

NOTICE OF PUBLIC HEARING SUDBURY CONSERVATION COMMISSION

The Sudbury Conservation Commission will hold a public hearing to review the Notice of Intent filing for the removal of invasive shrubs and replacement with native meadow/shrubland species within the 100-foot Buffer Zone and 200-foot Riverfront Area, pursuant to the Wetlands Protection Act and Sudbury Wetlands Administration Bylaw, at 191 Landham Road, Sudbury MA. Stephen Wilkinson, Applicant. The hearing will be held on Monday, September 27, 2021 at 6:45 pm, via remote participation.

Please see the Conservation Commission web page for further information.

<https://sudbury.ma.us/conservationcommission/meeting/conservation-commission-meeting-monday-september-27-2021/>.

SUDBURY CONSERVATION COMMISSION

September 15, 2021



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

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):

191 Landham Rd

a. Street Address

Sudbury

b. City/Town

01776

c. Zip Code

Latitude and Longitude:

L10

f. Assessors Map/Plat Number

42.35417N

d. Latitude

71.40394W

e. Longitude

10-0501

g. Parcel /Lot Number

2. Applicant:

Stephen

a. First Name

Wilkinson

b. Last Name

Owner

c. Organization

191 Landham Rd

d. Street Address

Sudbury

e. City/Town

3154153778

h. Phone Number

MA

f. State

ka2sdad@yahoo.com

j. Email Address

01776

g. Zip Code

i. Fax Number

3. Property owner (required if different from applicant):

☐ Check if more than one owner

Stepen

a. First Name

Wilkinson

b. Last Name

c. Organization

191 Landham Rd

d. Street Address

Sudbury

e. City/Town

3154153788

h. Phone Number

MA

f. State

ka2sdad@yahoo.com

j. Email address

01776

g. Zip Code

i. Fax Number

4. Representative (if any):

Ryan

a. First Name

Corrigan

b. Last Name

Parterre Ecological Services

c. Company

6 Republic Road

d. Street Address

North Billerica

e. City/Town

4028710126

h. Phone Number

MA

f. State

rcorrigan@parterregarden.com

j. Email address

01862

g. Zip Code

i. Fax Number

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

\$165

a. Total Fee Paid

\$95

b. State Fee Paid

\$70

c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

Removal of invasive shrubs and replacement with native meadow/shrubland species in Riverfront Buffer. Please see the attached Land Management Plan

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

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

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

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

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:

Southern Middlesex

158816

a. County

b. Certificate # (if registered land)

67986

328

c. Book

d. Page Number

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

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

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



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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet
Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
d. <input type="checkbox"/> Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. <input type="checkbox"/> Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. <input type="checkbox"/> Riverfront Area	Landham Brook Inland Stream Vegetation Management, No soil disturbance 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:

28000 sq ft of buffer
square feet

4. Proposed alteration of the Riverfront Area:

28000

a. total square feet

5660

b. square feet within 100 ft.

22340

c. square feet between 100 ft. and 200 ft.

5. Has an alternatives analysis been done and is it attached to this NOI?

☐ Yes ☒ No

6. Was the lot where the activity is proposed created prior to August 1, 1996?

☐ Yes ☒ No

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

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



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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	<div>1. square feet</div> <div>2. cubic yards dredged</div>	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	1. square feet	2. cubic yards dune nourishment
	Size of Proposed Alteration	Proposed Replacement (if any)
f. <input type="checkbox"/> Coastal Banks	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	1. square feet	
h. <input type="checkbox"/> Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	1. square feet	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	1. square feet	

4. ☐ Restoration/Enhancement

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

a. square feet of BVW

b. square feet of Salt Marsh

5. ☐ Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



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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**

9/14/2021

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review*

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

(a) within wetland Resource Area

percentage/acreage

(b) outside Resource Area

25%

percentage/acreage

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

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

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

(b) ☒ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <https://www.mass.gov/endangered-species-act-mesa-regulatory-review>).

Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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



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

(c) ☐ MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

(d) ☐ Vegetation cover type map of site

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

(f) ☐ OR Check One of the Following

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

2. ☐ Separate MESA review ongoing.

a. NHESP Tracking #

b. Date submitted to NHESP

3. ☐ Separate MESA review completed.

Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

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

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

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

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

North Shore - Hull to New Hampshire border:

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

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

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

c. ☐ Is this an aquaculture project?

d. ☐ Yes ☐ No

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



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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.
- Land Management and Restoration Plan**
- a. Plan Title
Ryan Corrigan Parterre Ecological Services
- c. Signed and Stamped by
1"-20'
- d. Final Revision Date
August 21, 2021
- e. Scale
1"-20'
- f. Additional Plan or Document Title
Massgis project area and NHESP Priority Habitats
- g. Date
9/14/2021
5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☐ Attach NOI Wetland Fee Transmittal Form
9. ☐ Attach Stormwater Report, if needed.

E. Fees

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

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

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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City/Town

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

Ryan Corrigan

9/14/2021

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

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

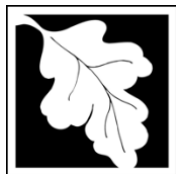
For MassDEP:

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

Other:

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

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



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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:

191 Landham Rd

a. Street Address

Sudbury

b. City/Town

c. Check number

d. Fee amount

2. Applicant Mailing Address:

Stephen

a. First Name

Land Owner

Wilkinson

b. Last Name

c. Organization

191 Landham Rd

d. Mailing Address

Sudbury

e. City/Town

315-415-3778

h. Phone Number

MA

f. State

01776

g. Zip Code

ka2sdad@yahoo.com

j. Email Address

i. Fax Number

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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

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



Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Invasive Species Managment and Restoration in Riverfront area	1	\$110	\$110 x 1.5 = \$165
Step 5/Total Project Fee:			\$165
Step 6/Fee Payments:			
Total Project Fee:			\$165
State share of filing Fee:			\$70
City/Town share of filling Fee:			\$95
			a. Total Fee from Step 5
			b. 1/2 Total Fee less \$12.50
			c. 1/2 Total Fee plus \$12.50

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.

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.

noifeetf.doc • Wetland Fee Transmittal Form • rev. 10/11

Abutters List[print this list](#)

Date: September 15, 2021

Subject Property Address: 191 LANDHAM RD Sudbury, MA
Subject Property ID: L10-0501

Search Distance: 100 Feet

Prop ID: L10-0013
Prop Location: 175 LANDHAM RD Sudbury, MA
Owner: HOLTZ KENNETH G II &
Co-Owner: MENDEZ VALERIE K
Mailing Address:

175 LANDHAM RD
SUDBURY, MA 01776

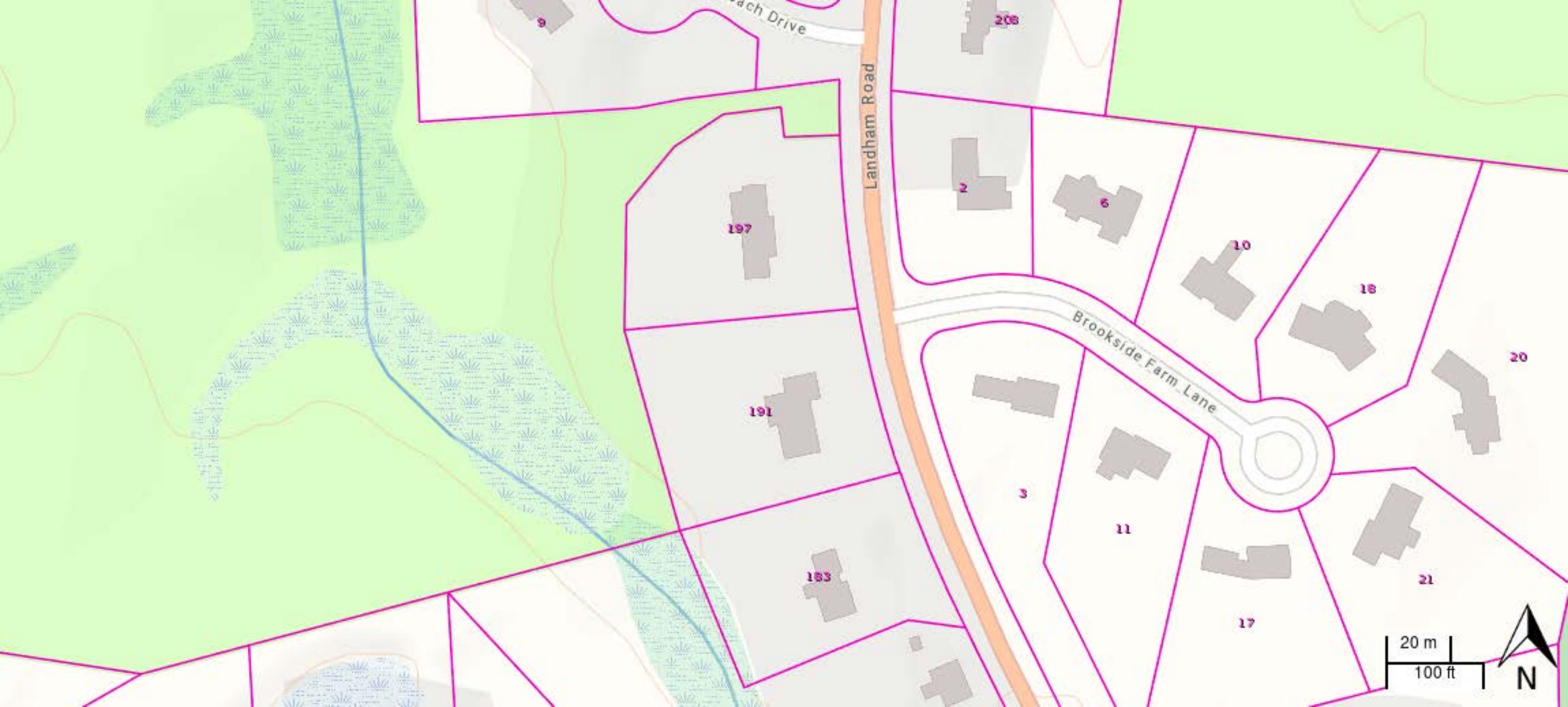
Prop ID: L10-0040
Prop Location: 183 LANDHAM RD Sudbury, MA
Owner: SCOTT J EVAN & LI FUYI
Co-Owner:
Mailing Address:
183 LANDHAM RD
SUDBURY, MA 01776

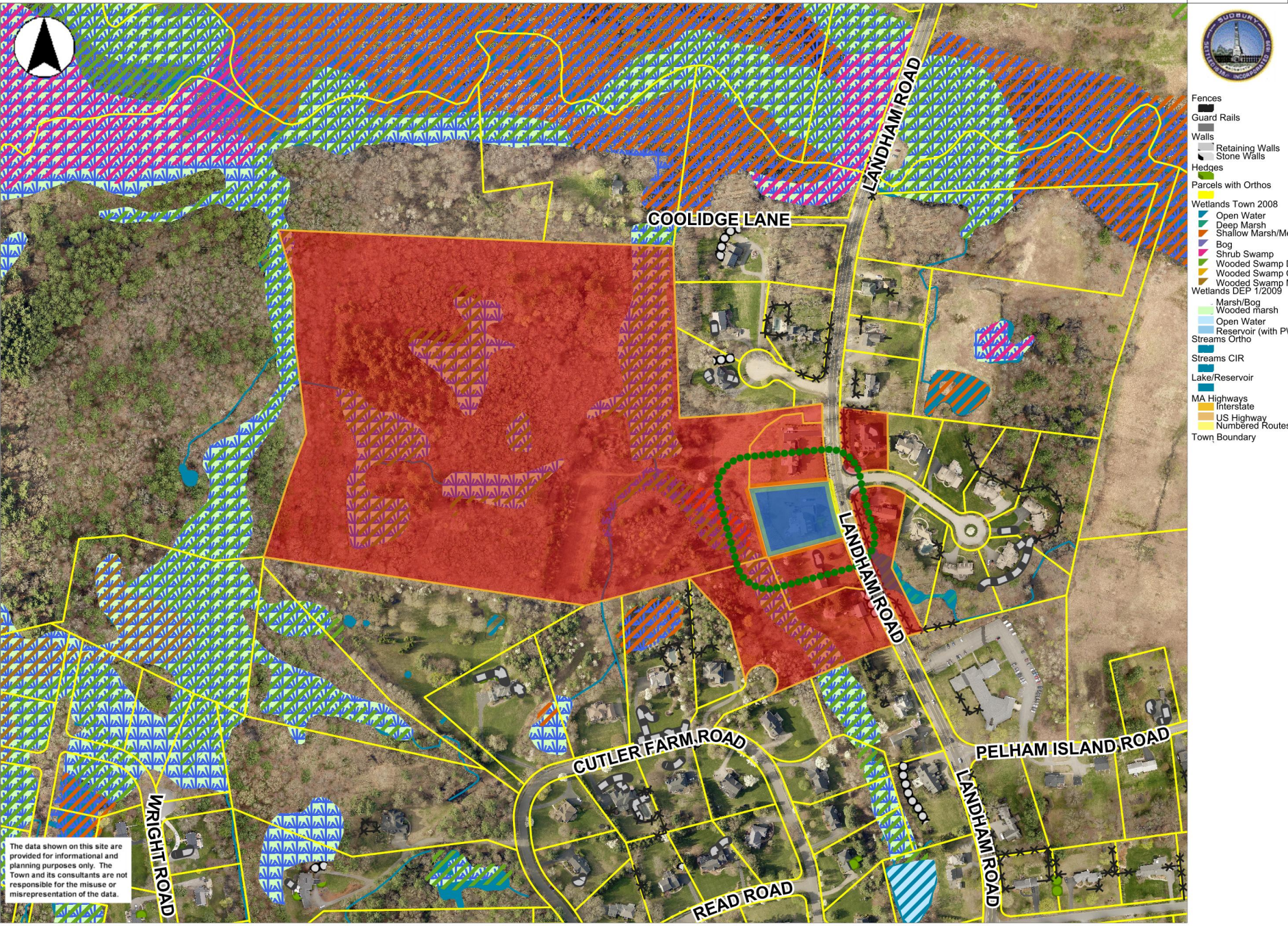
Prop ID: L10-0500
Prop Location: 0 LANDHAM RD Sudbury, MA
Owner: TOWN OF SUDBURY
Co-Owner: CONSERVATION
Mailing Address:
278 OLD SUDBURY RD
SUDBURY, MA 01776

Prop ID: L10-0502
Prop Location: 197 LANDHAM RD Sudbury, MA
Owner: STORER ERICK &
Co-Owner: PHILBRICK LINDSAY
Mailing Address:
197 LANDHAM RD
SUDBURY, MA 01776

Prop ID: L10-0609
Prop Location: 3 BROOKSIDE FARM LN Sudbury, MA
Owner: HARRINGTON PATRICK & COREY
Co-Owner:
Mailing Address:
3 BROOKSIDE FARM LN
SUDBURY, MA 01776

Prop ID: L10-0610
Prop Location: 2 BROOKSIDE FARM LN Sudbury, MA
Owner: HAVER THOMAS & HAVER CHRISTINE
Co-Owner: C & HAVER ALEXANDRA
Mailing Address:
2 BROOKSIDE FARM LANE
SUDBURY, MA 01776





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.

- SUDBURY TOWN
- Fences
 - Guard Rails
 - Walls
 - Retaining Walls
 - Stone Walls
 - Hedges
- Parcels with Orthos
- Wetlands Town 2008
 - Open Water
 - Deep Marsh
 - Shallow Marsh/Mead
 - Bog
 - Shrub Swamp
 - Wooded Swamp Dec
 - Wooded Swamp Cor
 - Wooded Swamp Mix
- Wetlands DEP 1/2009
 - Marsh/Bog
 - Wooded marsh
 - Open Water
 - Reservoir (with PWS)
- Streams Ortho
- Streams CIR
- Lake/Reservoir
- MA Highways
 - Interstate
 - US Highway
 - Numbered Routes
- Town Boundary

0 530 1060 ft

Printed on 09/15/2021 at 11:44 AM

Abutters Map

Land Management Plan

A Narrative for Invasive Plant Management
and Native Plant Restoration

191 Landham Road
Sudbury, MA

August 22, 2021



PARTERRE
ECOLOGICAL

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Introduction and Primary Goals

The Wilkinson residence is located at 191 Landham Road in Sudbury. A portion of the property lies within the 100' wetland buffer as well as the Inner/outer Riparian Zone of Landham Brook, a perennial stream. The property backs up to Landham Brook Marsh Conservation Area. An inventory of existing native and invasive plant species can be found in this plan.

Over the years, invasive species have infiltrated the edge of the conservation area, starting to form monocultures and damaging existing Cherry and Spruce. If unmanaged, they threaten to spread further into the healthy ecosystem around Landham Brook.

The primary goal of this plan is to seek approval from the Sudbury Conservation Commission to manage the dense invasive shrub layer in the buffer zone and revegetate with native species that match the surrounding plant community. We propose control of all invasive plant species identified on site and restore the native plant community along the southwest property line.



A Spring Peeper taking in the morning dew on a patch of Wrinkle-leaf Goldenrod. The Land Management Plan proposes controlling invasive species populations and restoring areas with native plant species that will further support wildlife like this frog along the boundary.



191 Landham Invasive Plant Inventory

Mature invasive species have developed isolated populations along the property boundary with Landham Brook Conservation area. These threaten to spread into an otherwise healthy native ecosystem. We propose controlling invasive plant species that have developed self sustaining populations on the Wilkinson property and restoring with native species. The physiology of the invasive plants has enabled them to out compete the native plant community and compromise the ecological value of the native plant community. The dominant invasive plants, including Bittersweet, Buckthorn and Multiflora Rose, along the woodland edge poses a safety hazard as it entangles native tree species and disrupts the formation of a healthy understory. All invasive shrubs proposed for control will be removed from the site. Wild Grape (Vitus.) is a valuable native species but also threatens to weigh down existing spruce and damage their crown. We propose selective removal.

Invasive Plant Species Identified:

Celastrus orbiculatus, Asiatic Bittersweet
Frangula alnus, Glossy Buckthorn
Lonicera morrowii, Morrow's Honeysuckle
Lythrum virgatum, Purple loosestrife
Rhamnus cathartica, Common buckthorn
Rosa multiflora, Multiflora Rose

**** Likely Invasive Plant Species Identified:***

Artemisia vulgaris, Mugwort
Cirsium vulgare, Common thistle
Malus sp., Crabapple
Vitus sp. Wild Grape

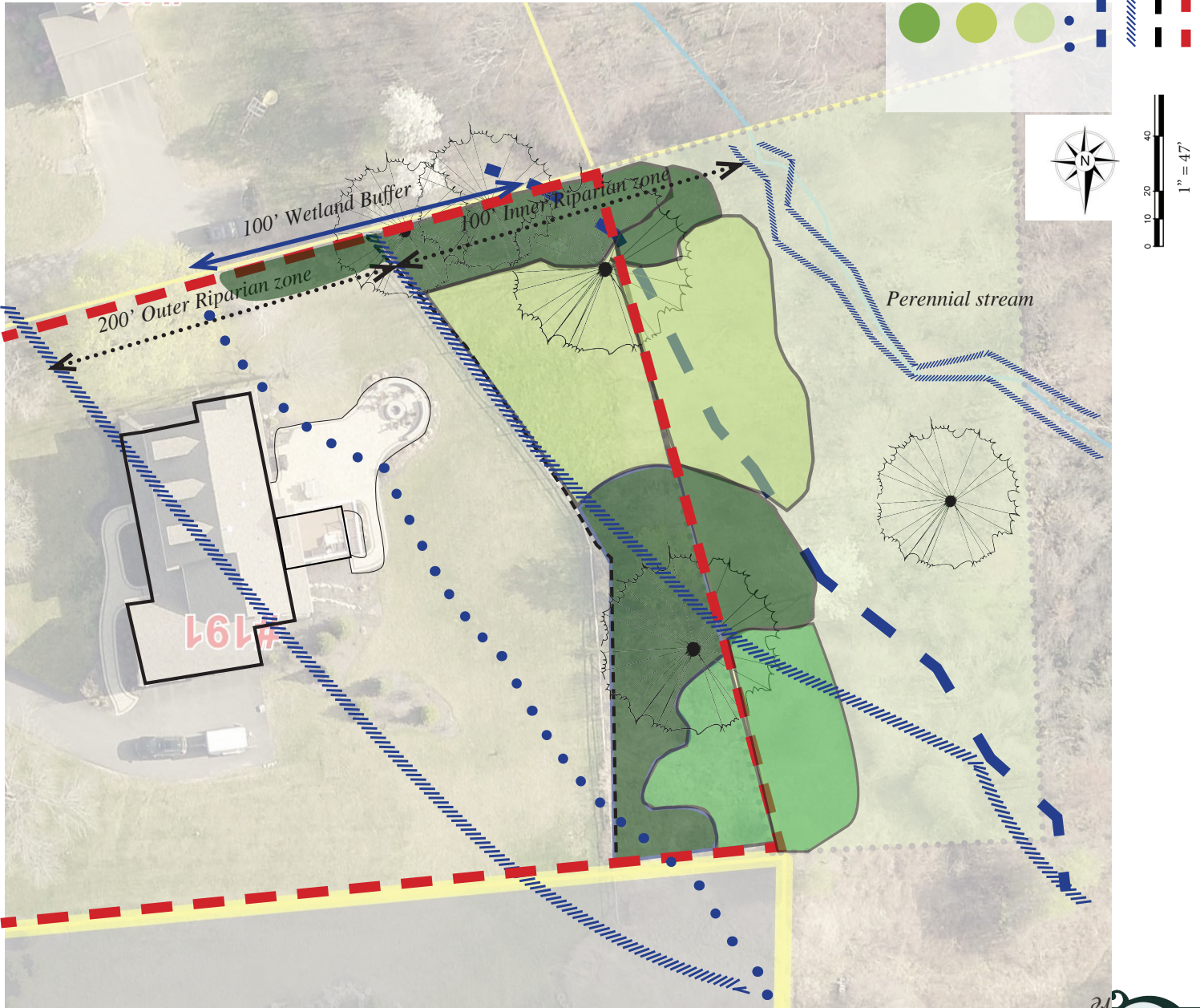
* While not listed as an Invasive Species by MIPAG (Massachusetts Invasive Plant Advisory Group) these species can dominate the shrub layer and crowd out native trees and shrubs. We recommend removal of Crabapple and Mugwort along with listed invasive plant species in wetland buffers and replace with native shrubs and trees.



Bittersweet and Grape climbing a mature Crabapple (*Malus sp.*) along the eastern property line. Climbing vines including Bittersweet, Multiflora Rose, and Grape threaten to suppress or replace the native shrub understory of Sensitive Fern and Goldenrod.



Along the southern property line are pockets of dense invasive Glossy Buckthorn, Bittersweet and Multiflora Rose extending into the canopy of mature Spruce trees. These threaten to create a monoculture within the resource area while compromising the health of the Spruce trees. Along the northern property border mature Cherry and Crabapple are weighed down by Bittersweet and Grape which can damage the canopy, suppress saplings and create a safety hazard. Below them is a dense layer of Glossy Buckthorn and Mugwort which have already formed monocultures in some areas. In the middle of the property (light green) is a relatively healthy meadow with some Purple Loosetrife and Bittersweet mixed in. We propose removing by manual hand methods and cut & dab herbicide application.



191 Landham Road Invasive Plant Images



A dense line of Glossy Buckthorn along the property fence line edge.



Purple Loosestrife in small patches in the meadow can expand quickly



Oriental Bittersweet and Wild Grape overtaking an existing Crabapple



Mugwort creeping into the property from the north border along with Bittersweet



Purple Loosestrife among Goldenrod in the central park of the conservation area



191 Landham Road Invasive Plant Images



A bird's eye view of the proposed management area shows meadow-like conditions to the left featuring mostly native species and invasive shrubs to the right with Bittersweet and Grape climbing suppressing the canopy



Glossy Buckthorn with Purple Loosestrife below and Grape above



191 Landham Road

Invasive management techniques

We propose a combination of manual hand removal and cut & dab herbicide to control invasive plant species within the identified project areas over a phased time line. Once the initial identified invasive plant species have been removed by manual methods (described below), we propose seeding all exposed soil with native seed blend and begin planting identified tree, shrub and perennial plant species selected from the native plant community list that will increase the density and diversity of the existing wetland buffers.

Manual Hand Removal Methods:

Manual methods of invasive plant management will include hand pulling or cutting. To minimize soil disturbance, shallow-rooted invasive plants less than 1" in caliper will be hand pulled from the soil. Invasive plant species greater than 1" in diameter will be cut. All invasive plant material will be disposed of off site. Manual hand pulling and cutting will remove all invasive plants from the wetland buffer.

Cut and Dab application and Foam Wipe Application: All invasive plant species that have a base greater than 1" in caliper are proposed for herbicide application methods. Although invasive, the root systems of plants greater than 1" in caliper usually have extensive fibrous root systems, providing soil stabilization. So we propose a cut & dab method of application of a Triclopyr based herbicide (Garlon) or Glyphosate based herbicide approved for wetland use (trade name Rodeo) on individual cut stumps. Licensed Pesticide Applicators will complete all aspects of the proposed restoration. We propose foam wipe application to existing Mugwort to avoid intensive soil disturbance. This consists of wiping a foam-based glyphosate application to the stems and leaves without any unintended drift.



Qualified applicators with necessary Personal Protective Equipment paint the stems of invasive species immediately after cutting



Proposed cut stump treatment (above) using hand tools and applying marking dye to eliminate possibility of treatment of stump twice, or missing stump entirely.



191 Landham Road

Asiatic Bittersweet ID and Management

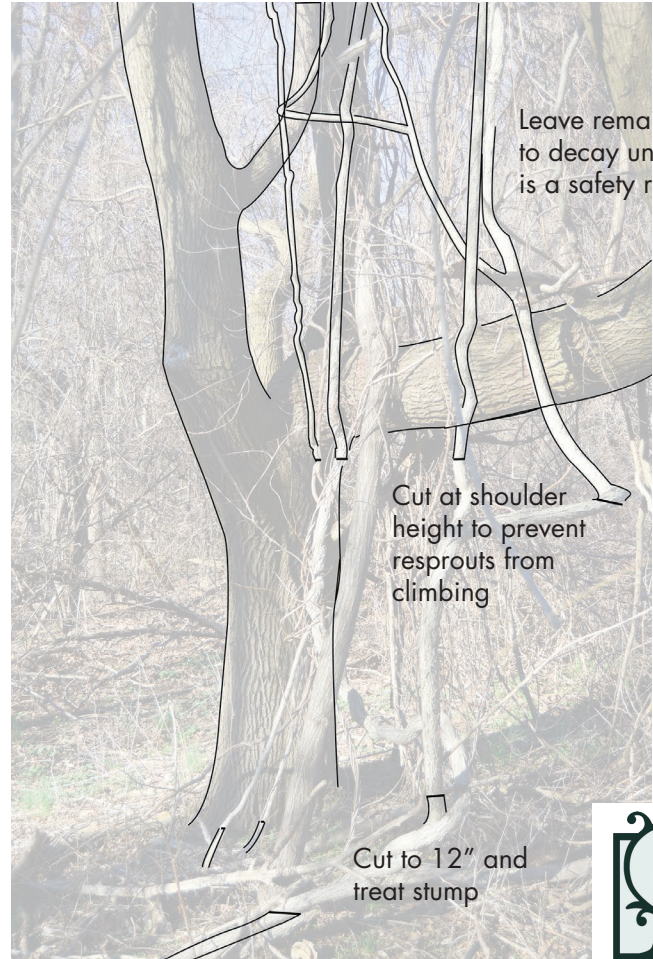
Invasive Bittersweet (*Celastrus orbiculatus*) have the capacity to girdle, weaken, and even kill mature canopy trees. Without some frequency of removal, they will eventually open large holes in the canopy while suppressing saplings from filling the holes. They readily resprout after being cut and can damage the aesthetic and ecological value of meadows.

Mature stems produce thousands of bright red berries that mature in late fall and are spread by birds.

Removing the entire vines from trees is often dangerous and unnecessary (unless it poses safety risk). Our team recommends making cuts at shoulder height followed by a cut at 12" and immediate herbicide treatment. Bittersweet aggressively suckers after cutting so it is important to cut and treat during or after its flowering period (late June to December).



Identification: Alternate, circular light green leaves 2-5 in. long. Distinctive, large light colored vine. Red berries with orange casing appearing in late fall. Seedlings have light green leaves. Deep orange roots.



Management Calendar for Treatment and Planting

Task	March/ April	May	June	July	August	Sept.	Oct.	Nov.	Dec.
<i>Foam and Cut and Dab Treatment of Mugwort</i>									
<i>Hand pull/Cut and Dab Loosestrife and Bull Thistle</i>									
<i>Cut and dab Glossy Buckthorn, Multiflora Rose, and Honeysuckle</i>									
<i>Invasive management in wetland areas</i>									
<i>Invasive vine management and cut and dab treatment</i>									
<i>Restoration planting</i>									
<i>Seeding of meadow areas</i>									



Optimal timing and efficiency



Not optimal but mostly effective



Possible, but not ideal



191 Landham Road

Native Plant Inventory

Within the wetland buffer is a diverse native plant community dominated by Red Maple, Walnut and Black Cherry. Chokecherry, Winterberry, Silky Dogwood dominate the understory shrub layer with areas of dense Goldenrod, Sensitive Fern and Virginia Creeper as a ground cover. We propose utilizing these existing native plant species as indicators of what naturally inhabits this plant community and propose additional planting of these species and diversifying with other native trees, shrubs and perennials.

Native Plant Species Identified:

Acer rubrum, Red Maple
Ageratina altissima, White snakeroot
Betula populifolia, Gray birch
Dichanthelium clandestinum, Deer-tongue rosette-panicgrass
Elymus sp., Wild-rye
Euthamia graminifolia, Grass-leaved goldenrod
Eutrochium maculatum, Spotted Joe-Pye Weed
Ilex opaca, American holly
Impatiens capensis, Jewelweed
Juglans nigra, Black walnut
Oenothera biennis, Common evening-primrose
Onoclea sensibilis, Sensitive Fern
Panicum virgatum, Switch panicgrass
Picea glauca, White spruce

Phytolacca americana, American pokeweed
Prunus serotina, Black Cherry
Prunus virginiana, Chokecherry
Rubus allegheniensis, Blackberry
Solidago canadensis, Canada goldenrod
Solidago rugosa, Wrinkle-leaved goldenrod
Swida amomum, Silky dogwood
Symplocarpus foetidus, Skunk-cabbage
Toxicodendron radicans, Poison Ivy
Typha latifolia, Broad-leaved cattail
Verbena hastata, Blue vervain
Vitis sp., Grape



Existing Gray Birch(*Betula populifolia*) along the fence-line



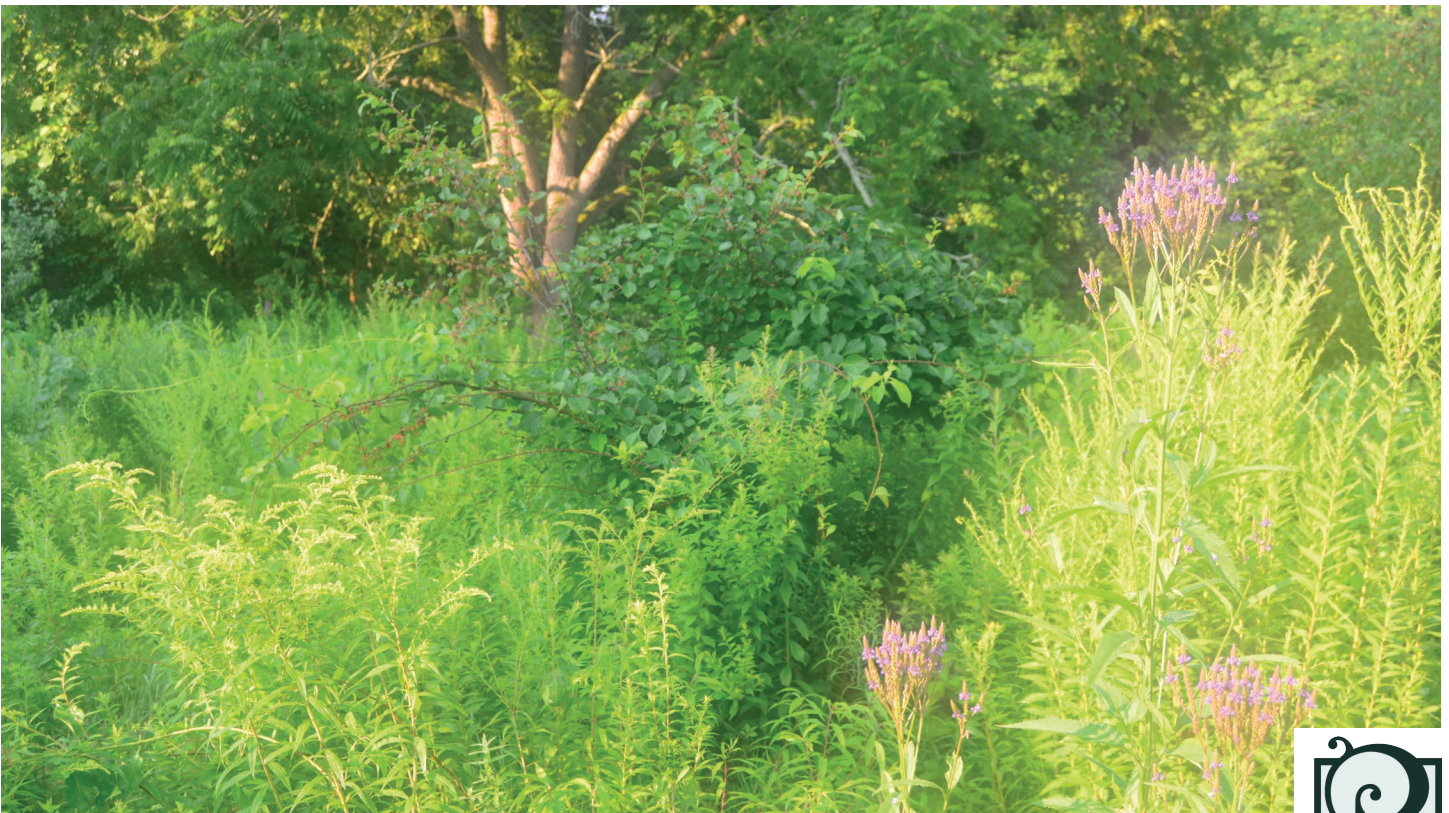
Gray Dogwood mixed with Silky Dogwood at the edge of the property line



191 Landham Road
Invasive Plant Images



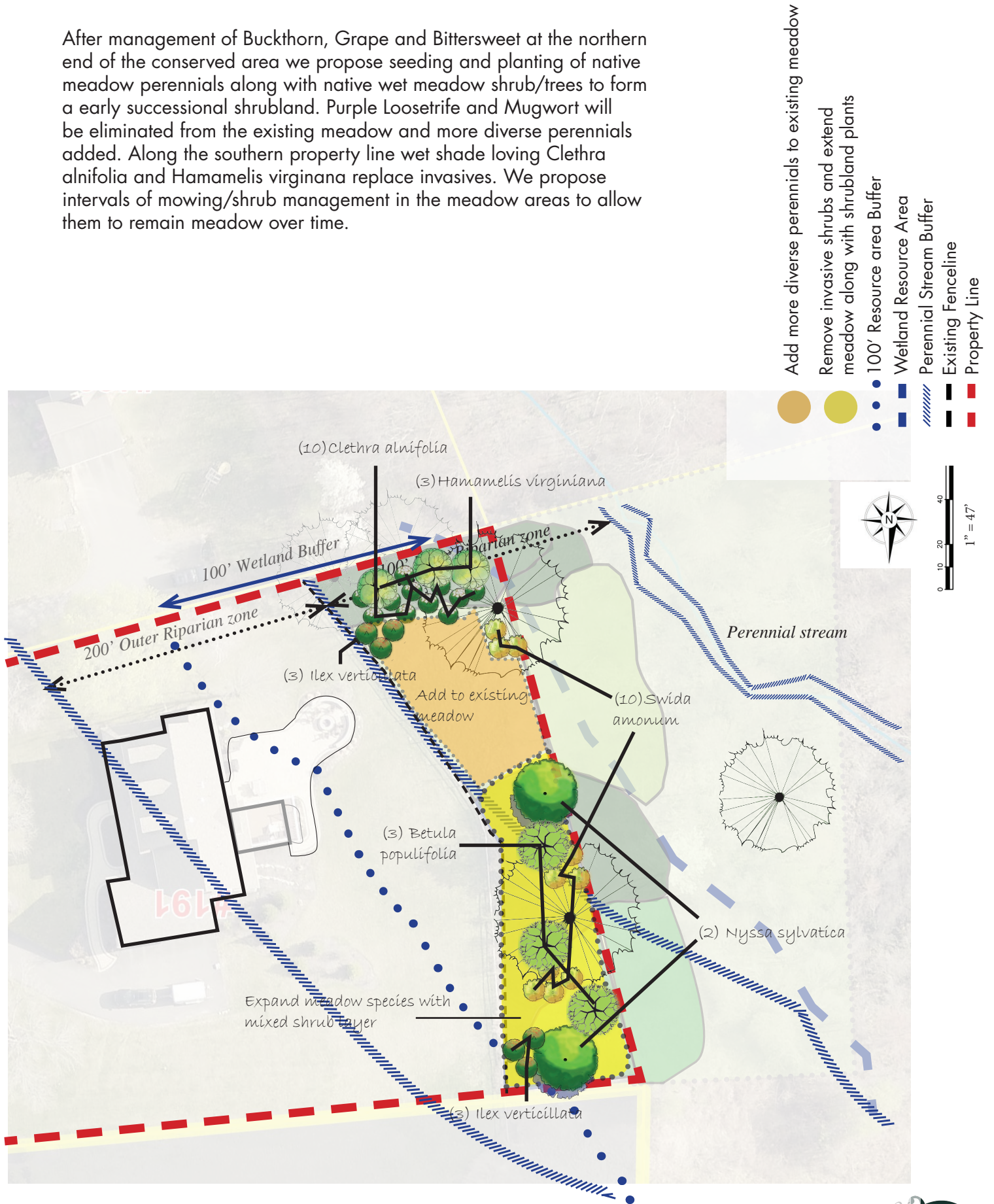
Blue Vervain (*Verbena hastata*) with Goldenrod behind



Shagbark Hickory sapling amongst the fern understory. Selected native species reflect the diverse existing habitat



After management of Buckthorn, Grape and Bittersweet at the northern end of the conserved area we propose seeding and planting of native meadow perennials along with native wet meadow shrub/trees to form a early successional shrubland. Purple Loosetrife and Mugwort will be eliminated from the existing meadow and more diverse perennials added. Along the southern property line wet shade loving *Clethra alnifolia* and *Hamamelis virginiana* replace invasives. We propose intervals of mowing/shrub management in the meadow areas to allow them to remain meadow over time.



191 Landham Road

Native Restoration Strategies

After invasive plant species have been removed from the wetland buffer, the area will be planted with one to five gallon native conservation grade New England native trees, shrubs and perennials from local seed and cutting sources. It is proposed that native plants will have greater than 90% coverage by the conclusion of the 3 year Order of Conditions. Native plants proposed for installation will add diversity of existing native plants, provide habitat and forage for wildlife, and reduce storm water and sediment flow wetland areas. Plants proposed for installation include:

	Quantity	Size	Scientific name	Common name
Within 100' Wetland Buffer	3	6-7" HT	<i>Betula papyrifera</i>	Gray Birch
	10	18-24" HT	<i>Clethra alnifolia</i>	Summersweet
	3	6-7' HT.	<i>Hamamelis virginiana</i>	American Witchazel
	6	5 gallon	<i>Ilex verticillata</i>	Winterberry
	2	6-7' HT.	<i>Nyssa sylvatica</i>	Black Tupelo
	10	18-24" HT	<i>Swida amonum</i>	Silky Dogwood
	15	1 Gallon	<i>Asclepias incarnata</i>	Swamp Milkweed
	15	1 Gallon	<i>Eupatorium perfoliatum</i>	Boneset
	15	1 Gallon	<i>Rudbeckia triloba</i>	Brown Eyed Susan
	15	1 Gallon	<i>Verbena hastata</i>	Blue Vervain
	15	1 Gallon	<i>Vernonia noveboracensis</i>	Ironweed

After planting the conservation grade native shrubs and trees and slope stabilizing perennials, we propose the area be seeded with a Showy New England Wildflower mix at recommended seeding rates. This dense seed mix will supply a matrix of vegetative growth to cover disturbed soils, and reduce recolonization of invasive plant species.

Species to be seeded include:

Little Bluestem (Schizachyrium scoparium), Red Fescue (Festuca rubra), Indian Grass (Sorghastrum nutans), Partridge Pea (Chamaecrista fasciculata), Canada Wild Rye (Elymus canadensis), Riverbank Wild Rye (Elymus riparius), Butterfly Milkweed (Asclepias tuberosa), Black Eyed Susan (Rudbeckia hirta), Lance Leaved Coreopsis (Coreopsis lanceolata), Ox Eye Sunflower (Heliopsis helianthoides), Common Sneezeweed (Helenium autumnale), Marsh Blazing Star (Liatris spicata), Blue Vervain (Verbena hastata), New England Aster (Aster novae-angliae), Wild Blue False Indigo (Baptisia australis), Hollow Stem Joe Pye Weed (Eupatorium fistulosum/ Eutrochium fistulosum), Early Goldenrod (Solidago juncea).



191 Landham Road Maintenance Schedule

The recommendations for restoration take into consideration the long term health of the wetland. Once the invasive plant species have been managed in a locus area and any native plants installed, a long-term maintenance plan will be set in motion with the goal of continued control of invasive plant species on site, serve, and sustain native plant populations, and improve the native plant diversity and aesthetic beauty of the wetland.

Fall 2021

- Cut and dab application to invasive shrub and tree species
- Utilize control methods of invasive plant management to exhaust seed bank (Preventing dispersal of seed heads, fruit of invasive shrubs)
- Hand pull invasive seedlings less than 1" in diameter
- Stem treat invasive perennials as needed and remove all seed heads
- Prep are to be graded by removing any remaining invasive debris so area can be smothered
- Cover any exposed soils with the approved seed mix

Spring 2022

- Begin planting native plant species according to approved quantities and varieties
- Cover any exposed soils with the approved seed mix

Summer-Fall 2022

- Followup Cut and dab application to invasive shrub and tree species
- Hand pull invasive seedlings less than 1" in diameter
- Stem treat invasive perennials as needed and remove all seed heads
- Continue planting as needed and monitor health
- Cover any exposed soils with the approved seed mix, provide leaf mulch in upper beds

Spring 2023- Fall 2023

- Monitor plant response and continue hand pulling and herbicide application methods on re sprouting invasive plant species
- Cover exposed soils Conservation seed mix

Ongoing Maintenance and Monitoring:

- After the treatments of fall 2023, the management plan should be re-evaluated. If management treatments have been successful, only monitoring and minimal hand removal should be required to keep invasive plant species from being reintroduced. Native trees, shrubs, and herbaceous forbs should dominate the wetland buffer.
- Implementation of the LMP should be completed by qualified professionals including:
 - Licensed pesticide applicator
 - MA Certified Massachusetts Invasive Species Management
 - MCH Massachusetts Certified Horticulturist
- Monitoring reports shall be submitted to conservation at the end of each growing season indicating invasive species management efforts and establishment of the restoration plantings.

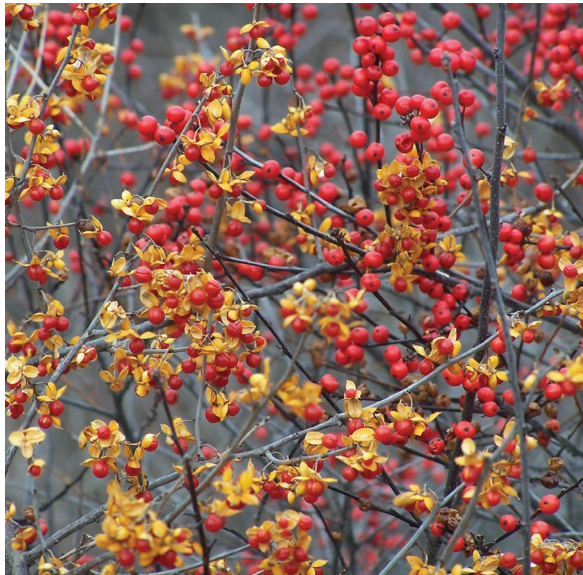




Bittersweet

Description:

Celastrus orbiculatus, Asiatic Bittersweet is a deciduous climbing vine common in areas of disturbance in our New England forests. It has glossy, rounded leaves that are alternate with finely toothed margins. The leaves turn yellow in the fall. The fruiting plants produce small greenish flower clusters from leaf axils that mature in fall to produce high numbers of fruiting seed. The seed are noticeably yellow, globular capsules that split open at maturity to reveal red-orange fruiting seeds. Roots are also distinctly orange.



Habitat:

Bittersweet spreads easily into forest edges, woodlands, unmanaged meadows and old fields. Most disturbed sites that are not being actively managed that receive full sun are susceptible. The vine can tolerate shade but is often found in more open, sunny areas.



Management:

Asiatic Bittersweet management is a combination of manual hand pulling with cut & dab herbicide treatments. For established plants, vines should be cut to ground to reduce mass. Persistent root infestations will require repeat cutting and treatments over several seasons. Rake any seeds present, bagging in plastic bags, tying, and disposing of correctly.

Celastrus orbiculatus,
Asiatic Bittersweet





Honeysuckle

Description:

Lonicera morrowii, Morrow's honeysuckles are upright, deciduous shrubs that typically have a multi-stem mounding appearance. Oval leaves are opposite along the stem with smooth edges (no teeth or lobes) and hairy on the underside. Mature stems are often hollow on the interior and peeling on the outer bark. In the spring pairs of fragrant, tubular flowers less than an inch long are borne along the stem in the leaf axils. The fruits are red to orange, and fleshy.



Habitat:

Honeysuckles are relatively shade-intolerant and most often occur in forest edges, abandoned fields, and other open, upland habitats. Woodlands and open meadows, especially those that have been grazed or otherwise disturbed and are left unmanaged are also highly susceptible. Morrow's Honeysuckle have the greatest habitat diversity and are capable of invading wetland edges and other uncommon habitat types.



Management:

Morrow's Honeysuckle management is a combination of mechanical mowing and manual hand pulling with cut and dab herbicide treatments. When feasible, the root system is generally shallow and plants can be uprooted easily. Persistent root re-sprouting may require repeat cutting with herbicide application over several seasons to fully control.

Lonicera morrowii,
Morrow's Honeysuckle





Buckthorn

Description:

Frangula alnus, Glossy Buckthorn is a deciduous shrub that grows up to 20 ft. tall. The oblong leaves are up to 2" long, arranged alternately along the stem and are dark green on the surface, glossy above and slightly pubescent beneath. The leaves turn yellow in the fall, and remain on the plant when most other species have already lost their leaves. The yellow-green flowers are arranged in 1-8 flowered sessile, glabrous umbels. This plant flowers after the leaves expand, from May to September. The fruit ripen from red to black July to August.

Habitat:

Buckthorn thrives in early successional habitat. Abandoned agricultural or pasture lands, an opening in canopy within woodland, or unmanaged meadows are common areas. Buckthorn will also tolerate wetland soils where it can form dense stands that suppress the growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter allows the plant to be dispersed through the entire season.



Management:

Manual methods of hand-pulling seedlings is recommended. For larger saplings, a 'Weed Wrench' is effective. Mature Buckthorn can also be cut and the stump application of Triclopyr based herbicide. Rake any seeds present, bagging and disposing of correctly.



Frangula alnus,
Glossy buckthorn





Multiflora Rose

Description:

Rosa multiflora, Multiflora Rose is a shrub with arching canes with a mounding shape in the landscape. The leaves are divided into five to eleven sharply toothed leaflets. The base of each leaf stalk has a pair of fringed bracts which is a key identifier of the plant from other wild rose. Beginning in early summer, clusters of showy white flowers appear. The flowers are followed by developing red fruit, or hips, during the summer that remain on the plant through the winter.



Habitat:

Multiflora Rose thrives in early successional habitat. The rose has a wide tolerance for various soil, moisture, and light conditions. It occurs in dense woods, along river banks and roadsides and in open unmanaged fields. It can form a dense understory that suppresses growth of native plant species. The seed is readily dispersed by birds, and the extended productivity of the fruit into winter months allows wide spread distribution of the plant.



Management:

Manual methods of hand-pulling seedlings is effective. For more established shrubs, a combination of pruning to reduce mass followed by cut & dab treatments with a Triclopyr based herbicide is recommended. Persistent root infestations may require repeat cutting over several seasons. Rake any seeds present, bagging and disposing of correctly.

Rosa multiflora,
Multiflora rose



IDENTIFICATION AND QUALIFICATION OF APPLICANT

This plan has been developed by Miles H. Connors, Director of Ecological Services at Parterre Ecological, a division of Parterre Garden Services. Parterre Ecological Services provides Land Management Planning, expert Invasive Plant Management services, Native Plant Restoration strategies, and ongoing Maintenance and Monitoring in natural area restorations.

PLAN AUTHOR AND QUALIFICATIONS

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Miles holds an Bachelor of Science degree in Environmental Planning and Policy and Biology, with a Masters of Science in Sustainable Landscape Planning and Design. Miles is also a Massachusetts Certified Horticulturist, holds an Invasive Plant Certification from UMASS Amherst and is a Licensed Pesticide Applicator.

Members of the Parterre Ecological team are licensed Massachusetts Pesticide Applicators, are Massachusetts Certified Horticulturists and hold an Invasive Plant Certification from UMASS Amherst.



Precedent Images of a Restoration Project completed in 2020



1. Existing Conditions - Client under an enforcement order to restore buffer after tree & shrub removal and hydroseeding turf



2. After installation of sediment control, we mechanically mowed area and seeded with New England Conservation and Wildlife Seed Mix



3. Covered exposed loam with straw erosion control blanket: BioNet S75BN and staple into existing slope



4. Layout native plant species suitable for an Oak Hickory Forest plant community



5. Native plant species installed: *Quercus rubra*, *Kalmia latifolia*, *Ostrya virginiana*, *Corylus americana*, *Betula lenta*, *Fagus grandiflora* and *Viburnum acerfolium*

