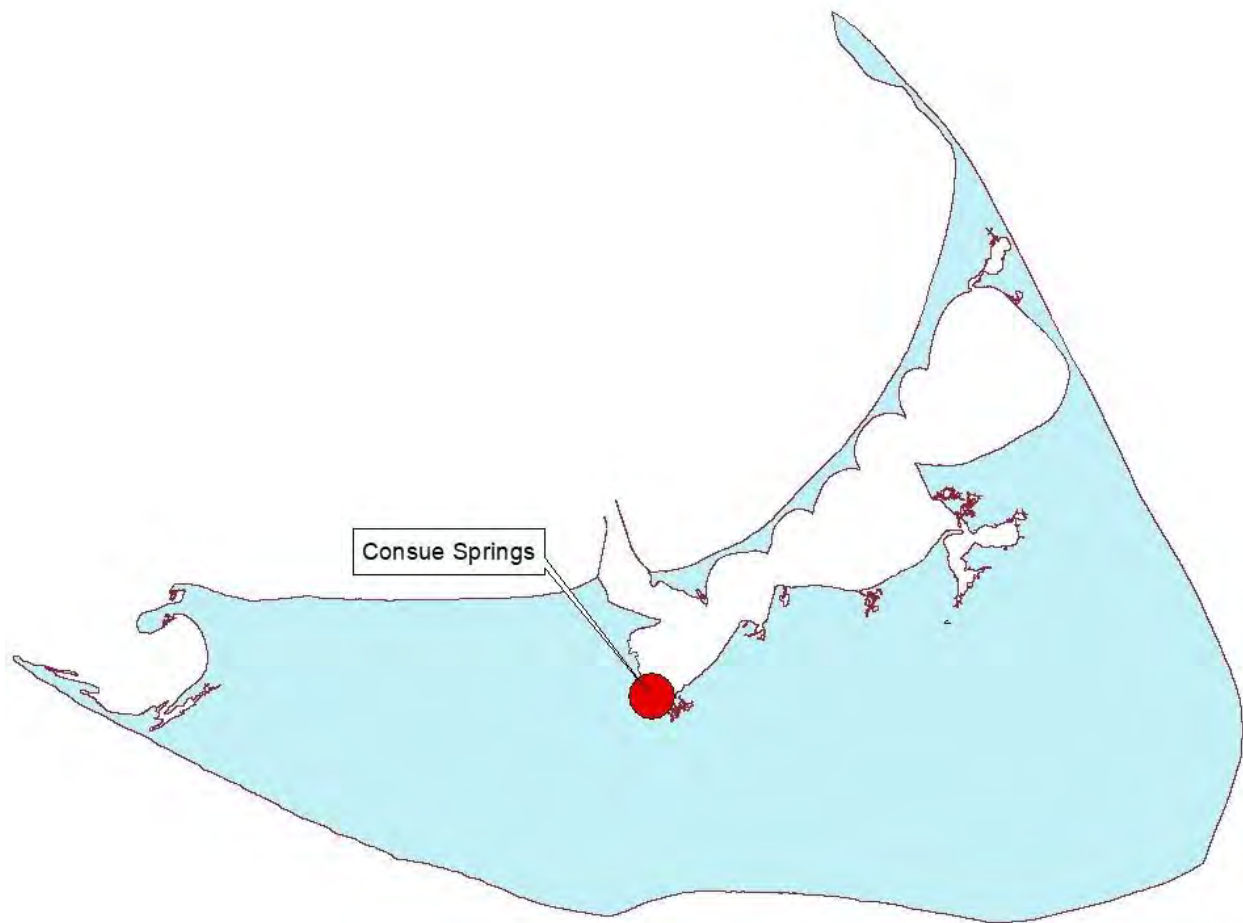
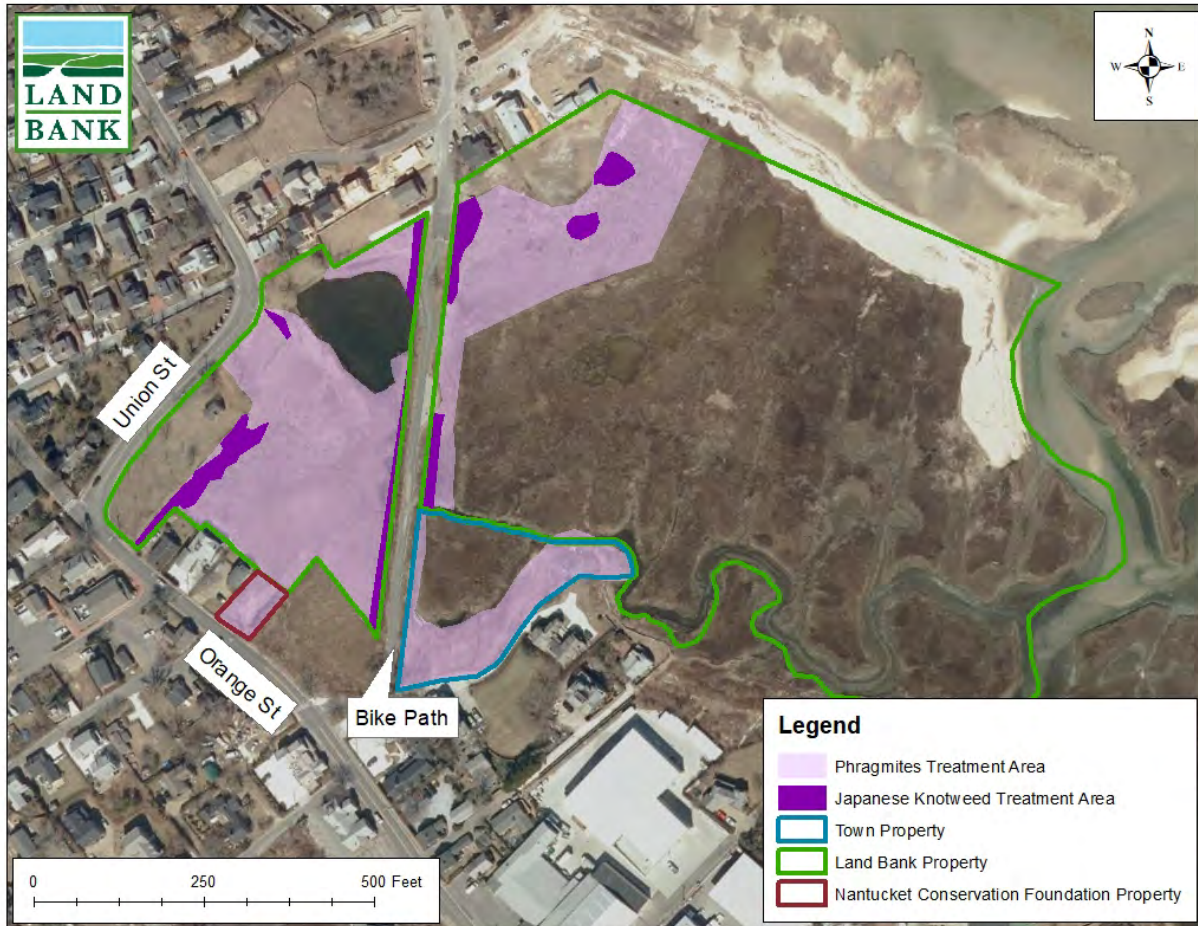


Figure 2. Consue Springs Aerial View



Figure 3: Proposed Treatment Zones at Consue Springs



Fallopia Japonica

Comparatively, there is a relatively small amount of Japanese knotweed on the Consue Springs site. However, Japanese knotweed is one of the most difficult invasive plants to eradicate due to its extensive system of underground rhizomes. This species is a well-known, persistent, invasive plant found throughout North America and Europe that grows in a wide range of habitats. Repeated aboveground treatment with herbicides is one of the few treatment options that can reduce stands of this tenacious plant.

Problem Statement

This project will address an important visual, recreational and habitat amenity on the island. Only habitat is an interest of the WPA, but the impact of Phragmites and Japanese knotweed on habitat is not in question; the Commonwealth of Massachusetts supports Phragmites and

Japanese knotweed control projects in multiple locations within its borders and the DEP has a policy statement that declares that no invasive species can be considered to be habitat for the purposes of regulatory consideration. Actions that eliminate or reduce Phragmites and Japanese knotweed are considered favorably as long as non-target impacts are not severe and lasting.

Management Goals

The primary goal of the proposed management plan is to minimize Phragmites and Japanese knotweed at Consue Springs on Nantucket. This will involve initial foliar application of an herbicide, cutting of dead stems after treatment, follow up treatment as warranted for additional years, and possibly hydroraking or other disturbance of the root systems as part of the follow up work. The objective is to minimize the dominance of invasive plants as a component of the shoreline vegetation community and allow native species to regain a foothold. While recolonization by Phragmites and Japanese knotweed is an ongoing risk, with diligent planning and follow-up treatment, the resurgence of a native community is possible. Consue Springs provides public access and recreational opportunity to residents of and visitors to Nantucket, as well as valuable salt marsh and wetland habitat. As such a resource, it warrants management.

Existing Conditions

Consue Springs is made up of a network of wetland resource areas (Figure 4). The eastern portion, known as The Creeks, is a salt marsh which flows directly into Nantucket Harbor. The marsh is then bisected by the Washington Street bike path, which runs north to south. To the west of the bike path is an extensive wetland as well as a small pond, referred to as Goose Pond. Goose Pond and the corresponding wetlands are bordered to the west and southwest by private residences, Orange Street, and Union Street.

Goose Pond and the adjacent wetlands are connected to The Creeks through an undersized culvert that runs beneath the bike path. These bodies of water were historically joined to The Creeks salt marsh system, until the installation of a railroad berm in the mid-1800s, which later became the Washington Street bike path in 2017. Due to the berm and the culvert being undersized, the western wetland and pond are mostly impounded freshwater, although they are tidally influenced.

Figure 4. Existing Conditions of Consue Springs



Physical

The Creeks wetland system is a broad, tidally influenced, wetland dominated by hydrophilic plant species. It is defined as a Salt Marsh coastal wetland resource area under 210 CMR 10.32. The extensive Creeks Salt Marsh transitions to a Bordering Vegetated Wetland resource area, defined under 310 CMR 10.55, which is dominated by Phragmites with some areas of Japanese knotweed.

Goose Pond was created in conjunction with the Consue Springs Stormwater Improvement/Tidal restoration project (DEP File #048-2880). The northerly edge of Goose Pond is partially defined by a timber bulkhead, which is functioning as a Coastal Bank resource area under 310 CMR 10.30 (Chpt. 136 2.05).

Much of the area falls within Land Subject to Coastal Storm Flowage (LSCSF) or VE9 as defined by 310 CMR 10.04 (Chpt. 136 2.10).

Plants

No official plant surveys have been conducted at Consue Springs, however regular visits to the site make the dominant species clear. East of the bike path, the dominant species are *Phragmites australis*, *Baccharis halimifolia*, *Fallopia japonica*, *Ilex verticillata*, and *Spartina spp.* West of the bike path, the plant community is heavily dominated by *Phragmites australis* and *Fallopia japonica*, with little variation.

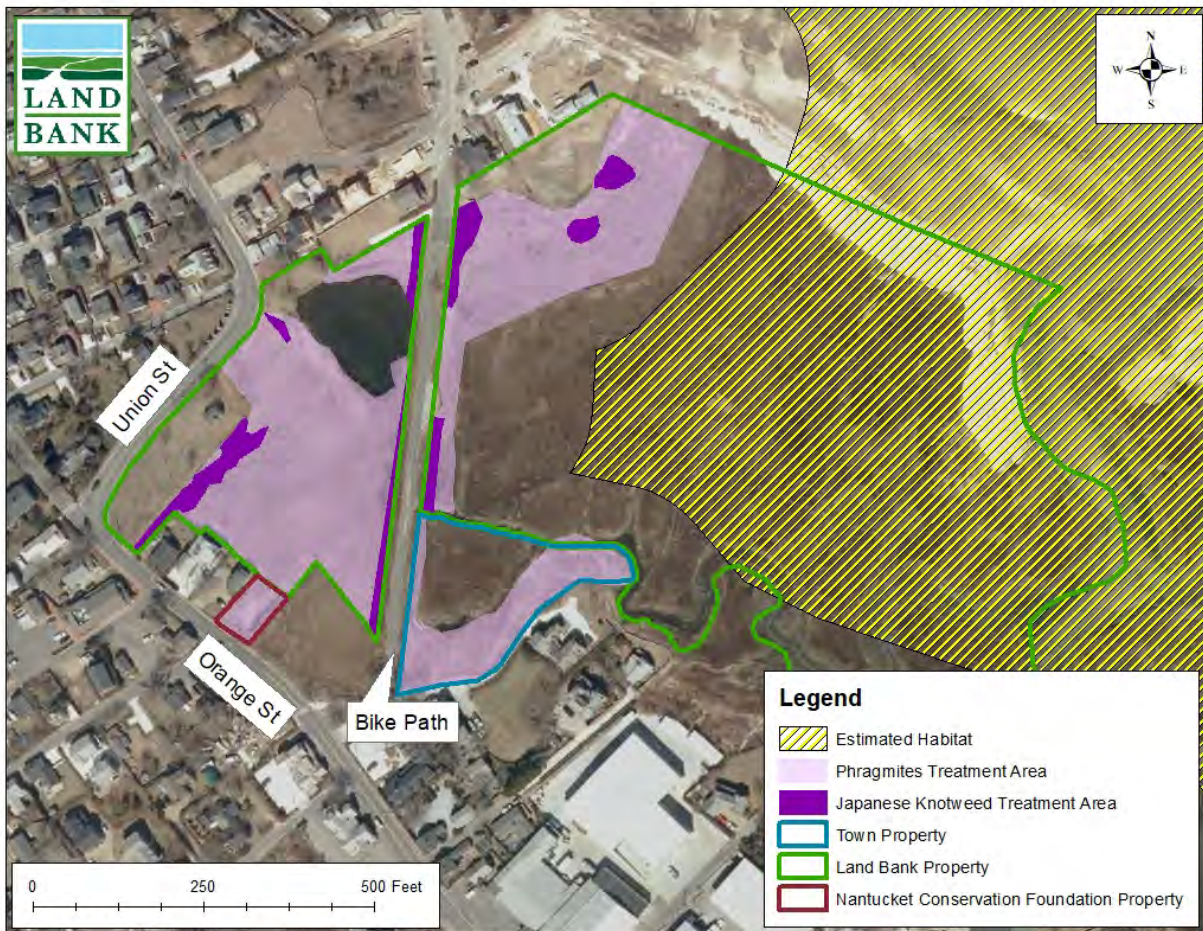
Animal Life

Due to the salinity gradient present at the site, there is the potential for an interesting suite of marine and freshwater species. Although a variety of invertebrates, fish, birds, and water dependent mammals are expected at Consue Springs, no detailed survey has been conducted.

Endangered Species

The Natural Heritage and Endangered Species Program (NHESP) of Massachusetts produces maps indicating priority and estimated habitats of protected species. The map for Consue Springs indicates that there is an area of Priority Habitat (PH) or Estimated Habitat (EH) in the center and eastern side of the Creeks, but that those habitats do not intersect with the proposed treatment area (Figure 5).

Figure 5. NHESP habitat mapping for Consue Springs area



Proposed Project

This project seeks to control Phragmites and Japanese knotweed in multiple areas around Consue Springs with foliar spray of an imazamox-based herbicide with the trade name Clearcast. A total of 4.69 acres will be treated, with the area spread out into three main concentrations and then skirting the border of the wetlands. The largest contiguous Phragmites stand is nearly two acres.

The herbicide Clearcast is proposed for use on Phragmites, with the addition of a vegetable oil-based surfactant called methylated seed oil or MSO. Clearcast is an effective and selective chemical control agent for invasive species and is especially beneficial to use on sites where selectivity to native grasses is desired.

A solution with an imazamox concentration of approximately 64 fl oz/A is suggested. The use of this concentration when broadcast spraying has demonstrated up to 80% control of Phragmites. The rate may be increased closer to 2% v/v or 96 oz/A to raise level of control beyond 80%. Clearcast operates systemically, making it particularly effective at killing the entire plant, including the root system. Its selectivity also allows for re-colonization of desirable plant species after treatment. Imazamox is absorbed through the leaves, stems, and roots of vegetation, where it binds with an enzyme which is only present in plants – this enzyme is not found in humans, mammals, birds, fish, or insects.

The treatment is typically performed during late August or early September. At this time, during the growing season, Phragmites plants are translocating starch reserves into their root systems in preparation for overwintering. As a result, treatment during this phase promotes better translocation of the herbicide into the root system and subsequently provides better initial control and usually improved long-term control.

Because effective chemical control of Phragmites is highly dependent on accessing and treating all of the growth, an amphibious vehicle may be used, allowing access and downward spray onto plants and minimizing drift. Spraying from a boat on the water side or on foot from the upland side will be employed as needed for best coverage. The herbicide and MSO surfactant spray mixture would be applied by a Massachusetts licensed applicator. Spray will be directed onto only Phragmites to the extent possible with maximum coverage. Additional species may be present in the targeted narrow fringe and subject to some damage, but this area is nearly a monoculture and loss of Phragmites allows for recovery of native vegetation over time.

One thorough application should provide substantial control; 80-90% control of Phragmites growth is common after the first treatment. Any remaining plants or regrowth would be targeted the following year. At least three consecutive years of herbicide treatment should be performed to achieve long-term control the Phragmites growth, with plans in place to allow control in subsequent years.

Treatment of Japanese knotweed will begin in May, with all areas of Japanese knotweed being weed-wacked or mowed repeatedly to deplete the plant's resources. Mowing will cease in early August and, similar to Phragmites, the plants will be treated with a low-volume foliar application in late August. The foliar spray will be a 3% solution of glyphosate containing a citrus-based surfactant to enhance penetration of the foliage. Glyphosate has proven effective against Japanese knotweed and therefore, is the best option at this time. After the density and size of plants is reduced by the initial application, future treatment techniques will combine spray techniques with foliar wipe.

Cutting of Phragmites and Japanese knotweed stalks following herbicide treatment is a helpful component of a successful control program. If the dead stalks are not cut post-treatment, they may stand in place for several seasons before they fully break off and begin to decompose. The dead stalks can impede the recolonization of the managed area by more desirable native vegetation and hinder identification of and access to regrowth in subsequent years.

Phragmites and Japanese knotweed stalks will be cut about 3 weeks after treatment, coarsely mulched, and left in place in the initial treatment year; this approach eliminates the stalks with the least amount of effort and limited impact to the site. Power aided cutting will be applied using a cutter bar towed behind an amphibious vehicle to be efficient while minimizing any impacts on non-target resources. Additional manual cutting will be applied, as necessary.

This NOI seeks permission to collect stalks if warranted and to use hydroraking or similar techniques to disturb the soil around root systems to enhance control during follow-up efforts in the second and third years post-treatment. One object is to minimize shoreline accumulations of dead material if substantial, reducing the organic load to the waterbodies. A second objective is to limit regrowth by disturbing root systems wherever regrowth is considered excessive, thereby limiting future need for herbicide application.

Anticipated Impacts

This project will minimize the growth of Phragmites and Japanese knotweed at Consue Springs. Based on substantial experience elsewhere on Nantucket, we expect to greatly reduce abundance of these invasive plants, to the point where other more desirable species can regain dominance and only nominal effort would be needed to maintain low Phragmites and Japanese knotweed density or eliminate it altogether.

Both imazamox and glyphosate have the potential to impact non-target plants and so we expect effects to other plant species in the treatment zone. To avoid herbicide drift, treatments should only occur on days when the winds are less than 15 miles per hour. Any non-target impacts are expected to be low on the landward side and negligible on the waterward side, based on known imazamox and glyphosate impacts (limited spray outside the target zone and minimal toxicity in water) and the spray pattern documented in recent projects. At the concentration to be applied, impacts to animal species should not occur.

Monitoring

Monitoring of similar invasive species treatment projects in the past has shown no indication of significant impacts to non-target organisms. There is always some risk in treating a widespread invasive species, but lack of treatment has repeatedly been documented to cause significant harm to the ecosystem. Treatment provides distinct benefits with limited risk, and the results of projects to date suggest that relatively little monitoring is needed if proper application procedures are followed. As the cost of treatment is substantial, diversion of funds to monitoring should focus on the populations with the highest risk. A demonstration of no lasting impact on non-target vegetation should be adequate to document project success under environmental statutes.

Five locations will be chosen within the overall treatment zone for vegetative monitoring. Plot locations will be established before treatment through a field survey, and a map of those locations will be provided to the Conservation Commission. Features will include species composition, relative abundance, and plant condition (evidence of herbicide impacts). Photographic evidence of plot condition will be provided. Assessments will occur within a month prior to treatment and in July, following treatment. This program will detect the desired impact on Phragmites and any substantial impacts to non-target plants. The surveyed plants are non-mobile and represent the most sensitive populations in the project area.

Alternatives Analysis

Alternatives to the proposed herbicide treatment programs were considered when developing a plan to reduce Phragmites. There are multiple possible approaches to Phragmites control, but each must be evaluated for applicability, reliability, non-target impacts, duration of benefits, and cost. For large scale projects such as what is being proposed for Consue Springs, there is no viable alternative to treatment with herbicide.

The no action alternative would allow conditions to continue as is. Habitat value would continue to be impaired. Recreational and aesthetic value would also be degraded. Given habitat value and economic considerations of Consue Springs for both residents and tourism, doing nothing is not a very responsible option.

Review Imazamox Risks

Trials of Clearcast have shown considerable success in terms of its efficacy and selectivity. It has been shown to maintain existing species diversity, particularly of herbaceous species. Studies have demonstrated that Clearcast is quickly absorbed by plant foliage and translocated throughout the plant where it concentrates in the actively growing portions of roots and shoots, which enhances the long term control of many perennial plant species. It is also safe for field application. Foliar applications are rainfast within an hour of application, have a relatively short half life of 10 to 14 days, and do not bioaccumulate in aquatic organisms. It also does not accumulate in soil or sediment, and is degraded by soil microorganisms.

Impact of Imazamox

In 2014, the Massachusetts Department of Agriculture Division of Crop and Pest Services and the Massachusetts Department of Environmental Protection Office of Research and Standards released a report on Imazamox, which reviews information that will be of interest to those reviewing this application.

Chemical Overview of Imazamox (info from mass.gov imazamox doc)

Imazamox first registered by the EPA in 1997 as a reduced risk pesticide. This designation

means that imazamox has low human health impacts, low toxicity to non-target organisms, a favorable environmental fate profile, and compatibility with Integrated Pest Management plans. In 2008, the EPA approved imazamox for vegetation control in and around aquatic sites, as well as terrestrial non-crop sites.

Imazamox is a member of the imidazolinone class of herbicides that also includes imazapic, imazapyr, imazethapyr, imazamethabenz, and imazaquin (SERA, 2010). It is used for control of most annual and perennial broadleaf weeds and grasses, woody species, and riparian and emergent aquatic weed species.

Imazamox is formulated both as an acid and as an isopropylamine salt. Uptake of imidazolinone herbicides is primarily through the foliage and roots. The herbicide is then translocated to buds or areas of growth by the xylem and phloem where it inhibits an enzyme involved in the synthesis of three essential amino acids (valine, leucine, isoleucine). These amino acids are required for protein synthesis and cell growth. Imazamox thus disrupts protein synthesis and interferes with cell growth and DNA synthesis, causing the plant to slowly die. These amino acids are not present in mammals, birds, fish, or invertebrates making it specifically toxic to plants (USEPA, 2008).

Human Health Risk Assessment

The EPA's 2001 hazard identification assessment report of imazamox demonstrates a low acute toxicity via the oral, dermal, and inhalation routes of exposure. Additional reviews examining the risk of exposure to applicants and general public conclude that imazamox applications, when done so following the correct protocols, will not pose substantial risk to humans or other species in terms of both acute and chronic exposure. Further information may be found in the literature, as well as the 2014 EPA report cited above.

Ecological Risk Assessment

The EPA's 2008 risk assessment of imazamox concluded that it is practically non-toxic to fish, aquatic invertebrates, and amphibians in freshwater and estuarine environments on an acute exposure basis, even at the highest concentrations tested. The only ecological group that experienced negative impacts that were within the level of concern were vascular plants. However, the data also show that the restoration of an ecosystem dominated by native plants will have a significant long-term net benefit to the plant and wildlife communities present at the site.

It is common in programs to control Phragmites to use a "sticking agent", a substance that causes the herbicide to adhere to the target plant. This improves effectiveness and reduces movement of the herbicide out of the target area. Some herbicides also use adjuvants, substances that enhance the absorption of the herbicide into the targeted plant tissue. This also improves effectiveness and reduces the time the herbicide is external to the plant and available for contact with other organisms. These sticking agents and adjuvants can themselves be toxic, but many are generated from natural plant products and are considered benign in the environment. Methylated seed oil of MSO is the surfactant that is often used with imazamox formulations. This is a vegetable oil-based additive that increases the ability of the herbicide to permeate the foliage.

Review of Glyphosate Risks

Impact of Glyphosate

An appendix to the 2004 GEIR for Eutrophication and Aquatic Plant Management in Massachusetts, freely available online through the DCR page at Mass.gov reviews many aspects of glyphosate use that will be of interest to those reviewing this application, and was approved by a panel as a reasonable assessment of this herbicide prior to publication by the Commonwealth.

Glyphosate is intended to disrupt cellular functions and kill target organisms, which include many but not all plants. It has possible carcinogenic properties to animals, including people, with prolonged exposure to high doses. No one should say that glyphosate is “safe” to use, but the actual risk to nearby residents, pond users, and aquatic fauna from a Phragmites treatment using glyphosate is negligible if used according to the label, which is the law with regard to use.

Formulations of Glyphosate

Glyphosate is an active ingredient in many herbicides, but it is not the sole ingredient in any, and the complete composition of a herbicide must be considered when evaluating possible impacts. Much has been written about problems with Round-Up (which we are not using), a terrestrial weed control product which contains glyphosate. In fact, the non-target impacts are almost entirely related to additives other than glyphosate, and impacts from Round-Up cannot be equated to impacts from glyphosate. Rodeo and AquaPro are two herbicides approved for use in aquatic habitats that contain glyphosate; neither contains the additives in Round-Up that have caused non-target impacts.

It is common in herbicide treatment programs to use a “sticking agent”, a substance that causes the herbicide to adhere to the target plant. This improves effectiveness and reduces movement of the herbicide out of the target area. Some herbicides also use adjuvants, substances that enhance the absorption of the herbicide into the targeted plant tissue. This also improves effectiveness and reduces the time the herbicide is external to the plant and available for contact with other organisms. These sticking agents and adjuvants can themselves be toxic, but many are generated from natural plant products and are considered benign in the environment. Cide-Kick is an additive that improves glyphosate performance but is based on plant extracts and not considered toxic or otherwise detrimental in the environment. A formulation of glyphosate approved for aquatic use and the additive Cide-Kick will be used in this project, as they were in the pilot program

Risk vs. Reward

We all make decisions daily about how to invest our time or money that are based on the balance of risk vs. reward. What to eat or drink or whether or not to get in the car and drive are simple examples. All involve risk, but we take those risks for what we perceive to be a reward that more than balances the chance of some negative outcome. Negative results can ensue – food poisoning or traffic accidents – but we know from experience that the chosen actions are either necessary or that the benefits usually outweigh the risks. Use of herbicides is very much the same; there are indeed risks of negative outcomes, but with proper planning and execution, an herbicide program can restore a healthy ecosystem faster and more economically than any

other method with inconsequential damage to non-target organisms, including people.

Many of the complaints or cited studies from opponents of herbicide use focus on the risks and virtually ignore the benefits. There are indeed risks, but just like with the IARC study, the risks being emphasized may not be relevant to an invasive species control project. Studies of intense and repeated herbicide use on crops, often coupled with genetic modification of crop species to tolerate herbicides, raise legitimate questions about risks to consumers, but this has virtually no relation to an application of glyphosate to dense stands of Phragmites, conducted by a licensed applicator using approved products in accordance with their legal label restrictions. Even with follow-up treatment on any areas of regrowth for years after initial treatment, the exposure and risk are minimal.

The benefits of treatment have been documented over and over; Phragmites dominance lowers vegetative diversity, diminishes habitat for most species, impairs access for people and other pond users, and can lower property value with implications for the tax base and local economics. This is not an abstract issue, but a very real consideration for government. Virtually every state agency involved with environmental management supports herbicide treatment of Phragmites as the most effective, efficient, and economic approach. Existing alternatives are more expensive and carry risks of their own; it is hard to imagine approval of a burning program on any significant scale on Nantucket, and the impact of excavating Phragmites stands would far exceed anything possible with herbicides.

The question really boils down to whether or not there is a will to combat invasive species and the problems they bring. One can have reasoned philosophical debate over whether control can be achieved with the available resources (eradication is very difficult and some degree of continuing control effort is usually needed) or when a species is no longer invasive (incorporated into the local community with less impact), but there is no denying that lack of sustained action has had a major impact on the island and the potential for great impact at Consue Springs is very real. Phragmites has expanded to become the unquestionably dominant species in the wetland area. Water quality deterioration and habitat limitations are likely compounded by Phragmites dominance. There is little question that rapid response to a new invasion is most effective and economical, but that opportunity has long passed in this situation. Ecologically significant areas like Consue Springs deserve restoration and rehabilitation. We hope that the Conservation Commission will act as a partner in sound environmental management.

Abutters Listing

| MBLU | Lot | Lot Cut | Owner Full Name | Co-Owner Full Name | Address Line 1 | City | State | Zip | Location |
|------|-----|---------|-------------------------------------|----------------------------|----------------------------|-------------------|-------|-------------------|--------------------|
| 55 | 46 | | LORING PATRICIA H | | 5 BRIGANTINE LN | NORTH QUINCY | MA | 02171 | 5 GOOSE POND LN |
| 55 | 47 | | LANG SONIA | | 60 BLENHEIM DR | OTTAWA ONTARIO | | CANADA K1L 5B5 | 10 SPRUCE ST |
| 55 | 49 | | US REIF MARINE NANTUCKET FEE LLC | | 1270 SOLDIERS FIELD RD | BOSTON | MA | 02135 | 134 ORANGE ST |
| 55 | 51 | | BUTSWINKAS DANE H ETAL | | 7 WEST KIRKE STREET | CHEVY CHASE | MD | 20815 | 6 HARBOR TERR |
| 55 | 52 | | HUNTER WILLIAM F TRST | C/O HOLLISTER | 101 CHESTNUT STREET APT H | BOSTON | MA | 02108 | 12 E CREEK RD |
| 55 | 57 | | HUNTER WILLIAM F TRST | C/O HOLLISTER | 101 CHESTNUT STREET APT H | BOSTON | MA | 02108 | 4 HARBOR TERR |
| 55 | 58 | | NANTUCKET ISLANDS LAND BANK | | 22 BROAD STREET | NANTUCKET | MA | 02554 | 16 E CREEK RD |
| 55 | 59 | | NANTUCKET TOWN OF | | 16 BROAD ST | NANTUCKET | MA | 02554 | 9 E CREEK RD |
| 55 | 60 | | ANCHIALINE PROPERTIES LLC | | 1801 PAGE MILL ROAD | PALO ALTO | CA | 94304 | 19 E CREEK RD |
| 55 | 276 | | NANTUCKET TOWN OF | | 16 BROAD ST | NANTUCKET | MA | 02554 | WASHINGTON ST |
| 55 | 301 | 1 | YOUNG BRENT B | | 118 ORANGE ST | NANTUCKET | MA | 02554 | 118A ORANGE ST |
| 55 | 301 | 2 | YOUNG JULIE TR | YOUNG JULIE TRUST 2018 | PO BOX 474 | NANTUCKET | MA | 02554 | 118B ORANGE ST |
| 55 | 301 | 3 | YOUNG BRENT B | | 118 ORANGE ST | NANTUCKET | MA | 02554 | 118C ORANGE ST |
| 55 | 301 | 4 | YOUNG JULIE TR | YOUNG JULIE TRUST 2018 | PO BOX 474 | NANTUCKET | MA | 02554 | 118D ORANGE ST |
| 55 | 301 | 5 | YOUNG BRENT B | | 118 ORANGE ST | NANTUCKET | MA | 02554 | 118E ORANGE ST |
| 55 | 301 | 6 | YOUNG JULIE TR | YOUNG JULIE TRUST 2018 | PO BOX 474 | NANTUCKET | MA | 02554 | 118F ORANGE ST |
| 55 | 301 | 7 | YOUNG BRENT B | | 118 ORANGE | NANTUCKET | MA | 02554 | 118 G ORANGE ST #7 |
| 55 | 361 | | HOLSTEIN ARTHUR G & LISA L TRS | HUNTER QUINN NOMINEE TRUST | 1213 W EDDY ST | CHICAGO | IL | 60657 | 109 ORANGE ST |
| 55 | 362 | | PORRINI CYNTHIA STENTA ETAL | | 11 WINDING WAY | WAYNE | PA | 19087 | 111 ORANGE ST |
| 55 | 363 | | ROSE FRANK E III & JAYNE L | | 5905 BRYN MAWR RD | COLLEGE PARL | MD | 20740 | 113 ORANGE ST |
| 55 | 364 | | ROSE GRACE J TRUSTEE | ROSE NOMINEE TRUST | 95 UNIVERSITY AVE APT 2234 | WESTWOOD | MA | 02090 | 115 ORANGE ST |
| 55 | 377 | | CALLEN MILLER INC | | 19 AMELIA DR | NANTUCKET | MA | 02554 | 117 ORANGE ST |
| 55 | 396 | 1 | GAMPETRO ANTHONY J & | HOFFMAN RONALD W | 130 EAST 75TH ST APT 9C | NEW YORK | NY | 10021 | 102 ORANGE ST |
| 55 | 397 | | HOFFMAN RONALD W & | GAMPETRO ANTHONY J | 130 EAST 75TH ST APT 9C | NEW YORK | NY | 10021 | 85 UNION ST |
| 55 | 399 | | KEENAN AMANDA M TR | | 367 MOHEGAN PARK RD | NORWICH | CT | 06360 | 104 ORANGE ST |
| 55 | 400 | 1 | GLIDDEN RICHARD J TRST | C/O DONATO MARK | 106 ORANGE ST | NANTUCKET | MA | 02554 | 106 A ORANGE ST |
| 55 | 400 | 2 | DONATO MARK F TR | | PO BOX 19 | SIASCONSET | MA | 02564 | 106 B ORANGE ST |

| | | | | | | | | | |
|---------------|-----------|---|-----------------------------------|----------------------------|--------------------------|-------------|----|-------|--------------------|
| 55 | 401 | 1 | MCKENNA KAREN | | 15 RIVER STREET #603 | BOSTON | MA | 02108 | 110 A ORANGE ST |
| 55 | 401 | 2 | CLAYTON JEFFREY | | 525 LAFAYETTE ST APT 408 | BATON ROUGE | LA | 70802 | 110 B ORANGE ST #2 |
| 55 | 402 | | NANTUCKET CONSERVATION FOUND I | | PO BOX 13 | NANTUCKET | MA | 02554 | 112 ORANGE ST |
| 55 | 403 | | CHARDER BARBARA ANN | C/O CHARDER ARA | P O BOX 734 | NANTUCKET | MA | 02554 | 114 ORANGE ST |
| 55 | 412 | | VALERO RICHARD A & GALE L | | 1 GOOSE POND LN | NANTUCKET | MA | 02554 | 1 GOOSE POND LN |
| 55 | 413 | | VALERO SHANE RICHARD TRUSTEE | POVERTY POINT REALTY TRUST | 1 GOOSE POND LANE | NANTUCKET | MA | 02554 | 8 SPRUCE ST |
| 55 | 414 | | NANTUCKET TOWN OF | | 16 BROAD ST | NANTUCKET | MA | 02554 | 6 GOOSE POND LN |
| 5514 | 12 | | SAYLE JUDITH A & WILLIAM R TRST | | PO BOX 1233 | NANTUCKET | MA | 02554 | 112 WASHINGTON ST |
| 5514 | 13 | | SAYLE KATHLEEN TR | SAYLE 114 WASHINGTON TRUST | PO BOX 1062 | NANTUCKET | MA | 02554 | 114 WASHINGTON ST |
| 5514 | 14 | | KERSHAW THOMAS A | | 84 BEACON STREET | BOSTON | MA | 02108 | 121 WASHINGTON ST |
| 5514 | 14 | 1 | 75 NANTUCKET LLC | | 84 BEACON STREET | BOSTON | MA | 02108 | 2 DUCK POND LN |
| 5514 | 16 | | MACLEAN WILLIAM Q JR TRS | THE MACLEAN NOMINEE TRUST | PO BOX 230 | FAIRHAVEN | MA | 02719 | 2 SPRING ST |
| 5514 | 39 | | DITCH INVESTMENTS LLC | | 280 DREXEL LANE | GLENCOE | CO | 60022 | 115 WASHINGTON ST |
| 5514 | 40 | | LENIHAN ASHLEY T & ROBERT J III | | 284 WOODCOCK LANE | AMBLER | PA | 19002 | 82 UNION ST |
| 5514 | 41 | 2 | LIEBERMAN CARL M & KARIN A | | BOX 2518 | NANTUCKET | MA | 02584 | 79 UNION ST |
| Count: | 42 | | | | | | | | |

TOWN OF NANTUCKET
CONSERVATION COMMISSION

LIST OF PARTIES IN INTEREST IN THE MATTER OF THE PETITION OF:

PROPERTY OWNER..... Nantucket Land Bank.....
MAILING ADDRESS..... 22 Broad St. Nantucket, MA 02554.....
PROPERTY LOCATION..... Consue Springs.....
ASSESSOR MAP/PARCEL..... 55 398; 55 404; 55 404.1; 55 404.2; 55.1.4 15; 55 414; 55 415; 55 642.....
SUBMITTED BY..Guthrie Diamond.....

SEE ATTACHED PAGES

I certify the foregoing is a list of persons who are owners of land directly abutting the property on which the proposed activity will occur (the locus), owners of land separated a distance of one hundred feet or less from the locus by a public or private street or way or stream and owners of land separated a distance of three hundred feet or less from the locus by a body of water, all as they appear on the most recent applicable tax list.

DATE

ASSESSOR'S OFFICE
TOWN OF NANTUCKET

Appendix A: Property Owner Information

| | | | |
|----|---|---------------------------------|---------------------------|
| 1. | 90 Union Street Owner: Nantucket Islands Land Bank | Map: 55 Book: 896 | Parcel: 398 Page: 0182 |
| 2. | 86 Union Street Owner: Nantucket Islands Land Bank | Map: 55 Book: 1019 | Parcel: 404 Page: 164 |
| 3. | 84 Union Street Owner: Nantucket Islands Land Bank | Map: 55 Book: 1657 | Parcel: 404.1 Page: 30 |
| 4. | 84R Union Street Owner: Nantucket Islands Land Bank | Map: 55 Book: 1657 | Parcel: 404.2 Page: 30 |
| 5. | Consue Springs Owner: Nantucket Islands Land Bank | Map: 55.1.4 Book: 1657 | Parcel: 15 Page: 30 |
| 6. | 112 Orange Street Owner: Nantucket Conservation foundation | Map: 55 Book: 149 | Parcel: 402 Page: 38 |
| 7. | Washington Street Owner: Nantucket Islands Land Bank | Map: 55 Certificate #: 27238 | Parcel: 145 |
| 8. | 6 Goose Pond Lane Owner: Town of Nantucket | Map: 55 Book: 683 | Parcel: 414 Page: 250 |
| 9. | Goose Pond Lane Owner: Town of Nantucket | Map: 55 Book: 683 | Parcel: 642 Page: 250 |