

Staff Report

Date: October 26, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: **Bridge Street (36-015J) – Abbreviated Notice of Resource Area Delineation – DEP# 023-____, Fairhaven CON 023-251**

DOCUMENTS REVIEWED

- Abbreviated Notice of Resource Area Delineation and associated documents
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192) and associated regulations
- Fairhaven Stormwater Bylaw (Chapter 194)

RESOURCE AREAS ON/NEAR SITE

- Bordering Vegetated Wetland
- Bank
- Buffer Zone

PROJECT SUMMARY

- The applicant is looking for confirmation of resource area boundaries.

COMMENTS

- The applicant submitted an ANRAD for 2,205 linear feet of BVW as well as 913 linear feet of bank.
- The Commission will need to determine whether they want peer review of the submission, especially since the USGS map shows the stream to be perennial rather than intermittent. No documentation has yet been submitted related to the status of the stream as intermittent.
- A deposit of \$2500 would be needed before initiating peer review based on the solicited quotes.
- MassDEP has not yet issued a file number, so the public hearing cannot yet be closed.

RECOMMENDATION

- If the Commission would like to see peer review for the project, I recommend voting to allow the Agent to coordinate the peer review process.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4A – Abbreviated Notice of
Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

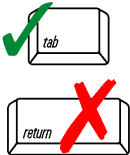
Fairhaven
 City/Town

A. General Information

1. Project Location (**Note:** electronic filers will click on button for GIS locator):

Bridge Street	Fairhaven	02719
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:	41°38'52.9"N	70°52'57.8"W
	d. Latitude	e. Longitude
36	15J	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

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



2. Applicant:

Paul	Downey
a. First Name	b. Last Name
Fairhaven Properties, LLC.	
c. Organization	
700 Pleasant Street	
d. Mailing Address	
New Bedford	MA
e. City/Town	f. State
508-990-3442	02740
h. Phone Number	g. Zip Code
	downeypaul@comcast.net
i. Fax Number	j. Email Address

3. Property owner (if different from applicant):

☐ Check if more than one owner (attach additional sheet with names and contact information)

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

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

4. Representative (if any):

Alison	Cesar
a. Contact Person First Name	b. Contact Person Last Name
SITEC, Inc. / Civil & Environmental Consultants, Inc.	
c. Organization	
31 Bellows Road	
d. Mailing Address	
Raynham	MA
e. City/Town	f. State
774-501-2176	02767
h. Phone Number	g. Zip Code
774-501-2669	ACesar@CECinc.com
i. Fax Number	j. Email Address

Fees will be calculated for online users.

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

\$2,000.00+\$200.00=\$2,200.00	\$975.00	\$1,025.00+\$200.00=\$1,225.00
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW) 2,205
 Linear Feet of Boundary Delineated
2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:
 - a. ☒ MassDEP BVW Field Data Form (attached)
 - b. ☐ Other Methods for Determining the BVW boundary (attach documentation):
 1. ☐ 50% or more wetland indicator plants
 2. ☐ Saturated/inundated conditions exist
 3. ☐ Groundwater indicators
 4. ☐ Direct observation
 5. ☐ Hydric soil indicators
 6. ☐ Credible evidence of conditions prior to disturbance
3. Indicate any other resource area boundaries that are delineated:

<u>Top of Bank: Intermittent Stream</u>	<u>913</u>
a. Resource Area	b. Linear Feet Delineated
<u> </u>	<u> </u>
c. Resource Area	d. Linear Feet Delineated
<u> </u>	<u> </u>

C. Additional Information

Applicants must include the following plans with this Abbreviated Notice of Resource Area Delineation. 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. ☒ ANRAD (Delineation Plans only)
2. ☒ 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.)
3. ☒ Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and/or other resource areas, if applicable).
4. ☒ List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.

D. Fees



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
**WPA Form 4A – Abbreviated Notice of
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The fees for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Wetland Fee Transmittal Form).

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 the attached Wetland Fee Transmittal Form) to confirm fee payment:

1868

2. Municipal Check Number

1869

4. State Check Number

Steven

6. Payor name on check: First Name

October 12, 2021

3. Check date

October 12, 2021

5. Check date

Gioiosa

7. Payor name on check: Last Name

E. Signatures

I certify under the penalties of perjury that the foregoing Abbreviated Notice of Resource Area Delineation and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
**WPA Form 4A – Abbreviated Notice of
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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 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.

I hereby grant permission, to the Agent or member of the Conservation Commission and the Department of Environmental Protection, to enter and inspect the area subject to this Notice at reasonable hours to evaluate the wetland resource boundaries subject to this Notice, and to require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

I acknowledge that failure to comply with these certification requirements is grounds for the Conservation Commission or the Department to take enforcement action.

1. Signature of Applicant

Paul Downing

2. Date

10-12-21

3. Signature of Property Owner (if different)

William Cesar

4. Date

10/12/2021

5. Signature of Representative (if any)

6. Date

For Conservation Commission:

Two copies of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; two copies of the ANRAD Wetland Fee Transmittal Form; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

One copy of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; one copy of the ANRAD Wetland Fee Transmittal Form; and a copy of the state fee payment must be sent to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery. (E-filers may submit these electronically.)

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.

Z:\Fairhaven\20-7565 SAKONNET PROPERTIES\USGS Map.dwg{FIGURE NO.1} LS:(10/11/2021 - acesor) - LP: 10/12/2021 3:18 PM



REFERENCE

1. USGS MAPS ARE BASED ON GIS DATA PROVIDED BY THE BUREAU OF GEOGRAPHIC INFORMATION (MASS GIS), COMMONWEALTH OF MASSACHUSETTS EXECUTIVE OFFICE OF TECHNOLOGY AND SECURITY SERVICES.

SCALE IN FEET



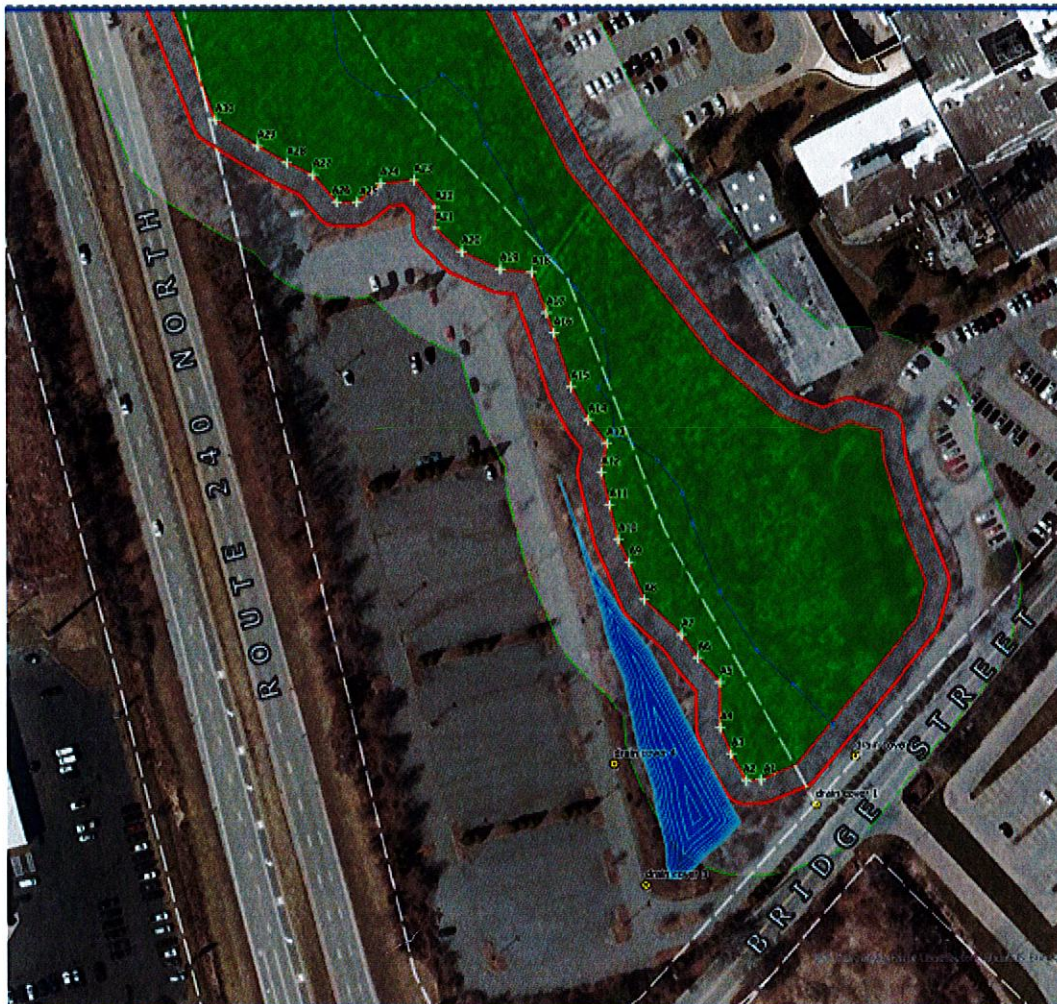
Civil & Environmental Consultants, Inc.

31 Bellows Road · Raynham, MA 02767
Ph: 774.501.2176 · 866.312.2024 · Fax: 774.501.2669
www.cecinc.com

FAIRHAVEN PROPERTIES, LLC.
BRIDGE STREET
MAP 36 - LOT 15J
FAIRHAVEN, MASSACHUSETTS

SITE LOCUS

DRAWN BY:	AJC	CHECKED BY:	APPROVED BY:	FIGURE NO.:
DATE:	OCTOBER, 2021	DWG SCALE:	1"=2000'	PROJECT NO:
			304-338	1



WETLAND DELINEATION MAP **Map 36, Lot 14J | Bridge Street** **Fairhaven, Massachusetts**

LEGEND

	BENCHMARK GPS LOCATION
	INT. STREAM GPS LOCATION
	BVW FLAGGING
	BORDERING VEGETATED WETLAND (BVW)
	25 FT NO DISTURB ZONE
	100 FT BUFFER ZONE
	INTERMITTENT STREAM
	PROPERTY LINES
	DETENTION BASIN

General Notes

1. This map should not be interpreted as a survey quality graphic. It is designed for preliminary planning purposes only. AFS recommends consultation with a Professional Land Surveyor for accurate site feature locations.
2. Property lines as depicted on this map have been approximated from plat maps available from the town assessor's online database.
3. 2019 Aerial photograph base map acquired from the Massachusetts OLIVER database.
4. Delineation performed by Edward J. Avizinis, CPSS, PWS on June 21, 2021. Wetland flagging and vertical site features located with a Spectra SP10 submetric GPS/GNSS.



MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form



Applicant: _____ Prepared by Edward J. Avizinis, CPSS, PWS Project location: Bridge Street, Fairhaven DEP File #: _____

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot: @A20 wet Transect Number: A1 - A30 Date: June 21, 2021

	COMMON NAME	SCIENTIFIC NAME	PERCENT COVER	PERCENT DOMINANCE	DOMINANT PLANT (Y or N)	WETLAND INDICATOR STATUS
TREE	red maple	<i>Acer rubrum</i>	60%	75%	Y	FACW*
	red oak	<i>Quercus rubrum</i>	20%	25%	Y	FACU
SHRUB	European grey willow	<i>Salix cinerea</i>	5%	5%	N	FACW*
	Morrow's honeysuckle	<i>Lonicera morrowii</i>	10%	5%	N	FACU
	multiflora rose	<i>Rosa multiflora</i>	10%	22%	Y	FACU
	sweet pepper bush	<i>Clethra alnifolia</i>	50%	67%	Y	FACW*
HERBS	sensitive fern	<i>Onoclea sensibilis</i>	20%	67%	Y	FACW*
	cinnamon fern	<i>Osmunda cinnamomea</i>	50%	33%	Y	FACW*
VINES	fox grape	<i>Vitis labrusca</i>	10%	100%	Y	FAC*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5

Number of dominant non-wetland indicator plants: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? ☒ yes ☐ no

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
 title/date: Online Websoil Survey Used (USDA-NRCS)
 map number: <https://websoilsurvey.sc.egov.usda.gov/>
 soil type mapped: Whitman
 hydric soil inclusions: Yes

Are field observations consistent with soil survey? yes no
 Remarks:

2. Soil Description

HORIZON	DEPTH	MATRIX COLOR	REDOX COLOR
A	0 - 5	10YR 3/1	-
Bg	5 - 20	10YR 5/2	10YR 5/6, 10YR 6/1
Cg	20 - 24	2.5Y 6/1	

Remarks:

3. Other:

Conclusion: Is soil hydric? yes no

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☒ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☒ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):

- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	✓ _____	_____
Wetland hydrology present:		
Hydric soil present	✓ _____	_____
Other indicators of hydrology present	✓ _____	_____
Sample location is in a BVW	✓ _____	_____

Submit this form with the Request for Determination of Applicability or Notice of Intent.


 Edward J. Avizinis, CPSS, PWS | President



MassDEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form



Applicant: _____ Prepared by Edward J. Avizinis, CPSS, PWS Project location: Bridge Street, Fairhaven DEP File #: _____

Check all that apply:

- ☐ Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- ☒ Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- ☐ Method other than dominance test used (attach additional information)

Section I. Vegetation

Observation Plot: @A20 up

Transect Number: A1 - A30

Date: June 21, 2021

	COMMON NAME	SCIENTIFIC NAME	PERCENT COVER	PERCENT DOMINANCE	DOMINANT PLANT (Y or N)	WETLAND INDICATOR STATUS
TREE	red maple	<i>Acer rubrum</i>	10%	20%	Y	FACW*
	red oak	<i>Quercus rubrum</i>	40%	80%	Y	FACU
SHRUB	European grey willow	<i>Salix cinerea</i>	5%	5%	N	FACW*
	Morrow's honeysuckle	<i>Lonicera morrowii</i>	10%	11%	N	FACU
	multiflora rose	<i>Rosa multiflora</i>	60%	63%	Y	FACU
	Russian olive	<i>Eleagnus umbellata</i>	20%	21%	Y	FACU
HERBS	mugwort	<i>Artemisia spp</i>	75%	75%	Y	FACU
	sensitive fern	<i>Onoclea sensibilis</i>	5%	5%	N	FACW*
	Canadian goldenrod	<i>Salidago canadensis</i>	20%	20%	Y	FAC*
VINES	Asiatic bittersweet	<i>Celastrus orbiculatus</i>	20%	100%	Y	FACU

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2

Number of dominant non-wetland indicator plants: 5

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes ☒

If vegetation alone is presumed adequate to delineate the BVW boundary, submit this form with the Request for Determination of Applicability or Notice of Intent

Section II. Indicators of Hydrology

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? yes no
 title/date: Online Websoil Survey Used (USDA-NRCS)
 map number: <https://websoilsurvey.sc.egov.usda.gov/>
 soil type mapped: Woodbridge
 hydric soil inclusions: Yes

Are field observations consistent with soil survey? ☒ yes no
 Remarks:

2. Soil Description

HORIZON	DEPTH	MATRIX COLOR	REDOX COLOR
Ap	0 – 2	10YR 3/1	-
Bw1	2 – 15	10YR 4/4	-
Bw2	15 – 20	10YR 5/3	-

Remarks:

3. Other:

Conclusion: Is soil hydric? yes ☒

Other Indicators of Hydrology: (check all that apply & describe)

- ☐ Site Inundated: _____
- ☐ Depth to free water in observation hole: _____
- ☐ Depth to soil saturation in observation hole: _____
- ☐ Water marks: _____
- ☐ Drift lines: _____
- ☐ Sediment Deposits: _____
- ☐ Drainage patterns in BVW: _____
- ☐ Oxidized rhizospheres: _____
- ☐ Water-stained leaves: _____
- ☐ Recorded Data (streams, lake, or tidal gauge; aerial photo; other):

- ☐ Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ # of non-wetland indicator plants	_____	<input checked="" type="checkbox"/>
Wetland hydrology present:		
Hydric soil present	_____	<input checked="" type="checkbox"/>
Other indicators of hydrology present	_____	<input checked="" type="checkbox"/>
Sample location is in a BVW	_____	<input checked="" type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent.


 Edward J. Avizinis, CPSS, PWS | President



LAM EcoLogical

238 Wareham Road
PO Box 486
Marion, MA 02738
508-858-8678

October 20, 2021

Whitney McClees
Conservation Agent and Sustainability Coordinator
Town of Fairhaven
40 Center Street
Fairhaven, MA 02719

RE: *Bridge Street, Fairhaven, MA (Map 36, Lot 15J)*
Wetland Delineation / ANRAD Peer Review
Cost Proposal

Dear Ms. McClees,

It is a pleasure to submit our cost proposal for the peer review of the Bridge Street, Fairhaven Abbreviated Notice of Resource Area Delineation (ANRAD) (Map 36, Lot 15J) prepared by SITEC, Inc. / Civil & Environmental Consultants, Inc. for Fairhaven Properties, LLC. The property is a 9.5-acre lot on the corner of Bridge Street and Route 240. The Nasketucket River borders the property to the east. An existing paved parking lot is located on the property.

SCOPE OF WORK

LAM EcoLogical will complete a peer review of the October 12, 2021 ANRAD filing which includes one set of MA DEP Bordering Vegetated Wetland Field Data Forms prepared by Avizinis Environmental Services, Inc. on June 21, 2021, Bordering Vegetated Wetland flags A1 to A30 and Top of Intermittent Stream Bank flags RB1 to RB20 as installed in the field, and the Existing Conditions Plan for Fairhaven Properties, LLC's, Self-Storage Facility, Assessor's Map 36-Lot 15J, Fairhaven, Massachusetts, prepared by SITEC, Inc. of Dartmouth, Massachusetts.

According to the Existing Conditions Plan, only RB1, RB2, RB3, RB12 and RB13 are located on the site and only those flags can be legally reviewed and confirmed by the Conservation Commission. Permission from the adjacent property owner would be required for LAM EcoLogical to access the adjacent property and review the offsite RB flags.

The wetland delineation peer review will be completed using the Massachusetts Department of Environmental Protection's "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act Handbook" (March 1995). Wetland flags placed in the field and shown on the Existing Conditions Plan will be compared to site conditions and confirmed. Flags determined to be

inaccurate will be counter flagged and each counter flag will be measured in the field and drawn on the Existing Conditions Plan with a revised flag number and measured offsets from adjacent surveyed flags.

The remainder of the property will be inspected in order to identify additional wetlands present but not shown on the plans. The review for additional wetlands will be conducted in accordance with the definitions found in the Massachusetts Wetlands Protection Act (MGL c. 31, § 40) (MA WPA) and its associated regulations (310 CMR 10.00) and the Fairhaven Wetlands Bylaw (Chapter 192 of the Code of the Town of Fairhaven) and its associated regulations.

The applicant's classification of the stream as an Intermittent Stream will be reviewed against the MA WPA and Town of Fairhaven's regulatory definitions of Intermittent Stream, Perennial Stream and Riverfront Area and by consulting the current USGS quadrangle and readily available data analysis software such as USGS StreamStats and Massachusetts Drought and Rainfall Data.

In addition, MASSGIS will be consulted to identify sensitive resource areas located within the project area including the presence of MNHESP Estimated Habitat, Priority Habitat and Certified and Potential Vernal Pools, Outstanding Resource Waters, Areas of Critical Environmental Concern, Groundwater Protection Areas, Cold-water Fisheries, and FEMA Floodplains.

DELIVERABLES

Deliverables will include a written letter documenting the accuracy of the delineation, a list of any recommended changes to the wetland boundary with a plan showing LAM EcoLogical flagging in relationship to the existing field surveyed flags, a review of the applicant's Intermittent Stream determination and a discussion of any other sensitive wetland resource areas identified on the property.

PROJECT SCHEDULE

It is assumed that the wetland delineation field review can be completed in two (2) days with the letter and supporting material provided within three (3) days from the completion of the field review.

COST AND COST ASSUMPTIONS

The cost to complete the field review and to provide the above-mentioned deliverables is a lump sum total of \$2,000.00 which includes mileage, attendance at one Conservation Commission hearing and one onsite review with the applicant or the applicant's representative (if necessary).

Again, LAM EcoLogical appreciates the opportunity to submit this proposal and is available to provide additional support.

Regards,



Lori A. Macdonald, MS, PWS, CWB
Principal Environmental Scientist

Staff Report

Date: October 27, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: **25 Abbey Street – Request for Amended Order of Conditions – DEP# 023-1300, Fairhaven CON 19-055**

DOCUMENTS REVIEWED

- Request for Amended Order of Conditions and associated documents
- Revised site plan dated October 27, 2021
- Order of Conditions issued August 30, 2019
- Approved site plan dated June 5, 2019
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192) and associated regulations
- Fairhaven Stormwater Bylaw (Chapter 194)

RESOURCE AREAS ON/NEAR SITE

- Land Subject to Coastal Storm Flowage (LSCSF) Zone VE
- Buffer Zone to Bordering Vegetated Wetland

RELEVANT PERFORMANCE STANDARDS

- **LSCSF General Provisions:** 10.24(1) “If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests.”
- **Buffer Zone General Provisions:** 10.53(1) “For work in the Buffer Zone subject to review under 310 CMR 10.02(2)(b)3., the Issuing Authority shall impose conditions to protect the interests of the Act identified for the adjacent Resource Area. ... where prior development is extensive, may consider measures such as the restoration of natural vegetation adjacent to a Resource Area to protect the interest of [the Act]. ... The purpose of preconstruction review of work in the Buffer Zone is to ensure that adjacent Resource Areas are not adversely affected during or after completion of the work.”
- **Buffer Zone Wetlands Bylaw Regulations (Chapter 192 Regulations):**
 - 4.0 0 to 25 Foot Buffer Zone Resource Area
 - 4.1 An applicant shall demonstrate that no alteration is proposed within the 0-25 foot buffer zone resource area.
 - 4.2 The Commission may, in its discretion, permit a MBZA in a location closer than 25 feet to the resource area if, and only if, the proposed activity occurs exclusively within a previously disturbed area and is located no closer to the

resource area than existing structures, activities, or disturbances. However, it is encouraged to increase the width of the buffer zone where possible.

5.0 25 to 50 Foot Buffer Zone Resource Area

5.1 Any applicant proposing a project within the 25-50 foot buffer zone resource area shall indicate that there are no structures including, but not limited to, concrete, stone, or other impervious foundations and/or slabs for construction purposes that would significantly increase runoff.

5.2 Alteration of the 25-50 foot buffer zone resource area is limited to grading, tree clearing, stormwater management system components, lawns, gardens, and other low-impact uses as determined by the Commission or otherwise approved by the Commission by the variance procedures set forth in Section 8.0 of this regulation. Footings for building structures, such as a deck, as opposed to slabs or foundations, shall be used when technically feasible.

6.0 50 to 100 Foot Buffer Zone Resource Area

6.1 Alterations including structures are allowed in the 50-100 foot buffer zone resource area. The Commission may require additional mitigation offsets when the slope within the buffer zone is steeper than 10%. Additionally, mitigation offsets may be required by the Commission when the applicant proposes that more than 30% of the 50-100 foot buffer zone resource area is proposed to be impervious surface.

PROJECT SUMMARY

- The Order of Conditions issued in 2019 permitted the demolition of the existing house and the construction of a new flood-zone compliant dwelling. The existing garage and driveway were to remain and a new driveway is permitted to be installed associated with the new house.
- The Chair of the Commission issued a cease and desist for several reasons:
 - No DEP sign posted, no erosion control, removal of 6" of topsoil and grass, placement of fill, and relocation of some of the scraped area to the rear of the property at the wetland edge.
- The applicant is requesting an amended order of conditions for the following work:
 - Scrape off the top layer of dirt along the property line between the garage and fence
 - Replace it with mixed fill and permeable stone to resolve drainage issues to the southwest corner of the lot
 - Removing fill deposited at edge of the wetland and moving erosion control closer to fence line to accommodate above work

COMMENTS

- The property owner contacted the office fairly immediately after the cease and desist was posted and scheduled a site visit with the Agent. At that site visit, the following was discussed:
 - Had the erosion control been maintained property for the duration of the project, they would not have been able to push debris to the edge of the resource area or place the fill in the location they are looking to have approved
- There appears to be a bit of water pooling in the southwestern corner of the property due to a slight pitch from the back of the property to the front of the property.

- The total square footage originally proposed to convert from lawn to mixed fill and crushed stone was 2,950. Of that, the breakdown in the buffer zone is as follows:
 - 0-25 foot buffer zone: 450 square feet (25 x 18)
 - 25-50 foot buffer zone: 625 square feet (25 x 25)
 - 50-100 foot buffer zone: 1250 square feet (25 x 50)
 - Outside of 100-foot buffer zone and only in flood zone: 625 square feet (25 x 25)
- The revised total square footage proposed to convert from lawn to mixed fill and crushed stone is 2,000. The above numbers have been revised as follows:
 - 0-25 foot buffer zone: area to be restored to grass and arborvitae planted
 - 0-50 foot buffer zone: 500 square feet (25 x 20) restored to grass; 125 square feet (25 x 5) to be crushed stone
 - 50-100 foot buffer zone: 1250 square feet (25 x 50)
 - Outside of 100-foot buffer zone and only in flood zone: 625 square feet (25 x 25)
- The regrading that is proposed is minimal and will likely not have a negative impact on storm damage prevention or flood control.
- The area proposed to be converted to gravel was previously lawn. The area proposed to be returned to lawn and planted with some arborvitae was previously lawn. No shrubs or trees were removed in removing the top 6 inches of topsoil.
- The buffer zone regulations do allow grading and other low-impact uses in the 25-50 foot buffer zone.
- Subsequent to a site visit with some members of the Commission, the applicant revised the submitted plan to reduce the amount of crushed stone proposed, restore a portion of the area to grass, and plant arborvitae around the perimeter of the property. The arborvitae will help prevent future impacts to the resource area as well as assist with infiltration of runoff.
- The crushed stone area will be pitched slightly toward both the existing drainage ditch on the adjacent property as well as toward the rear of the property. This will also help direct water through a vegetated area that will both filter and infiltrate runoff.
- If the Commission would like to see more plantings than those proposed on the revised plan, I recommend adding the following condition to the draft special conditions:
 - A planting plan for the 0-25 foot buffer zone shall be submitted no later than March 1, 2022 for review and approval. The plantings shall be installed no later than June 15, 2022.

RECOMMENDATION

- I recommend closing the public hearing for 25 Abbey Street, SE 023-1300, CON 19-055, and issuing an Amended Order of Conditions under the Wetlands Protection Act and Fairhaven Wetlands Bylaw with the following conditions:

Approve plan dated October 27, 2021

A. General Conditions

1. ACC-1
2. With respect to all conditions except_____, the Conservation Commission designates the Conservation Agent as its agent with full powers to act on its behalf in administering and enforcing this Order.
3. REC-1
4. ADD-1

5. ADD-2
6. ADD-4b
7. ADD-4c
8. ADD-5
9. The property lines shall establish the limit of work. No work is permitted beyond the property or beyond the scope of work as described in this order.
10. SIL-5
11. SIL-9
12. SIL-10
13. WET-1
14. Debris that was pushed beyond the property line must be removed once the ground is stable. The area shall be allowed to revegetate. If seeding is deemed necessary after the spring 2022 growing season, the area shall be seeded with a native wetland seed mix or a native conservation seed mix in fall 2022.
15. The stockade fence along the north side of the property must have a 6-inch gap between the bottom of the fence and the ground.
16. FZ-1
17. FZ-2
- B. Prior to Construction
 18. CAP-3
 19. REC-3
 20. DER-1
 21. PCC-3
 22. EMC-1
 23. PCC-1
 24. SIL-7
- C. During Construction
 25. REC-2
 26. All equipment used on site must be stored or parked in an area outside the buffer zone or within the existing concrete driveway.
 27. STO-4
 28. MAC-3
 29. MAC-8
 30. MAC-9
 31. DEB-1
 32. DEB-5
 33. SIL-3
 34. SIL-4
 35. SIL-8
 36. WAS-2
 37. WAS-3
 38. WAT-3
 39. EC-1
 40. EC-2
- D. After Construction/In Perpetuity
 41. REV-1
 42. COC-2

43. An as-built plan of the entire project, including the roof recharge system, signed and stamped by a professional engineer shall be submitted with the request for the Certificate of Compliance.

Perpetual Conditions

The below conditions do not expire upon completion of the project.

44. CHM-1
45. DER-4
46. FZ-4
47. Annual inspection and maintenance of the roof recharge system shall be the responsibility of the property owner and any successor in interest or successor in control of the property subject to this order. This condition shall survive the expiration of this Order, and shall be included as a continuing condition in perpetuity on the Certificate of Compliance.

October 6, 2021

Town of Fairhaven Conservation Commission

Geoffrey A. Haworth, Chair c/o Whitney McClees, Conservation Agent

40 Center Street

Fairhaven, MA 02719

RE: Fairhaven File # CON-19-055

MA DEP File # Se 023-1300

25 Abbey St, Assessors MAP 6 LOT 102

Fairhaven MA, 02719

Dear Mr. Haworth and Members of the Conservation Commission:

I am requesting an appearance before the Fairhaven Conservation Commission for an amendment to the Order of Conditions SE 023-1300. I am requesting some minor modifications to the west most point of the lot. The work being requested is to scape the top layer of dirt along the property line between the garage and fence, replacing it with mixed fill and permeable stone. This is to resolve drainage issues to the south west corner of the lot. Also, we will be pulling back fill deposited at edge of wetland and asking to move the erosion control material closer to fence line in order to perform the work.

Thank You

Agostinho Pinto

17 Beachwood St

Fairhaven MA, 02719

Staff Report

Date: October 26, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: **86-88 Middle Street – Notice of Intent – DEP# SE 023-1365,
Fairhaven CON 023-250**

DOCUMENTS REVIEWED

- Notice of Intent and associated documents
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192) and associated regulations
- Fairhaven Stormwater Bylaw (Chapter 194)

RESOURCE AREAS ON/NEAR SITE

- Land Subject to Coastal Storm Flowage (LSCSF) Zone AE

RELEVANT PERFORMANCE STANDARDS

- **LSCSF General Provisions:** 10.24(1) “If the issuing authority determines that a resource area is significant to an interest identified in [the Act]...,the issuing authority shall impose such conditions as are necessary to contribute to the protection of such interests.”

PROJECT SUMMARY

- The applicant is requesting to pour a 968 square foot concrete pad for the purposes of relocating fuel tanks.

COMMENTS

- This is part one of a two part filing to address the work that began without permits in October 2019. The Conservation Commission currently has a cease and desist issued for the property due to work beginning without permits.
- The previous filing was withdrawn without prejudice due to lack of a quorum to vote on the project.
- The applicant has submitted this filing to be able to pour a concrete pad to relocate the fuel tanks on the property away from the residential neighbors as required by the Fire Department and the Building Department.
- When the applicant’s engineer completes the detailed survey of the property and puts together the proper stormwater information for the paving of the remainder of the property, the applicant’s engineer will submit a request to amend the Order of Conditions.
- Moving forward with a small section of the concrete work that the applicant would like to do will allow the fuel-related safety concerns to be addressed while waiting for the engineer to finish all of the stormwater calculations.

- The area of concrete proposed does not appear as if it will have a negative impact on storm damage prevention or flood control. The properties on either side are complete impervious and any stormwater treatment will be addressed when the applicant's engineer submits the stormwater calculations for completing the concrete work on the remainder of the property.

RECOMMENDATION

- I recommend closing the public hearing for 86-88 Middle Street, SE 023-1365, CON 023-250, and issuing an Order of Conditions under the Wetlands Protection Act and Fairhaven Wetlands Bylaw with the following conditions:

Approve plan dated October 6, 2021

A. General Conditions

1. ACC-1
2. With respect to all conditions except_____, the Conservation Commission designates the Conservation Agent as its agent with full powers to act on its behalf in administering and enforcing this Order.
3. REC-1
4. ADD-1
5. ADD-2
6. ADD-4b
7. ADD-4c
8. ADD-5
9. No other work is approved on this property except for the pouring of the 968-square-foot concrete pad.
10. The applicant is required to come back to the Commission for approval of the remainder of concrete work on the property, including proper compliance with the Massachusetts Stormwater Standards and Handbook.

B. Prior to Construction

11. CAP-3
12. REC-3
13. DER-1
14. PCC-3
15. EMC-1
16. PCC-2

C. During Construction

17. REC-2
18. MAC-3
19. MAC-8
20. MAC-9
21. Concrete washout shall occur within a designated area appropriately lined and isolated and no washout or debris is permitted to be washed into the stormwater system at any point.

D. After Construction/In Perpetuity

22. COC-1
23. COC-2

Perpetual Conditions

The below conditions do not expire upon completion of the project.

24. DER-4



TOWN OF FAIRHAVEN, MASSACHUSETTS

CONSERVATION COMMISSION

Town Hall · 40 Center Street · Fairhaven, MA 02719

Memorandum

Date: October 27, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

RE: 20 Yankee Lane Revised Restoration Plan

The wetland scientist for 20 Yankee Lane will be submitting their revised restoration plan by the end of the day tomorrow, October 28. I will review on Friday and email an addendum to the packet Friday afternoon in preparation for Monday's meeting. I cautioned the wetland scientist that the Commission may not elect to spend much time discussing the revisions with limited review time.

Staff Report

Date: October 29, 2021

To: Conservation Commission

From: Whitney McClees, Conservation Agent

Subject: **20 Yankee Lane – Violation/Enforcement – Fairhaven EO 023-014**

DOCUMENTS REVIEWED

- Submitted restoration plan
- 310 CMR 10.00
- Fairhaven Wetlands Bylaw (Chapter 192) and associated regulations
- Fairhaven Stormwater Bylaw (Chapter 194)
- Revised restoration plan dated October 27, 2021

RESOURCE AREAS ON/NEAR SITE

- Riverfront Area
- Inland Bank
- Land Under Water Bodies and Waterways
- Bordering Vegetated Wetland
- Buffer Zone

RELEVANT PERFORMANCE STANDARDS

- **Bank:** 310 CMR 10.54(4)
 - (a) ...Work on a Bank shall not impair the following:
 1. The physical stability of the Bank;
 2. The water carrying capacity of the existing channel within the Bank;
 3. Ground water and surface water quality;
 4. The capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;
 5. The capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.
 6. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of

a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.

(b) Structures may be permitted in or on a Bank when required to prevent flood damage, including the renovation or reconstruction (but not substantial enlargement) of such facilities, buildings and roads,...

(c) No project may be permitted which will have any adverse effect on specified habitat sites of Rare Species.

- **Land under Water Bodies and Waterways (under any Creek, River, Stream, Pond, or Lake)**

10.56 (4)

(a) Work shall not impair the following:

1. The water carrying capacity within the defined channel, which is provided by said land in conjunction with the banks;

2. Ground and surface water quality;

3. The capacity of said land to provide breeding habitat, escape cover and food for fisheries; and

4. The capacity of said land to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 5,000 square feet (whichever is less) of land in this resource area found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures established under 310 CMR 10.60.

5. Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.56(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirements of 310 CMR 10.56(4)(a)4., the impact on Land under Water Bodies and Waterways caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures established under 310 CMR 10.60.

(b) ...the issuing authority may issue an Order...to maintain or improve boat channels

(c) ...no project may be permitted which will have any adverse effect on [rare species].

- **Bordering Vegetated Wetland:** 10.55(4)

(a) work in a Bordering Vegetated Wetland shall not destroy or otherwise impair any portion of the BVW

(b) The ConCom may permit the loss of up to 5000 square feet of BVW when said area is replaced IF:

1. The area is equal;
 2. The ground water and surface elevation are approximately equal;
 3. The overall horizontal configuration and location are similar;
 4. There is an unrestricted hydraulic connection to the same water body or waterway;
 5. It is in the same general area of the water body;
 6. At least 75% of the surface of the replacement area shall be reestablished with indigenous wetland plant species within two growing seasons; and
 7. The replacement area is provided in a manner which is consistent with all other regs in 310 CMR 10.00.
- (c) The ConCom may permit the loss of a portion of BVW when;
1. Said portion has a surface area less than 500 square feet;
 2. Said portion extends in a distinct linear configuration ("finger-like") into adjacent uplands; and
 3. In the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposal.
- (d) No project may be permitted which will have any adverse effect on specified habitat sites of rare species
- (e) No work shall destroy or otherwise impair any Area of Critical Environmental Concern

VIOLATION SUMMARY

- Evidence of work without permits was observed during an erosion control inspection for a permitted solar array project. The observed activities are located on the resource area side of the erosion control barrier and are not affiliated with the approved solar array project. The following was observed:
 - Significant vegetation clearing and grubbing within Riverfront Area and Bordering Vegetated Wetland
 - Evidence of machinery within Riverfront Area and Bordering Vegetated Wetland
 - Removal of large amounts of debris from Riverfront Area and Bordering Vegetated Wetland
 - Impact to bank of perennial stream
- Based on the depicted edge of vegetation on the approved plans for the solar array (SE 023-1269), approximately 2.41 acres of Riverfront Area and approximately 6.88 acres of Bordering Vegetated Wetland have been impacted.

COMMENTS

- The wetland scientist submitted a restoration plan in response to the issued Enforcement Order. The restoration plan needs revision.
- I sent the following comments to the wetland scientist:
 - Overall, much more detail is needed. The submitted documents talk about restoring on-site grades to match those on the 2017 plan but do not provide any information about current grades on site and what level of work may be needed to potentially restore to 2017 conditions. A current conditions plan is needed that details much more specifically what the status of the site is. The restoration site plan also does not address that the east-west stream channel appears to have been lengthened from the 2017 plans and

there is a new stream channel that is now present on the property running north-south that the 2017 plans do not show. The lengthening of the east-west channel needs to be addressed and the addition of the north-south channel needs to be restored to bordering vegetated wetlands and included in this restoration plan. Additionally, if there are any large fill piles currently in the resource area, those need to be shown on a current conditions plan and a plan for their removal included.

- There are several questions that need to be answered. Is there fill in the resource area that needs to be removed? What are the current elevations and grades? Is it currently pit and mound topography? Have areas been so compacted that they no longer drain properly? What is the proposed method of restoration of grades and where are the access paths to restore those areas?
- The restoration plan also discusses restoring the stream but does not provide any details as to how the stream will be restored. In order to ensure the stream is being restored so it is functioning properly hydrologically and providing the appropriate hydrology to the wetland, an engineer and wetland scientist will have to work collaboratively. Hydraulic calculations will likely be needed.
- The proposed seed mix is also identified as a Pennsylvania ecotype. This is inappropriate for Massachusetts. Additionally, there should be some shrub and tree plantings proposed, especially if early succession had started in the area. Using the higher end of spacing as outlined in MassDEP's Massachusetts Inland Wetland Replication Guidelines is fine, i.e. 10 feet on center for shrubs and 15 feet on center for trees. If herbaceous cover is already 75% or more, seeding is not necessary in those areas. This will allow some of the expense of purchasing seed to be shifted to planting some trees and shrubs. Areas that don't have good herbaceous cover will need to be seeded, including areas that are disturbed for restoration purposes.
- An invasive species management plan also needs to be part of this restoration plan as there is *Phragmites* on site already.
- This should be a phased restoration plan both because it is a large area and because there are several facets to this project. Start with revegetation of areas that are not going to be disturbed by stream restoration, removal or fill, or equipment in the resource area. Include an access plan as to how you will get to the areas to be restored. A planting plan for areas that are not going to be disturbed by other restoration work can be presented to the Commission so planting may be able to occur this fall. That gives until the spring/summer for subsequent phases of the restoration work. If you are proposing to wait until a low-flow period for the stream restoration, other restoration work can and should be occurring in the meantime.
- In order to determine whether or not this restoration will be successful and complies with the regulations, much more information is needed.
- Because the revised restoration plan was only submitted two business days before the meeting, I have had limited time to review it and provide feedback to the wetland scientist.
- While the revised restoration plan is an improvement, some of my previous comments and concerns still need to be addressed, including:
 - Why is the entire 100-foot buffer zone not included in the restoration plan? The Fairhaven Wetlands Bylaw lists the 100-foot buffer zone as its own resource area. Therefore, not just the 25-foot buffer zone should be included for restoration. The entire buffer zone should be included, especially since work within the 100-foot buffer zone needs permits just as working within a resource area does.

- There is still significant lack of information regarding access for the various stages of restoration. Wetland crossing areas need to be very specifically laid out so as not to cause further damage.
- There is a significant lack of detail regarding the removal of the manmade stream. How is it being filled? With what? Where is the access? What is the method of restoration for that area once the stream is discontinued?
- Why are the fill and brush piles in the 100-foot buffer zone not included for removal? What is the access for removal of fill and brush piles? How will it be done?
- Invasive species management: what is the access for the excavator? How will the glyphosate be applied if needed? Will it be done by a licensed applicator?
- Regrade site and natural stream: An engineer needs to be involved regarding the stream restoration. Hydraulic calculations are needed to determine that stream flow and functionality is being restored properly. How are you addressing the extension of the stream to the west? What is the access? How will the work be done? How will grades be restored? How will you confirm that areas aren't overly compacted?
- Re-establish topsoil: Will re-exposed, buried topsoils to be reused onsite be screened to ensure invasive species aren't being spread?
- Live-stake shrubs: What is the access?
- Monitoring: Monitoring should be for at least three years given the scale of the project. Monitoring should also include soil characteristics, hydrology, and stream functionality.
- Once again, this restoration plan needs revision and incurring further delays for an enforcement order that stated a restoration plan was required to be submitted by August 4, 2021 and work was to have started by November 15, 2021.

October 1, 2021
REVISED: 10/27/21

Fairhaven Conservation Commission
Fairhaven Town Hall
40 Center Street
Fairhaven, MA 02719

Re: Wetland Replication, Buffer Zone, & Stream Restoration Plan
20 Yankee Lane, Fairhaven, MA 02719 (Fairhaven Enforcement Order 023-014)

Dear Conservation Commission:

Goddard Consulting is pleased to submit this Wetland Replication, Buffer Zone, & Stream Restoration Plan for 20 Yankee Lane, Fairhaven, MA. An Enforcement Order (Fairhaven File # EO 023-014) was issued on 5/6/21 to Brian Lopes for clearing within Buffer Zone to Bordering Vegetated Wetlands (BVW) and Riverfront Area. Upon receipt of the Enforcement Order, Mr. Lopes immediately ceased all ongoing unpermitted activities on-site. The purpose of this plan is to restore on-site wetlands, buffer zone areas, and improve the function of the perennial stream.



Figure 1. The on-site stream and proposed location of the restoration area. Existing solar panels under construction are shown in the background.

Since the unpermitted clearing that has occurred on-site, much of the native vegetation has naturally re-established. Aerial imagery coupled with site inspections have been used to estimate the extent of on-site impacted areas. Based on our calculations, there is approximately $\pm 514,000\text{sf}$ of wetland areas and $\pm 93,000\text{sf}$ of upland areas within riverfront area and the Town's 25' no-disturb zone to be restored. The onsite wetlands are predominantly vegetated with sedges, rushes, and goldenrods, cattails, and smartweed. Adjacent upland fields are dominated by upland grasses, goldenrod, and clover.

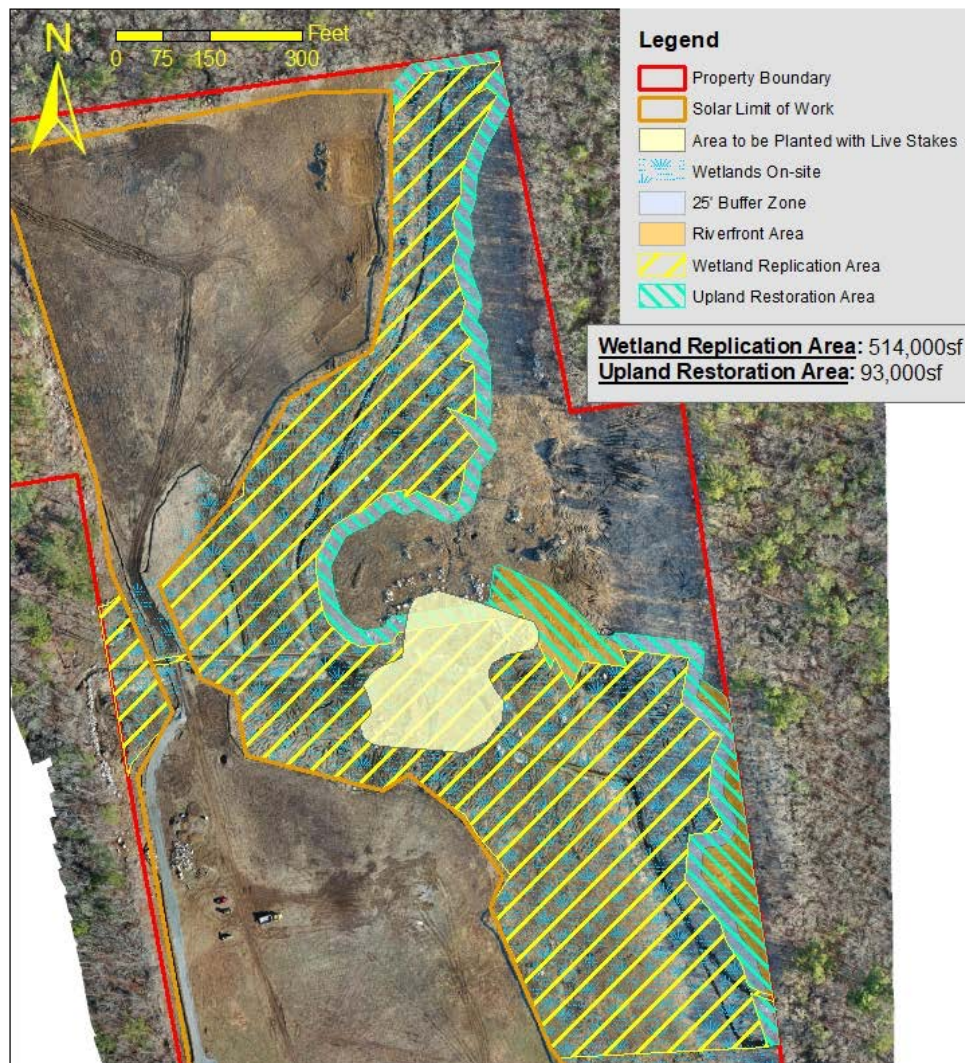


Figure 1. The locations of the proposed Wetland Replication and Buffer Zone Restoration Area. See Phase 4 below for further detail on the planting and seeding of this area.

This restoration plan proposes the following phased work schedule:

Phase 1.1: Remove The Man-Made Stream

Estimated Timeframe: Fall 2021, Winter 2022

There is a man-made stream on-site that was constructed. This stream will be filled in in order to allow the hydrology of the surrounding wetland to re-establish (see Figure 2).

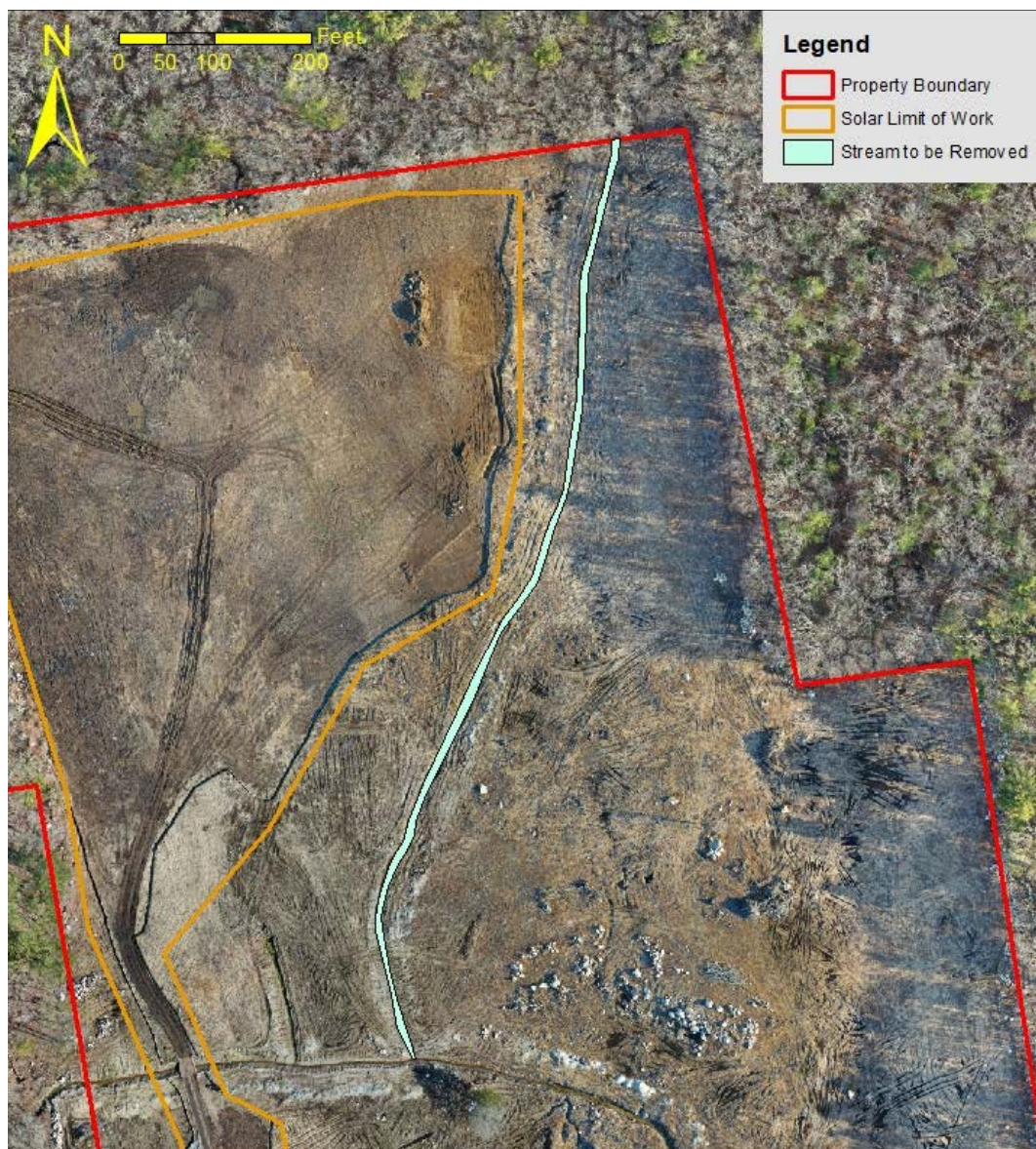


Figure 2. The location of the man-made stream to be removed.

Phase 1.2: Remove Fill & Brush Piles

Estimated Timeframe: Fall 2021, Winter 2022

On-site fill and brush piles that exist within the footprint of the restoration areas will be removed.

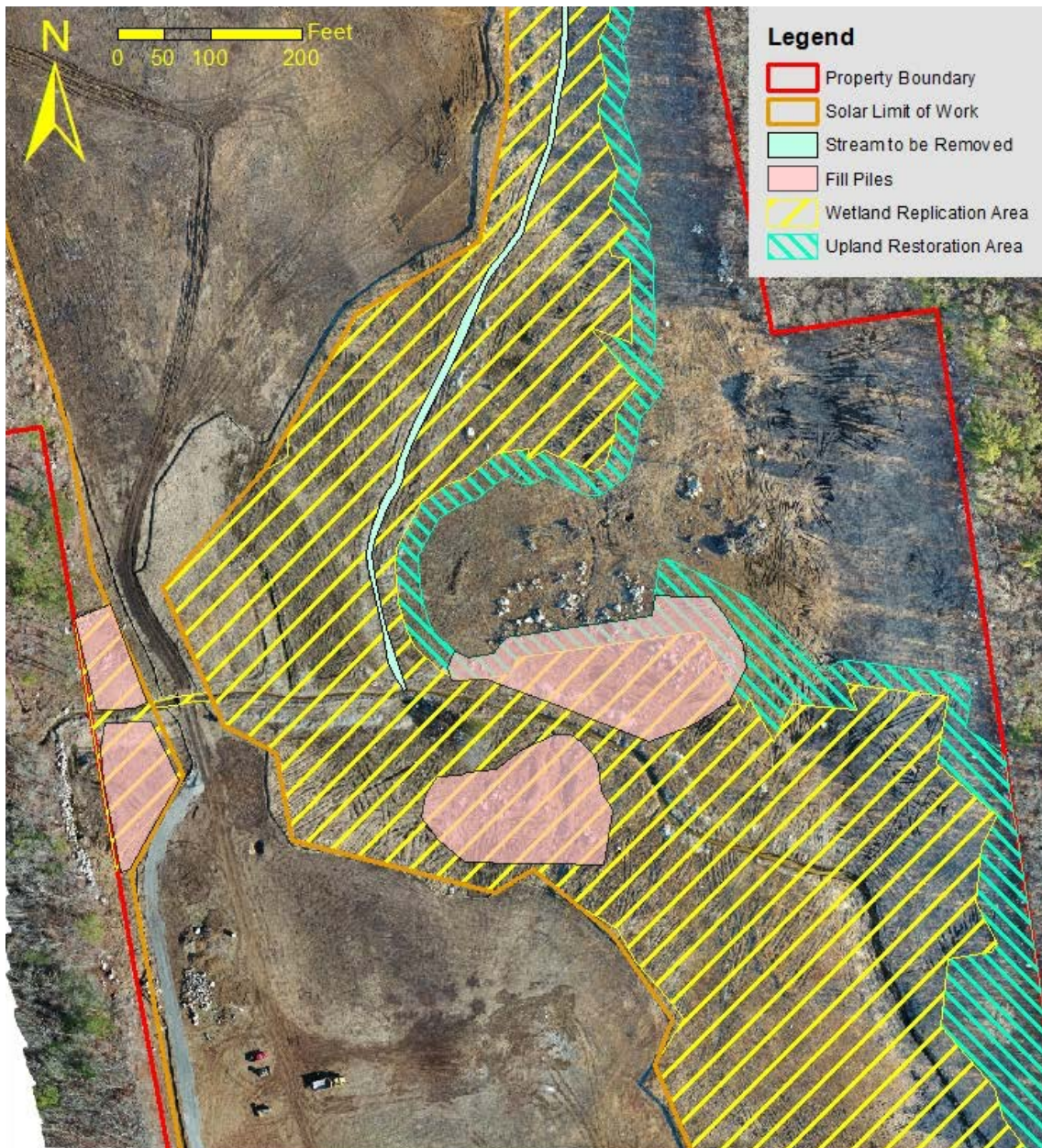


Figure 3. The location of the fill and brush piles within the restoration areas to be removed.

Phase 2: Invasive Species Management

Estimated Timeframe: Spring 2022

Phragmites have been observed to be present on-site in several locations (see Figure 4). These plants will be removed by an excavator and brought off-site to an approved facility for invasive species removal prior to any grading on-site. Any phragmites that occur within the restoration areas in subsequent inspections will be removed by hand or through the application of glyphosate, as approved by the supervising wetland scientist.

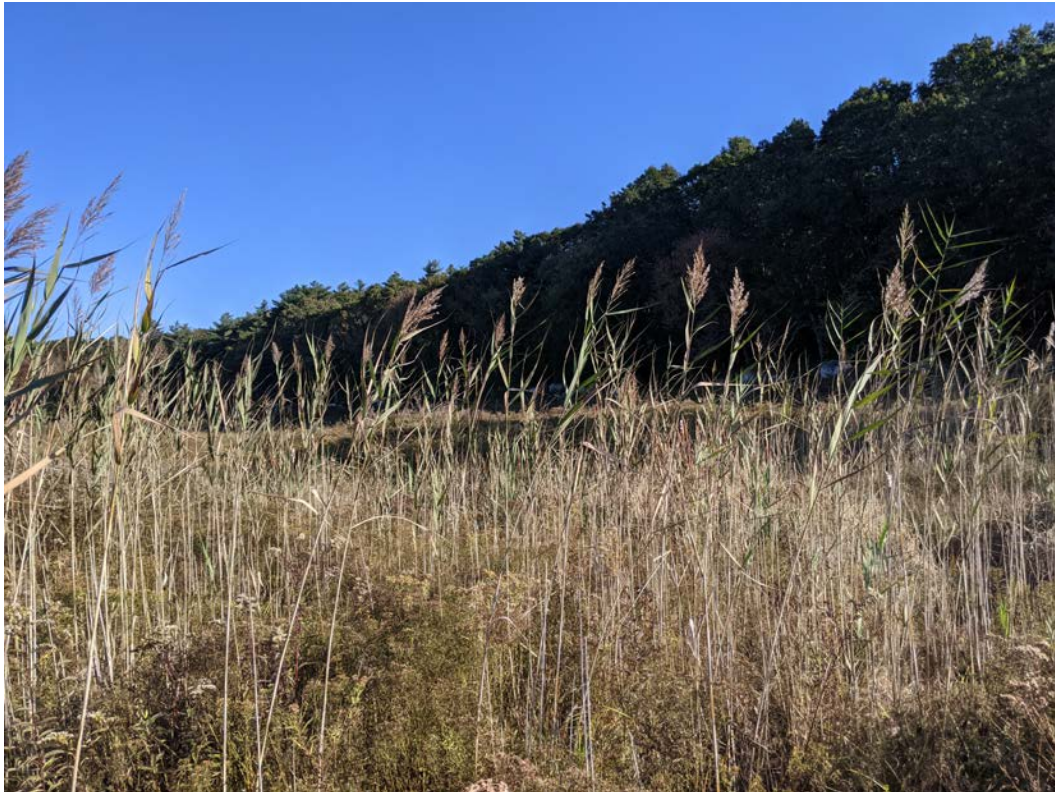


Figure 4. Phragmites on-site.

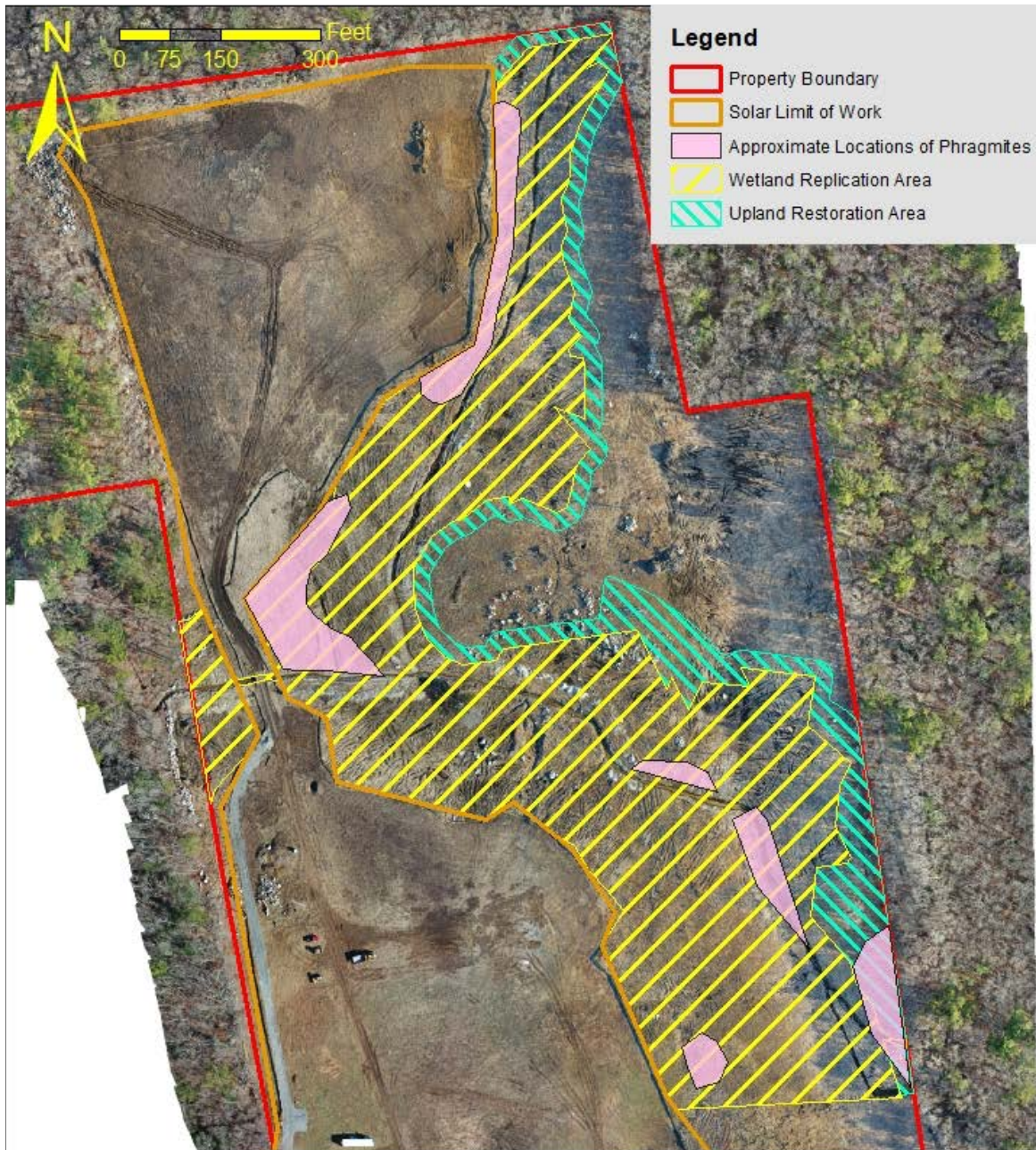


Figure 5. The approximate locations of phragmites observed on-site to be removed.

Phase 3: Regrade Site & Natural Stream

Estimated Timeframe: Summer 2022- Fall 2022

On-site grades will be restored to those as shown on Atlantic Design Engineers' *Overall Wetland Location Plan* (11/22/17). These plans show grades of the site prior to the disturbances and represent a more natural condition for the site. Surveyors will verify these locations in the field.

The bank of the natural stream itself will be graded down to match surrounding elevations prior to the addition of topsoil. Work within the stream shall take place during low- to no-flow conditions, which is typically between July 1 and October 30.

- a. If flow is encountered, provide a temporary sandbag dam or pump system upstream to divert stream around construction area.
- b. Provide dewatering basin if pumping is required.

To improve the stream's ability to function as wildlife habitat, an effort will be made to include wildlife habitat features along the edges of the stream. This includes rocks, stones (at least 6-inches long +/-) or large woody debris. These features should be stockpiled nearby for later replacement within the stream portions of the replication area. These features shall be randomly placed throughout the replication area to provide cover for wildlife and provide wildlife habitat.

Phase 4.1: Re-establish Topsoil

Estimated Timeframe: Summer 2022-Fall 2022

Almost the entirety of the restoration area in its existing condition has been stripped of topsoil. Once the site is regraded to the appropriate elevations as described above, 6" of nutrient rich organic topsoil will be added to the restoration areas.

The supervising wetland scientist will ensure that the areas to be seeded will have at least 6in. of organic, nutrient rich topsoil is added to the areas prior to planting. Any re-exposed, buried topsoils found on-site may be reused as applicable with the approval of the supervising wetland scientist.

Phase 4.2: Installation of Live Stake Shrubs

Estimated Timeframe: Late Fall 2022 – Early Spring 2023

The central portion of the site was previously vegetated with shrubs prior to disturbances (see Figure 6). This area will be re-planted with several live stake shrubs.

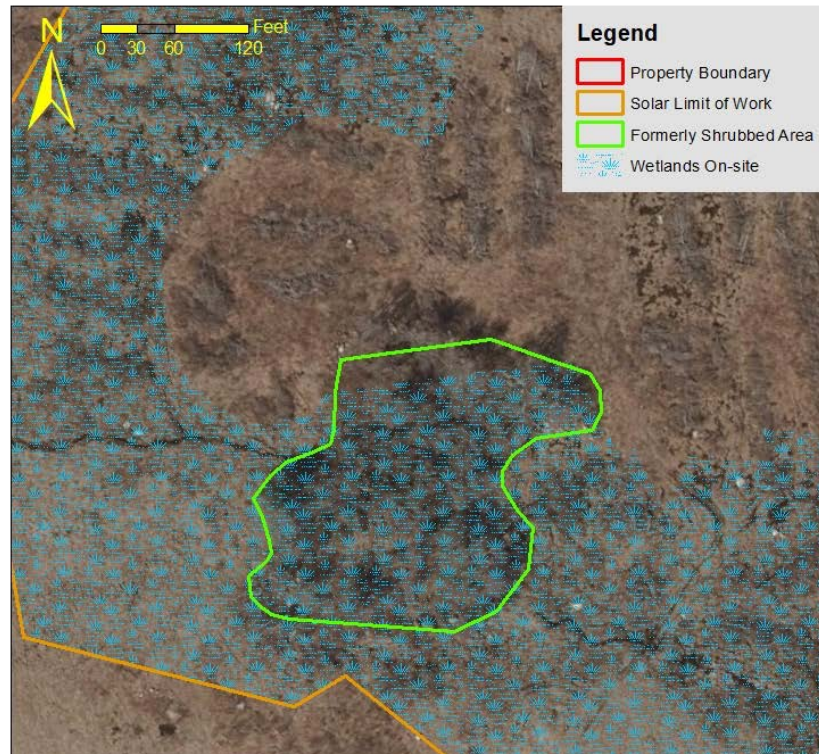


Figure 6. The area in the central portion of the site that was formerly vegetated with shrubs.

This formerly shrubbed area is approximately 44,800sf in size. Live stake plantings will be installed based on the Army Corps of Engineer's guidelines for Wetland Replication Area plantings at 10' on center. This results in a total of 448 live stake shrubs. Plantings were selected to be those that have previously occurred onsite that will thrive within the replication area. See Table 1 below for the planting schedule, and Figure 7 for planting locations.

Table 1: Planting schedule within the shrubbed portion of the wetland replication area.

Size	Quantity	Common Name	Scientific Name
1-2 gallon(s) or 2-4' or larger	64	Red Maple	<i>Acer rubrum</i>
1-2 gallon(s) or 2-4' or larger	64	Highbush Blueberry	<i>Vaccinium corymbosum</i>
1-2 gallon(s) or 2-4' or larger	64	Northern Arrowwood	<i>Viburnum dentatum</i>
1-2 gallon(s) or 2-4' or larger	64	Sweet Pepperbush	<i>Clethra alnifolia</i>
1-2 gallon(s) or 2-4' or larger	64	Swamp White Oak	<i>Quercus Bicolor</i>
1-2 gallon(s) or 2-4' or larger	64	Common Spicebush	<i>Lindera benzoin</i>
1-2 gallon(s) or 2-4' or larger	64	Black Chokecherry	<i>Photinia melanocarpa</i>

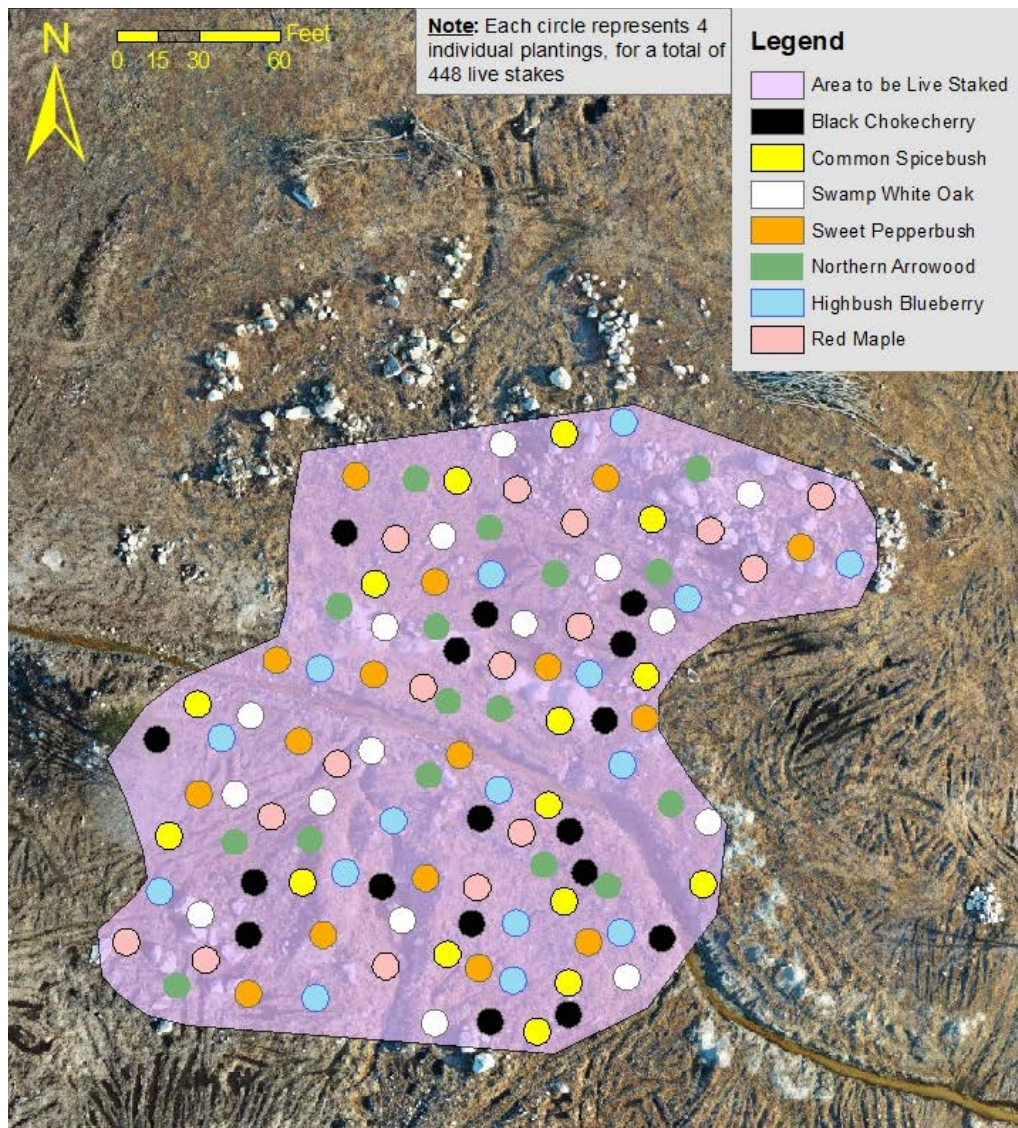


Figure 7. The approximate location of the 448 live stake plantings

Stakes should be planted so at least half their length is buried in soil (see Figure 8). Live stakes can be planted in the late fall through early spring, Live stakes should be planted in areas that will remain moist throughout the growing season, such as along the water line on streambanks or in wetlands, as is the case in this proposed plan.

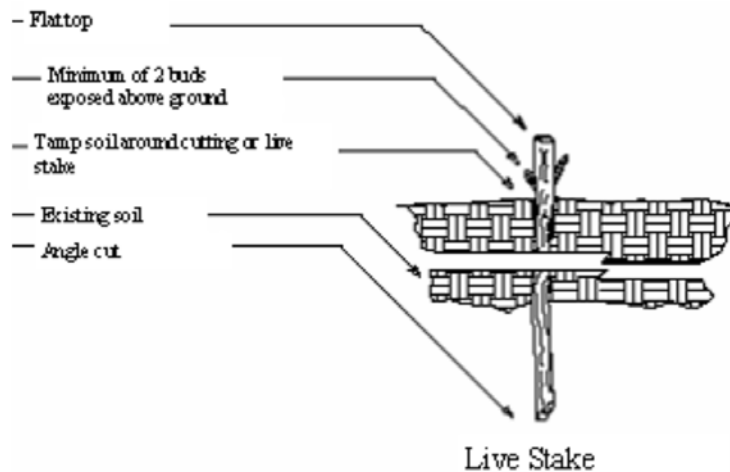


Figure 8. A detail depicting a live stake planting.

Phase 4.3: Seeding of Restoration & Replication Areas

Estimated Timeframe: Fall 2022

Wetland seed mix comparable to that specified in this document, shall be scattered evenly by hand throughout the wetland and stream portions of the replication area. Upland portions of the restoration area will be seeded with New England conservation/wildlife seed mix or a similar upland mix. Following seeding a light application of weed free hay mulch shall be applied to the areas to encourage seed germination and reduce water loss.

Seed mix specifications were followed to calculate the exact quantity of bag mix to be implemented across the replication/restoration areas. With these calculations, the wetland replication area should be seeded with a total of 293lbs of New England FACW mix, and the upland portions of the site should be seeded with 37lbs of New England conservation seed mix. See Table 2 below for planting schedule and Figure 9 for areas to be seeded.

Table 2. Seeding schedule.

Seed Mix	Quantity	Species
New England FACW Mix	293lbs.	See Attached Spec. Sheet
New England Wildlife/Conservation Mix	37lbs.	See Attached Spec. Sheet

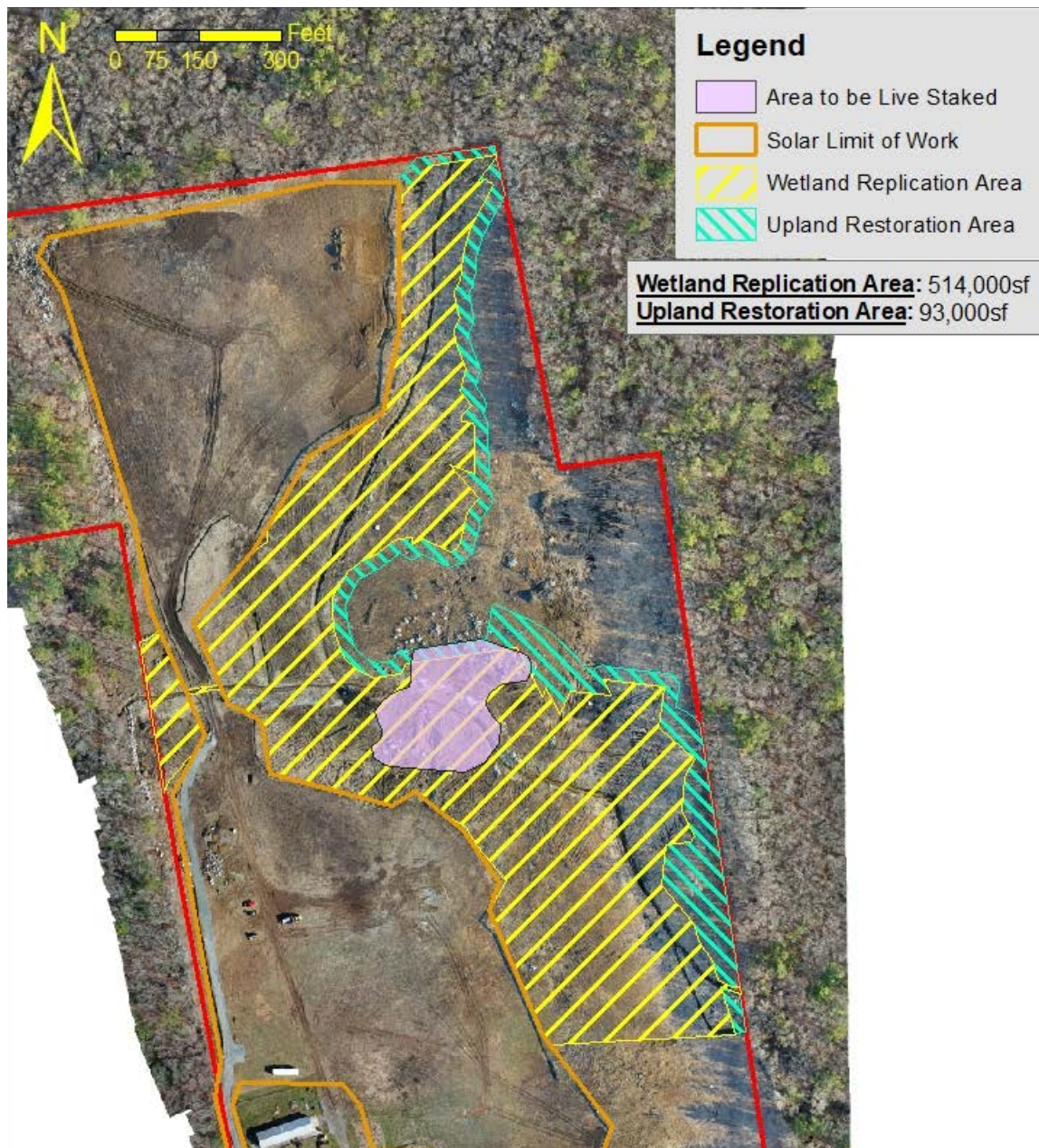


Figure 9. The locations of the areas to be seeded, the entirety of the wetland replication and the upland restoration areas, including the area to be plan.

Phase 5: Monitoring

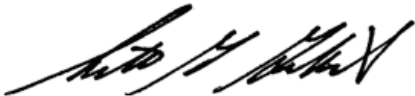
Estimated Timeframe: Spring 2023 -Fall 2024

Seasonal monitoring reports shall be prepared for the replication area by a qualified wetland scientist for a period of two additional years after replication completion. This monitoring program will consist of early summer and early fall inspections and will include photographs and details about the vitality of the replication area. Monitoring reports shall be submitted to the Commission by November 15th of each year. Monitoring reports shall describe, using narratives, plans, and color photographs, the physical characteristics of the replication area with respect to stability, survival of vegetation and plant mortality, aerial extent and distribution, species diversity and vertical stratification (i.e., herb, shrub, and tree layers). Invasive species will be documented if present within areas impacted by the project, monitored and removed.

At least 75% survival of installed native plants shall be observed by the end of the second growing season. If the replication area does not meet the 75% survival requirement by the end of the second growing season after installation, the Applicant shall submit a remediation plan to the Commission for approval that will achieve, under the supervision of a Wetland Specialist, replication goals. This plan must include an analysis of why the areas have not been successful and how the applicant intends to resolve the problem.

If there are any questions concerning this report, please do not hesitate to contact us.

Very truly yours,

A handwritten signature in black ink, appearing to read 'Scott Goddard', written in a cursive style.

Scott Goddard,
Principal & PWS

NEW ENGLAND WETLAND PLANTS, INC

820 WEST STREET, AMHERST, MA 01002

PHONE: 413-548-8000 FAX 413-549-4000

EMAIL: INFO@NEWP.COM WEB ADDRESS: WWW.NEWP.COM

New England Conservation/Wildlife Mix

Botanical Name	Common Name	Indicator
<i>Elymus virginicus</i>	Virginia Wild Rye	FACW-
<i>Schizachyrium scoparium</i>	Little Bluestem	FACU
<i>Andropogon gerardii</i>	Big Bluestem	FAC
<i>Festuca rubra</i>	Red Fescue	FACU
<i>Sorghastrum nutans</i>	Indian Grass	UPL
<i>Panicum virgatum</i>	Switch Grass	FAC
<i>Chamaecrista fasciculata</i>	Partridge Pea	FACU
<i>Desmodium canadense</i>	Showy Tick Trefoil	FAC
<i>Asclepias tuberosa</i>	Butterfly Milkweed	NI
<i>Bidens frondosa</i>	Beggar Ticks	FACW
<i>Eupatorium purpureum (Eutrochium maculatum)</i>	Purple Joe Pye Weed	FAC
<i>Rudbeckia hirta</i>	Black Eyed Susan	FACU-
<i>Aster pilosus (Symphyotrichum pilosum)</i>	Heath (or Hairy) Aster	UPL
<i>Solidago juncea</i>	Early Goldenrod	

PRICE PER LB. \$39.50 MIN. QUANTITY 2 LBS. TOTAL: \$79.00 APPLY: 25 LBS/ACRE :1750 sq ft/lb

The New England Conservation/Wildlife Mix provides a permanent cover of grasses, wildflowers, and legumes

For both good erosion control and wildlife habitat value. The mix is designed to be a no maintenance seeding, and is appropriate for cut and fill slopes, detention basin side slopes, and disturbed areas adjacent to commercial and residential projects.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

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New England Wetmix (Wetland Seed Mix)

Botanical Name	Common Name	Indicator
<i>Carex vulpinoidea</i>	Fox Sedge	OBL
<i>Carex scoparia</i>	Blunt Broom Sedge	FACW
<i>Carex lurida</i>	Lurid Sedge	OBL
<i>Carex lupulina</i>	Hop Sedge	OBL
<i>Poa palustris</i>	Fowl Bluegrass	FACW
<i>Bidens frondosa</i>	Beggar Ticks	FACW
<i>Scirpus atrovirens</i>	Green Bulrush	OBL
<i>Asclepias incarnata</i>	Swamp Milkweed	OBL
<i>Carex crinita</i>	Fringed Sedge	OBL
<i>Vernonia noveboracensis</i>	New York Ironweed	FACW+
<i>Juncus effusus</i>	Soft Rush	FACW+
<i>Aster lateriflorus (Symphyotrichum lateriflorum)</i>	Starved/Calico Aster	FACW
<i>Iris versicolor</i>	Blue Flag	OBL
<i>Glyceria grandis</i>	American Mannagrass	OBL
<i>Mimulus ringens</i>	Square Stemmed Monkey Flower	OBL
<i>Eupatorium maculatum (Eutrochium maculatum)</i>	Spotted Joe Pye Weed	OBL

PRICE PER LB. \$135.00 MIN. QUANTITY 1 LBS. TOTAL: \$135.00

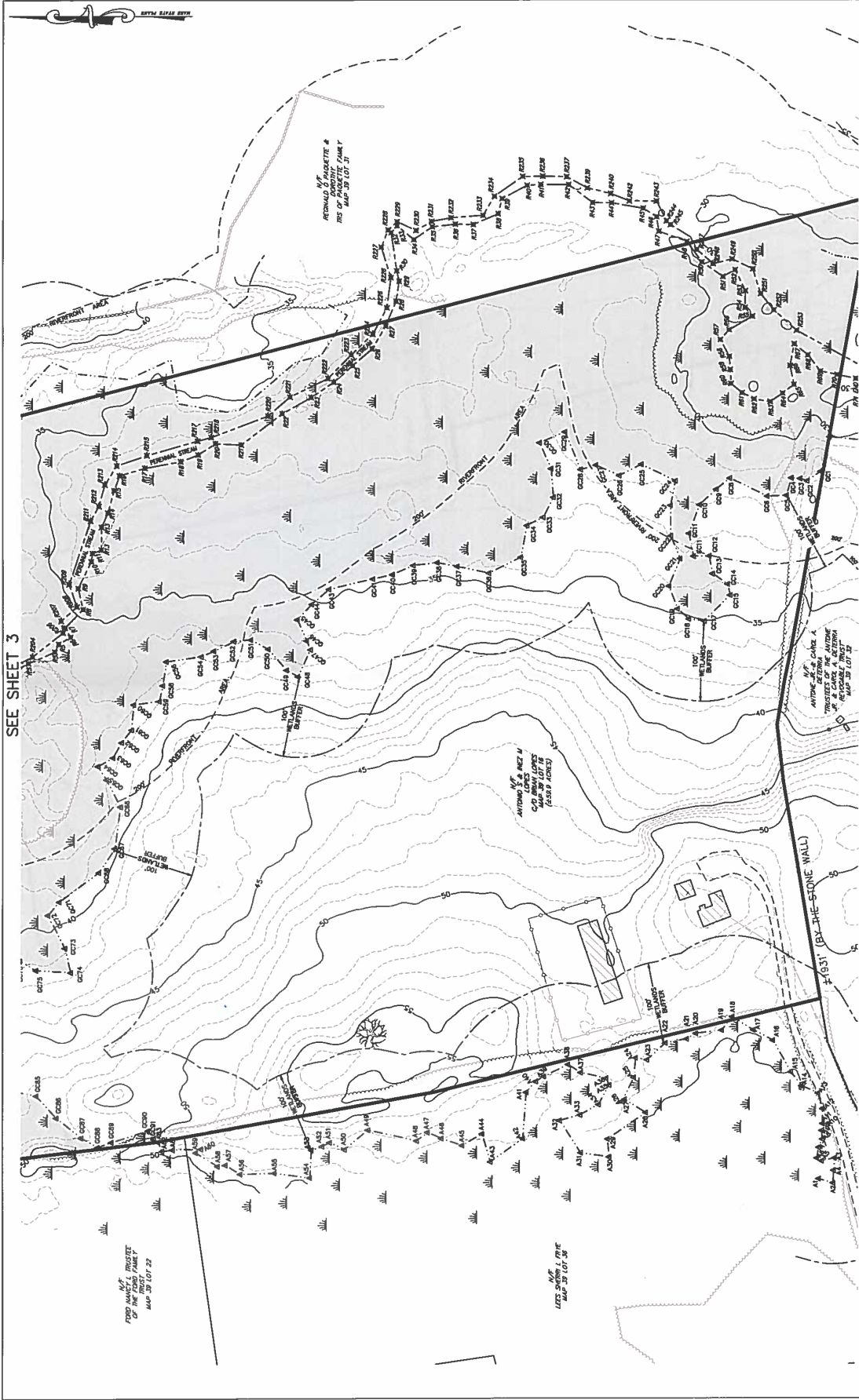
APPLY: 18 LBS/ACRE :2500 sq ft/lb

The New England Wetmix (Wetland Seed Mix) contains a wide variety of native seeds that are suitable for most wetland restoration sites that are not permanently flooded. All species are best suited to moist ground as found in most wet meadows, scrub shrub, or forested wetland restoration areas. The mix is well suited for detention basin borders and the bottom of detention basins not generally under standing water. The seeds will not germinate under inundated conditions. If planted during the fall months the seed mix will germinate the following spring. During the first season of growth several species will produce seeds while other species will produce seeds after the second growing season. Not all species will grow in all wetland situations. This mix is comprised of the wetland species most likely to grow in created/restored wetlands and should produce more than 75% ground cover in two full growing seasons.

The wetland seeds in this mix can be sown by hand, with a hand-held spreader, or hydro-seeded on large or hard to reach sites. Lightly rake to insure good seed-to-soil contact. Seeding can take place on frozen soil, as the freezing and thawing weather of late fall and late winter will work the seed into the soil. If spring conditions are drier than usual watering may be required. If sowing during the summer months supplemental watering will likely be required until germination. A light mulch of clean, weed free straw is recommended.

New England Wetland Plants, Inc. may modify seed mixes at any time depending upon seed availability. The design criteria and ecological function of the mix will remain unchanged. Price is \$/bulk pound, FOB warehouse, Plus SH and applicable taxes.

SEE SHEET 3



AD Atlantic DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 - 9282

PREPARED FOR:
CLEAN ENERGY COLLECTIVE
148 WEST BOYLSTON DRIVE
WORCESTER, MASSACHUSETTS 01606

WETLAND LOCATION PLAN
20 YANKEE LANE SOLAR PROJECT
FAIRHAVEN, MASSACHUSETTS
NOVEMBER 22, 2017

NO. BY DATE REVISION

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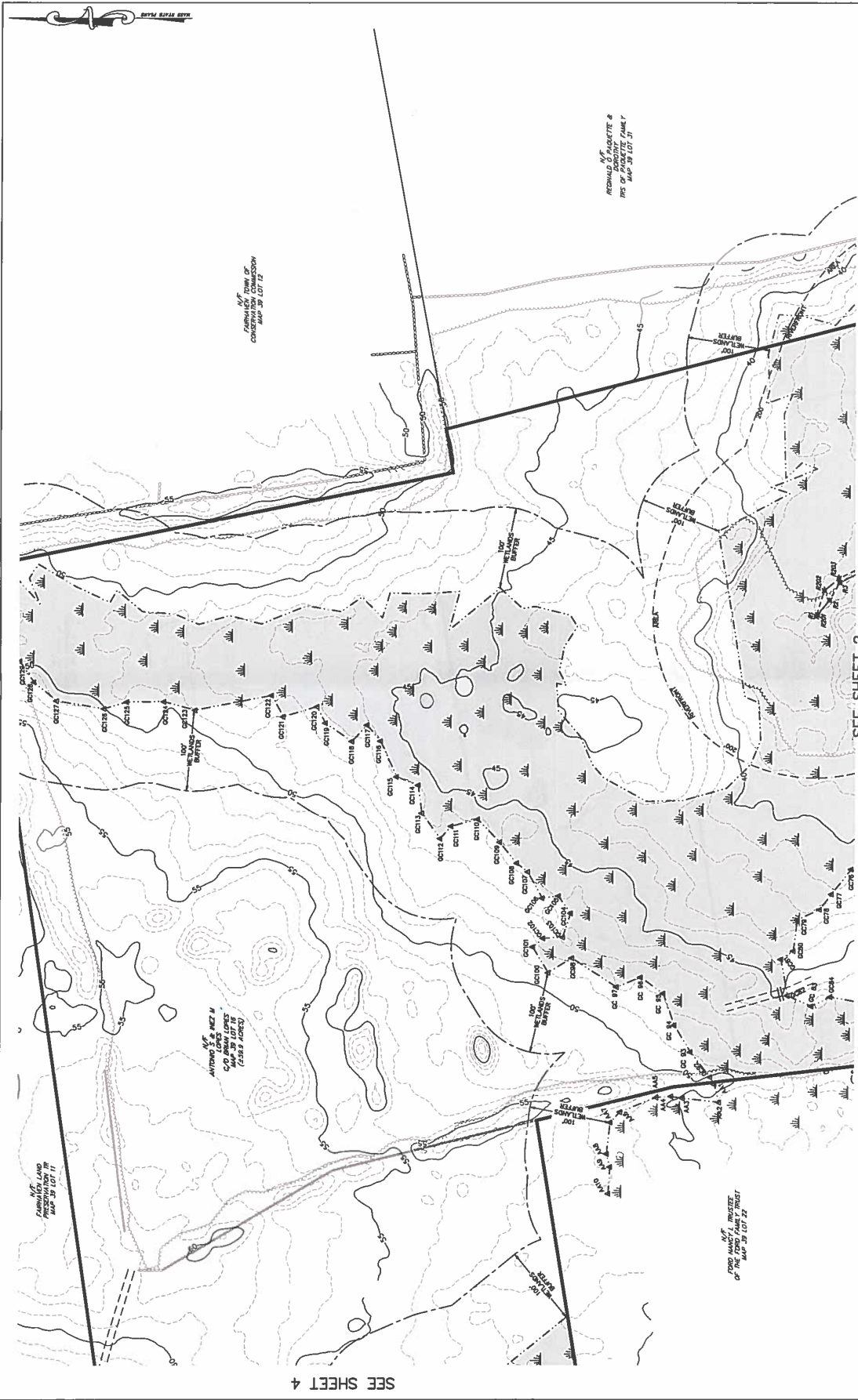
SCALE
SCALE 1" = 50'
0 10 20 30 40 50 60 70 80 90 100

Drawn by: _____
Checked by: _____
Surveyed by: _____
Approved by: _____

REVISIONS

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DATE



SEE SHEET 4

SEE SHEET 2

AD Atlantic DESIGN ENGINEERS, INC.
P.O. Box 1051, Sandwich, MA 02563 (508) 888 - 9252

PREPARED FOR:
CLEAN ENERGY COLLECTIVE
146 WEST BOYLSTON DRIVE
WORCESTER, MASSACHUSETTS 01606

WETLAND LOCATION PLAN
20 YANKEE LANE SOLAR PROJECT
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NOVEMBER 22, 2017

NO. BY DATE

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Drawn by: _____
Checked by: _____
Surveyed by: _____
Approved by: _____

SCALE
SCALE 1" = 50'
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REVISIONS

NO.	DESCRIPTION	DATE	BY	DATE	REASON

FILE: 2893.03
SHEET OF
3
JOB NUMBER
2893.03



October 25, 2021

Fairhaven Conservation Commission
40 Center Street
Fairhaven, MA 02719

RE: BELLA VISTA LANDSCAPING

Dear Commission Members:

It is proposed that removal of the fruit trees, shrubs, water works, lights and electric works be completed prior to December 1, 2021. The exposed earth will be temporarily stabilized with jute netting or approved equal.

It is proposed that removal of the lawn be initiated between April 1 and April 15, 2022 and be completed by May 15, 2022. The area will be seeded immediately upon removal of the turf and will be monitored daily for the need for watering. If watering is needed, it will be done as often as necessary to establish a stable meadow.

Sincerely,
PRIME ENGINEERING, INC.

A handwritten signature in cursive script that reads 'Richard J. Rheume'.

Richard J. Rheume, P.E., LSP
Chief Engineer

Tentative 2022 Meeting Dates

6:30pm Public Hearings, every three weeks on Mondays*

*Unless otherwise noted

Additional Public Hearing dates may be scheduled if necessary

January 3
January 24
February 14
March 7
March 21*
April 11
May 2
May 23
June 13
July 11*
August 1
August 22
September 12
October 3
October 24
November 14
December 5
December 19*
January 9, 2023