

**ELDREDGE SURVEYING
& ENGINEERING, LLC**

1038 Main Street
Chatham, Massachusetts 02633

LETTER OF TRANSMITTAL

To: Town of Chatham
Conservation Commission

From: J. Thaddeus Eldredge, PLS

Date: October 24, 2017

Subject: **303 Old Queen Anne Road**
Marcy Urban Singer, Owner/Applicant

Enclosed please find two (2) copies of the following:

- Notice of Intent Form** - (*form revised 06/28/2016*);
- Restoration / Planting Plan** prepared by Blueflax Design, dated 10-23-2017;
- Land Management Plan Plan** prepared by Blueflax Design, dated 10-23-2017;
- Conservation Areas;**
- Exhibits**
 - **U.S.G.S. Map;**
 - **Assessors Map;**
 - **DEM Wetlands Map;**
 - **Massachusetts Natural Heritage Atlas, Estimated Habitats of Rare Wildlife and Certified Vernal Pools;**
 - **July 16, 2014 Flood Zone Map;**
- Copy of **Notice of Public Hearing / "Notification to abutters"**;
- Certified abutters list;**
- Site Access Authorization;**
- Limited Power of Attorney** appointing J. THADDEUS ELDREDGE, PLS and his employees as their Attorney-in-fact to execute documents, etc.
- Copy of **U.S. Postal Service Certified Mail Receipts for Notification of all abutters;**
- Chatham Checklist;
- Check made payable to the Town of Chatham in the amount of **\$137.50** for the

town portion of DEP **filing fee, \$67.50**; Local **filing fee, \$50.00**; and **advertising fee, \$20.00**;

- Copy of check made payable to the Commonwealth of Massachusetts in the amount of **\$42.50** for DEP **filing fee.**; and
- Check made payable to **Natural Heritage and Endangered Species Program** in the amount of **\$300.00**.

Also please find twelve (12) copies of the following:

- Copy of this **Letter of Transmittal**, which includes **Directions** to the site;
- Chatham **Checklist**;
- Restoration / Planting Plan** prepared by Blueflax Design, dated 10-23-2017;
- Land Management Plan Plan** prepared by Blueflax Design, dated 10-23-2017; and
- 2014 Flood map** with locus.

DIRECTIONS

From: 261 George Ryder Road, Chatham, MA 02633
To: 303 Old Queen Anne Road, Chatham, MA 02633

- Head northeast on George Ryder Rd toward Indian Hill Rd 0.5 mi
- Turn right onto Old Queen Anne Rd
- Destination will be on the right

NARRATIVE

The applicant recently purchased the property. She contacted Blueflax Design as the previously required restoration did not seem to be correctly managed. The applicant would like to take the opportunity to also regrade her lawn to better use this space. This is incorporated by severing additional developed land from the property by means of a landscape wall.

Copy: DEP, Southeast Regional Office
Marcy Singer



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
Chatham
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):

<u>303 Old Queen Anne Road</u> a. Street Address	<u>Chatham</u> b. City/Town	<u>02633</u> c. Zip Code
Latitude and Longitude:		
<u>11G</u> f. Assessors Map/Plat Number	<u>36A-G27</u> g. Parcel /Lot Number	<u> </u> e. Longitude

2. Applicant:

<u>Marcy</u> a. First Name	<u>Singer</u> b. Last Name	
<u>Marcy Urban Singer Living Trust</u> c. Organization		
<u>35 West Hill Road</u> d. Street Address		
<u>Mendon</u> e. City/Town	<u>MA</u> f. State	<u>01756</u> g. Zip Code
<u>508 572-0005</u> h. Phone Number	<u> </u> i. Fax Number	<u>msinger@comcast.net</u> j. Email Address

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

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

4. Representative (if any):

<u>J. Thaddeus</u> a. First Name	<u>Eldredge</u> b. Last Name	
<u>Eldredge Surveying & Engineering, LLC</u> c. Company		
<u>1038 Main Street</u> d. Street Address		
<u>Chatham</u> e. City/Town	<u>MA</u> f. State	<u>02633</u> g. Zip Code
<u>508-945-3965</u> h. Phone Number	<u>508-945-5885</u> i. Fax Number	<u>office@ese-llc.com</u> j. Email address

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

<u>\$110.00</u> a. Total Fee Paid	<u>\$42.50</u> b. State Fee Paid	<u>\$67.50</u> c. City/Town Fee Paid
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A. General Information (continued)

6. General Project Description:

Implementation of Land Management Plan with regrading and proposed landscape wall.

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

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

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

1. Yes No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

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:

Barnstable

a. County

30497

c. Book

b. Certificate # (if registered land)

267

d. Page Number

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

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

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



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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input checked="" type="checkbox"/> Bank	<u>25</u> 1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

- 25 ft. - Designated Densely Developed Areas only
- 100 ft. - New agricultural projects only
- 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

a. total square feet	b. square feet within 100 ft.	c. square feet between 100 ft. and 200 ft.
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5. Has an alternatives analysis been done and is it attached to this NOI? Yes No

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

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

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



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

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

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

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, Restoration/Enhancement, and Project Involves Stream Crossings.



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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

- a. Yes No

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

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

August 1, 2017

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area 2% / 0.01 Ac +/-
percentage/acreage

(b) outside Resource Area 28% / 0.13 Ac +/-
percentage/acreage

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

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

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

- (b) Photographs representative of the site

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

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



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

(c) MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhosp/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/nhosp/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, hand delivery, or electronic delivery of NOI to either:

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

Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
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 Office
Attn: Environmental Reviewer
30 Emerson Avenue
Gloucester, MA 01930
Email: DMF.EnvReview-North@state.ma.us

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

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

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

D. Additional Information

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

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

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

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



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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.

Restoration / Planting Plan

a. Plan Title

Blueflax Design, LLC

b. Prepared By

October 23, 2017

d. Final Revision Date

c. Signed and Stamped by

20

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:

7118

2. Municipal Check Number

7119

4. State Check Number

Eldredge Surveying & Engineering, LLC

6. Payor name on check: First Name

October 24, 2017

3. Check date

October 24, 2017

5. Check date

7. Payor name on check: Last Name



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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

3. Signature of Property Owner (if different)

4. Date

5. Signature of Representative (if any)

6. Date

10-24-17

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.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
NOI Wetland Fee Transmittal Form
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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



A. Applicant Information

1. Location of Project:

<u>303 Old Queen Anne Road</u>	<u>Chatahm</u>
a. Street Address	b. City/Town
<u>7119</u>	<u>\$42.50</u>
c. Check number	d. Fee amount

2. Applicant Mailing Address:

<u>Marcy</u>	<u>Singer</u>	
a. First Name	b. Last Name	
<u>Marcy Urban Singer Living Trust</u>		
c. Organization		
<u>35 West Hill Road</u>		
d. Mailing Address		
<u>Mendon</u>	<u>MA</u>	<u>01756</u>
e. City/Town	f. State	g. Zip Code
<u>508-572-0005</u>	<u>msinger@comcast.net</u>	
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

<u></u>	<u></u>	
a. First Name	b. Last Name	
<u></u>		
c. Organization		
<u></u>		
d. Mailing Address		
<u></u>	<u></u>	<u></u>
e. City/Town	f. State	g. Zip Code
<u></u>	<u></u>	<u></u>
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).



Massachusetts Department of Environmental Protection
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B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Land Management Plan with Grading	1	\$110.00	\$110.00
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Step 5/Total Project Fee:			\$110.00
Step 6/Fee Payments:			
Total Project Fee:			\$110.00
			a. Total Fee from Step 5
State share of filing Fee:			\$42.50
			b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:			\$67.50
			c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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



Google Earth image of 303 Old Queen Anne Road, in Chatham, Massachusetts. The property line is shown with a dashed white line. The proposed restoration area is shaded in yellow and areas of additional native plantings are shaded in green.

Plan Notes

- Site Plan provided by Eldredge Surveying and Engineering LLC, dated August 30, 2017.
- Total proposed restoration area is approximately 6,578 square feet
- One hydrangea (*Hydrangea paniculata*) and one summersweet (*Clethra alnifolia*), currently obscuring the path leading to the top of the wooden stairs, will be transplanted to maintain a width of four feet for easy access.
- A total of 27 trees are proposed to be removed. After careful evaluation these trees were found to either be dead, in poor health, or poorly placed (in such close proximity to other trees such that the health of both trees will be diminished). Many of these trees are girdled by guy-lines that were left in place for several years after planting, have been pruned improperly, or are rotting, all of which indicate very low probability of survival. Removal would also allow sunlight to penetrate the canopy to establish a healthy native groundcover. BlueFlax Design LLC will work with the Chatham Conservation Commission to verify necessity of tree removal.
- On the northwest side of the stairs approximately 1,069 square feet (circled in red) of native tree saplings as well as arrowwood viburnum, red chokeberry, bayberry, and serviceberry (originally planted too close together) have grown tall and thin, with virtually no foliage below. In this area, saplings ($\leq 3"$ diameter at breast height) will be thinned to a distance of 10 feet apart to allow for sub-canopy and groundcover regeneration, and allow trees to reach a healthy, mature size.
- A thick cluster of willows (*Salix spp.*) (circled in blue) growing at the base of the stairs will be thinned to decrease stagnation of water on the edge of the bank and improve access to put a kayak into the water.
- Three cherry trees (*Prunus serotina*) will be left in place, but managed to improve their health by selective regenerative pruning, flush cutting, or reassessment after adjacent trees are removed.
- A total of 19 native shrubs including black chokeberry (*Aronia melanocarpa*), aromatic sumac (*Rhus aromatica*) and arrowwood viburnum (*Viburnum dentatum*), are proposed for replanting in the voids created by tree and invasive species removal. These will be allowed to naturalize and reach mature fruiting height, requiring minimal management and disturbance once intensive invasive species management is complete.
- Non-native and invasive species present on site include Asiatic bittersweet (*Celastrus orbiculatus*), Japanese knotweed (*Fallopia japonica*), english ivy (*Hedera helix*), autumn olive (*Elaeagnus umbellata*) and porcelain berry (*Amepolopsis brevipedunculata*). Species present that are not State-listed as invasive, but noted as aggressive, include native poison ivy (*Toxicodendron radicans*) and native greenbriar (*Smilax rotundifolia*).
- A mix of selective herbicide treatment, mechanical, and hand removal will be used to manage invasive vegetation.
- All vegetation debris will be removed from the site and brought to an off site disposal area.
- Existing healthy native vegetation identified on site including pitch pine (*Pinus rigida*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), arrowwood viburnum (*Viburnum dentatum*), serviceberry (*Amelanchier canadensis*), black chokeberry (*Aronia melanocarpa*), and oak (*Quercus spp.*) will be protected during the invasive species and tree removal process. Some regenerative pruning will be required to improve the health of plants that have grown too tall and thin.
- After the first phase of tree removal and invasive species management is complete, the restoration area will immediately be seeded with a native mix of cool and warm season grasses and wildflowers and covered with chopped straw (See "Shady Steep Slope Seed Mix" for details). Replanting of woody vegetation will begin in Fall 2018.
- A two-foot retaining wall will be built at the base of the lawn (outside of the 50' buffer zone) to allow for re-grading of the existing lawn and mulched beds from a 20% slope to a 9% slope. A set of six, in-ground steps will be installed to maintain access to the path below. Typical landscaping/native perennials will be planted in place of the mulched beds below the retaining wall.
- Temporary irrigation will be required for the first two to three growing seasons while plants establish. Once plants are established irrigation will be removed.
- Follow up invasive species management will be ongoing over the next three growing seasons.
- Please see the accompanying Land Management Plan for a detailed management protocol and time-line for invasive species management.



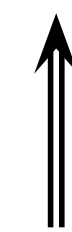
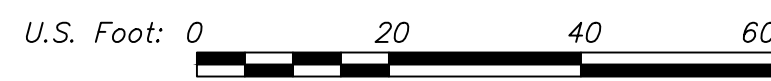
EXISTING VEGETATION LEGEND

Code	Scientific Name	Common Name	Code	Scientific Name	Common Name
TREES			SHRUBS		
A	<i>Acer spp.</i>	maple	Ca	<i>Clethra alnifolia</i>	summersweet
Eu	<i>Elaeagnus umbellata</i>	autumn olive	Hp	<i>Hydrangea paniculata</i>	hydrangea
Ns	<i>Nyssa sylvatica</i>	tupelo	Iv	<i>Illex verticillata</i>	winterberry
Pist	<i>Pinus strobus</i>	white pine			
Pr	<i>Pinus rigida</i>	pitch pine			
Ps	<i>Prunus serotina</i>	black cherry			
Q	<i>Quercus spp.</i>	oak			

- Existing tree will remain
- Existing tree will be removed
- Existing stump or dead tree will be removed
- Existing shrub

PLANT SCHEDULE

SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	QTY
	<i>Aronia melanocarpa</i> / Chokeberry	3 gal	4
	<i>Rhus aromatica</i> / Fragrant Sumac	1 gal	4
	<i>Viburnum dentatum</i> / Viburnum	7 gal	6
SHADY STEEP SLOPE SEED MIX			
	<i>Agrostis perennans</i> / Autumn Bentgrass	15%	- seed
	<i>Deschampsia flexuosa</i> / Wavy Hair Grass	30%	- seed
	<i>Dryopteris marginalis</i> / Marginal Shield Fern	4"	pots 18" oc
	<i>Festuca rubra rubra</i> / Creeping Red Fescue	35%	- seed
	<i>Rudbeckia hirta</i> / Black-eyed Susan	5%	- seed
	<i>Schizachyrium scoparium</i> / Little Bluestem Grass	10%	- seed
	<i>Solidago odora</i> / Sweet Goldenrod	5%	- seed
	Typical Landscaping / Native Perennials		



RESTORATION/PLANTING PLAN | OCTOBER 23, 2017
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BlueFlax

fine landscape design with nature in mind

LAND MANAGEMENT PLAN

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October 23, 2017

MARCY SINGER

303 OLD QUEEN ANNE ROAD

CHATHAM, MASSACHUSETTS

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Introduction

The property located at 303 Old Queen Anne Road is located in Chatham, on the edge of Emery Pond and includes a single-family residence, lawn area, deck and wooded slope. The property was recently acquired by Marcy Singer in 2017. The site has a history of multiple conservation violations under the previous owner, including unapproved removal of pitch pines and other trees along the slope within the adjacent upland resource area. The area was restored post-clearing in 2011, but was then left unmanaged from 2011 - 2017. The current goal for the property is to restore and revitalize the existing overgrown, unhealthy vegetation within the resource area and adjacent upland resource areas and to stabilize the slope that falls within the 50-foot buffer zone.

This Land Management Plan and accompanying Restoration/Planting Plan have been prepared to address identified land management issues, while supporting the following interests of the Massachusetts Wetlands Protection Act (sections 10.55 and 10.54) and the Town of Chatham Wetland Protection Regulations (sections 3.01, 3.02 and 4.01):

- Storm Damage Prevention
- Flood Control
- Protection of Wildlife Habitat
- Protection of Public and Private Water Supply
- Protection of Groundwater Supply
- Prevention of Pollution
- Erosion and sedimentation control

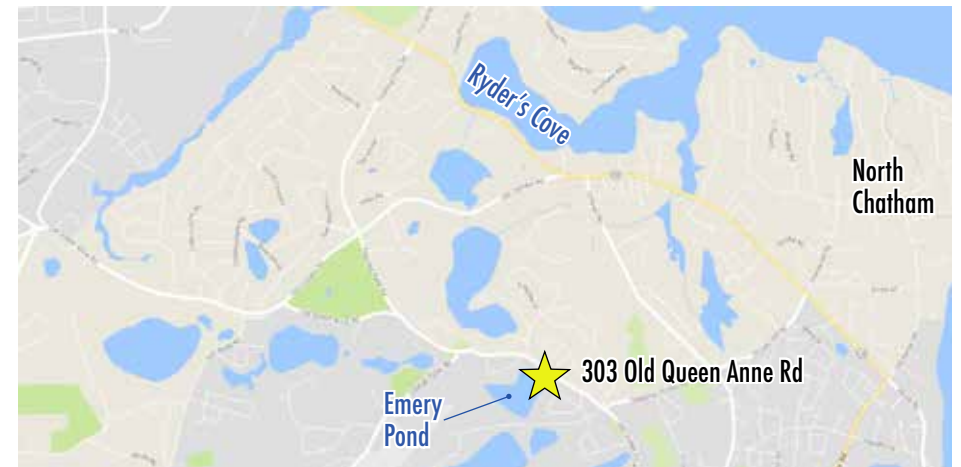
The main actions to be addressed in this Plan are:

- Management/selected removal of over-crowded, unhealthy vegetation located in the adjacent upland resource areas.
- Restoration of a healthy native groundcover layer within the adjacent upland resource areas.
- Restoration and enhancement of the native tree and understory / shrub layer with native species with high wildlife habitat value (forage, breeding, cover etc.).
- Regrading of currently existing lawn and mulched areas, installation of two-foot retaining wall and in-ground steps.

Project Area

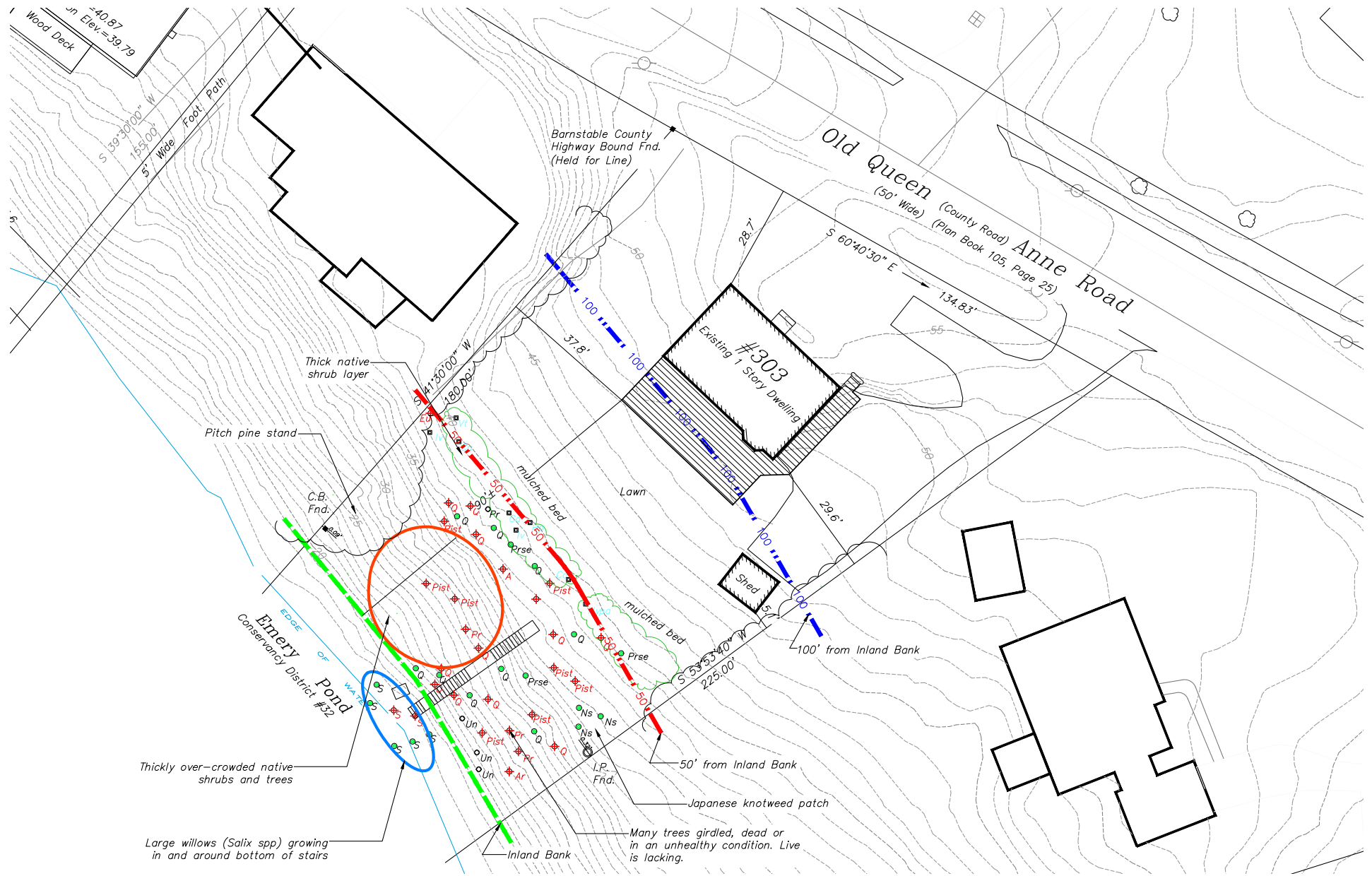


Google Earth image of 303 Old Queen Anne Road in Chatham, Massachusetts. The proposed restoration area is in yellow.

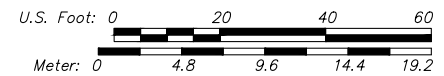


Locus map of 303 Old Queen Anne Road, Chatham, Massachusetts.

Existing Conditions Map



- Tree in healthy condition
- Tree in poor condition or over-crowded
- Shrub
- Dead tree or stump



Existing Conditions

The property at 303 Old Queen Anne Road sits on the northeastern edge of Emery Pond in Chatham. The southwest property line runs along the edge of the pond and the edge of an adjacent vegetated wetland. A set of elevated wood stairs runs from the edge of the vegetated wetland to the top of the southwest-facing slope. A single family dwelling sits above the slope just outside the adjacent upland resource areas. The boundary of the 100-foot buffer zone bisects an elevated deck on the backside of the house. Lawn and two mulched beds lie between the house and the top of the slope within the 50- to 100-foot buffer, where the vegetation transitions into viburnum (*Viburnum spp.*), summersweet (*Clethera alnifolia*), black chokeberry (*Aronia melanocarpa*), pitch pine (*Pinus rigida*), white pine (*Pinus strobus*), oak (*Quercus spp.*), maple (*Acer spp.*) bayberry (*Myriaca pensylvanica*), and tupelo (*Nyssa sylvatica*).

The vegetation within the 0- to 50-foot buffer is heavily over-crowded, and has become unhealthy. Many trees, which were planted in previous restoration efforts by a third party consultant, are now dead or girdled. Many of the surviving trees and shrubs are spindly, only having foliage on the uppermost branches and/or are covered in native greenbrier (*Smilax rotundifolia*), an aggressive plant species that is further inhibiting their growth. There is very limited to no living groundcover, leaving the soil bare and vulnerable to erosion. Large willows (*Salix spp.*) are growing around the base and in the structure of the wooden stairs within the adjacent vegetated wetland.

Invasive species observed on site in September 2017 include porcelain berry (*Ampelopsis brevipedunculata*), Asiatic bittersweet (*Celastrus orbiculatus*), autumn olive (*Elaeagnus umbellata*), Japanese barberry (*Fallopia japonica*), and English ivy (*Hedera helix*). Native plant species present that are aggressive and can overwhelm or displace other native vegetation includes poison ivy (*Toxicodendron radicans*) and greenbrier (*Smilax rotundifolia*).

Resource areas within the property include:

- Inland Bank
- Vegetated wetland
- Great Pond (10 acres)



View of slope looking east where sub-canopy foliage and live ground cover are lacking.



View of slope looking northeast where previously installed guy-lines have girdled white pine trees.

Existing Conditions (continued)

Photographs taken in September 2017



View of slope looking north where sub-canopy foliage and live groundcover are lacking.



View of the base of the steps looking southwest where willow (*Salix* spp) are growing in the base of the steps around on the pond edge.



View looking southwest from the existing dwelling toward the brushline and top of the slope. Native shrubs at the top of the slope are healthy, but two shrubs block the top of the path.



View of slope looking north where sub-canopy foliage and live groundcover are lacking.

Goals and Objectives

GOAL 1: Improve existing wildlife habitat function and value within resource area and adjacent upland resource areas.

- Manage existing native vegetation to improve plant health and ecosystem function including the thinning, selective pruning or flush cutting of dead or damaged native trees and shrubs. (Work with the Chatham Conservation Commission to verify necessity of tree removal).
- Manage invasive plant species within the resource areas and adjacent upland resource areas.
- Restore appropriate native plant species within the resource areas and adjacent upland resource areas.

GOAL 2: Enhance the integrity of the resource area and adjacent upland resource areas, ensuring they are stable and provide functions as defined in the Massachusetts Wetlands Protection Act and the Chatham Wetland Protection Regulations.

- Stabilize the slope by establishing a native ground cover.
- Regenerate understory canopy by thinning trees and flush cutting shrubs

GOAL 3: Meet functional goals of the client.

- Maintain four-foot-wide path leading to the top of the wooden staircase
- Reduce the area upland of the 50-foot buffer from a 20 percent slope to a 9 to 11 percent slope and plant existing mulched beds with typical landscaping/native perennials.
- Improve access to the pond

The three main purposes and goals of restoring and/or enhancing the vegetated buffer are to help bind soils, thereby reducing erosion and sedimentation; to slow runoff, allowing infiltration; and to provide wildlife habitat (forage, nesting, breeding, cover etc.), reducing habitat fragmentation wherever and whenever possible. Vertical layers of vegetation within a vegetated buffer allow water flow to spread out, slow down, infiltrate and be filtered by soil and/or be intercepted and transpired by plants.

Thinning, selectively pruning, and flush cutting existing dead or damaged native vegetation are important processes for regenerating sub-canopy foliage and subsequently the health of the trees or shrubs to ensure they are carrying out their intended functions as soil stabilizers and wildlife habitat. This will also open gaps in the canopy for the sunlight penetration necessary to establish a substantial native groundcover.

The proposed project will not destroy or permanently alter any portion of the resource areas and will not have any adverse effects on the resource areas' functions as stated in the Massachusetts Wetlands Protection Act. According to the Natural Heritage and Endangered Species Program there is no estimated or priority habitats of rare species on this property. The proposed invasive species management project and restoration/replanting measures will have no adverse impact on the resource areas or adjacent upland resource areas. The proposed project will enhance and protect the functions of the resource areas and adjacent upland resource areas, and the stated interests of the State Wetlands Protection Act and the Chatham Wetland Regulations. Please see Appendix A of this document for information regarding State and Local Performance Standards.

Vegetation Restoration/Invasive Species Removal

The project will begin with removal of dead or damaged trees (as marked on the plan). Native shrubs in poor health will be flush cut and allowed to regenerate. Three cherry trees (*Prunus serotina*) will be selectively pruned for regeneration. Following tree removal, invasive species removal will begin with a selective basal bark/injection herbicide pretreatment of invasive species throughout the 6,578 square foot restoration area. This pretreatment will be followed approximately three weeks later (giving time for herbicide to translocate to root systems) with hand and mechanical removal of invasive species. It is expected that some root material that has not been destroyed by herbicide pre-treatment will be left behind, and that there is a substantial invasive species seed bank throughout the area. Therefore, follow-up treatments beginning in spring 2018 and continuing in summer through fall for the next three to five growing seasons will be necessary. Please see the Invasive Plant Management/Five Year Management Time-Line in this document for details. All brush and debris will be removed and disposed of at an off-site facility. Healthy native vegetation will be protected. After the first phase of invasive species management is complete, the area will immediately be seeded with a native mix of cool and warm season grasses and forbs and covered with chopped straw.

After 80 percent control of invasive vegetation has been achieved, native woody and herbaceous vegetation will be planted. A total of 19 shrubs including arrowwood viburnum (*Viburnum dentatum*) and black chokeberry (*Aronia melanocarpa*).

Restoration/Planting Plan



Google Earth image of 303 Old Queen Anne Road, in Chatham, Massachusetts. The property line is shown with a dashed white line. The proposed restoration area is shaded in yellow and areas of additional native plantings are shaded in green.

Plan Notes

- Site Plan provided by Eldredge Surveying and Engineering LLC, dated August 30, 2017.
- Total proposed restoration area is approximately 6,578 square feet
- One hydrangea (*Hydrangea paniculata*) and one summersweet (*Clethera alnifolia*), currently obscuring the path leading to the top of the wooden stairs, will be transplanted to maintain a width of four feet for easy access.
- A total of 27 trees are proposed to be removed. After careful evaluation these trees were found to either be dead, in poor health, or poorly placed (in such close proximity to other trees such that the health of both trees will be diminished). Many of these trees are guided by gray-lines that were left in place for several years after planting, have been pruned improperly, or are rotting, all of which indicate very low probability of survival. Removal would also allow sunlight to penetrate the canopy to establish a healthy native groundcover. BlueFlax Design LLC will work with the Chatham Conservation Commission to verify necessity of tree removal.
- On the northwest side of the stairs approximately 1,069 square feet (circled in red) of native tree saplings as well as arrowwood viburnum, red chokeberry, bayberry, and serviceberry (originally planted too close together) have grown tall and thin, with virtually no foliage below. In this area, saplings ($\leq 3"$ diameter at breast height) will be thinned to a distance of 10 feet apart to allow for sub-canopy and groundcover regeneration, and allow trees to reach a healthy, mature size.
- A thick cluster of willows (*Salix spp.*) (circled in blue) growing at the base of the stairs will be thinned to decrease stagnation of water on the edge of the bank and improve access to put a kayak into the water.
- Three cherry trees (*Prunus serotina*) will be left in place, but managed to improve their health by selective regenerative pruning, flush cutting, or reassessment after adjacent trees are removed.
- A total of 19 native shrubs including black chokeberry (*Aronia melanocarpa*), aromatic sumac (*Rhus aromatica*) and arrowwood viburnum (*Viburnum dentatum*) are proposed for replanting in the voids created by tree and invasive species removal. These will be allowed to naturalize and reach mature fruiting height, requiring minimal management and disturbance once intensive invasive species management is complete.
- Non-native and invasive species present on site include Asiatic bittersweet (*Celastrus orbiculatus*), Japanese knotweed (*Fallopia japonica*), english ivy (*Hedera helix*), autumn olive (*Elaeagnus umbellata*) and porcelain berry (*Ampelopsis brevipedunculata*). Species present that are not State-listed as invasive, but noted as aggressive, include native poison ivy (*Toxicodendron radicans*) and native greenbriar (*Smilax rotundifolia*).
- A mix of selective herbicide treatment, mechanical, and hand removal will be used to manage invasive vegetation.
- All vegetation debris will be removed from the site and brought to an off site disposal area.
- Existing healthy native vegetation identified on site including pitch pine (*Pinus rigida*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), arrowwood viburnum (*Viburnum dentatum*), serviceberry (*Amelanchier canadensis*), black chokeberry (*Aronia melanocarpa*), and oak (*Quercus spp.*) will be protected during the invasive species and tree removal process. Some regenerative pruning will be required to improve the health of plants that have grown too tall and thin.
- After the first phase of tree removal and invasive species management is complete, the restoration area will immediately be seeded with a native mix of cool and warm season grasses and wildflowers and covered with chopped straw (See "Shady Steep Slope Seed Mix" for details). Replanting of woody vegetation will begin in Fall 2018.
- A two-foot retaining wall will be built at the base of the lawn (outside of the 50' buffer zone) to allow for re-grading of the existing lawn and mulched beds from a 20% slope to a 9% slope. A set of six, in-ground steps will be installed to maintain access to the path below. Typical landscaping/native perennials will be planted in place of the mulched beds below the retaining wall.
- Temporary irrigation will be required for the first two to three growing seasons while plants establish. Once plants are established irrigation will be removed.
- Follow up invasive species management will be ongoing over the next three growing seasons.
- Please see the accompanying Land Management Plan for a detailed management protocol and time-line for invasive species management.



EXISTING VEGETATION LEGEND

Code	Scientific Name	Common Name	Code	Scientific Name	Common Name
TREES			SHRUBS		
A	<i>Acer spp.</i>	maple	Ca	<i>Clethera alnifolia</i>	summersweet
Eu	<i>Elaeagnus umbellata</i>	autumn olive	Hp	<i>Hydrangea paniculata</i>	hydrangea
Ns	<i>Nyssa sylvatica</i>	tupelo	Iv	<i>Illex verticillata</i>	winterberry
Pist	<i>Pinus strobus</i>	white pine			
Pr	<i>Pinus rigida</i>	pitch pine			
Ps	<i>Prunus serotina</i>	black cherry			
Q	<i>Quercus spp.</i>	oak			

- Existing tree will remain
- Existing tree will be removed
- Existing stump or dead tree will be removed
- Existing shrub

PLANT SCHEDULE

SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	QTY
	<i>Aronia melanocarpa</i> / Chokeberry	3 gal	4
	<i>Rhus aromatica</i> / Fragrant Sumac	1 gal	4
	<i>Viburnum dentatum</i> / Viburnum	7 gal	6

SHADY STEEP SLOPE SEED MIX		
15%	seed	
50%	seed	
4"	pots 16" oc	
35%	seed	
5%	seed	
10%	seed	
5%	seed	

Typical Landscaping / Native Perennials

U.S. Foot: 0 20 40 60



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Invasive Plant Management

Invasive plants, also known as noxious weeds, are plants introduced from other regions that have the ability to reproduce rapidly and displace native species. According to the National Invasive Species Council (NISC) “Invasive species may prey upon, displace or otherwise harm native species. Some invasive species also alter ecosystem processes, transport disease, interfere with crop production, or cause illnesses in animals and humans; affecting both aquatic and terrestrial habitats.” Invasive plants threaten natural communities by reducing habitat and food for native insects, birds, and other wildlife. These invasive plants have a competitive advantage because they are no longer controlled by their natural predators, and can quickly spread out of control. For these reasons, invasive species are of national and global concern. NISC’s five-year *National Invasive Species Management Plan (2008-2012)* focuses on 5 Strategic Goals for managing invasive species nationwide:

Prevention
Early Detection and Rapid Response
Control and Management
Restoration
Organizational Collaboration

While we recognize that prevention is the best and most important management strategy, it is often too late to prevent invasive species colonization of our landscapes, including our most sensitive resource areas. Whenever land disturbance occurs, whether for development or simply for planting, we recommend a monitoring program to ensure that invasive vegetation does not expand into these disturbed areas, preparing a plan for Early Detection and Rapid Response.

On project sites where invasive species have been identified, BlueFlax Design LLC follows NISC’s guidelines for **Control and Management**; **Restoration**; and **Organizational Collaboration**. **Control and Management** calls for containing and reducing the spread of invasive populations to minimize their harmful impacts. **Restoration** calls for the restoration of high-value ecosystems to meet resource conservation goals; **Organizational Collaboration** calls for maximizing management effectiveness through collaboration with property owners, experienced land management professionals, and local Conservation Commissions (for project sites within Conservation Jurisdiction).

The following invasive plant species (as listed by the Massachusetts Invasive Plant Advisory Group) have been identified within the proposed project area at 303 Old Queen Anne Road.

Asiatic Bittersweet, (*Celastrus orbiculatus*) According to the University of Illinois Vegetation Management Guidelines, Asiatic bittersweet is capable of climbing up to 60 feet in trees, and can cover ground cover and understory layers, eliminating native species. Vines constrict trees and shrubs, killing them by shading. Bittersweet poses a serious threat because it spreads rapidly through underground root systems that form new stems, reproduces prolifically by seed, is shade tolerant, and seedlings may stay suppressed for some time before being released by disturbance.



Asiatic bittersweet fruit

Asiatic bittersweet vines

Porcelain berry (*Amepolopsis brevipedunculata*) is a very aggressive vine that poses a serious threat to native plant communities. Porcelain berry has been officially classified as an invasive plant in Massachusetts, because it has the ability to overwhelm open fields, shrublands, banks and forests by forming dense stands. The vines should be flush cut and Glyphosate should be applied to the cut stem. Regular hand pulling of these juvenile plants is recommended.



Porcelainberry fruit and leaves

Porcelainberry vines

Japanese knotweed (*Fallopia japonica*) is an imposing herbaceous perennial that is commonly called ‘bamboo’. It grows in dense patches to heights of 10 feet, on sites ranging from strip mine spoil to shaded stream banks. It is native to Asia, and was originally introduced to the U.S. as an ornamental in the late 1800’s. Knotweed will overrun buffer plantings as well as grassland areas. Knotweed offers little habitat value other than cover, and greatly degrades the wildlife habitat value of resource areas.



Japanese knotweed leaves and flowers



Japanese knotweed stem/bark

English Ivy (*Hedera helix*) is an aggressive evergreen vine that is often used as an ornamental groundcover and vine for covering fences and walls. It has the potential to completely cover the ground killing all low growing vegetation. English ivy can also grow into trees where it will cover the trunk and branches, excluding light from the leaves and killing the branches from the ground up. The tree eventually becomes susceptible to blow over due to its weakened state and the added weight of the vine. Winter treatments of a Triclopyr-based herbicide should be applied when other plants have gone dormant in November and December.



English ivy leaves



English ivy spreading across over ground and trees.

Autumn olive (*Elaeagnus umbellata*) This small tree has the ability to fix atmospheric nitrogen, allowing the species to readily out-compete native species and amending the surrounding soils with nitrogen that is available for other invasive plants as well. The cut-stump herbicide application is most effective for this species.



Autumn olive leaves



Autumn olive tree fruiting

Poison Ivy (*Toxicodendron radicans*) Poison ivy, though a nuisance to people, is native and has high wildlife value. Poison ivy can be an aggressive plant of woodlands and wetlands, spreading tenaciously in landscapes that have been disturbed. Selective management of this species, especially around areas of human contact is important so that it does not overwhelm the area, cause harm, or impede other native plants from becoming established.



Poison ivy leaves



Poison ivy leaves in fall

Greenbrier (*Smilax rotundifolia*) Greenbrier occurs in wooded understories and old fields with other pioneering species that occur in depleted soils. Though native, it can be aggressive, regenerating from long rhizomes and by seed. It is also able to out-compete or smother other native understory species by climbing. Its berries, flower, and thickets offer wildlife value, so selective management rather than total elimination is recommended.



Greenbrier leaves and tendrils



Greenbrier thorns

Land Management Time-Line

Using objectives developed by the **National Invasive Species Council for Control and Management, Restoration and Organizational Collaboration** as our guide, BlueFlax Design LLC proposes the following methods and techniques for managing the invasive species listed above within the resource area and buffer zone at 303 Old Queen Anne Road:

Control and Management Objectives:

- Identify and evaluate appropriate invasive species control methods; create action plan
- Reduce the spread and harm caused by invasive species using the identified methods of control
- Perform control and management activities according to the outlined action plan. Invasive species management objectives within the project area are as follows:

Celastrus orbiculatis, Amelopsils brevipedunculata, Helix hedera - Reduce these species by 80% in management year one, 90% in management year two and reach and maintain 95%+ reduction in year three and ongoing.

Fallopia japonica, Elaeagnus umbellata - Reduce these species by 90% in management year one, 95% in management year two, and reach and maintain 100% reduction in management year three and on going.

Toxicodendron radicans and Smilax rotundifolia - Reduce these species by 80% in management in year one, and reach and maintain 90% reduction in year two.

	Year 1				Year 2				Year 3				Year 4				Year 5			
	Winter 2018	Spring 2018	Summer 2018	Fall 2018	Winter 2019	Spring 2019	Summer 2019	Fall 2019	Winter 2020	Spring 2020	Summer 2020	Fall 2020	Winter 2021	Spring 2021	Summer 2021	Fall 2021	Winter 2022	Spring 2022	Summer 2022	Fall 2022
Selectively remove, thin and prune existing dead or damaged native vegetation.	■																			
Pre-treat all invasive species throughout the project area with basal bark treatment (vines) or injection treatment (shrubs)	■																			
Second pre-treatment two to three weeks after first pretreatment	■	■																		
Approximately 3-5 weeks after second pre-treatment, mechanically uproot invasive vegetation	■	■																		
Seed the restoration area with native grasses and wildflower seed mix and blanket with 100% biodegradable erosion control blanket.	■																			

Herbicides used are to be applied by insured, licensed, and trained individuals only.

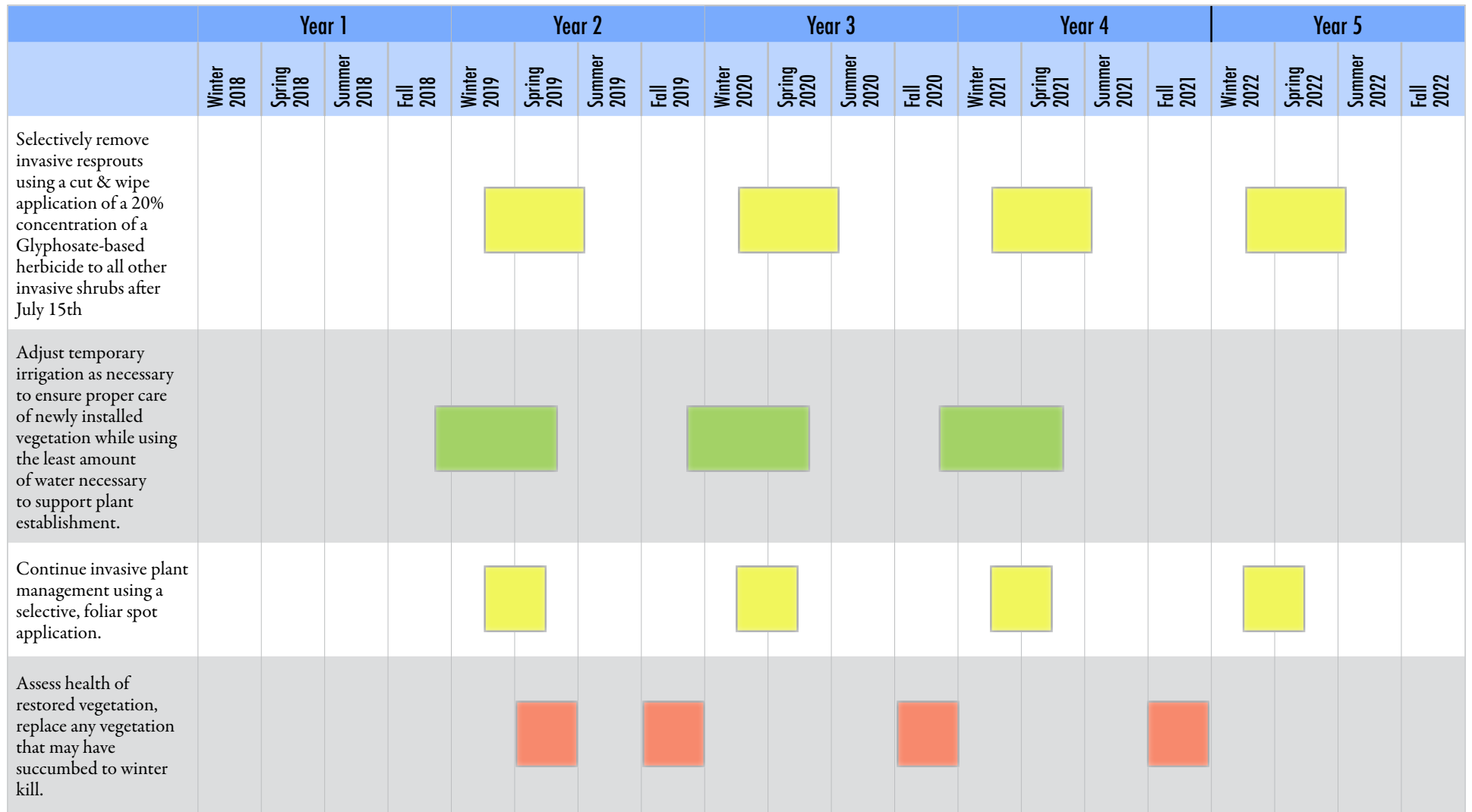
Land Management Time-Line (continued)

	Year 1				Year 2				Year 3				Year 4				Year 5			
	Winter 2018	Spring 2018	Summer 2018	Fall 2018	Winter 2019	Spring 2019	Summer 2019	Fall 2019	Winter 2020	Spring 2020	Summer 2020	Fall 2020	Winter 2021	Spring 2021	Summer 2021	Fall 2021	Winter 2022	Spring 2022	Summer 2022	Fall 2022
Continue invasive plant management by using a basal bark application of a Triclopyr-based herbicide to all invasive vine re-sprouts and a cut & wipe application of a 20% concentration of a Glyphosate-based herbicide to all other invasive plants.		■				■				■				■				■		
Remove all vegetation debris from the site for proper disposal.	■																			
Monitor invasive plant response to previous season's management treatments and calibrate upcoming treatments to correspond with the observed plant response.				■			■				■				■				■	
If 80% control of invasive species has been achieved, plant one-third of woody vegetation as specified in the Restoration/Planting Plan				■			■				■									
Plan irrigation needs for upcoming growing season.				■			■				■				■					
Prepare and submit monitoring report to Chatham Conservation Commission						■				■				■				■		

Herbicides used are to be applied by insured, licensed, and trained individuals only.

■ Invasive Species Management ■ Planting/Irrigation ■ Monitoring

Land Management Time-Line (continued)



Herbicides used are to be applied by insured, licensed, and trained individuals only.

Invasive Species Management
 Planting/Irrigation
 Monitoring

Ongoing Invasive Species Maintenance: After Spring 2022 invasive species should be under control. At this juncture invasive plants should be reduced to low enough numbers that an annual hand removal and selective herbicide treatment strategy will suffice to keep them out of the naturalized areas. (This will vary depending on actual carbohydrate stores in the roots and environmental conditions throughout the treatment period.) Invasive plants generally take a minimum of three to five years of active management to reach a level of successful control. Annual monitoring and minimal maintenance for invasive species should be ongoing throughout the restoration area.

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Plant Conservation Alliance – Alien Plant Working Group – Weeds Gone Wild – Factsheet – English ivy – <http://www.nps.gov/plants/ALIEN/fact/hehe1.htm> - Authors: Jil M. Swearingen, National Park Service, Washington, DC; Jil M. Swearingen and Sandra Diedrich – July 7, 2009.

Plant Conservation Alliance – Alien Plant Working Group – Weeds Gone Wild – Factsheet – Japanese knotweed – <https://www.nps.gov/plants/alien/fact/faja1.htm> - Author: Tom Remaley. July 7, 2009

Plant Conservation Alliance – Alien Plant Working Group – Weeds Gone Wild – Factsheet – Porcelainberry – <http://www.nps.gov/plants/ALIEN/fact/ambr1.htm> - Author: Jamie Young - May 20, 2005.

Plant Invaders of Mid-Atlantic Natural Areas. National Park Service, US Fish and Wildlife. <https://www.nps.gov/plants/alien/pubs/midatlantic/acpl.htm> Author: Jil M. Swearingen. 2010.

Wetlands Protection Act 310 CMR 10.00: - Mass Department of Environmental Protection. 5-Jan-2010. www.mass.gov/dep/service/regulations/310cmr10a.pdf.



Appendix A: State and Local Performance Standards

The proposed invasive species management/restoration planting project must meet the following state and local performance standards for Inland Banks (Massachusetts Wetlands Protection Act 310 CMR 10.54 and Chatham Wetland Regulations (CWR)) 3.01), Bordering Vegetated Wetlands (Massachusetts Wetlands Protection Act 310 CMR 10.55 and CWR 3.02), and Adjacent Upland Resource Areas (CWR 4.01).

Inland Bank

The proposed project must meet the following performance standards for inland banks as stated in the Massachusetts Wetlands Protection Act 310 CMR. 10.30 and Chatham Wetlands Protection Bylaws Section 3.01:

Any proposed work, permitted by the Commission, on a bank or within 100 feet of the upper boundary of a bank, shall not impair the following:

(a) the physical stability of the bank; (b) the water carrying capacity of the existing channel within the bank; (c) ground water and surface water quality; (d) the capacity of the bank to provide breeding habitat, escape cover and food for fisheries and other wildlife; or (e) the habitat of rare or endangered plant or animal species. (f) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering of the bank or of any land within 50ft of any bank shall be permitted by the Commission, except for activity which is allowed under Part IV, section 4.01(d) or any other activity permitted under a variance from the regulations granted pursuant to Part IV, section 4.03.

Bordering Vegetated Wetland

The proposed project must meet the following performance standards for bordering vegetated wetlands as stated in the Massachusetts Wetlands Protection Act 310 CMR. 10.30 and Chatham Wetlands Protection Bylaws Section 3.02:

Any proposed work, permitted by the Commission, in a vegetated wetland or within 100 feet of a vegetated wetland shall not:

(a) destroy any portions of said vegetated wetland; (b) limit the capacity of the adjacent slope to perform its functions [section 3.02(1)]; (c) impair in any way the vegetated wetland's ability to perform any of the functions in section 3.02(1). (d) No activity, other than the maintenance of an already existing structure, which will result in the building within or upon, removing, filling, or altering a vegetated wetland or of any land within 50ft of any vegetated wetland shall be permitted by the Commission, except for activity which is allowed under Part IV, section 4.01(d) or any other activity permitted under a variance from the regulations granted pursuant to Part IV, section 4.03.

Adjacent Upland Resource Area

The proposed project must meet the following performance standards for the adjacent upland resource area as stated in the Chatham Wetland Protection Regulations:

(a) Site Characteristics - In considering the permitting of proposed activities within adjacent upland resource areas, the Commission shall consider the following: 1. the quality and quantity of the wetland functions and values to be protected; and 2. the physical characteristics of the adjacent upland resource area including, but not limited to slope, soils, drainage, groundwater flow and depth of groundwater, vegetation composition and depth of the VBS, connectivity to other naturalized areas on adjacent parcels; and 3. the presence or evidence of likely habitat of rare or endangered species – both plant and animal, regardless of designation by the Department of Fish and Game Natural Heritage & Endangered Species Program (NHESP). The Commission may consult with the NHESP or other authorities as it deems necessary for guidance and recommendations.

(b) Vegetated Buffer Strip (VBS) - A vegetated buffer strip of continuous undisturbed naturalized vegetative cover that is located within an adjacent upland resource area, typically lying between a proposed development activity and a wetland resource area, is critical to the protection of the environmental values and public interests protected by this Bylaw. In such areas that are required by the Commission to be a VBS, the following standards are applicable: 1. turf lawn shall not constitute part of the VBS, 2. the introduction of exotic or invasive species shall be prohibited, 3. the connectivity with other naturalized areas shall be preserved, enhanced or created as is practicable, 4. wherever possible within the adjacent upland resource area, trees shall be allowed to remain. Tree removal may be permitted for the following reasons: (a) location and/or health pose a safety concern and threaten property or public safety; (b) species is deemed a harmful exotic invasive (eg Tree of Heaven (*Ailanthus altissima*)); (c) thinning or culling, as a best management practice to improve viability of other trees or other important vegetation; (d) recommendation by a certified arborist for reasons of disease, decay, structural failure, or presence of invasive insect species; (e) mitigation deemed adequate by the Commission is proposed (see policy # 04-101).

(c) Protection of Wildlife Habitat - In order to protect the adjacent upland resource area in accordance with the fundamental purpose of the Bylaw, a project must be designed to avoid adverse impact on wildlife habitat – either project specific or cumulative – for more than two growing seasons. Therefore any activity, which is allowed in the adjacent upland resource area shall not have an adverse impact on wildlife habitat caused by: 1. disturbance or removal of vegetation providing cover, food source, breeding or nesting sites without mitigation; 2. creating a barrier to wildlife movement within and between resource areas through the placement of fencing or other obstruction; 3. destruction of habitat features including, but not limited to large cavity trees (except as permitted under 4.01(3)(b)4 above), turtle nesting areas, existing nest trees for birds that reuse nests, dens, burrows, vernal pools, vertical sandy banks, migration corridors that provide connectivity between wildlife habitats; 4. indirect impacts of human activities near wildlife habitat; including, but not limited to, limiting work or recreational activity within 100 feet of an active den, or within 200 feet of an existing

Appendix A: State and Local Performance Standards (continued)

osprey, great blue heron, bird of prey, or rare or endangered species nest; 5. cumulative impacts which under reasonable assumption could result in a measurable decrease in the existing wildlife populations or biological structure, composition, or richness on the site or in the vicinity, taking into account the potential impact of future projects that could be proposed in the vicinity which could have similar detrimental or negative synergistic effect on wildlife habitat.

(d) No Disturb Zone - The purpose of the no disturb zone is to give greater protection to the resource's environmental interests by preserving and improving water quality, reducing pollution and erosion, and by providing wildlife habitat and corridors. In such areas as are designated or required by the Commission to be a no-touch area, no activity, other than maintenance of an already existing structure and actively maintained landscaping, which will result in the building within or upon, filling, or altering land within 50 feet of a coastal or inland wetland area shall be permitted by the Commission, except for an activity which is allowed under a variance from these regulations pursuant to section 4.03. Notwithstanding that an area is designated by the Commission to be a no-disturb zone, the following alterations may be permitted: 1. pervious walking paths to a width of no more than 4ft to provide access; 2. elevated stairs or at-grade steps; 3. pruning or selective cutting of vegetation for windows of view or invasive species or noxious plant control; 4. water dependent projects, if no practicable alternative is available, (such a project shall be designed and conditioned to minimize any adverse impacts on the protected environmental interests); 5. fertilizer use for new plantings based on best management practices; 6. use of IPM (Integrated Pest Management) based on best management practices; 7. herbicide use at the discretion of the Commission; 8. fences that are not a hindrance to wildlife movement; 9. conversion of impervious surfaces to vegetated or other pervious surfaces; 10. activities that are considered temporary (eg) installation of monitoring wells, exploratory borings, sediment sampling, surveying; 11. planting of indigenous species of trees, shrubs, groundcover; 12. removal of dangerous or diseased trees.

Appendix B: Plant Guide

Botanical Name	Common Name	Height	Bloom Period	Characteristics	Plant Notes
<i>Aronia melanocarpa</i>	black chokeberry	3-6'	Apr-May		white flowers, black berries
<i>Rhus aromatica</i>	aromatic sumac	2-6'	March		red fall color
<i>Viburnum dentatum</i>	arrowwood viburnum	6-12'	May		white flowers, blue berries

Pollen/ nectar producer
 Food for birds
 Shelter/ cover for wildlife
 Nesting sites for wildlife
 Food for caterpillars
 Food for mammals
 Salt tolerant
 Prevents erosion
 Flood tolerant
 Winter food



Viburnum dentatum / arrowwood viburnum



Rhus aromatica / aromatic sumac



Aronia melanocarpa / black chokeberry

Plant Guide References

Darke, Rick and Tallamy, Doug. *The Living Landscape*. Portland: Timber Press, 2014. Print.

Missouri Botanical Garden. Plant Finder. <<http://www.missouribotanicalgarden.org/plantfinder/plantfindersearch.aspx>>.

United States Department of Agriculture: Natural Resources Conservation Services. Plant Database. <<http://plants.usda.gov/java/>>.

Conservation Areas - 330 Old Queen Anne Road

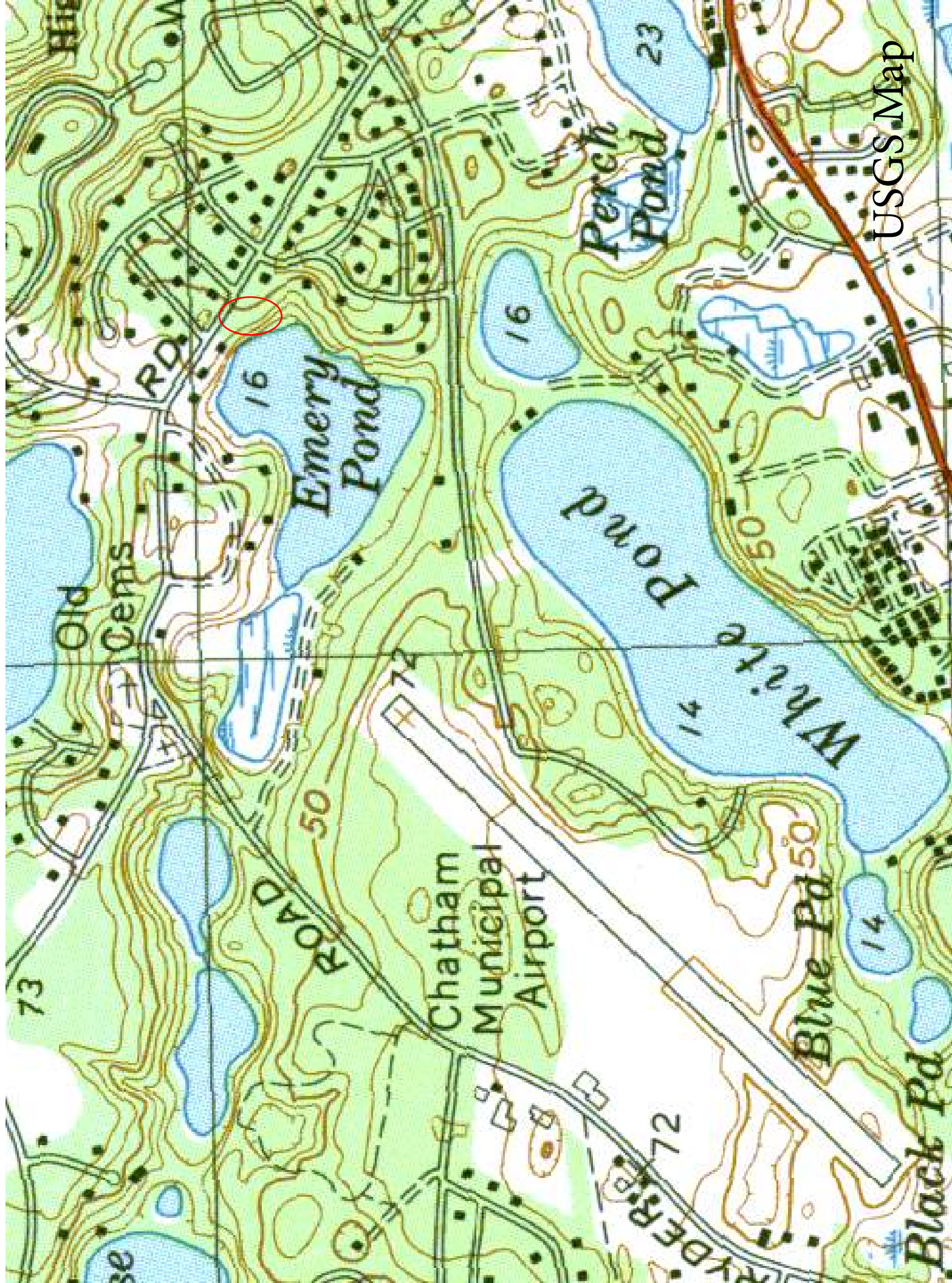
Areas depicted on Blueflax Plan dated 10-23-2017

No Disturb Area	Existing	Proposed	Net Change
Total Area	6,530 S.F.±	6,530 S.F.±	0 S.F.±
Buildings	150 S.F.±	150 S.F.±	0 S.F.±
Hardscape	0 S.F.±	0 S.F.±	0 S.F.±
Pervious Hardscape	0 S.F.±	0 S.F.±	0 S.F.±
Landscape / Lawn	0 S.F.±	0 S.F.±	0 S.F.±
Natural	6,380 S.F.±	6,380 S.F.±	0 S.F.±

Adjacent Upland Resource Area	Existing	Proposed	Net Change
Total Area	5,100 S.F.±	5,100 S.F.±	0 S.F.±
Buildings	420 S.F.±	420 S.F.±	0 S.F.±
Hardscape	50 S.F.±	160 S.F.±	110 S.F.±
Pervious Hardscape	0 S.F.±	0 S.F.±	0 S.F.±
Landscape / Lawn	4,360 S.F.±	3,380 S.F.±	-980 S.F.±
Natural	270 S.F.±	1,140 S.F.±	870 S.F.±

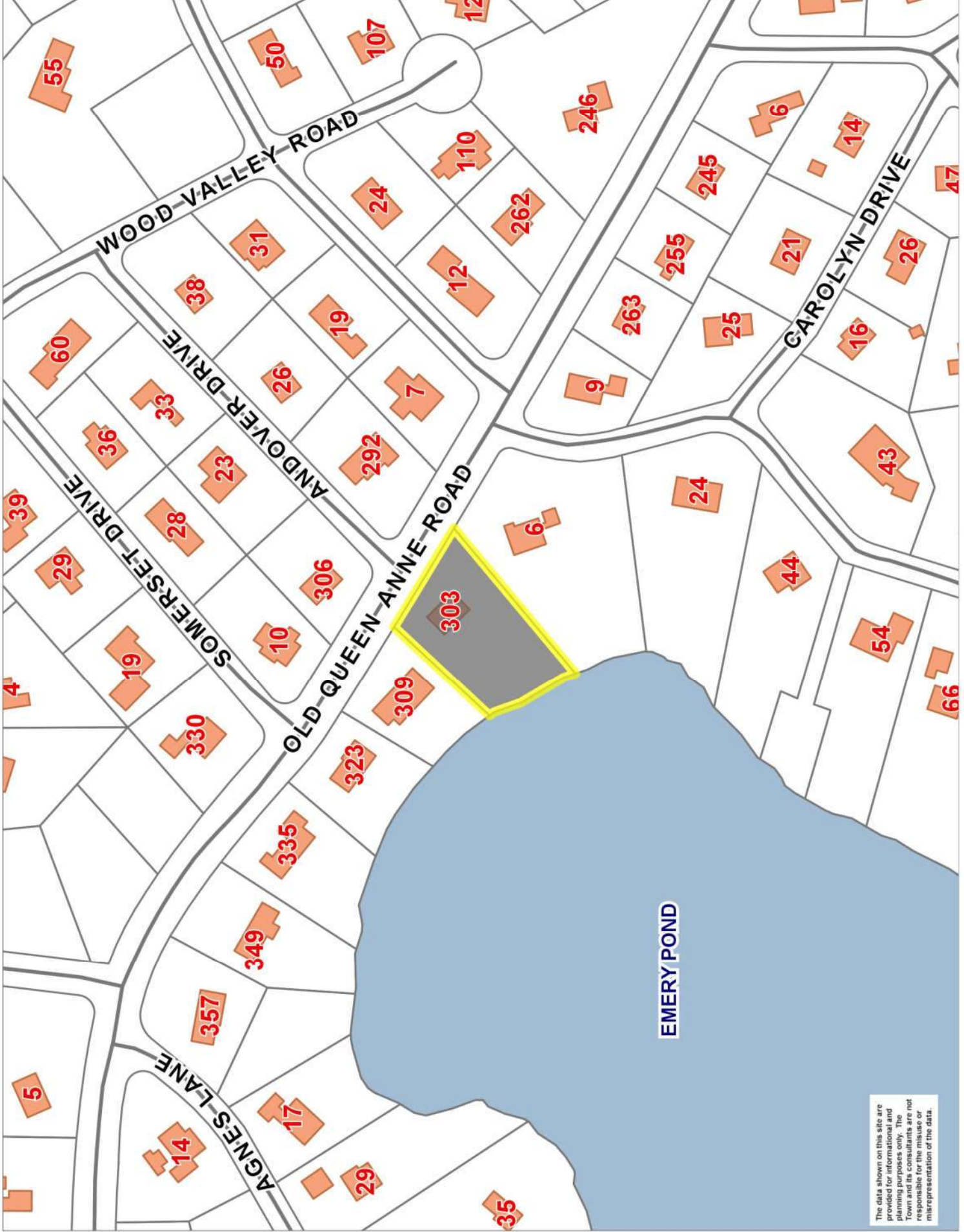


A handwritten signature in black ink, appearing to read "J. Thaddeus Eldredge", written over the bottom portion of the seal.

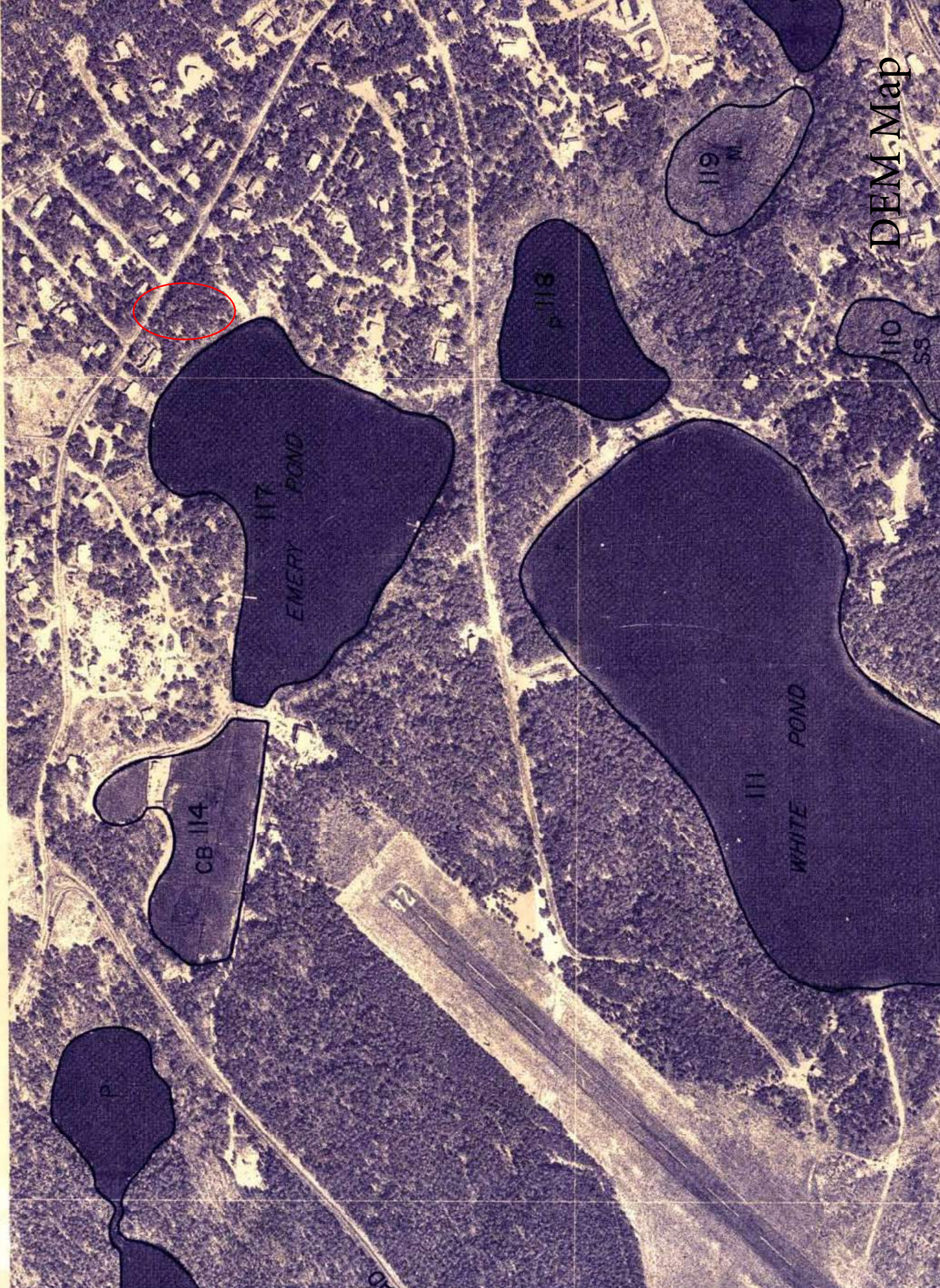




- Places - Town
- Fire Station
- Police Station
- Town Hall
- Public Library
- School
- Places - MA
- Lighthouse
- Community Health Center
- Hospital
- Three Nautical Mile Line
- Buildings (Current)
- Practs
- MA Highways
- Interstate
- US Highway
- Numbered Routes
- Town Line
- MA Towns Opaque
- Bathymetry
- 0-5 ft
- 5-10 ft
- 10-15 ft
- 15-20 ft
- 20-30 ft
- 30-40 ft
- 40-50 ft
- 50-60 ft
- 60-70 ft
- 70+ ft
- MASTER STREET LIST.DWG
- Water Bodies



The data shown on this site are provided for informational and planning purposes only. The Town and its consultants are not responsible for the misuse or misrepresentation of the data.



DEM Map

PH 371

OLD QUEEN ANNE RD

PH 353

WILFRED RD

THOMPSONS TRL

RYDER RD

NHESP Map





MAP SCALE 1" = 500'



NFP
NATIONAL FLOOD INSURANCE PROGRAM

PANEL 0628J

FIRM
FLOOD INSURANCE RATE MAP
BARNSTABLE COUNTY,
MASSACHUSETTS
(ALL JURISDICTIONS)

PANEL 628 OF 875
(SEE MAP INDEX FOR FIRM PANEL LAYOUT)

CONTAINS:

COMMUNITY	NUMBER	PANEL	SUFFIX
CHATHAM, TOWN OF	250004	0628	J
HARWICH, TOWN OF	250008	0628	J

Notice to User: The **Map Number** shown below should be used when placing map orders; the **Community Number** shown above should be used on insurance applications for the subject community.



MAP NUMBER
25001C0628J
EFFECTIVE DATE
JULY 16, 2014

Federal Emergency Management Agency

This is an official copy of a portion of the above referenced flood map. It was extracted using F-MIT On-Line. This map does not reflect changes or amendments which may have been made subsequent to the date on the title block. For the latest product information about National Flood Insurance Program flood maps check the FEMA Flood Map Store at www.msc.fema.gov

***ELDREDGE SURVEYING
& ENGINEERING, LLC***

1038 Main Street
Chatham, Massachusetts 02633

Notice of Public Hearing

To: Abutters to 303 Old Queen Anne Road

From: Marija Eldredge

Date: October 24, 2017

Subject: Notice of Intent
Assessor Map 11G, Parcel 36A-G27
303 Old Queen Anne Road, Chatham

The Chatham Conservation Commission will be holding a public hearing at the **Town Annex, 261 George Ryder Road on Wednesday, November 8, 2017 at or after 4:00pm** on the application of **Marcy Urban Singer** to implement Land Management Plan with regrading and proposed landscape wall.

Enclosed please find a REDUCED copy of the plan for your review.

The details of the project will be presented at the hearing and comment may be offered to the Conservation Commission either by attending this hearing or sending a letter to the Commission. The plan and application describing the project are on file with the Conservation Commission at 261 George Ryder Road or you may contact the Commission with any questions at 508-945-5164.

Copy: Chatham Conservation Commission
DEP

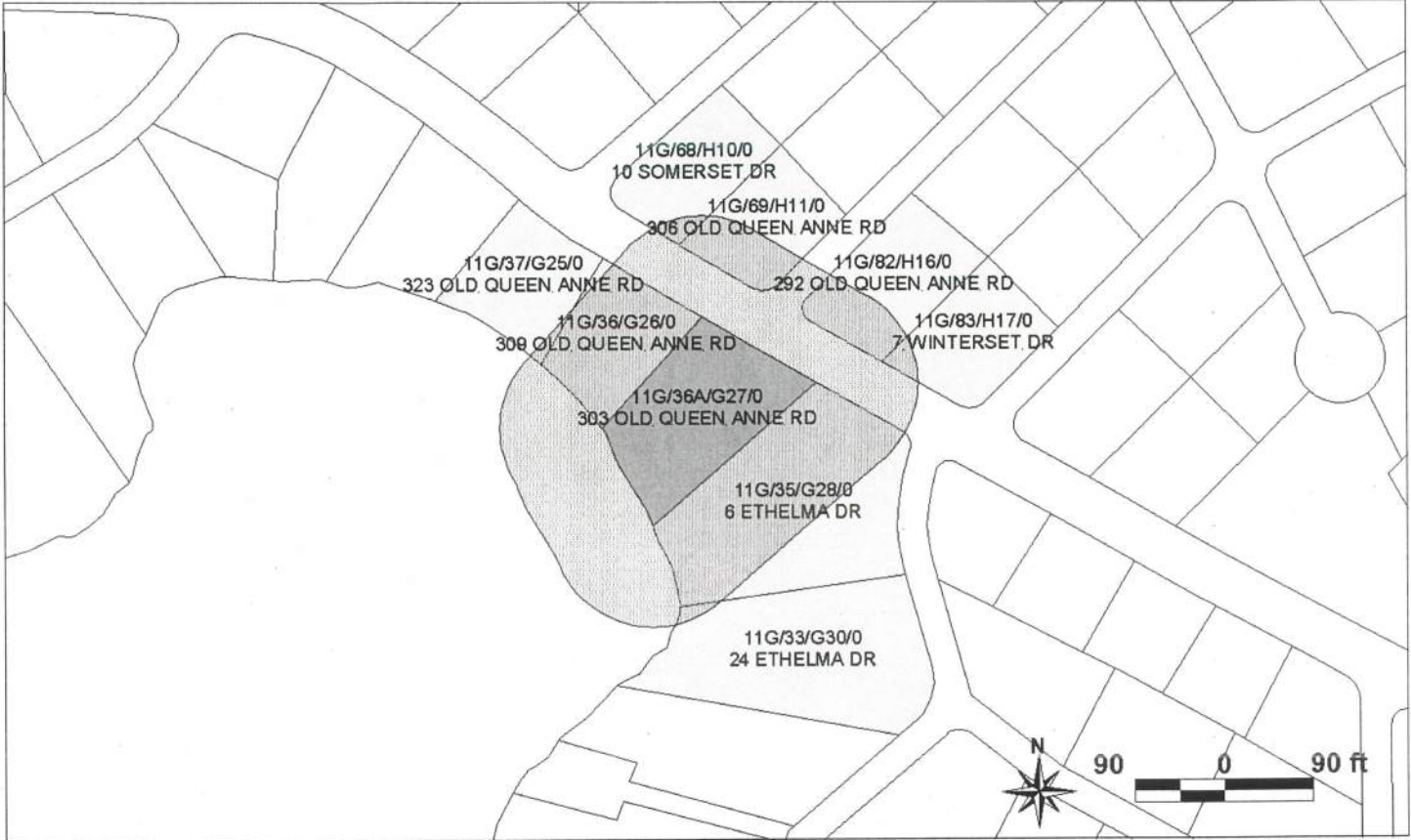
Y:\Clients\Singer, Marcy 4758\Conservation Commission\Notice of Intent 2017-10-23\03 Notice of Public Hearing.docx



TOWN OF CHATHAM, MA
 BOARD OF ASSESSORS
 549 MAIN STREET CHATHAM MA 02633



Abutters List Within 100 feet of Parcel 11G/36A/G27/0



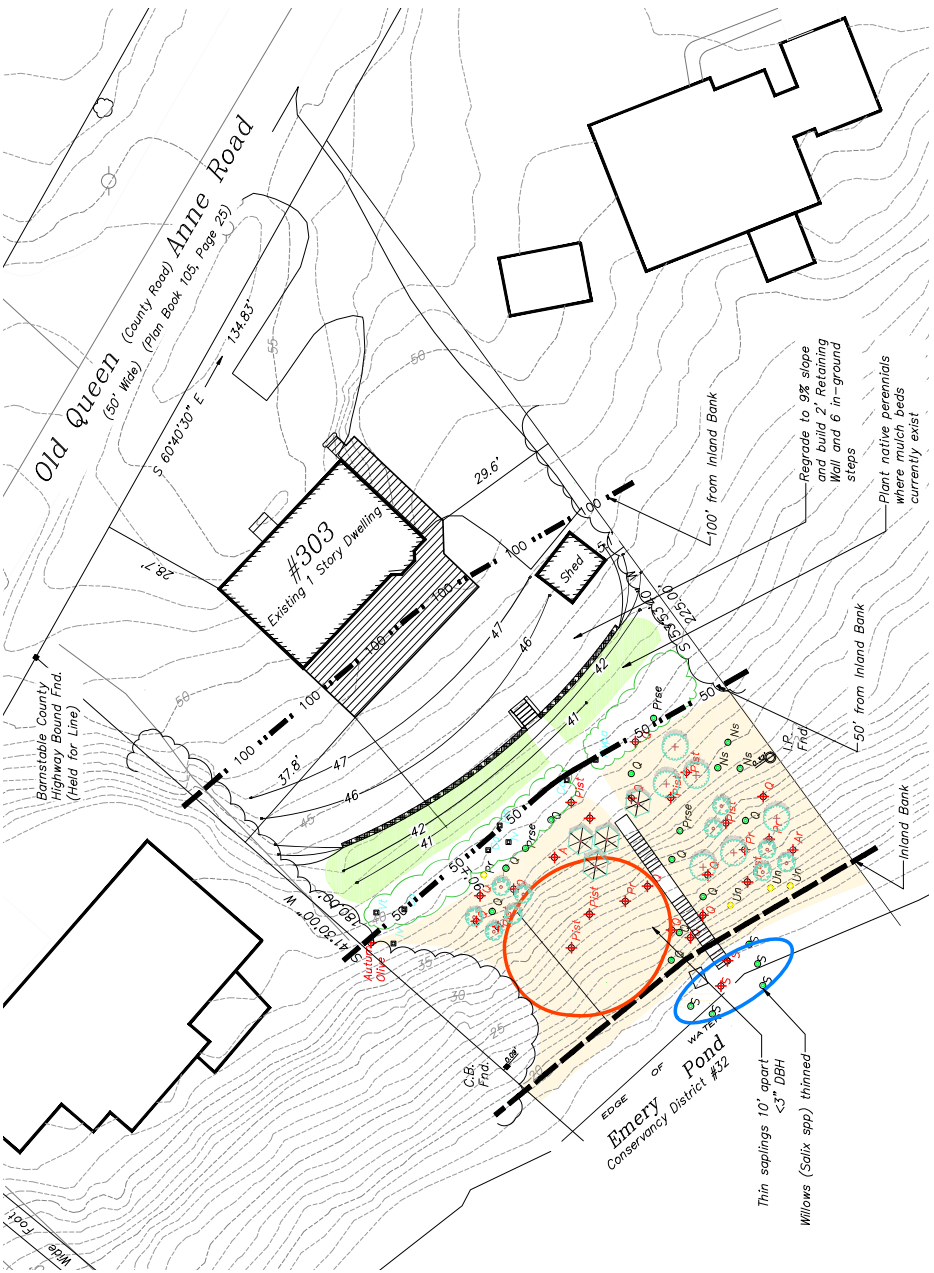
Key	Parcel ID	Owner	Location	Mailing Street	Mailing City	ST	ZipCd/Country
773	11G-33-G30-0-R	DRUCKER ALLEN & AVIS TRUSTEES DRUCKER LIVING TRUSTS	24 ETHELMA DR	24 ETHELMA DR	CHATHAM	MA	02633
774	11G-35-G28-0-R	COLEMAN ALLISON R	6 ETHELMA DR	43 ARBOROUGH RD	ROSLINDALE	MA	02131
775	11G-36-G26-0-R	LEE DANIEL & HALINA WONG T/E	309 OLD QUEEN ANNE RD	85 ORA WAY UNIT 207E	SAN FRANCISCO	CA	94115
777	11G-37-G25-0-R	GENTILE RICHARD P & JOAN M	323 OLD QUEEN ANNE RD	1871 MAIN ST	E HARTFORD	CT	06108
809	11G-68-H10-0-R	MICHAUD BRIAN L & ELIZABETH A	10 SOMERSET DR	63 PASTURE RD	AUBURN	NH	03032
810	11G-69-H11-0-R	COE DOUGLAS & ANDREA LUNDEN JT	306 OLD QUEEN ANNE RD	306 OLD QUEEN ANEE RD	CHATHAM	MA	02633
826	11G-82-H16-0-R	RICOTTA PATTI B	292 OLD QUEEN ANNE RD	292 OLD QUEEN ANNE RD	CHATHAM	MA	02633-1532
827	11G-83-H17-0-R	ALEXANDERSON JOHN L & NANCY B	7 WINTERSET DR	61 BARTLETT HILL RD	CONCORD	MA	01742-1801
776	11G-36A-G27-0-R	MARCY URBAN SINGER LT MARCY URBAN SINGER TRUSTEE	303 OLD QUEEN ANNE RD	35 WEST HILL RD	MENDON	MA	01756



Google Earth image of 303 Old Queen Anne Road, in Chatham, Massachusetts. The property line is shown with a dashed white line. The proposed restoration area is shaded in yellow and areas of additional native plantings are shaded in green.

Plan Notes

- Site Plan provided by Eldridge Surveying and Engineering LLC, dated August 30, 2017.
- Total proposed restoration area is approximately 6,578 square feet
- One hydrangea (*Hydrangea paniculata*) and one summersweet (*Clethra alifolia*), currently obscuring the path leading to the top of the wooden stairs, will be transplanted to maintain a width of four feet for easy access.
- A total of 27 trees are proposed to be removed. After careful evaluation these trees were found to either be dead, in poor health, or poorly placed (in such close proximity to other trees such that the health of both trees will be diminished). Many of these trees are guided by grey-lines that were left in place for several years after planting, have been pruned improperly, or are rotting, all of which indicate very low probability of survival. Removal would also allow sunlight to penetrate the canopy to establish a healthy native groundcover. BlueFlax Design LLC will work with the Chatham Conservation Commission to verify the necessity of tree removal.
- On the northwest side of the stairs approximately 1,069 square feet (circled in red) of native tree saplings as well as arrowwood viburnum, red chokeberry, hollyberry, and serviceberry (originally planned too close together) have grown tall and thin, with virtually no foliage below. In this area, saplings (3" diameter at breast height) will be thinned to a distance of 10 feet apart to allow for sub-canopy and groundcover regeneration, and allow trees to reach a healthy, mature size.
- A thick cluster of willows (*Salix spp.*) (circled in blue) growing at the base of the stairs will be thinned to decrease sapling water on the edge of the bank and improve access to put a kayak into the water.
- Three cherry trees (*Prunus serotina*) will be left in place, but managed to improve their health by selective regenerative pruning, flush cutting, or re-assessment after adjacent trees are removed.
- A total of 19 native shrubs including black chokeberry (*Aronia melanocarpa*), aromatic sumac (*Rhus aromatica*) and arrowwood viburnum (*Viburnum dentatum*), are proposed for replanting in the voids created by tree and invasive species removal. These will be allowed to naturalize and reach mature fruiting height, requiring minimal management and disturbance once intensive invasive species management is complete.
- Non-native and invasive species present on site include Asiatic bittersweet (*Celastrus orbiculatus*), Japanese knotweed (*Polygonum japonicum*), English ivy (*Hedera helix*), autumn olive (*Elaeagnus umbellata*) and porcelain berry (*Ampelopsis quinquefolia*). Species present that are not State-listed as invasive, but noted as aggressive, include native poison ivy (*Toxicodendron radicans*) and Native groundbar (*Sonchus oleraceus*). A mix of selective herbicide treatment, mechanical, and hand removal will be used to manage invasive vegetation.
- All vegetation debris will be removed from the site and brought to an off site disposal area.
- Existing healthy native vegetation identified on site including pitch pine (*Pinus rigida*), black cherry (*Prunus serotina*), red maple (*Acer sp.*), arrowwood viburnum (*Viburnum dentatum*), winterberry (*Ilex verticillata*), redbud (*Cercis canadensis*), black chokeberry (*Aronia melanocarpa*), and oak (*Quercus spp.*) will be protected during the invasive species and tree removal process. Some regenerative pruning will be required to improve the health of plants that have grown too tall and thin.
- After the first phase of tree removal and invasive species management is complete, the restoration area will immediately be seeded with a native mix of cool and warm season grasses and wildflowers and covered with chopped straw (See "Shady Steep Slope Seed Mix" for details). Replanting of woody vegetation will begin in Fall 2018.
- A two-foot retaining wall will be built at the base of the lawn (outside of the 5'0" buffer zone) to allow for re-grading of the existing lawn and mulched beds from a 20% slope to a 9% slope. A set of six, in-ground steps will be installed to maintain access to the path below. Typical landscaping/native perennials will be planted in place of the mulched beds below the retaining wall.
- Temporary irrigation will be required for the first two to three growing seasons while plants establish.
- Once plants are established irrigation will be removed.
- Follow up invasive species management will be ongoing over the next three growing seasons.
- Please see the accompanying Land Management Plan for a detailed management protocol and time-line for invasive species management.



EXISTING VEGETATION LEGEND

Code	Scientific Name	Common Name
A	<i>Acer spp.</i>	maple
Eu	<i>Elaeagnus umbellata</i>	autumn olive
Ns	<i>Nyssa sylvatica</i>	tupelo
Pist	<i>Pinus strobus</i>	white pine
Pr	<i>Pinus rigida</i>	pitch pine
Ps	<i>Prunus serotina</i>	black cherry
Q	<i>Quercus spp.</i>	oak

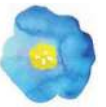
PLANT SCHEDULE

SHRUBS	BOTANICAL NAME / COMMON NAME	CONT	QTY
☘	<i>Aronia melanocarpa</i> / Chokeberry	9 gal	4
☘	<i>Rhus aromatica</i> / Fragrant Sumac	1 gal	4
☘	<i>Viburnum dentatum</i> / Viburnum	7 gal	6

- SHADY STEEP SLOPE SEED MIX**
- 15% - seed *Agrostis perennans* / Autumn Bentgrass
 - 50% - seed *Deschampsia flexuosa* / May Hair Grass
 - 4" pots 19" oc *Dryopteris marginalis* / Marginal Shield Fern
 - 35% - seed *Festuca rubra rubra* / Creeping Red Fescue
 - 5% - seed *Rubbeckia hirta* / Black-eyed Susan
 - 10% - seed *Schizachyrium scoparium* / Little Bluestem Grass
 - 5% - seed *Solidago odora* / Sweet Goldenrod


Typical Landscaping / Native Perennials

RESTORATION/PLANTING PLAN | OCTOBER 23, 2017
 SINGER RESIDENCE | 303 OLD QUEEN ANNE ROAD, CHATHAM MA
 BLUEFLAX DESIGN LLC | HARWICH, MA | 774-408-7718 | WWW.BLUEFLAXDESIGN.COM



REQUEST FOR ABUTTER'S LIST

DATE REQUESTED:	<u>10/24/2017</u>
LOCATION OF SUBJECT PROPERTY:	<u>303 Old Queen Anne Rd</u>
REQUEST FOR ABUTTERS WITHIN HOW MANY FEET OF SUBJECT PROPERTY?	<u>100'</u>
PURPOSE FOR ABUTTERS' LIST:	<u>CONSERVATION FILING</u>
NAME OF PERSON(S) REQUESTING ABUTTERS' LIST:	<u>MARIJA S. Eldredge</u>
SIGNATURE:	<u>Marija Mercedes Reyes</u>
TELEPHONE NUMBER:	<u>508-945-3965</u>

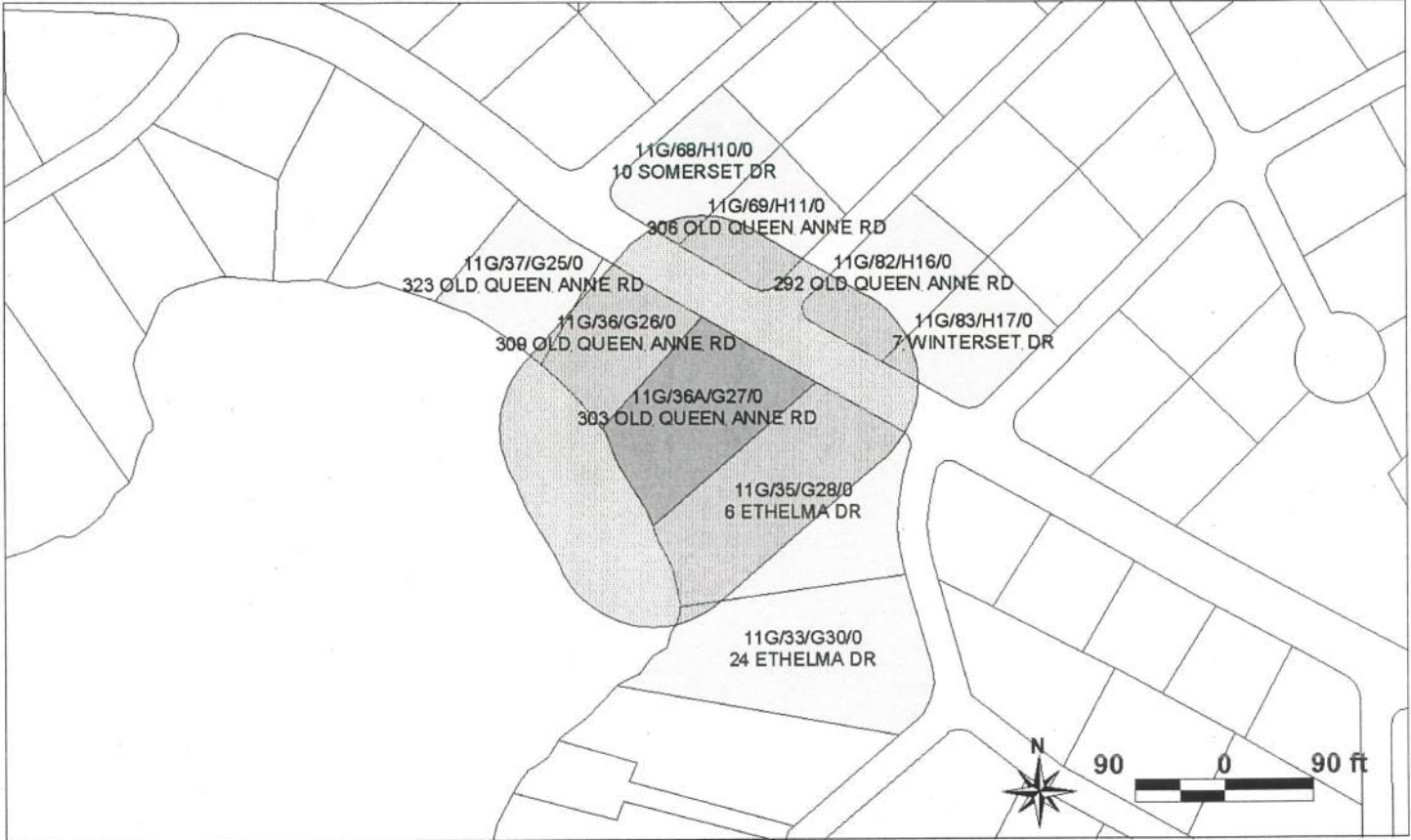
FOR ASSESSORS' USE ONLY	
ABUTTERS' LIST COMPLETED BY:	<u></u>
DATE COMPLETED:	<u>10/24/2017</u>
PARCEL ID OF SUBJECT PROPERTY:	<u>116-36A-627</u>
AMOUNT DUE:	<u>3.-</u>



TOWN OF CHATHAM, MA
 BOARD OF ASSESSORS
 549 MAIN STREET CHATHAM MA 02633



Abutters List Within 100 feet of Parcel 11G/36A/G27/0



Key	Parcel ID	Owner	Location	Mailing Street	Mailing City	ST	ZipCd/Country
773	11G-33-G30-0-R	DRUCKER ALLEN & AVIS TRUSTEES DRUCKER LIVING TRUSTS	24 ETHELMA DR	24 ETHELMA DR	CHATHAM	MA	02633
774	11G-35-G28-0-R	COLEMAN ALLISON R	6 ETHELMA DR	43 ARBOROUGH RD	ROSLINDALE	MA	02131
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777	11G-37-G25-0-R	GENTILE RICHARD P & JOAN M	323 OLD QUEEN ANNE RD	1871 MAIN ST	E HARTFORD	CT	06108
809	11G-68-H10-0-R	MICHAUD BRIAN L & ELIZABETH A	10 SOMERSET DR	63 PASTURE RD	AUBURN	NH	03032
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826	11G-82-H16-0-R	RICOTTA PATTI B	292 OLD QUEEN ANNE RD	292 OLD QUEEN ANNE RD	CHATHAM	MA	02633-1532
827	11G-83-H17-0-R	ALEXANDERSON JOHN L & NANCY B	7 WINTERSET DR	61 BARTLETT HILL RD	CONCORD	MA	01742-1801
776	11G-36A-G27-0-R	MARCY URBAN SINGER LT MARCY URBAN SINGER TRUSTEE	303 OLD QUEEN ANNE RD	35 WEST HILL RD	MENDON	MA	01756

11G-33-G30-0-R

DRUCKER ALLEN & AVIS TRUSTEES
DRUCKER LIVING TRUSTS
24 ETHELMA DR
CHATHAM, MA 02633

11G-35-G28-0-R

COLEMAN ALLISON R
43 ARBOROUGH RD
ROSLINDALE, MA 02131

11G-36-G26-0-R

LEE DANIEL & HALINA WONG T/E
85 ORA WAY UNIT 207E
SAN FRANCISCO, CA 94115

11G-37-G25-0-R

GENTILE RICHARD P & JOAN M
1871 MAIN ST
E HARTFORD, CT 06108

11G-68-H10-0-R

MICHAUD BRIAN L & ELIZABETH A
63 PASTURE RD
AUBURN, NH 03032

11G-69-H11-0-R

COE DOUGLAS & ANDREA LUNDEN JT
306 OLD QUEEN ANEE RD
CHATHAM, MA 02633

11G-82-H16-0-R

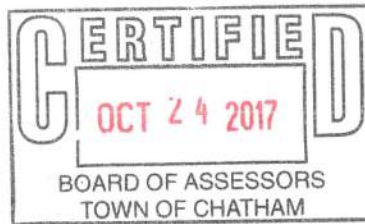
RICOTTA PATTI B
292 OLD QUEEN ANNE RD
CHATHAM, MA 02633-1532

11G-83-H17-0-R

ALEXANDERSON JOHN L & NANCY B
61 BARTLETT HILL RD
CONCORD, MA 01742-1801

11G-36A-G27-0-R

MARCY URBAN SINGER LT
MARCY URBAN SINGER TRUSTEE
35 WEST HILL RD
MENDON, MA 01756





TOWN OF CHATHAM
Conservation Commission

SITE ACCESS AUTHORIZATION

Date: October 24, 2017

Project: Implementation of Land Management Plan with regrading
and proposed landscape wall

Location: 303 Old Queen Anne Road

Property Owner: Marcy Urban Singer

We hereby authorize the individual members of the Chatham Conservation Commission and its agents to enter upon the referenced property for the purpose of gathering information regarding the application filed with the Commission pursuant to the Wetlands Protection Act (MGL Ch 131, s. 40) and/or the Chatham Wetlands Protection Bylaw (Chapter 272).

Additionally, if an Order of Conditions is issued for the project, we grant permission for Commission members and the Commission's agents to enter the above referenced property for the purpose of inspecting for compliance with the Order of Conditions. This site access authorization is valid until a Certificate of Compliance is issued by the Conservation Commission.

Authorized Signature:  Date: October 24, 2017

Please Print: J. Thaddeus Eldredge, PLS

(If other than owner, please state whether tenant, agent or other)

**ELDREDGE SURVEYING
& ENGINEERING, LLC**

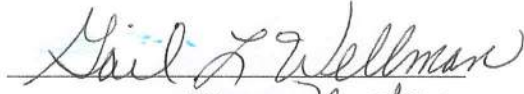
1038 Main Street
Chatham, Massachusetts 02633
508-945-3965tel; 508-945-5885 fax; office@ese-llc.com

LIMITED POWER OF ATTORNEY

I, Marcy Urban Singer, Trustee of the Marcy Urban Singer Living Trust of 35 West Hill Road, Mendon, MA 01756, appoint, J. THADDEUS ELDREDGE, PLS., and/or his employees, Attorney-in-fact for and in my name, grant unto the said J. THADDEUS ELDREDGE, PLS., and/or his employees full power and authority to do and perform all and every act and thing whatsoever requisite and necessary to be done relevant to the filing of and representation of Notice of Intent on 303 Old Queen Anne Road, Chatham, Massachusetts, to all intents and purposes as I might or could do if personally present, hereby ratifying and confirming all that the said J. THADDEUS ELDREDGE, PLS and/or his employees shall lawfully do or cause to be done be virtue hereof.

IN WITNESS WHEREOF I have set my hand and seal this 23 day of October, 2017.

Sealed and delivered in the presence of:


Witness Notary
7-6-23




Marcy Singer

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7016 1370 0002 3568 6089

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # MICHAUD BRIAN L & ELIZABETH A
 City, State, ZIP+4 63 PASTURE RD
 ALBURN NH 03032

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # COLEMAN ALLISON R
 City, State, ZIP+4 43 ARBOROUGH RD
 ROSLINDALE, MA 02131

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # ALEXANDERSON JOHN L & NANCY B
 City, State, ZIP 61 BARTLETT HILL RD
 CONCORD, MA 01742-1801

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<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # GENTILE RICHARD P & JOAN M
 City, State, ZIP 1871 MAIN ST
 F HARTFORD CT 06108

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # LEE DANIEL & HALINA WONG T/E
 City, State, ZIP 85 ORA WAY UNIT 207E
 SAN FRANCISCO, CA 94115

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # RICOTTA PATTI B
 City, State, ZIP 292 OLD QUEEN ANNE RD
 CHATHAM, MA 02633-1532

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Department of Environmental Protection
 Box 4062
 Boaton, MA 02211

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # COE DOUGLAS & ANDREA LUNDEN JT
 City, State, ZIP 306 OLD QUEEN ANEE RD
 CHATHAM, MA 02633

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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Certified Mail Fee \$3.35

Extra Services & Fees (check box, add fee as appropriate)

<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00

Postage \$0.49

Total Postage \$3.84

Sent To

Street and Apt. # DRUCKER ALLEN & AVIS TRUSTEES
 City, State, ZIP 24 ETHELMA DR
 CHATHAM, MA 02633

PS Form 3800, April 2015 PSN 7530-02-000-9047 See Reverse for Instructions

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LAKEVILLE, MA 02347

OFFICIAL USE

Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fees as appropriate)	\$2.75
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Total	\$3.29

0633
02
OCT 25 2017
Postmark Here

10/25/2017
Department of Environmental Protection
20 Riverside Drive
Lakeville, MA 02347

7016 1370 0002 3568 6102

U.S. Postal Service™
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WESTBOROUGH, MA 01581

OFFICIAL USE

Certified Mail Fee	\$3.35
Extra Services & Fees (check box, add fees as appropriate)	\$0.00
<input type="checkbox"/> Return Receipt (hardcopy)	\$0.00
<input type="checkbox"/> Return Receipt (electronic)	\$0.00
<input type="checkbox"/> Certified Mail Restricted Delivery	\$0.00
<input type="checkbox"/> Adult Signature Required	\$0.00
<input type="checkbox"/> Adult Signature Restricted Delivery	\$0.00
Total	\$3.08

0633
02
OCT 25 2017
Postmark Here

10/25/2017
Natural Heritage and Endangered
Species Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough, MA 01581



TOWN OF CHATHAM
CONSERVATION COMMISSION
NOI / ANOI CHECKLIST

PROJECT ADDRESS: 303 Old Queen Anne Road

APPLICANT: Marcy Urban Singer, Trustee of The Marcy Urban Singer Living Trust

I certify that the following documentation has been provided to the Chatham Conservation Commission and the required tasks have been completed as **checked or marked NA (if not applicable to the project)**.

 10-24-17
Signature of Applicant or Authorized Representative / Date

- ✓ Two (2) **complete** copies of the NOI (WPA3) or the Abbreviated NOI (WPA4) with signatures of the applicant(s), property owner(s) & representative filing the application with supporting documentation including plans, fee transmittal form with copies of the checks
- ✓ One (1) original Site Access Authorization form – signed by the property owner(s) – in lieu of actual form, a letter of permission to enter onto the property is acceptable
- ✓ One (1) copy of the **Assessor certified** list of abutters within 100 feet of the parcel(s)'s boundaries where the work is being proposed
- ✓ One (1) copy of the Assessors map showing the abutters parcels and project locus
- ✓ One (1) copy of the abutter notification – you may use the form letter provided
- ✓ Receipts or photocopy of receipts verifying mailing to abutters at the time of filing [**NOTE: submission of green cards is no longer required**]
- ✓ One (1) copy of an 8½ " by 11" copy of the USGS quadrangle showing project locus

NA Date-stamped mailing receipt as proof of mailing to MA DFW NHESP and/or MA DMF

✓ Copy of filing sent to NHESP under MESA

NA Copy of ENF application; copy of MEPA comments to date; copy of Secretary's decision

NA Copy of recorded Chapter 91 license and license plans

NA Proof of zoning compliance from a credible source or copy of application filed with the Zoning Board of Appeals

NA Drainage calculations & DEP stormwater check list unless project is exempt

- ✓ Project will be clearly staked/marked in the field at least 10 days before the hearing date – including limit of work; edge of resource area; 50ft and 100 ft delineations from edge of resource area; identification of the project (e.g.) building corners, retaining walls, etc.; property boundaries. **STAKES MUST BE LABELED. Any TREES over 2” in diameter to be removed must be flagged and labeled.**
- ✓ **Twelve (12) collated packets**, unless directed otherwise by staff, (bound without the use of plastic binding or covers) -containing at a MINIMUM a copy of the checklist; site plans / landscape plans (no reduced copies); and the following informational materials listed below, including other pertinent supporting documentation the Commissioners should consider as part of the record:
 - ✓ Written directions to the site; entrance to property is marked with a visible flag or sign
 - ✓ Written **Alternatives Analysis** (if work is within a resource area / riverfront or within the 50 foot No Disturb Zone)
 - ✓ **2014 Flood map** with locus
 - ✓ If BVW or vegetated wetland on site, field **wetland delineation forms** within the last three years, including soil descriptions and comments on wetland hydrology from a credible source
- ✓ **Project narrative** includes:
 - A list of all resource areas and detailed description of the project including all components (A/C pads, outdoor showers, subsurface irrigation, etc.);
 - How the project will meet all performance standards of the resource areas pertaining to both the state and local wetlands statutes;
 - A work protocol (including access, method of erosion control, etc);
 - Description of proposed mitigation;
 - A list of the required local permits (e.g.) Planning Board review, special permit from Zoning Board of Appeals, etc. and copy of decision or hearing date if known;
 - A list of other permits in hand or permits required (e.g.) Chapter 91, Water Quality Cert, MEPA review, Army Corps, MESA determination, etc.;
 - Copy of existing Chapter 91 license and license plans;
 - Photos of existing conditions - (required for view pruning projects - see view pruning guidelines)

✓ **Plans – plan requirements:**

- Locus map
 - To a scale of 10:1 up to 40:1 (feet : inches)
 - Engineered site plan in **NAVD88 datum**: Chapter 91 license plan in MLW datum
 - Paper size - NO LARGER than 24" x 18"
 - Plans are to scale - NO REDUCED copies unless approved by the Agent; **illegible copies will not be accepted**
 - All property lines pertinent to the project and easements
 - Show and label all the delineation of the wetland resource areas (delineated within the last three years) that affect the parcel and label the 50 ft and 100 ft delineation (the Adjacent Upland Resource Area) from the most landward wetland resource area; include **Pleasant Bay ACEC (100 ft from the 10 ft contour NGVD29 and 100 ft from the edge of delineated wetlands for any wetland that is hydrologically connected to Pleasant Bay); NOTE: All wetlands, regardless of size are regulated under the Chatham Wetlands Protection Bylaw)**
 - 100 year Coastal Flood Zone locations according to the most recent 2009 maps provided by FEMA (FIRMS), noting map referenced
 - Existing buildings and other property features such as hardscape, stairways & flagpoles with proposed changes overlaid
 - Limit of work & erosion control locations
 - Distance of the project components from property lines
 - Location of all project proposals, including mitigation areas
 - Existing grades; proposed grades
 - Show MHW & MLW, with a statement in the narrative detailing how the elevations were determined
 - **Stamped & signed by MA registered professional**
 - In the case of docks/piers, catwalks or other water dependent structures: cross-section of dock, depth profile, seasonal storage location, plank spacing Provide square footage calculations; **depending on the project, further detail may be warranted and requested**
- ✓ Mitigation proposed; square footage of native plantings if applicable (see plan)

NA Include list identifying additional plans & documents submitted

NOTE: **Requests to amend existing Orders of Conditions** must first be reviewed by the Agent / Commission prior to a formal filing and notification of abutters. If time is a factor, the applicant may simply file a new Notice of Intent or Abbreviated Notice of Intent.

The following information should be addressed in the project narrative.

SQUARE FOOTAGE CALCULATIONS

Within Resource Area and/or 50ft No Disturb Zone	Existing Square Coverage	Proposed Square Coverage	Net Increase / Decrease
Developed Area			
(A) Buildings (sheds, dwellings, decks, etc.)	150	150	0
(B) Hardscape (pools, walkways, driveway, etc.)	0	0	0
Within 50ft – 100ft Adjacent Upland Resource Area	Existing Square Coverage	Proposed Square Coverage	Net Increase / Decrease
Developed Area			
(A) Buildings (sheds, dwellings, decks, etc.)	420	420	0
(B) Hardscape (pools, walkways, driveway, etc.)	50	160	110

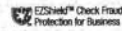
ELDREDGE SURVEYING & ENGINEERING, LLC

1038 Main Street
Chatham, MA 02633
(508) 945-3965



P.O. BOX 10
ORLEANS, MA 02653
capecodfive.com

53-7107/2113



10/24/2017

PAY TO THE ORDER OF Town of Chatham Conservation Commission

\$ **137.50

One Hundred Thirty-Seven and 50/100*****

DOLLARS

Town of Chatham Conservation Commission



Mapaja Ullinko Bay Caprey
AUTHORIZED SIGNATURE

MEMO

303 Old Queen Anne Road

⑈007118⑈ ⑆211371078⑆ 89 3007229⑈

ELDREDGE SURVEYING & ENGINEERING, LLC

7118

Town of Chatham Conservation Commission

10/24/2017

town share of filing fee
local filing fee
advertising fee

67.50
50.00
20.00

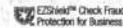
ELDREDGE SURVEYING & ENGINEERING, LLC

1038 Main Street
Chatham, MA 02633
(508) 945-3965



P.O. BOX 10
ORLEANS, MA 02653
capecodfive.com

53-7107/2113



10/24/2017

PAY TO THE ORDER OF Commonwealth of Massachusetts

\$ **42.50

Forty-Two and 50/100*****

DOLLARS

Commonwealth of Massachusetts



Mapaja Ullinko Bay Caprey
AUTHORIZED SIGNATURE

MEMO

303 Old Queen Anne Road

⑈007119⑈ ⑆211371078⑆ 89 3007229⑈

ELDREDGE SURVEYING & ENGINEERING, LLC

7119

Commonwealth of Massachusetts

10/24/2017

state share of filing fee

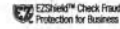
42.50

ELDREDGE SURVEYING & ENGINEERING, LLC

1038 Main Street
Chatham, MA 02633
(508) 945-3965



P.O. BOX 10
ORLEANS, MA 02653
capecodfive.com
53-7107/2113



7122

10/24/2017

PAY TO THE ORDER OF Natural Heritage and End Species Program

\$ **300.00

Three Hundred and 00/100*****

DOLLARS

Natural Heritage and End Species Program
100 Hartwell Street
West Boylston, MA 01583



Mapaya Utawiko Bay Company
AUTHORIZED SIGNATURE

Security features. Details on back.

MEMO

303 Old Queen Anne Road, Chatham

⑈007122⑈ ⑆211371078⑆ 89 3007229⑈

ELDREDGE SURVEYING & ENGINEERING, LLC

7122

Natural Heritage and End Species Program

10/24/2017

NHESP filing fee for 303 Old Queen Anne Road

300.00

01 ESE, LLC - 7229 b 303 Old Queen Anne Road, Chatham

300.00

ELDREDGE SURVEYING & ENGINEERING, LLC

7122

Natural Heritage and End Species Program

10/24/2017

NHESP filing fee for 303 Old Queen Anne Road

300.00

01 ESE, LLC - 7229 b 303 Old Queen Anne Road, Chatham

300.00