

Notice of Intent Application Proposed Electrical Line Connection “Solar Array – Parcel 3 Project”



November 9, 2023

Subject Property

0 Maple Street
Assessor's Parcel: 32-9
Bellingham, MA 02019

Property Owners

Maple Gate Realty Trust
c/o Brown Legal PLLC
10 Liberty Square, 6th Floor
Boston, MA 02109

Applicant

Maple Street Solar, LLC
177 Huntington Ave., Suite 1703, Unit 73069
Boston, MA 02115

Prepared by

LEC Environmental Consultants, Inc.
380 Lowell Street, Suite 101
Wakefield, MA 01880
781-245-2500

www.lecenvironmental.com



November 9, 2023

Email/Federal Express

Bellingham Conservation Commission
Municipal Center
10 Mechanic Street
Bellingham, MA 02019

Re: Notice of Intent Application
0 Maple Street (Assessor's Parcel: 32-9)
Bellingham, Massachusetts

[LEC File #: BoE\22-015.04]

Dear Members of the Commission:

On behalf of the Applicant, Maple Street Solar, LLC, LEC Environmental Consultants, Inc., (LEC) is submitting this Notice of Intent (NOI) Application for the installation of an electrical line as part of the "Proposed Solar Array – Parcel 3" project on the above-referenced subject parcel. Proposed work activities occur within the 100-foot Buffer Zone protected under the *Massachusetts Wetlands Protection Act* (M.G.L., c. 131, s. 40, the *WPA*), its implementing *Regulations* (310 CMR 10.00, *WPA Regulations*), and/or the *Town of Bellingham Wetlands Protection Bylaw* (Chapter 235, *Bylaw*) and implementing *Regulations* (Chapter 247, *Bylaw Regulations*). Details of the proposed project are depicted on the *Proposed Site Plan*, prepared by Bohler Engineering, dated October 4, 2023 (Attachment; provided under separate cover).

Enclosed please find checks payable to the Town of Bellingham for which includes the town portion of the *WPA* filing fee (\$262.50) and the *Bylaw* fee (\$298.00). The state portion of the *WPA* filing fee (\$237.50) has been paid electronically via eDEP.

Thank you for your consideration of this Application. We look forward to discussing the project at the December 13, 2023 Public Hearing. If you should have any questions or require additional information, please do not hesitate to contact me at dwells@leceenvironmental.com.

Sincerely,

LEC Environmental Consultants, Inc.

Dan Wells

Senior Wildlife/Wetland Scientist

cc: DEP CERO; Maple Street Solar, LLC; Maple Gate Realty Trust

LEC Environmental Consultants, Inc.

www.leceenvironmental.com

12 Resnik Road
Suite 1
Plymouth, MA 02360
508.746.9491

PLYMOUTH, MA

380 Lowell Street
Suite 101
Wakefield, MA 01880
781.245.2500

WAKEFIELD, MA

100 Grove Street
Suite 302
Worcester, MA 01605
508.753.3077

WORCESTER, MA

P.O. Box 590
Rindge, NH 03461
603.899.6726

RINDGE, NH

680 Warren Avenue
Suite 3
East Providence, RI 02914
401.685.3109

EAST PROVIDENCE, RI

i.	WPA Form 3 – Notice of Intent
ii.	Wetland Fee Transmittal Form
iii.	Application for Permit-Bellingham Wetlands Protection Bylaw & Regulations
iv.	Town of Bellingham Wetlands Protection Bylaw Fee Calculation Worksheet
v.	Affidavit of Service
vi.	Letter to Abutters
vii.	Abutter Notification Form
viii.	Certified List of Abutters

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Appendix A

Locus Maps

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Appendix B

MassDEP Bordering Vegetated Wetland Field Data Forms

Attachments

Proposed Site Plan, prepared by Bohler, dated October 4, 2023

Drainage Report, prepared by Bohler, dated July 20, 2023



Massachusetts Department of Environmental Protection &

Bellingham Wetlands Protection Bylaw

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

Bellingham
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):

0 Maple Street

a. Street Address

Bellingham

b. City/Town

02019

c. Zip Code

Latitude and Longitude:

32

f. Assessors Map/Plat Number

42.10489

d. Latitude

-71.44759

e. Longitude

9

g. Parcel /Lot Number

2. Applicant:

Daniel

a. First Name

Serber

b. Last Name

Maple Street Solar, LLC

c. Organization

177 Huntington Ave., Suite 1703, Unit 73069

d. Street Address

Boston

e. City/Town

MA

f. State

02115

g. Zip Code

559-731-4645

h. Phone Number

i. Fax Number

daniel@nextgrid.com

j. Email Address

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

☐ Check if more than one owner

Sally

a. First Name

Winters, Trustee

b. Last Name

Maple Gate Realty Trust, c/o Brown Legal PLLC

c. Organization

10 Liberty Square, 6th Floor

d. Street Address

Boston

e. City/Town

MA

f. State

02109

g. Zip Code

617-463-9133

h. Phone Number

i. Fax Number

brown@brownlegalllc.com

j. Email address

4. Representative (if any):

Dan

a. First Name

Wells

b. Last Name

LEC Environmental Consultants, Inc.

c. Company

380 Lowell Street, Suite 101

d. Street Address

Wakefield

e. City/Town

MA

f. State

01880

g. Zip Code

781-245-2500

h. Phone Number

i. Fax Number

dwells@lecenvironmental.com

j. Email address

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

\$500.00

a. Total Fee Paid

\$237.50

b. State Fee Paid

\$262.50

c. City/Town Fee Paid



Massachusetts Department of Environmental Protection & Bellingham Wetlands Protection Bylaw
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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Bellingham
City/Town

A. General Information (continued)

6. General Project Description:

Installation of an electrical line from a proposed solar array to an existing pole on Maple Street.

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

- | | |
|---|---|
| 1. <input type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input checked="" 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 CMR 10.24(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:

Norfolk

a. County

8626

c. Book

b. Certificate # (if registered land)

39

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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Bellingham Wetlands Protection Bylaw

Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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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	1. Name of Waterway (if available) - specify coastal or inland	

2. Width of Riverfront Area (check one):

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

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

4. Proposed alteration of the Riverfront Area:

a. total square feet _____ b. square feet within 100 ft. _____ c. square feet between 100 ft. and 200 ft. _____

5. Has an alternatives analysis been done and is it attached to this NOI? ☐ Yes ☐ No

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

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

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



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Bureau of Resource Protection - Wetlands

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Bellingham
City/Town

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.

<u>Resource Area</u>	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	1. square feet	
	2. cubic yards dredged	
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
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
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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Bellingham
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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**

8/1/2021

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

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.



Massachusetts Department of Environmental Protection & Bellingham Wetlands Protection Bylaw
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

Bellingham
City/Town

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).



**Massachusetts Department of Environmental Protection &
Bellingham Wetlands Protection Bylaw**
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

Bellingham
City/Town

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

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

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

D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection & Bellingham Wetlands Protection Bylaw
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

Bellingham
City/Town

D. Additional Information (cont'd)

3. ☒ Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s), Determination of Applicability, Order of Resource Area Delineation, etc.), and attach documentation of the methodology.

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

Proposed Site Plan

a. Plan Title

Bohler Engineering

John A. Kucich

b. Prepared By

c. Signed and Stamped by

10/4/2023

1"=40'

d. Final Revision Date

e. Scale

Drainage Report, prepared by Bohler Engineering

7/20/2023

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.
6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.
7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.
8. ☒ Attach NOI Wetland Fee Transmittal Form
9. ☐ Attach Stormwater Report, if needed.

E. Fees

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

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

2148

10/16/2023

2. Municipal Check Number

3. Check date

Paid via eDEP

4. State Check Number

5. Check date

Brown Legal, PLLC

6. Payor name on check: First Name

7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40
Town of Franklin Wetlands Bylaw (Chapters 181 & 271) and Regulations

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Franklin/Bellingham
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.

Daniel Serber

09/05/2023

1. Signature of Applicant

2. Date

Peter A. Brown, Esq. as Counsel for Owner, Maple Gate Realty Trust

09/05/2023

3. Signature of Property Owner (if different)

4. Date

[Signature]

11/8/2023

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.



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

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



A. Applicant Information

1. Location of Project:

0 Maple Street

a. Street Address

Bellingham

b. City/Town

Paid via eDEP

\$237.50

c. Check number

d. Fee amount

2. Applicant Mailing Address:

Daniel

a. First Name

Serber

b. Last Name

Maple Street Solar, LLC

c. Organization

177 Huntington Ave., Suite 1703, Unit 73069

d. Mailing Address

Boston

e. City/Town

MA

f. State

02115

g. Zip Code

559-731-4645

h. Phone Number

i. Fax Number

daniel@nextgrid.com

j. Email Address

3. Property Owner (if different):

Sally

a. First Name

Winters, Trustee

b. Last Name

Maple Gate Realty Trust, c/o Brown Legal PLLC

c. Organization

10 Liberty Square, 6th Floor

d. Mailing Address

Boston

e. City/Town

MA

f. State

02109

g. Zip Code

617-463-9133

h. Phone Number

i. Fax Number

brown@brownlegalllc.com

j. Email Address

B. Fees

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

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

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

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

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

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

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

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



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2.j.) Other activity: electrical line	1		\$500
Step 5/Total Project Fee:			\$500

Step 6/Fee Payments:

Total Project Fee:	<u>\$500</u>
	a. Total Fee from Step 5
State share of filing Fee:	<u>\$237.50</u>
	b. 1/2 Total Fee less \$12.50
City/Town share of filling Fee:	<u>\$262.50</u>
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
Box 4062
Boston, MA 02211

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

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



Application for Permit Bellingham Wetlands Protection Bylaw & Regulations

1. Applicant: Name: Maple Street Solar, LLC Phone: 559-731-4645
Address: 177 Huntington Ave., Suite 1703, Unit 73069 Boston, MA 02115
E-mail: daniel@nextgrid.com

2. Project Location: Street: _____
0 Maple Street
Assessor's Map 32 Parcel\Lot 9

3. This application is filed simultaneously with and consistent with the Project Filing

Guidelines found on the town web site for:

- ☐ Request for Determination of Applicability
- ☐ Abbreviated Notice of Resource Area Delineation
- ☒ Notice of Intent
- ☐ Abbreviated Notice of Intent
- ☐ Amendment Request

Resource Area(s) Delineation to be confirmed: (Please complete number of linear feet)

Linear Feet

865 Bordering Vegetated Wetlands (BVW)
_____ Bordering Land Subject to Flooding (BLSF)
_____ Isolated Land Subject to Flooding (ILSF)
_____ Isolated Vegetated Wetland (IVW)
_____ Land Under Water Bodies (LUWB)
_____ Bank
_____ Perennial Stream: (MHAW) Stream Name: _____
_____ Intermittent Stream:

Is Estimated or Priority Habitat present on the site? Yes _____ No X

Species: _____

Number of Vernal Pools present on the site: Certified 0 Potential 0

4. Work is proposed in the following Resource Areas:

<input type="checkbox"/> Bank	Total #of square feet of impacts:	_____
<input type="checkbox"/> Beach or Flat	Total #of square feet of impacts:	_____
<input type="checkbox"/> Land Subject to Flooding(bordering or isolated)	Total # of square feet of impacts	_____
<input type="checkbox"/> Bordering Vegetated Wetlands	Total # of square feet of impacts	_____
<input checked="" type="checkbox"/> Buffer Zone	Total # of square feet of impacts	<u>1,173</u>
<input type="checkbox"/> Isolated Wetland	Total # of square feet of impacts	_____
<input type="checkbox"/> Lakes or Ponds	Total # of square feet of impacts	_____
<input type="checkbox"/> Land under Water Bodies	Total # of square feet of impacts	_____
<input type="checkbox"/> Riverfront Area	Total # of square feet of impacts	_____
<input type="checkbox"/> Vernal Pool	Total # of square feet of impacts	_____
	Total # of above	<u>1,173</u>

5. Work is proposed in the following No Alteration Zones:

<input type="checkbox"/> Areas of Critical Environmental Concern	Total# of square feet of impacts	_____
<input type="checkbox"/> Buffer Zone 0 -25 feet	Total# of square feet of impacts	_____
<input type="checkbox"/> Estimated Habitat	Total# of square feet of impacts	_____
<input type="checkbox"/> Priority Habitat	Total# of square feet of impacts	_____
<input type="checkbox"/> 0 – 50 feet No Disturb Zone to Vernal Pool	Total# of square feet of impacts	_____
	Total of above	_____

6. Work in buffer zone only:

<input type="checkbox"/> 0-25 feet	Total# of square feet of impacts	_____
<input checked="" type="checkbox"/> 25-50 feet	Total# of square feet of impacts	1,173
<input type="checkbox"/> 50-100 feet	Total# of square feet of impacts	_____
	Total of above	1,173

7. Project Description:

a. Existing Conditions where work is proposed

- | | |
|--|--|
| <input type="checkbox"/> Impervious | <input type="checkbox"/> Lawn or landscaped area |
| <input type="checkbox"/> Regulated Resource Area | <input checked="" type="checkbox"/> Wooded or natural area |
| <input checked="" type="checkbox"/> Other | |

b. Description of proposed work: Installation of underground electrical line

c. Type of equipment required for project: Jack and Bore equipment

d. Type of erosion control proposed: Silt fence, compost sock

8. Plans must adhere to the criteria in Section 29 “Plan Requirements” of the Regulations.

9. Project Impacts (Use separate page if necessary referring to corresponding item)

Buffer Zone Setback:

If the project involves work in the buffer zone only, what is the shortest distance between project disturbance and the regulated resource area? 26 feet

Tree Cutting:

List the number of trees and approximate diameter of tree(s) in jurisdictional areas proposed for removal: (Use separate sheet if necessary.) unknown

Fill & grading:

Amount of fill proposed for removal from site	<u>0</u>	cu yds.
Amount of fill proposed for use on site	<u>0</u>	cu yds.

Explain the difference between the proposed final grade and the existing conditions. no change

Explain proposed site stabilization methodology during and post construction. loam and seed with native mix

10. If an exemption or waiver from the WPA or the Bellingham Wetland Bylaw will be required to complete the proposed project, the applicant shall, at the time of filing, provide information consistent with six requirements listed in Section 10 of the Bellingham Wetland Regulations.

11. The following completed items are included in each set of the filing:

☒ Abutters list, ☒ Abutter Notification Form, ☒ Affidavit of Service, ☒ Bylaw Fee Calculation, ☐ Worksheet & remittance ☒ Plans (see #8 above), ☒ Narrative for projects **Please include:** THUMB DRIVE with pdf copy of entire filing

12. Statement of applicant: I hereby certify under penalties of perjury that this application and all supporting plans and documents are true and complete to the best of my knowledge and that these have been prepared in conformance with the requirement of the Bellingham Wetlands Protection Bylaw and its attendant Regulations I further certify that all abutters and other parties have been notified of this application as required by the Bellingham Wetlands Protection Regulations. I understand that I may be asked to pay for a consultant to review my application for the Commission.

Initialed sign off by Treasurer's Office:

**CERTIFICATION OF MUNICIPAL TAXES AND CHARGES PAID
TOWN OF BELLINGHAM**

Property Information	
Parcel ID	
Map	
Lot	
Street Number	
Street Name	
First Name	
Last Name	

As the
Collector

Taxes / Charges	Paid
Tax Title	<input type="checkbox"/>
Motor Excise Tax	<input type="checkbox"/>
Real Estate Tax	<input type="checkbox"/>
Personal Property Tax	<input type="checkbox"/>
Water	<input type="checkbox"/>
Sewer	<input type="checkbox"/>
Trash	<input type="checkbox"/>

As the Collector/Treasurer for the Town of Bellingham, MA I certify that the municipal taxes are paid in full for the above property.

(Print name)

(Signature)

(Date)

3/2011, 8/2017, 2/2021

Town of Bellingham Wetlands Protection Bylaw

Fee Calculations Worksheet

(Bylaw Fees are in addition to WPA Fees)

Fees must be submitted with application

(Check to be made payable to "Town of Bellingham")

1. **A flat fee of \$50.00 each for the following requests: (check off appropriate item)**

_____ Request for Determination of Applicability (RDA)..... \$ _____
(For RDA also see item 4 or 5 below as appropriate)
_____ Request for an Extension to Orders of Conditions (Ext)----- \$ _____

2. **The following schedule applies for Notice of Intent (NOI) categories at 310CMR 10.03(7) (c), as follows:**

*(Also complete Item #4 below for all filings including RDA, NOI and ANRAD and Item #5 for Riverfront Area if applicable.)

	No.	Total
Category 1	\$ 50.00 per activity x _____	= \$ _____
Category 2	\$125.00 per activity x <u>1</u>	= \$ <u>\$125</u>
Category 3	\$250.00 per activity x _____	= \$ _____
Category 4	\$500.00 per activity x _____	= \$ _____
Category 5	\$ 2.00 per linear ft. x _____	= \$ _____

3. **A flat fee of \$50.00 for Request for an Amendment to each existing Order of Conditions permit:**

\$ 50.00 per activity x _____ = \$ _____

4. **Application for review of Resource Area Delineation:** .20 per linear foot (not less than \$25.00 or more than \$200.00 for single family house projects; not less than \$50.00 or more than \$2,000.00 for any other activity).

- This fee will be in addition to the fee for a Request for Determination of Applicability (RDA) or Notice of Intent (NOI) listed in items #1 for RDA and #2 NOI or Abbreviated Notice of Resource Area Delineation (ANRAD).

Type of activity: electrical line installation

Total linear feet 865 +/- x .20/linear foot = \$ 173
((\$25/ min. or \$2000/ max.)

5. **Fees for projects within the Riverfront Area and another resource area shall be 150% of the above fees:**

(Check off appropriate item below)

_____ Request for Determination of Applicability (RDA) \$ 50.00 x 150% = \$ _____
_____ Notice of Intent (NOI) (total from item 2 above) \$ _____ x 150% = \$ _____

Total Bylaw Fee Submitted \$ 298

DEP & BWP File No. _____

Name & Address of Applicant: Maple Street Solar, LLC

Project name (if applicable): Proposed Solar Array - Parcel 3

Project location: Assessors Map: 32 Lot or Parcel: 9 Street Address: 0 Maple Street

Affidavit of Service
Under the Massachusetts Wetlands Protection Act &
Bellingham Wetlands Protection Bylaw

I, Sharon A. Sullivan, hereby certify
Name of person making Affidavit

under pains and penalties of perjury that on December XX, 2023
Date

I gave notification to abutters in compliance with the second paragraph of
Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to
Abutter Notification dated April 8, 1994, in the connection with the following
matter:

A Notice of Intent/Abbreviated Notice of Resource Area
Delineation/Request for Amendment was filed under the
Massachusetts Wetlands Protection Act and the
Bellingham Wetlands Protection Bylaw, by

Maple Street Solar, LLC with the
Name of applicant

Bellingham Conservation Commission on
Name of Municipality

November 9, 2023 for property located at 0 Maple Street
Date

(Assessor's Parcel: 32-9)
Address of land where work is proposed

The form of notification and a certified list of the abutters to whom it was given
and their addresses, are attached to the Affidavit of Service.

Sharon A. Sullivan
Signature

12/XX/2023
Date

December XX, 2023

Certificate of Mailing

«Name»

«Name2»

«Address»

«City», «State» «Zip»

Re: Notice of Intent Application
0 Maple Street (Assessor's Parcel: 32-9)
Bellingham, Massachusetts

[LEC File #: BoE\22-015.02]

Dear Abutter:

On behalf of the Applicant, Maple Street Solar, LLC, LEC Environmental Consultants, Inc. (LEC) has filed a Notice of Intent (NOI) Application with the Bellingham Conservation Commission for the installation of an electrical line as part of the "Proposed Solar Array – Parcel 3" project on the above-referenced subject parcel. Proposed work activities occur within the 100-foot Buffer Zone protected under the *Massachusetts Wetlands Protection Act* (M.G.L., c. 131, s. 40, the *WPA*), its implementing *Regulations* (310 CMR 10.00, *WPA Regulations*), and/or the *Town of Bellingham Wetlands Protection Bylaw* (Chapter 235, *Bylaw*) and implementing *Regulations* (Chapter 247, *Bylaw Regulations*).

The report entitled *Notice of Intent Application* and accompanying site plans are available for review by the public at the Bellingham Conservation Commission. The Public Hearing will be held in-person and via remote access on December 13, 2023 at 7:00 p.m., in accordance with the provisions of the *Act*, the *Act Regulations*, the *Bylaw*, and the *Bylaw Regulations*. Notice of the Public Hearing, including its date, time, and place, will be published at least five (5) days in advance in *The Woonsocket Call*. Notice of the Public Hearing also will be posted at the Bellingham Municipal Center at least 48 hours in advance. Please check the Town's website and the Board/Committee's page for any updated information on the meeting.

Please do not hesitate to review the materials and/or attend the public hearing should you have questions or concerns about the proposed project.

Sincerely,

LEC Environmental Consultants, Inc.

Daniel L. Wells
Senior Wetland/Wildlife Scientist

LEC Environmental Consultants, Inc.

www.lecenvironmental.com

12 Resnik Road
Suite 1
Plymouth, MA 02360
508.746.9491

380 Lowell Street
Suite 101
Wakefield, MA 01880
781.245.2500

100 Grove Street
Suite 302
Worcester, MA 01605
508.753.3077

P.O. Box 590
Rindge, NH 03461
603.899.6726

680 Warren Avenue
Suite 3
East Providence, RI 02914
401.685.3109

PLYMOUTH, MA

WAKEFIELD, MA

WORCESTER, MA

RINDGE, NH

EAST PROVIDENCE, RI

**NOTIFICATION TO ABUTTERS UNDER THE
MASSACHUSETTS WETLANDS PROTECTION ACT
CHAPTER 131, SECTION 40
AND
THE TOWN OF BELLINGHAM WETLANDS PROTECTION BY LAW**

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

Maple Street Solar, LLC has filed a Notice of Intent Abbreviated Notice of
(Applicant)
Intent/ Abbreviated Notice of Resource Area Delineation/Request for Amendment;
with the Bellingham Conservation Commission for review of the following activity:

Description of Project:
installation of an electrical line as part of the "Proposed Solar Array-Parcel 3" project

The location of the proposed activity is
Assessors Map 32 Lot 9
Street address: 0 Maple Street

Copies of the filing may be examined at the Bellingham Conservation Commission office during their normal business hours (please call 508-657-2858) OR by calling the Applicant's representative, LEC Environmental Consultants, Inc.
Address: _____
Phone number: (781) 245-2500 - 8:00 a.m. - 5:00 p.m., Monday thru Friday

Questions regarding the filing may be directed to the Conservation Commission at 508-657-2858 OR the Applicant's representative (Please see above)

The public hearing will be held at the Bellingham Municipal Center, 10 Mechanic Street, Bellingham. Information on the date and time of the hearing may be directed to the Conservation Commission or the applicant's representative at the above numbers.

NOTE: Notice of the public hearing, including date, time and place:

1. Will be published at least five (5) days in advance in the Woonsocket Call
2. Will be posted at the Town Clerk's Office and on the town web site no less than forty-eight (48) hours in advance of the public hearing.

NOTE: You may also contact the nearest Department of Environmental Protection Regional Office for more information about this application or the Wetlands Protection Act. To contact DEP, call Central Regional (508)-792-7650



TOWN OF BELLINGHAM

Assessment Administration Office
Municipal Center - 10 Mechanic Street
Bellingham, Massachusetts 02019
508-657-2862 * FAX 508-657-2894
Email: Assessors@bellinghamma.org
www.bellinghamma.org

October 31, 2023

**THE PROPERTY OWNERS LISTED HEREIN ARE THE KNOWN ABUTTERS TO
THE PROPERTY OWNERS:**

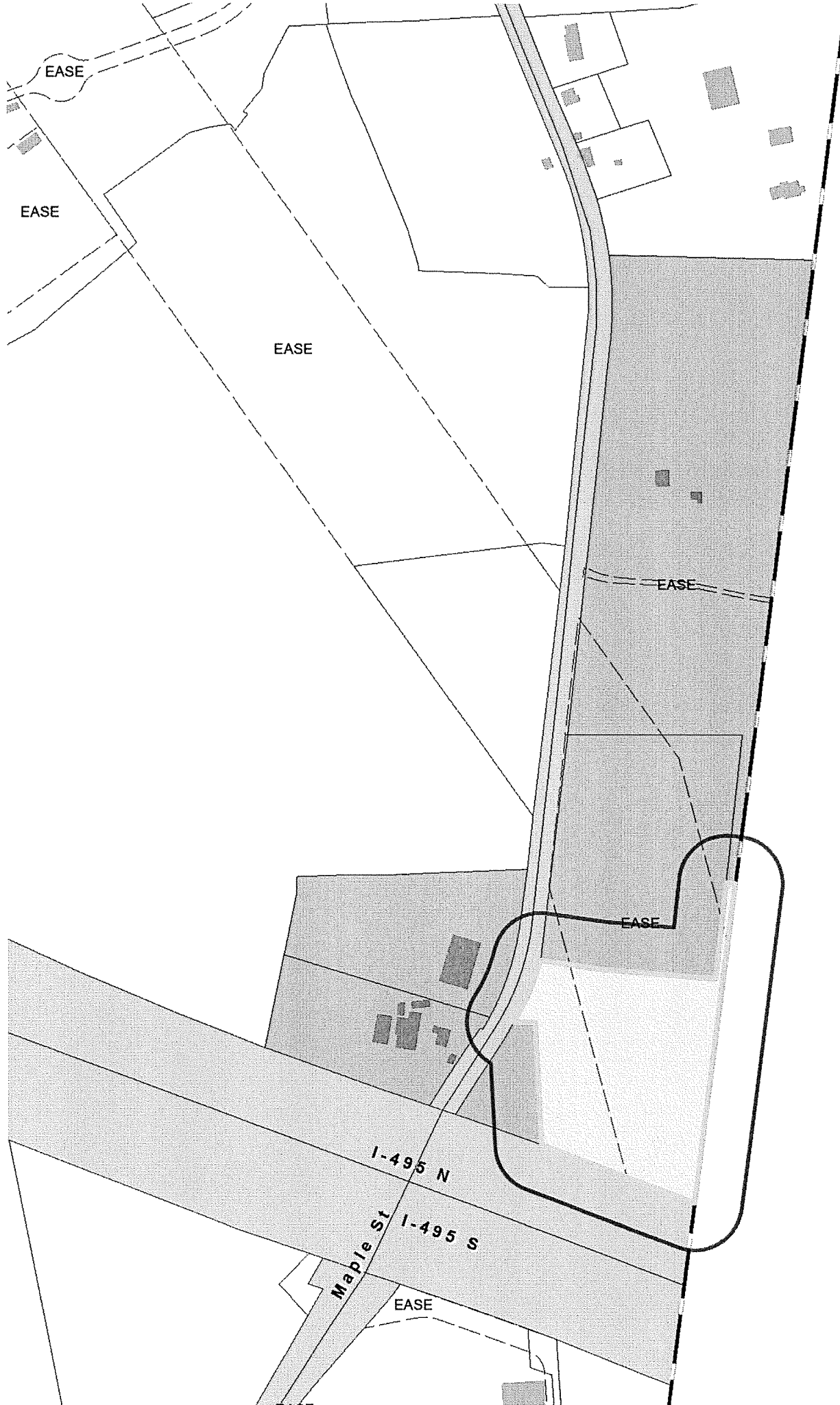
100 feet for Conservation Commission Map 32 Parcel 9

Property Address(es):	Maple Street Bellingham MA 02019
Owner(s) of Record:	Maple Gate Realty Trust 160 Maple Street Bellingham, MA 02019
Requested by:	LEC Environmental 380 Lowell Street – Suite 101 Wakefield, MA 01880

ABUTTERS ATTACHED

Certified: _____


Elizabeth Cournoyer, Assessment Director



FRANKLIN



100 foot Abutters List Report

Bellingham, MA
October 31, 2023

Subject Property:

Parcel Number: 0032-0009-0000
CAMA Number: 0032-0009-0000
Property Address: MAPLE ST

Mailing Address: MAPLE GATE REALTY TRUST SMITH,
ROBERT E, TR
160 MAPLE ST
BELLINGHAM, MA 02019

Abutters:

Parcel Number: 0032-0007-0000
CAMA Number: 0032-0007-0000
Property Address: 186 MAPLE ST

Mailing Address: LMP PROPERTIES LLC ATTN RYAN LLC
PO BOX 4900
SCOTTSDALE, AZ 85261-4900

Parcel Number: 0032-0008-0000
CAMA Number: 0032-0008-0000
Property Address: MAPLE ST

Mailing Address: N E POWER CO PROPERTY TAX DEPT
40 SYLVAN RD
WALTHAM, MA 02451-2286

Parcel Number: 0032-0010-0000
CAMA Number: 0032-0010-0000
Property Address: MAPLE ST

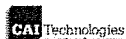
Mailing Address: 0 MAPLE STREET LLC
235 MAPLE ST
BELLINGHAM, MA 02019

Parcel Number: 0032-003+-0000
CAMA Number: 0032-003+-0000
Property Address: 235 MAPLE ST

Mailing Address: 235 MAPLE REALTY TRUST JARED D
LIBERTI-TR
235 MAPLE ST
BELLINGHAM, MA 02019

Parcel Number: 0032-003A-0000
CAMA Number: 0032-003A-0000
Property Address: 231 MAPLE ST

Mailing Address: 179 MECHANIC ST REAL ESTATE TR
SCOTT HOVEY - TR
231 MAPLE ST
BELLINGHAM, MA 02019



www.cai-tech.com

10/31/2023

Data shown on this report is provided for planning and informational purposes only. The municipality and CAI Technologies are not responsible for any use for other purposes or misuse or misrepresentation of this report.

Page 1 of 1



Notice of Intent Application

Solar Array – Parcel 3 Project
0 Maple Street
Bellingham, Massachusetts

November 9, 2023

1. Introduction

On behalf of the Applicant, Maple Street Solar, LLC, LEC Environmental Consultants, Inc., (LEC) is submitting this Notice of Intent (NOI) Application for the installation of an electrical line located at 0 Maple Street in Bellingham, Massachusetts. The electrical line would connect from the “Proposed Solar Array – Parcel 3 Project” located to the immediate east in Franklin to an existing pole on the west side of Main Street in Bellingham. Proposed work activities occur within the 100-foot Buffer Zone, protected under the *Massachusetts Wetlands Protection Act* (M.G.L., c. 131, s. 40, the *WPA*), its implementing *Regulations* (310 CMR 10.00, the *WPA Regulations*), and the *Town of Bellingham Wetlands Protection Bylaw* (Chapter 235, *Bylaw*) and implementing *Regulations* (Chapter 247, *Bylaw Regulations*).

Details of the proposed project are depicted on the *Proposed Site Plan*, prepared by Bohler, dated October 4, 2023 (Attachment, provided under separate cover).

The following NOI Application provides a description of the existing site conditions, Wetland Resource Areas, and proposed project designed to protect the interests and values of the Wetland Resource Areas outlined within the above-referenced statutes.

2. General Site Description

The approximately 3.57± acre Project site is located east of Maple Street and north of Route 495, within the northeastern portion of Bellingham (Appendix A, Figures 1 and 2). A 325' wide New England Power Company easement with associated utility poles and overhead wires traverses the eastern half of the site. Undeveloped land borders the project site to the northwest, south, and southeast. Portions of the existing Maple Gate Golf Course are located east of the project, and an existing solar array is located to the northeast.

The proposed electrical line would connect to the “Solar Array - Parcel 3” Project, which is proposed within the southern half of the existing Maplegate Country Club property, in portions of Bellingham and Franklin. The existing Maple Gate Country Club property is proposed to be subdivided into three parcels: “Parcel 3” in Franklin is the location of the solar project associated with this NOI, while a separate solar project proposed in Parcel 1 was permitted with the Conservation Commission under MassDEP File # 159-1268.

Parcel 2, located between Parcels 1 and 3, has been designated for public Open Space purposes.

The project site for this NOI occurs within the northern portion of the subject property. Existing developed features include the maintained powerline corridor and a gravel access road in the eastern portions of the property. Undeveloped portions of the site consist of forested upland, Bordering Vegetated Wetlands (BVW), and an intermittent stream flowing southerly.

Vegetation within the forested upland portions of the project site include a canopy of eastern white pine (*Pinus strobus*), northern red oak (*Quercus rubra*), white oak (*Q. alba*), and red maple (*Acer rubrum*), with individuals of shagbark hickory (*Carya ovata*), black birch (*Betula lenta*), and gray birch (*Betula populifolia*). The understory contains saplings from the canopy, witch hazel (*Hamamelis virginiana*), and maple leaf viburnum (*Viburnum acerifolium*). The groundcover includes Canada mayflower (*Maianthemum canadense*), hay scented fern (*Dennstaedtia punctilobula*), dewberry (*Rubus* sp.), individual patches of lowbush blueberry (*Vaccinium angustifolium*), tree-club moss (*Lycopodium obscurum*), and wintergreen (*Gaultheria procumbens*).

According to the Natural Resource Conservation Service (NRCS) Soil Survey (Web Soil Survey Norfolk and Suffolk Counties, Massachusetts, Version 17, September 3, 2021), the upland portions of the site are mapped as Scituate fine sandy loam, 3-8% slopes, extremely stony. NRCS describes the Scituate Series, as friable coarse-loamy eolian deposits over dense sandy lodgment till derived from granite and gneiss.

Using a hand-held, Dutch-style auger, LEC inspected soil conditions within the forested upland along the BVW boundary. Representative test pits within the upland generally consisted of a ten-inch-thick topsoil (A-Horizon) with a soil matrix color 10 YR 2/2. The A-Horizon is directly underlain by a B-Horizon measuring up to 10 inches thick with a matrix color 10 YR 3/6. The soil matrix color renders the soil profile ‘non-hydric’ in accordance with the *Field Indicators for Identifying Hydric Soils in New England* (Version 4, June 2020, the *Field Indicators Guide*). LEC’s field observations of the soil profile were generally consistent with the NRCS Soil Survey.

2.1

Floodplain Designation

According to the July 17, 2012 Federal Emergency Management Agency Flood Insurance Rate Maps (FIRM Panel Number: 25021C0302E), the site is located within a Zone X – “Area of Minimal Flood Hazard” (Appendix A, Figure 3). As a result, the site is not

mapped within the 100-year floodplain and does not contain Bordering Land Subject to Flooding (BLSF).

2.2

Natural Heritage and Endangered Species Program Designation

According to the 15th Edition of the Massachusetts *Natural Heritage Atlas* (effective August 1, 2021) published by the Natural Heritage & Endangered Species Program (NHESP), the site is not located within an *Estimated Habitat of Rare Wildlife* or *Priority Habitat of Rare Wildlife* (Appendix A, Figure 2). No Certified or Potential Vernal Pools are mapped within the site.

3.

Wetland Boundary Determination Methodology

LEC conducted site evaluations during February and March 2022 and May 30, 2023 to determine the extent of Wetland Resource Areas and delineate the boundaries in proximity to the proposed project area and portions of Bank.

The BVW boundary was confirmed by observing existing plant communities, the presence or absence of hydric soils, and hydrologic indicators in accordance with the WPA and its implementing WPA Regulations, the *Bylaw* and associated *Bylaw Regulations*, as further defined in the *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands* (Second Edition, September 2022; “the Handbook”), the *Field Indicators Guide*, and the criteria set forth in 310 CMR 10.55. MassDEP Bordering Vegetated Wetland Determination Field Data Forms for representative plots taken adjacent to WF #380 are included with this Application to support the wetland delineation (Appendix B).

The BVW boundaries were demarcated in the field with sequentially numbered blaze orange surveyor’s flagging tape embossed with the words “LEC Resource Area Boundary” in bold, black print, and are depicted in the *Plan Set*. Bank boundaries were delineated with sequentially numbered blue surveyor’s flagging tape and are depicted in the *Plan Set*.

4.

Wetland Resource Areas

The Wetland Resource Areas associated with this NOI Application includes BVW and Bank of an Intermittent Stream.

4.1

Bordering Vegetated Wetlands

BVW are defined in 310 CMR 10.55(2) as *freshwater wetlands which border on creeks, rivers, streams, ponds, and lakes. In these areas soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of BVW is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.*

A forested BVW occurs within the eastern half of the site and is associated with an intermittent stream channel flowing southerly. Vegetation within the forested BVW includes a dense canopy and sapling layer of red maple (*Acer rubrum*) and American elm (*Ulmus americana*). The shrub layer includes highbush blueberry (*Vaccinium corymbosum*), maleberry (*Lyonia logostrina*), winterberry (*Ilex verticillata*), arrowwood (*Viburnum dentatum*), and sweet pepperbush (*Clethra alnifolia*). The variably dense groundcover layer consists of sensitive fern (*Onoclea sensibilis*), cinnamon fern (*Osmunda cinnamomea*), sphagnum moss (*Sphagnum* sp.) and skunk cabbage (*Symplocarpus foetidus*).

BVW in the eastern half of the site consists of a dense scrub-shrub community within the managed powerline corridor. Vegetation within the scrub-shrub wetlands includes glossy buckthorn (*Frangula alnus*), silky dogwood (*Cornus amomum*), sweet pepperbush, jewelweed (*Impatiens capensis*), sensitive fern, various sedges (*Carex* spp.) and rushes (*Juncus* spp.).

According to the Natural Resource Conservation Service (NRCS) Soil Survey (Web Soil Survey Norfolk and Suffolk Counties, Massachusetts, Version 17, September 3, 2021), the wetland portion of the site located at the WF#380 sampling location is mapped as Freetown Muck, 0 to 1 percent slopes. NRCS describes the Freetown Series as highly decomposed organic material. Representative soil test pits within the wetland revealed an approximately 11-inch-thick organic layer (O-Horizon) with a mucky texture and a soil matrix color 10 YR 2/1. The organic layer was directly underlain by a loamy sand C-Horizon (subsoil) measuring between 3 inches thick with a soil matrix color of 10 YR 4/2. Redoximorphic features (10 YR 4/6) were common in this soil profile. This soil profile is considered 'hydric' in accordance with the *Handbook* and meets the criteria for A2: *Histic Epipedon*. MassDEP BVW Determination Forms were documented in the vicinity of wetland flag #380, and are provided in Appendix B.

4.2

Intermittent Stream

The current USGS map does not show any perennial or intermittent streams located within the site; however, LEC delineated the BVW bordering on an intermittent stream system that flows southerly through the west-central portions of the property.

According to the *Act Regulations* [310 CMR 10.58(2)(a)(1)(b and c)], b. *A river or stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed size greater than or equal to one square mile, is perennial. c. A stream shown as intermittent or not shown on the current USGS map or more recent map provided by the Department, that has a watershed size less than one square mile, is intermittent unless: i. The stream has a watershed size of at least ½ (0.50) square mile and has a predicted flow rate greater than or equal to 0.01 cubic feet per second at the 99% flow duration using the USGS Stream Stats method. The issuing authority shall find such streams to be perennial...*

To confirm the intermittent status of observed onsite stream, LEC utilized the USGS Water Resources Web Application StreamStats, to determine if the delineated stream was identified and mapped. If mapped, LEC would be able to calculate the contributing watershed area and 99% flow duration from a point located on the southern property boundary. The stream was not mapped on the StreamStats program, so it is presumed to have a de minimis watershed area. As such, LEC confirms the intermittent status of the stream. LEC delineated the Bank in a portion of the stream in the vicinity of the Project, as described below.

4.3

Bank

According to the *Act Regulations*, Bank is the *first observable break in slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level* [310 CMR 10.54 (2) (c)].

According to the *Bylaw Regulations*, §247-4, Bank is *the portion of the land surface which normally abuts and confines a water body, often between the mean annual low flow level and the first observable break in slope or the mean annual flood level, whichever is lower.*

The stream has a well-defined main channel as it flows southward through the delineated area, with channel depth measuring approximately 12 to 24 inches and a stream width ranging from four to six feet. The stream's substrate is comprised of muck, sand, gravel, and stones.

4.4

Buffer Zone Resource Area (Bylaw Only)

According to the *Bylaw Regulations*, §247-4 (Definitions), *Buffer Zone is the adjacent upland resource area 100 feet horizontally lateral from the boundary of any resource areas identified in §247-2A(1) through (8).*

The 100-foot Buffer Zone extends from the outermost resource area (BVW) and contains the adjacent forested and scrub-shrub upland areas and previously disturbed areas on the eastern side of Maple Street and associated with the powerline corridor and gravel maintenance road. Undeveloped portions of the buffer zone consist of forested upland habitat consisting of White Pine -Oak Forest cover type.

5.

Proposed Project

The Project subject to this NOI consists of the installation of an approximately 400 linear-foot underground electrical conduit from a proposed solar array in Franklin to an existing pole on the west side of Maple Street in Bellingham. The electrical line will connect the “Proposed Solar Array – Parcel 3” Project in Franklin to the existing pole. The Solar Array – Parcel 3 Project consists of the construction of a 15,000 KW solar field, along with associated gravel access drives, utilities, and storm water management features.

At the western end of the conduit, east of Maple Street, an area of clearing totaling 1,173 square feet will take place within the 25-50 foot portion of Buffer Zone, required for access and connection to aboveground poles, installation of a small gravel parking area, two Dip Poles and a 4-foot by 6-foot concrete pad. No work will take place within the 0-25 foot Buffer Zone. See Plan Sheets C-202, C-205 and C-305 for details of the activity.

5.1

Jack and Bore Methodology

The installation of the electrical conduit will be implemented through a jack and bore method to reduce the impact to wetlands and vegetation. This will entail a 10-foot wide by 30-foot long excavated sending pit to be installed within the 25-50 foot Buffer Zone on the Maple Street frontage side of the site. On the other side of the wetland crossing, within the Franklin lot approximately 400 feet away, a receiving pit of equal dimensions will be set up. The jack and bore machinery will drive a steel casing approximately 8-10 feet in depth beneath the wetland vegetation. Once the steel pipe is in place, the electrical conduits will be thread through the casing, making the connection from the Solar Development side in Franklin to the recloser pad located on the Bellingham side. The

aboveground disturbance will be limited to the areas of the sending and receiving pits and the wetland vegetation will remain untouched within this area. The location of the crossing and the location of the pits have been depicted on the Demolition Plans within the Proposed Site Plan Documents, refer to sheets C-202 and C-205. Upon completion of the installation, the jack and bore equipment will be removed and the pits will be backfilled with soil and gravel. The surface vegetation will be reseeded with Conservation Seed Mix and left to re-vegetate with native plant species.

6. Mitigation Measures

The project has been designed with mitigation measures to ensure compliance with the applicable Wetland Resource Area performance standards and protection of the interests of the *Act* and *Bylaw* during and after construction. The mitigation measures include perimeter erosion and sedimentation control.

6.1 Erosion and Sedimentation Control

An erosion and sedimentation control program will be implemented to protect the adjacent Wetland Resource Areas from sedimentation during the proposed construction activities. As shown on *Site Plan* Sheet C-605, and detailed on Sheet C-609, erosion controls consisting of silt fence and compost sock or equivalent will be installed to demarcate the Limit-of-Work in the vicinity of Wetland Resource Areas and provide additional assurance that construction equipment will not further intrude upon the Buffer Zone or protectable Wetland Resource Areas than otherwise permitted by the Commission. The actual means and methods of erosion control installation will be determined by the contractor. All barriers will remain in place until disturbed areas are stabilized with vegetation.

7. Regulatory Compliance

There is no proposed alteration to BVW or Bank resource areas. The *Act* and its implementing *Regulations* do not set forth specific performance standards for work within Buffer Zone. Section 247-24.B. of the *Bylaw Regulations* provides performance standards for work within the Buffer Zone. The pertinent performance standards and an explanation of the proposed project's compliance with these standards follows.

7.1

Buffer Zone

The Project will result in permanent alteration of only 1,173 square feet of Buffer Zone, between 25 and 50 feet from the nearest wetland resource area. The Project has avoided alteration to the 25-foot No Disturbance Zone. See Plan Sheets C-202, C-205 and C-305 for details of the activity.

7.2

Alternatives Analysis

According to Section 247-11.H. of the *Bylaw Regulations, Evaluation of alternatives. The applicant shall demonstrate that there are no practicable and substantially equivalent economic alternatives within the scope of alternatives with less adverse effects on the interests identified. The applicant shall submit information to describe sites and the work both for the proposed location and alternative site locations and configurations sufficient for a determination by the Commission. The level of detail of information shall be commensurate with the scope of the project and the practicability of alternatives. Where an applicant identifies an alternative which can be summarily demonstrated to be not practicable, an evaluation is not required.*

(1) The purpose of evaluating project alternatives is to locate activities so that impacts to the resource area are avoided to the extent practicable. Projects within the scope of alternatives must be evaluated to determine whether any are practicable. As much of a project as is practicable shall be sited outside the resource area.

(2) The Commission shall not approve alternatives which result in greater or substantially equivalent adverse impacts. If an alternative would result in no identifiable difference in impact, the issuing authority shall eliminate the alternative. If there would be no less adverse effects on the interests identified, the proposed project rather than a practicable alternative shall be allowed, but the criteria for determining no significant adverse impact must still be met. If there is a practicable and substantially equivalent economic alternative with less adverse effects, the proposed work may be denied, or the applicant may either withdraw the notice of intent, or the applicant may receive an order of conditions for the alternative (provided the applicant submitted sufficient information and the application materials on the alternative in the notice of intent). While the determination of no practical alternatives may result in the Commission's approval of work in a resource area or buffer zone, such a determination is not guarantee of approval and the Commission shall retain the power to deny or condition such work.

The underground installation methodology of the electrical conduit was chosen in order to minimize impacts to resource areas and Buffer Zone to the greatest extent practicable.

Any alternative designs would require the use of overhead wires which would require extensive tree clearing for pole installation and access, permanent ongoing maintenance of the corridor, including pruning and/or additional tree removal, and temporary wetland alterations for vehicle access.

8. Summary

On behalf of the Applicant, Maple Street Solar, LLC, LEC Environmental Consultants, Inc., (LEC) is submitting this NOI Application for the proposed installation of an approximately 400 linear-foot underground electrical conduit within the 100-foot Buffer Zone to BVW and Bank resource areas. The electrical line will connect the “Proposed Solar Array – Parcel 3” Project in Franklin to an existing pole in Bellingham on the west side of Maple Street. BVW and Bank are jurisdictional Wetland Resource Areas protectable area under the *Massachusetts Wetlands Protection Act* (WPA; M.G.L. c. 131, § 40) and its implementing Regulations (310 CMR 10.00); and the *Town of Bellingham Wetlands Protection Bylaw* (Chapter 235, *Bylaw*) and implementing *Regulations* (Chapter 247, *Bylaw Regulations*). The proposed project has been designed to protect the interests and values of the BVW, Bank and Buffer Zone in compliance with the WPA and *Bylaw*.

Federal Emergency Management Agency Flood Insurance Rate Map, Town of Bellingham (*Community Panel 25021C0302E*), effective July 17, 2012.

Jackson, S. D., D. J. Henson, D. Hilgeman, M. McHugh, and L. Rhodes, 2022. Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands, Second Edition, Massachusetts Department of Environmental Protection, Bureau of Water Resources, Wetlands Program, Boston, Massachusetts.

Massachusetts Natural Heritage Atlas, 15th Edition. Natural Heritage & Endangered Species Program, Massachusetts Division of Fisheries and Wildlife, Route 135, Westborough, MA 01581, http://maps.massgis.state.ma.us/PRI_EST_HAB/viewer.htm.

Massachusetts Wetlands Protection Act (M.G.L. c. 131, §. 40) and its implementing *Regulations* (310 CMR 10.00), www.state.ma.us/dep.

New England Hydric Soils Technical Committee. 2019 Version 4, *Field Indicators for Identifying Hydric Soils in New England*, New England Interstate Water Pollution Control Commission, Lowell, MA.

Town of Bellingham Wetlands Protection Bylaw and Regulations
<https://www.bellinghamma.org/conservation-commission/pages/filing-under-wetlands>

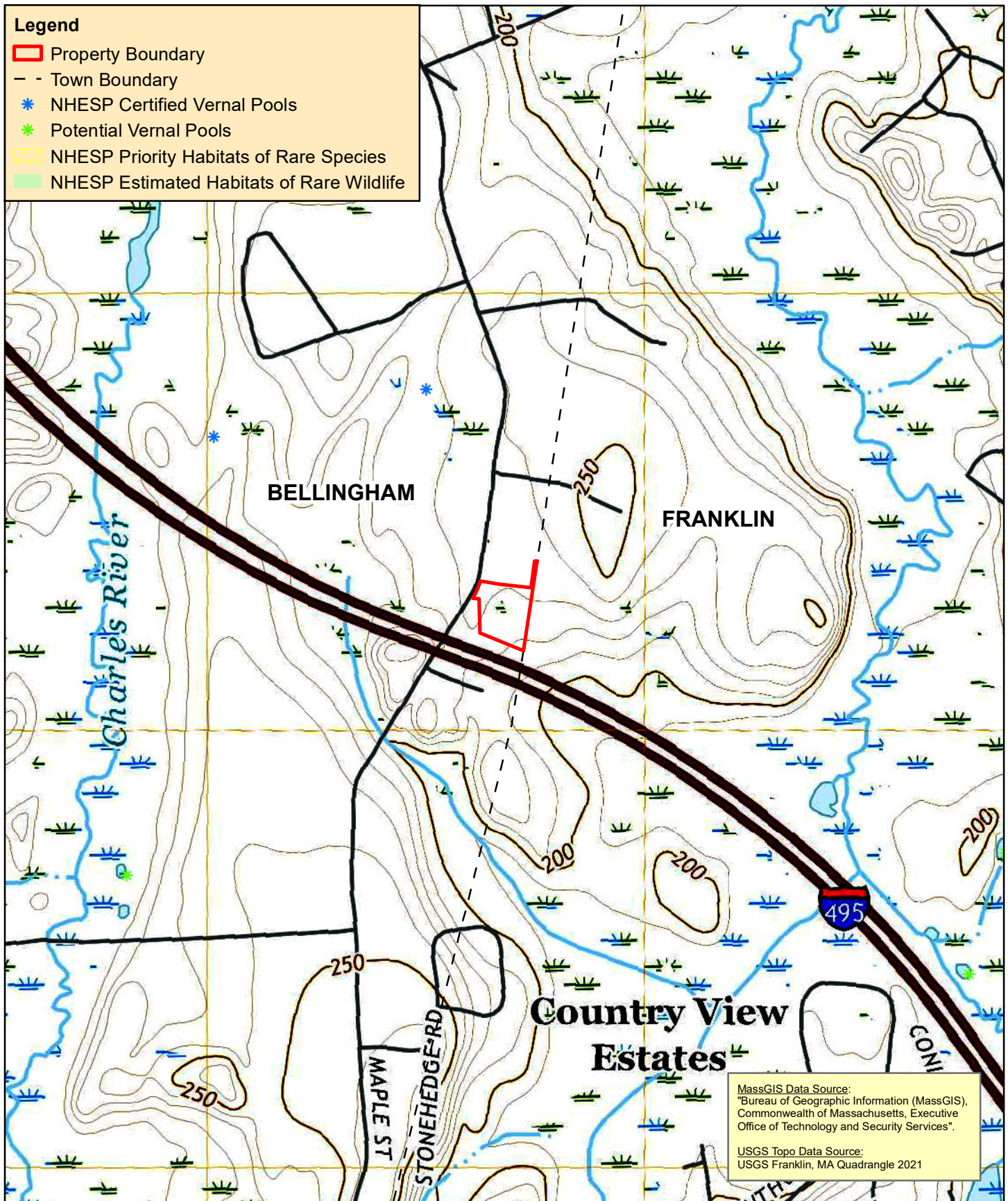
Appendix A

Locus Maps

Figure 1: USGS Topographic Map

Figure 2: Orthophoto Map

Figure 3: FEMA FIRMette



LEC Environmental Consultants, Inc.
Wakefield, MA 781.245.2500
www.lecenvironmental.com

Figure 1
USGS Topographic Map
0 Maple Street (Map 32, Lot 9)
Bellingham, MA

Date: 10/18/2023

1 inch = 1,000 feet

0 250 500 1,000 Feet



Legend

- - Town Boundary
- ▭ Property Boundary
- ★ NHESP Certified Vernal Pools
- ✱ Potential Vernal Pools
- ▨ NHESP Priority Habitats of Rare Species
- ▭ NHESP Estimated Habitats of Rare Wildlife



LEC Environmental Consultants, Inc.
Wakefield, MA 781.245.2500
www.lecenvironmental.com

Figure 2 Orthophoto Map

0 Maple Street (Map 32, Lot 9)
Bellingham, MA

Date: 10/18/2023

1 inch = 201 feet

0 50 100 200 Feet



National Flood Hazard Layer FIRMMette



71°27'8"W 42°6'31"N



0 250 500 1,000 1,500 2,000 Feet 1:6,000

Basemap Imagery Source: USGS National Map 2023

Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) Zone A, V, A99
		With BFE or Depth Zone AE, AO, AH, VE, AR
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile Zone X
		Future Conditions 1% Annual Chance Flood Hazard Zone X
		Area with Reduced Flood Risk due to Levee. See Notes. Zone X
		Area with Flood Risk due to Levee Zone D
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard Zone X
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard Zone D
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance Water Surface Elevation
		17.5
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped



The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 10/18/2023 at 2:14 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Appendix B

MassDEP Bordering Vegetated Wetland Determination Data Forms

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 160 Maple Street City/Town: Franklin Sampling Date: 3/23/2022
 Applicant/Owner: _____ Sampling Point or Zone: Upgradient of WF #380
 Investigator(s): Dan Wells Latitude / Longitude: not recorded
 Soil Map Unit Name: Scituate fine sandy loam, 3-8% slopes, extremely stony NWI or DEP Classification: none

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? (If yes, explain in Remarks)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Hydric Soils criterion met?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Wetlands hydrology present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	
Remarks, Photo Details, Flagging, etc.:		

HYDROLOGY

Field Observations:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) _____
Water Table Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) _____
Saturation Present (including capillary fringe)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) _____
Wetland Hydrology Indicators		
Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
<input type="checkbox"/> Water-stained leaves <input type="checkbox"/> Evidence of aquatic fauna <input type="checkbox"/> Iron deposits <input type="checkbox"/> Algal mats or crusts <input type="checkbox"/> Oxidized rhizospheres/pore linings <input type="checkbox"/> Thin muck surfaces <input type="checkbox"/> Plants with air-filled tissue (aerenchyma) <input type="checkbox"/> Plants with polymorphic leaves <input type="checkbox"/> Plants with floating leaves <input type="checkbox"/> Hydrogen sulfide odor	<input type="checkbox"/> Hydrological records <input type="checkbox"/> Free water in a soil test hole <input type="checkbox"/> Saturated soil <input type="checkbox"/> Water marks <input type="checkbox"/> Moss trim lines <input type="checkbox"/> Presence of reduced iron <input type="checkbox"/> Woody plants with adventitious roots <input type="checkbox"/> Trees with shallow root systems <input type="checkbox"/> Woody plants with enlarged lenticels	<input type="checkbox"/> Direct observation of inundation <input type="checkbox"/> Drainage patterns <input type="checkbox"/> Drift lines <input type="checkbox"/> Scoured areas <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Surface soil cracks <input type="checkbox"/> Sparsely vegetated concave surface <input type="checkbox"/> Microtopographic relief <input type="checkbox"/> Geographic position (depression, toe of slope, fringing lowland)
Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):		

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size <u>30 feet radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. White oak	Quercus alba	FACU	20.5	No	No		
2. Red oak	Quercus rubra	FACU	63.0	Yes	No		
3. White pine	Pinus strobus	FACU	20.5	No	No		
4.							
5.							
6.							
7.							
8.							
9.							
				<u>104.0</u> = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size <u>15 foot radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. Red maple	Acer rubrum	FAC	3.0	Yes	Yes		
2. White pine	Pinus strobus	FACU	3.0	Yes	No		
3. Witch hazel	Hamamelis virginiana	FACU	3.0	Yes	No		
4. Highbush blueberry	Vaccinium corymbosum	FACW	3.0	Yes	Yes		
5.							
6.							
7.							
8.							
9.							
				<u>12.0</u> = Total Cover			
<u>Herb Stratum</u>		Plot size <u>5 foot radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. Princess-pine	Dendrolycopodium obscurum	FACU	3.0	Yes	No		
2.					No		
3.					No		
4.					No		
5.					No		
6.					No		
7.					No		
8.					No		
9.					No		
10.					No		
11.					No		
12.					No		
				<u>3.0</u> = Total Cover			

VEGETATION – continued.

<u>Woody Vine Stratum</u>		Plot size _____		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
				<u>0.0</u> = Total Cover			

Rapid Test: Do all dominant species have an indicator status of OBL or FACW?				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Dominance Test:	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species?
	5	2		Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0?
				Yes <input type="checkbox"/> No <input type="checkbox"/>
Wetland vegetation criterion met? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>				

Definitions of Vegetation Strata

- Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
- Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall
- Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall
- Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Location ²		
2.00	10YR 2/2	100.0%		0.0%			sandy loam	
8.00	10YR 3/3	100.0%		0.0%			sandy loam	
4.00	10YR 3/6	100.0%		0.0%			fine sandy loam	
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				

¹Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains ²Location: PL=Pore Lining, M=Matrix

Hydric Soil Indicators (Check all that apply)		Indicators for Problematic Hydric Soils
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8)	<input type="checkbox"/> 2 cm Muck (A10)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1)	<input type="checkbox"/> Dark Surface (S7)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Polyvalue Below Surface (S8)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Thin Dark Surface (S9)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F8)	<input type="checkbox"/> Mesic Spodic (A17)
<input type="checkbox"/> Sandy Mucky Mineral (S1)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Other (Include Explanation in Remarks)
<input type="checkbox"/> Stripped Matrix (S6)		
<input type="checkbox"/> Dark Surface (S7)		

Restrictive Layer (if observed) Type: _____ Depth (inches): _____

Remarks:

Hydric Soils criterion met? Yes ☐ No ☒

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: 160 Maple Street City/Town: Franklin Sampling Date: 3/23/2023
 Applicant/Owner: _____ Sampling Point or Zone: Downgradient of WF #380
 Investigator(s): Dan Wells Latitude / Longitude: not recorded
 Soil Map Unit Name: Freetown muck, 0 to 1 percent slopes NWI or DEP Classification: WOODED SWAMP DECIDUOUS

Are climatic/hydrologic conditions on the site typical for this time of year? Yes ☒ No ☐ (If no, explain in Remarks)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ significantly disturbed? (If yes, explain in Remarks)

Are Vegetation ☐, Soil ☐, or Hydrology ☐ naturally problematic? (If yes, explain in Remarks)

SUMMARY OF FINDINGS – Attach site map and photograph log showing sampling locations, transects, etc.

Wetland vegetation criterion met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soils criterion met?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetlands hydrology present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

Field Observations:		
Surface Water Present?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	Depth (inches) _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches) <u>2.00</u>
Saturation Present (including capillary fringe)?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Depth (inches) <u>0.00</u>
Wetland Hydrology Indicators		
Reliable Indicators of Wetlands Hydrology	Indicators that can be Reliable with Proper Interpretation	Indicators of the Influence of Water
<input checked="" type="checkbox"/> Water-stained leaves <input type="checkbox"/> Evidence of aquatic fauna <input type="checkbox"/> Iron deposits <input type="checkbox"/> Algal mats or crusts <input type="checkbox"/> Oxidized rhizospheres/pore linings <input type="checkbox"/> Thin muck surfaces <input type="checkbox"/> Plants with air-filled tissue (aerenchyma) <input type="checkbox"/> Plants with polymorphic leaves <input type="checkbox"/> Plants with floating leaves <input type="checkbox"/> Hydrogen sulfide odor	<input type="checkbox"/> Hydrological records <input type="checkbox"/> Free water in a soil test hole <input checked="" type="checkbox"/> Saturated soil <input type="checkbox"/> Water marks <input type="checkbox"/> Moss trim lines <input type="checkbox"/> Presence of reduced iron <input type="checkbox"/> Woody plants with adventitious roots <input type="checkbox"/> Trees with shallow root systems <input type="checkbox"/> Woody plants with enlarged lenticels	<input type="checkbox"/> Direct observation of inundation <input checked="" type="checkbox"/> Drainage patterns <input type="checkbox"/> Drift lines <input type="checkbox"/> Scoured areas <input type="checkbox"/> Sediment deposits <input type="checkbox"/> Surface soil cracks <input type="checkbox"/> Sparsely vegetated concave surface <input type="checkbox"/> Microtopographic relief <input checked="" type="checkbox"/> Geographic position (depression, toe of slope, fringing lowland)
Remarks (describe recorded data from stream gauge, monitoring well, aerial photos, previous inspections, if available):		

This form is only for BVW delineations. Other wetland resource areas may be present and should be delineated according to the applicable regulatory provisions.

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size <u>30 foot radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. Red maple	Acer rubrum	FAC	38.0	Yes	Yes		
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				<u>38.0</u> = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size <u>15 foot radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. Highbush blueberry	Vaccinium corymbosum	FACW	10.5	Yes	Yes		
2. Maleberry	Lyonia ligostrina	FACW	20.5	Yes	Yes		
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				<u>31.0</u> = Total Cover			
<u>Herb Stratum</u>		Plot size <u>5 foot radius</u>		Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name	Scientific name						
1. Cinnamon fern	Osmundastrum cinnamomeum	FACW	3.0	Yes			
2. Princess-pine	Dendrolycopodium obscurum	FACU	3.0	Yes			
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				<u>6.0</u> = Total Cover			

VEGETATION – continued.

<u>Woody Vine Stratum</u>		Plot size <u>30 feet radius</u>				
Common name		Scientific name		Indicator Status	Absolute % Cover	Dominant? (yes/no)
1. Greenbrier		Smilax rotundifolia		FAC	10.5	Yes
2.						
3.						
4.						
				10.5 = Total Cover		

<u>Rapid Test:</u> Do all dominant species have an indicator status of OBL or FACW?				Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
<u>Dominance Test:</u>	Number of dominant species	Number of dominant species that are wetland indicator plants		Do wetland indicator plants make up ≥ 50% of dominant plant species?
	6	6		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
<u>Prevalence Index:</u>		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0?
				Yes <input type="checkbox"/> No <input type="checkbox"/>
<u>Wetland vegetation criterion met?</u> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>				

Definitions of Vegetation Strata

- Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
- Shrub / Sapling - Woody plants less than 3 in. (7.62 cm) DBH and greater than or equal to 3.3 ft. (1 m) tall
- Herb - All herbaceous (non-woody plants, regardless of size, and woody plants less than 3.3 ft. (1 m) tall
- Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

Cover Ranges	
Range	Midpoint
1-5 %	3.0 %
6-15 %	10.5 %
15-25 %	20.5 %
26-50 %	38.0 %
51-75 %	63.0 %
76-95 %	85.5 %
96-100 %	98.0 %

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type ¹	Location ²		
11.00	10YR 2/1	100.0%		0.0%			muck	
3.00	10YR 4/2	70.0%	10YR 4/6	30.0%	RM	M	loamy sand	
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
		0.0%		0.0%				
¹ Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains ² Location: PL=Pore Lining, M=Matrix								
Hydric Soil Indicators (Check all that apply)						Indicators for Problematic Hydric Soils		
<input type="checkbox"/> Histosol (A1)			<input type="checkbox"/> Polyvalue Below Surface (S8)			<input type="checkbox"/> 2 cm Muck (A10)		
<input checked="" type="checkbox"/> Histic Epipedon (A2)			<input type="checkbox"/> Thin Dark Surface (S9)			<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3)		
<input type="checkbox"/> Black Histic (A3)			<input type="checkbox"/> Loamy Mucky Mineral (F1)			<input type="checkbox"/> Dark Surface (S7)		
<input type="checkbox"/> Hydrogen Sulfide (A4)			<input type="checkbox"/> Loamy Gleyed Matrix (F2)			<input type="checkbox"/> Polyvalue Below Surface (S8)		
<input type="checkbox"/> Stratified Layers (A5)			<input type="checkbox"/> Depleted Matrix (F3)			<input type="checkbox"/> Thin Dark Surface (S9)		
<input type="checkbox"/> Depleted Below Dark Surface (A11)			<input type="checkbox"/> Redox Dark Surface (F7)			<input type="checkbox"/> Iron-Manganese Masses (F12)		
<input type="checkbox"/> Thick Dark Surface (A12)			<input type="checkbox"/> Depleted Dark Surface (F8)			<input type="checkbox"/> Mesic Spodic (A17)		
<input type="checkbox"/> Sandy Mucky Mineral (S1)						<input type="checkbox"/> Red Parent Material (F21)		
<input type="checkbox"/> Sandy Gleyed Matrix (S4)						<input type="checkbox"/> Very Shallow Dark Surface (TF12)		
<input type="checkbox"/> Sandy Redox (S5)						<input type="checkbox"/> Other (Include Explanation in Remarks)		
<input type="checkbox"/> Stripped Matrix (S6)								
<input type="checkbox"/> Dark Surface (S7)								
Restrictive Layer (if observed) Type: _____ Depth (inches): _____								
Remarks:								
Hydric Soils criterion met? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>								