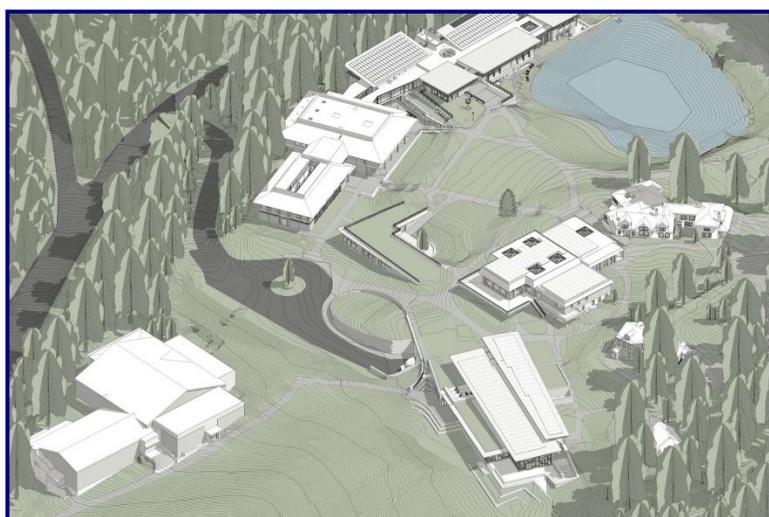


NOTICE OF INTENT

Proposed New Dining Hall Eaglebrook School, 285 Pine Nook Road Deerfield, Massachusetts



SUBMITTED TO:

Town of Deerfield
Conservation Commission
8 Conway Street
Deerfield Municipal Offices
South Deerfield, Massachusetts 01373

PREPARED FOR:

Eaglebrook School
271 Pine Nook Road
Deerfield, Massachusetts 01342

PREPARED BY:

Lucas Environmental, LLC
500A Washington Street
Quincy, Massachusetts 02169

IN ASSOCIATION WITH:

ProTerra Design Group, LLC
4 Bay Road, Building A, Suite 200
Hadley, Massachusetts 01035



500A Washington Street, Quincy, MA 02169

March 9, 2023

Town of Deerfield Conservation Commission
8 Conway Street
Deerfield Municipal Offices
South Deerfield, Massachusetts 01373

Re: Notice of Intent
Eaglebrook School
285 Pine Nook Road
Deerfield, Massachusetts

Members of the Deerfield Conservation Commission:

On behalf of the Eaglebrook School, the Applicant & Owner, and in association with ProTerra Design Group, LLC (ProTerra), Lucas Environmental, LLC (LE) is pleased to submit this Notice of Intent (NOI) to the Deerfield Conservation Commission for the proposed new dining hall at Eaglebrook School, located at 285 Pine Nook Road in Deerfield, Massachusetts. As currently designed, proposed work associated with the dining hall will partially occur within the 100-Foot Buffer Zone to Bordering Vegetated Wetlands (BVW) and Inland Bank. This NOI is submitted in accordance with the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.).

Enclosed please find one original and one copy of the NOI, Stormwater Management Report, and Site Plans. The NOI application package includes the WPA Form 3, project narrative, figures, photographic documentation, abutter notification, filing fees, and Wetland Delineation Field Data Forms. The Site Plans and Stormwater Management Report are provided separately. A link to an electronic copy of the pdf file of the NOI application and supporting documentation will be provided concurrently with this submittal. We respectfully request that you place this matter on your agenda for the March 23, 2023 Public Hearing.

If you have any questions, please do not hesitate to contact me at 617.405.4118 or jho@lucasenviro.com. Thank you for your consideration in this matter.

Sincerely,
LUCAS ENVIRONMENTAL, LLC

Joseph H. Orzel, PWS, CWS
Project Manager/Wetland Scientist

cc: MassDEP – WERO
Eaglebrook School (electronic copy)
ProTerra Design Group, LLC (electronic copy)



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SECTION I – FORMS



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield

City/Town

Important:

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



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

A. General Information

1. Project Location (**Note:** electronic filers will click on button to locate project site):

<u>285 Pine Nook Road</u>	<u>Deerfield</u>	<u>01342</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
<u>62 / 62 / 68 / 68 / 69 / 69</u>	<u>42°32'27.31"N</u>	<u>72°35'38.12"W</u>
f. Assessors Map/Plat Number	d. Latitude	e. Longitude
	<u>13 / 14 / 5 / 6 / 52 / 58 (respectively)</u>	
	g. Parcel /Lot Number	

2. Applicant:

<u>Wes</u>	<u>Smith</u>	
a. First Name	b. Last Name	
<u>Eaglebrook School</u>		
c. Organization		
<u>271 Pine Nook Road</u>		
d. Street Address		
<u>Deerfield</u>	<u>MA</u>	<u>01342</u>
e. City/Town	f. State	g. Zip Code
<u>413.774.9166</u>	<u>wsmith@eaglebrook.org</u>	
h. Phone Number	i. Fax Number	j. Email Address

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

<u>Wes</u>	<u>Smith</u>	
a. First Name	b. Last Name	
<u>Allen Chase Foundation</u>		
c. Organization		
<u>P.O. Box 7</u>		
d. Street Address		
<u>Deerfield</u>	<u>MA</u>	<u>01342</u>
e. City/Town	f. State	g. Zip Code
<u>413.774.9166</u>	<u>wsmith@eaglebrook.org</u>	
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

<u>Joseph</u>	<u>Orzel</u>	
a. First Name	b. Last Name	
<u>Lucas Environmental, LLC</u>		
c. Company		
<u>500A Washington Street</u>		
d. Street Address		
<u>Quincy</u>	<u>MA</u>	<u>02169</u>
e. City/Town	f. State	g. Zip Code
<u>617.405.4118</u>	<u>617.405.4465</u>	<u>jho@lucasenviro.com</u>
h. Phone Number	i. Fax Number	j. Email address

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

<u>\$1,050.00</u>	<u>\$512.50</u>	<u>\$537.50</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Deerfield

City/Town

A. General Information (continued)

6. General Project Description:

The proposed project includes the construction of a new dining hall at the Eaglebrook School. Associated work includes construction of new sidewalks, reconstruction of a portion of a parking lot to a cul-de-sac access drive, site grading, and construction of a subsurface stormwater infiltration system. Portions of the proposed work are within the 100-Foot Buffer Zone to BVW and Inland Bank. Approximately 250 square feet of temporary disturbance is proposed within BVW for installation of a culvert. The disturbed wetland area will be restored in place.

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

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

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

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

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Franklin

a. County

876 (62-13), 1121 (62-14), 1544 (68-5),
1141 (68-6), 2166 (69-52), 1242 (69-58)

c. Book

b. Certificate # (if registered land)

209 (62-13), 242 (62-14), 259 (68-5),
351 (68-6), 34 (69-52), 515 (69-58)

d. Page Number

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Provided by MassDEP:

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Deerfield
City/Town

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 checked="" type="checkbox"/> Bordering Vegetated Wetland	250 (temporary) 1. square feet	250 (restored in place) 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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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. <input type="checkbox"/> Land Under the Ocean	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

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

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

a. square feet of BVW

b. square feet of Salt Marsh

5. Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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Provided by MassDEP:

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

- a. Yes No **If yes, include proof of mailing or hand delivery of NOI to:**

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

- August 1, 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
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WPA Form 3 – Notice of Intent

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

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

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

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

Provided by MassDEP:

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Deerfield
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.

<u>Proposed Dining Hall & Site Improvements, 285 Pine Nook Road, Deerfield MA 01342</u>	
a. Plan Title	
<u>ProTerra Design Group, LLC et. al.</u>	<u>Jesse Moreno, PE</u>
b. Prepared By	c. Signed and Stamped by
<u>March 8, 2023</u>	<u>1 inch = 20, 30, & 40 feet</u>
d. Final Revision Date	e. Scale
<u>Limited Stormwater Hydrology Report for Proposed Dining Hall & Site Improvements, 285 Pine Nook Road, Deerfield MA 01342</u>	<u>March 8, 2023</u>
	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:

<u>65712</u>	<u>February 21, 2023</u>
2. Municipal Check Number	3. Check date
<u>65711 & 3902 (2 checks)</u>	<u>February 21, 2023</u>
4. State Check Number	5. Check date
<u>Allen Chase Foundation, Eaglebrook School</u>	
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

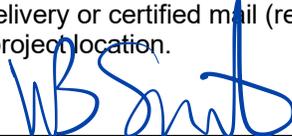
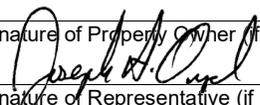
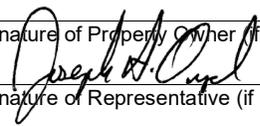
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Deerfield
City/Town

F. Signatures and Submittal Requirements

I hereby certify under the penalties of perjury that the foregoing Notice of Intent and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I understand that the Conservation Commission will place notification of this Notice in a local newspaper at the expense of the applicant in accordance with the wetlands regulations, 310 CMR 10.05(5)(a).

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. 131, § 40. Notice must be made by Certificate of Mailing or in writing by hand delivery or certified mail (return receipt requested) to all abutters within 100 feet of the property line of the project location.

 _____ 1. Signature of Applicant	 _____ 2. Date
 _____ 3. Signature of Property Owner (if different)	_____ 4. Date 03/07/2023
 _____ 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.



SECTION II – PROJECT NARRATIVE



PROJECT NARRATIVE

1.0 INTRODUCTION

On behalf of the Eaglebrook School, the Applicant & Owner, and in association with ProTerra Design Group, LLC (ProTerra), Lucas Environmental, LLC (LE) is pleased to submit this Notice of Intent (NOI) to the Deerfield Conservation Commission for the proposed construction of a new dining hall, associated utility work, and stormwater management system at the Eaglebrook School, located at 285 Pine Nook Road in Deerfield, Massachusetts. As currently designed, proposed work associated with the dining hall will partially occur within the 100-Foot Buffer Zone to Bordering Vegetated Wetlands (BVW) and Inland Bank. This NOI is submitted in accordance with the Massachusetts Wetlands Protection Act (WPA; M.G.L. Ch. 131, Section 40) and implementing regulations (310 CMR 10.00 et seq.).

This project narrative describes the existing conditions, wetland resource areas, proposed design, project impacts, and regulatory compliance for work within jurisdictional areas at the site. The proposed project is depicted on the enclosed Site Plans titled “Proposed Dining Hall & Site Improvements, 285 Pine Nook Road, Deerfield, MA 01342”, prepared by ProTerra Design Group, LLC, dated March 8, 2023.

2.0 EXISTING CONDITIONS

The project parcels consist of approximately 112.5 acres of developed and forested land generally bounded by Pine Nook Road to the north, forested land to the east and south, and developed wooded parcels of the Eaglebrook School to the west (See Figure 1 – USGS Map and Figure 2 – Aerial Map). The parcels contain numerous buildings and infrastructure for the Eaglebrook School. The property area includes the following parcels: 62-13, 62-14, 68-5, 68-6, 69-52, and 69-58.

An intermittent stream flows west along Pine Nook Road and the northern property line of the project parcels. BVW consisting primarily of Palustrine Forested Wetland (PFO) and Palustrine Scrub-Shrub Wetland (PSS) are present along this stream, as well as within the western portion of the parcels where these wetlands are associated with groundwater seepage slopes and small intermittent streams. A small BVW and a small Isolated Vegetated Wetland (IVW) are located south of the proposed dining hall. The campus pond (Whipple Pond) is located within the developed portion of the lot, several hundred feet east of the proposed dining hall.

A review of the current MassGIS data layer for the Massachusetts Natural Heritage Atlas (effective August 1, 2021) under the Natural Heritage and Endangered Species Program (NHESP) indicates that the site is not located within Estimated Habitat of Rare Wildlife or Priority Habitat of Rare Species (See Figure 3 – NHESP Map). No Certified Vernal Pools under the jurisdiction of the Wetlands Protection Act Regulations (310 CMR 10.00 et seq.) or the Massachusetts Endangered Species Act (321 CMR 10.00 et seq.) occur at or in close proximity to the project site.

The project parcels are not located within an Area of Critical Environmental Concern (ACEC), Outstanding Resource Water (ORW), or Watershed Protection Area.



PROJECT NARRATIVE

Several private wells are located in proximity to the subject parcels with work proposed in MassDEP Wellhead Protection Areas for two or these wells. Work is proposed within the MassDEP Interim Wellhead Protection Area of “Cistern 07G” (Deerfield Fire District) and “Well #6” (Eaglebrook School).

According to the July 2, 1980, FEMA Flood Insurance Rate Map (FIRM) for Franklin County, Massachusetts, Map Panel Number 2501150008B, the parcels and adjacent areas are mapped as Zone C, Area of Minimal Flooding. Therefore, Bordering Land Subject to Flooding (BLSF) is presumed not to be present within the project area.

3.0 WETLAND RESOURCE AREAS

Professional Wetland Scientists from Lucas Environmental, LLC (LE) conducted site investigations on August 31, September 1, and December 15, 2022, to investigate the presence of wetland resources in the vicinity of the proposed project. The wetland investigation was performed in accordance with the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40) and regulations (310 CMR 10.00 *et seq.*); Section 404 of the Clean Water Act (33 U.S.C. 1344); Massachusetts Department of Environmental Protection (MassDEP) publication “Delineating Bordering Vegetated Wetlands” under the Massachusetts Wetlands Protection Act (1995); the U.S. Army Corp of Engineers (USACE) Wetland Delineation Manual (1987); and the Northcentral and Northeast Regional Supplement (2012).

These site investigations were limited to wetland areas within 100 feet and perennial streams within 200 feet of the limits of proposed work (i.e., Study Area). Wetland Delineation Field Data Forms were completed and are included with this application.

The following data sources were examined prior to the site investigation:

- Federal Emergency Management Agency (FEMA) Flood Insurance Rate Map (FIRM);
- United States Geological Survey (USGS) Topographic Quadrangle and National Map;
- MassGIS MassDEP Wetland and Hydrography Datalayers;
- National Wetland Inventory (NWI) Maps;
- MassGIS Natural Heritage Atlas Datalayers; and
- United States Department of Agriculture, Natural Resources Conservation Service (USDA-NRCS) Soil Survey.

Jurisdictional wetland resource areas under the WPA identified within the Study Area include Inland Bank, BVW, and Land Under Water Bodies and Waterways (LUWW). One IVW, potentially jurisdictional under Section 404 of the Clean Water Act, was also identified. Under the WPA, wetlands within the Study Area are defined as follows. Photographic Documentation is included in Appendix A.

3.1 Inland Bank

Section 310 CMR 10.54 of the WPA defines a Bank as *the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland. The upper boundary of a Bank is the first observable break in the slope or the mean annual flood level, whichever is lower. The lower boundary of a Bank is the mean annual low flow level.* Bank is present along the intermittent stream adjacent to Pine Nook Road and is described below.

3.2 Bordering Vegetated Wetlands

Section 310 CMR 10.55 of the WPA defines BVW as *freshwater wetlands which border on creeks, rivers, streams, ponds and lakes. The types of freshwater wetlands are wet meadows, marshes, swamps and bogs. Bordering Vegetated Wetlands are areas where the soils are saturated and/or inundated such that they support a predominance of wetland indicator plants. The boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. Wetland indicator plants are also those classified in the indicator categories of Facultative, Facultative+, Facultative Wetland-, Facultative Wetland, Facultative Wetland+, or Obligate Wetland in the National List of Plant Species That Occur in Wetlands: Massachusetts (Fish & Wildlife Service, U.S. Department of the Interior, 1988) or plants exhibiting physiological or morphological adaptations to life in saturated or inundated conditions.* The delineated BVW are described below.

3.3 Land Under Water Bodies and Waterways

Section 310 CMR 10.56 of the WPA defines LUWW as *the land beneath any creek, river, stream, pond or lake. Said land may be composed of organic muck or peat, fine sediments, rocks or bedrock. The boundary of Land under Water Bodies and Waterways is the mean annual low water level.* LUWW is present within Whipple Pond located east of the Study Area. The boundary of LUWW was not delineated in the field.

3.4 Resource Area Descriptions

Bank 1 – Intermittent Stream along Pine Nook Road

The Banks of the unnamed stream located along Pine Nook Road were delineated with blue survey flagging numbered sequentially with from BF1-1 to BF1-111, BF1-200 to 301, BF1-1 and BF1-400 to 421. The stream is confined within a well-defined channel, generally approximately four to six feet wide, with steep slopes present in many locations upgradient of the Bank. The stream substrate is generally rocky, with areas of gravel or sandy sediment. Bank erosion and undercutting are common.

The stream along Pine Nook Road is mapped as intermittent on the current USGS topographic map (Greenfield, Massachusetts Quadrangle, 2021), and is not mapped as perennial until approximately 500 feet west of Greenfield Road, approximately 0.75 miles downstream from the project location.

Per Section 310 CMR 10.58(2)(a)1.c. of the WPA, “a stream shown as intermittent on the current USGS map...that has a watershed size of less than one square mile is characterized under the State Wetlands Protection Act as “intermittent” unless the stream has a watershed size of at least one-half square mile and has a predicted flow rate greater than or equal to 0.01 cubic feet per second (cfs) at the 99% flow duration using the USGS StreamStats method...”

The WPA employs the USGS StreamStats model to determine affected watershed area jurisdiction. The watershed area for the reach of the downgradient most point of the stream approximately 1,800 feet downstream of the project location where the stream enters a culvert near the railroad track, was determined using required regulatory methods to be 0.25 square miles. This drainage area is well below the minimum watershed area required to show that a stream with less than one square mile watershed shown as intermittent by USGS is actually perennial: a 0.5 square mile watershed. Therefore, the stream is confirmed as intermittent, and no Riverfront Area occurs within the Study Area (See Appendix B).

Bank 2 – Intermittent Stream along Pine Nook Road

The Banks of a stream tributary to Stream 1 above were delineated with blue survey flagging numbered sequentially with from BF2-1 to 6 and BF2-100 to 109. The stream is confined within a well-defined channel, generally four feet wide, with moderate slopes generally present upgradient of the Bank. The stream substrate is generally rocky, with areas of gravel or sandy sediment.

Wetland A – BVW

Wetland A is a BVW that borders the unnamed stream located along Pine Nook Road. Portions of the wetland extend upgradient on the steep slope (seepage slope) with severe erosion present in locations along the slope. The BVW boundary is delineated with pink survey tape numbered sequentially from WFA-1 to WFA-125, WFA-200 to 254, WFA-300 to 336, and WFA-400 to 446. State and federal boundaries are coincident.

Common wetland vegetation includes red maple (*Acer rubrum*), yellow birch (*Betula alleghaniensis*), American elm (*Ulmus americana*), green ash (*Fraxinus pennsylvanica*), eastern cottonwood (*Populus deltoides*), eastern hemlock (*Tsuga canadensis*), jewelweed (*Impatiens pallida* and *I. capensis*), New York fern (*Thelypteris noveboracensis*), skunk cabbage (*Symplocarpus foetidus*), white turtlehead (*Chelone glabra*), intermediate woodfern (*Dryopteris intermedia*), and cinnamon fern (*Osmunda cinnamomea*). Common upland vegetation includes sugar maple (*Acer saccharum*), white pine (*Pinus strobus*), red oak (*Quercus rubra*), black birch (*Betula lenta*), American witchhazel (*Hamamelis virginiana*), Japanese barberry (*Berberis thunbergia*), white wood aster (*Eurybia divaricata*), white snakeroot (*Ageratina altissima*), and Christmas fern (*Polystichum acrostichoides*).

Soils within the wetland generally consist of a shallow B-horizon with a depleted matrix and shallow saturation. Observed upland soils generally contain a B-horizon soil matrix of chroma 4 or higher. Soil textures are generally fine sandy loam or very fine sandy loam.

Wetlands B, C, and D – BVW

Wetlands delineated by the B, C, and D series flags are seepage slope wetlands that consist of the upslope “fingers” of a large downgradient wetland system. As these wetlands are all connected, they are being described together. These wetlands are located on the steep slope west of the baseball and football fields and across a power line right-of-way before connecting to the larger downgradient wetland. There are small, severely eroded intermittent stream channels present within these sloped wetlands. The BVW boundary is delineated with pink survey tape numbered sequentially from WFB-1 to WFB-45, WFC-1 to WFC-70, and WFD-1 to WFD-52. State and federal boundaries are coincident.

The D-series wetland flags connect to downgradient wetlands flagged by SWCA (flag series W2-100 to 114 and W2-200 to 217).

Common vegetation within wetlands B, C, and D includes red maple, common elderberry (*Sambucus nigra*), poison ivy (*Toxicodendron radicans*), sensitive fern (*Onoclea sensibilis*), jewelweed, skunk cabbage, and ostrich fern (*Matteuccia struthiopteris*). Common upland vegetation includes white pine, black locust (*Robinia pseudoacacia*), black birch, white ash (*Fraxinus americana*), quaking aspen (*Populus tremuloides*), Virginia creeper (*Parthenocissus quinquefolia*), multiflora rose (*Rosa multiflora*), oriental bittersweet (*Celastrus orbiculatus*), white wood aster, and white snakeroot.

Soils within the wetlands are generally characterized by a shallow B-horizon with a depleted matrix. Upland soils generally consist of fine sandy loam characterized by a B-horizon of chroma 4 and higher. Indicators of wetland hydrology included shallow soil saturation and drainage patterns.

Wetland E – BVW

The upgradient ends of Wetland E are located south of Wetlands B, C, and D, and drain to a downgradient wetland delineated by SWCA (wetland flag series W1-100 to 125 and W1-200 to 221). The upper end of this wetland is located within and adjacent to the power line ROW that traverses the site in a north south direction and is therefore disturbed by regular vegetation maintenance. The upper end of this wetland is delineated with pink survey tape numbered sequentially from WFE-1 to WFE-5, and WFE-100 to 102. State and federal boundaries are coincident.

Wetland F – BVW

Wetland F is a small BVW located south of the proposed dining hall that borders on a small drainage channel coming down the slope that disappears as the slope levels. It is likely that this drainage contributes to the groundwater table that supports isolated Wetland G, described below. The BVW boundary is delineated with pink survey tape numbered sequentially with flags WFF-1 to WFF-7. State and federal boundaries are coincident.

Vegetation observed in Wetland F includes eastern hemlock, jewelweed, and bitter dock (*Rumex obtusifolius*). Upland vegetation consists of white pine, red oak, black birch, Canada mayflower (*Maianthemum canadense*), and white wood aster. Soils within the wetland consists of a shallow B-horizon with a depleted matrix. Upland soil consists of a B-horizon with a 4 chroma matrix.

Wetland G – IVW

Wetland G is a small IVW located south of the proposed dining hall location and just north of and at a slightly lower elevation than Wetland F. This wetland occurs within a shallow depression in a grassed area that is maintained by mowing. The depression is clearly too small and shallow to qualify as Isolated Land Subject to Flooding (ILSF). The IVW boundary is delineated with pink survey tape numbered sequentially with flags WFG-1 to WFG-10.

Due to the area having been mowed, vegetation within this wetland is limited; however, observed species include bitter dock and sensitive fern, as well as unidentified grasses. Soils within the depression are clearly hydric, with a depleted matrix present within a couple inches of the soil surface that is located over a buried O-horizon. Upland soil exhibited a B-horizon with a 3 or 4 chroma matrix. This wetland appears to drain downslope in the area of flag WFG-6, with both vegetation and soils downgradient of this location observed to be upland.

4.0 PROPOSED WORK

The proposed project will include construction of an approximate 37,315± square foot two-story dining hall with basement, including access drive, turnaround and drop off area, sidewalks, utilities, site grading, common area improvements, and a stormwater management system. Work is located generally greater than 50 feet from the resource areas, except where culvert improvements are needed, and level spreader outfalls are proposed to dissipate energy and encourage sheet flow discharge from stormwater management.

Once the new dining hall is constructed, the existing Gibbs Hall dining building will be redeveloped into an assembly, health center, and learning area for students. An adjacent classroom building called Baines Hall will be demolished and reconstructed into a classroom building preserving views to the West and providing students with a state-of-the art classroom learning experience. The existing parking lot in the area of the Gibbs and Baines buildings will be converted into a vehicular drop-off area and delivery area for the new buildings. Various field, retaining wall, common area sitting and multipurpose areas will be constructed as part of the project.

The proposed culvert is located to the South of the Hockey Rink near an existing stormwater basin. The culvert will be added adjacent to an existing reinforced concrete pipe (RCP) culvert to provide redundancy and capacity to natural stormwater runoff via wetlands traveling westerly towards Old County Road. The improvements include a field stone headwall with enhanced inlet capacity and depth to alleviate existing siltation and blockage of stormwater passing through this area. The impacts here to the wetland are minor and temporary only, consisting of approximately 250 square feet of BVW impact, in order to install the headwall with culvert to be restored in place (See Site Plans). Minor grading to direct flows into the culverts is necessary.

No permanent loss of wetlands is proposed. Disturbed wetland areas will be seeded with New England Wetmix, available from New England Plants, Inc. (See Table 4-1 on the following page), or other wetland seed mix approved by the Conservation Commission.

**TABLE 4-1
NEW ENGLAND WETMIX SEED MIXTURE**

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

Note: Applied at a rate of one pound per 2,500 square feet.

The proposed project includes the installation of a new stormwater management system designed in accordance with the MassDEP Standards. The stormwater management system includes the addition of swirl type water quality inlets to existing areas and a new underground detention system with partial exfiltration in the area of the existing varsity field. The proposal includes many low impact development Best Management Practices (BMPs) including cross-country drainage, raingardens, conventional green roofs, and “Purple-Roof” technologies that utilizes a honeycomb detention layer to optimize stormwater retention in vegetated and non-vegetated roof coverings. See the Stormwater Management Report, prepared by ProTerra Design Group, LLC, dated March 8, 2023, for further details.

The proposed Stormwater Operation and Maintenance (O&M) Plan included in the Stormwater Management Report outlines procedures and time tables for the long-term operation and maintenance of the proposed site stormwater management system, including initial inspections upon completion of construction, and periodic monitoring of the system components in accordance with established practices and manufacturer’s recommendations. The O&M Plan includes a list of responsible parties associated with inspections and maintenance.

Erosion and sedimentation control BMPs have been incorporated into the project design in order to control runoff and prevent siltation to the wetland resource area during construction (See Site Plans). This will consist primarily of straw bales or filter sock and silt fencing, filter sacks, and a stabilized construction entrance. At the outset of the construction, the site limit of work will be staked, and erosion controls will be installed. In addition, silt fence will be used on the down-gradient sides of any material stockpile areas.

5.0 SUMMARY

The proposed project consists of the construction of a new dining hall, associated grading and utility work, construction of a stormwater management system, and installation of a culvert at the Eaglebrook School, located at 285 Pine Nook Road in Deerfield, Massachusetts. As currently designed, proposed work associated with the dining hall will partially occur within the 100-Foot Buffer Zones to BVW and Inland Bank. Temporary disturbance to approximately 250 square feet of BVW is proposed for installation of a culvert.

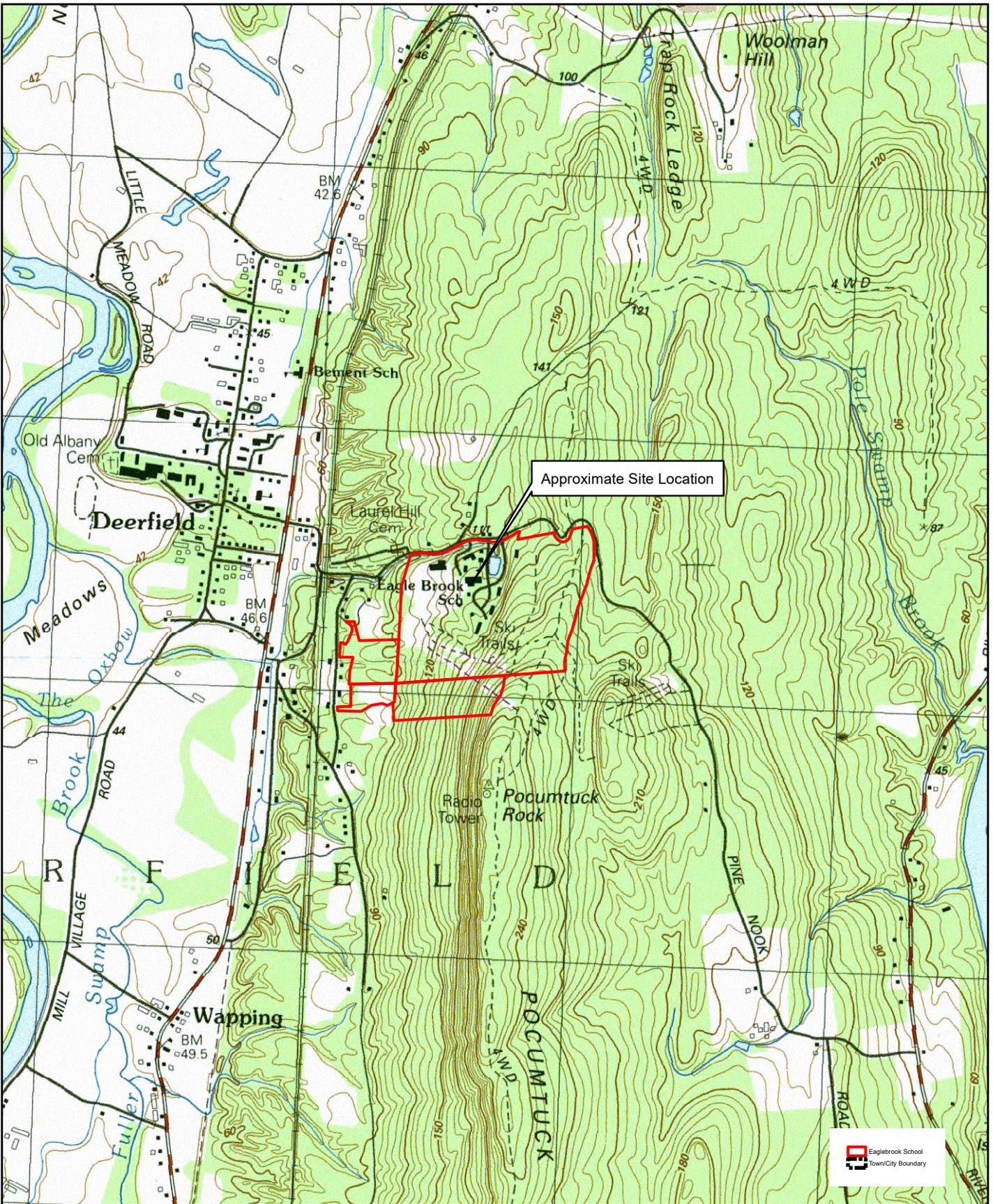
It is LE's opinion, based on our professional education, training, and familiarity with the project site, that the proposed work will not have any permanent adverse effect on any interests identified in the Wetlands Protection Act. The basis for our opinion is as follows:

- A new culvert is proposed that will temporarily impact approximately 250 square feet of BVW and the impacted area will be fully restored in place following culvert installation.
- This culvert is proposed with enhanced inlet capacity and depth to alleviate existing siltation and blockage of stormwater passing through this area.
- Other than the proposed installation of a new culvert, no work is proposed within 50 feet of a resource area and much of the Buffer Zone work is within previously developed areas.
- Erosion controls are proposed for the project to protect resource areas during construction.
- The project complies with the MassDEP Stormwater Management Standards.

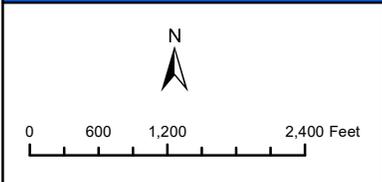
The proposed design achieves the goals of the Applicant, while being sensitive to adjacent regulated resource areas. Accordingly, the Applicant respectfully requests that the Conservation Commission consider a finding that the proposed design is adequately protective of the interests identified in the Wetlands Protection Act and issue an Order of Conditions approving the project as described in this Notice of Intent and as shown on the attached Site Plans.



SECTION III – FIGURES



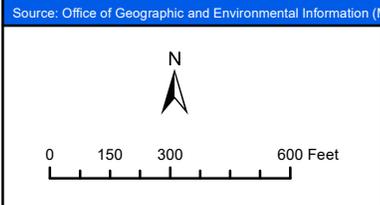
Source: Office of Geographic and Environmental Information (MassGIS), Commonwealth of Massachusetts Executive Office of Environmental Affairs; USGS Topographic Quadrangle Images



USGS Map
 Notice of Intent
 Eaglebrook School
 Deerfield, MA

FIGURE 1

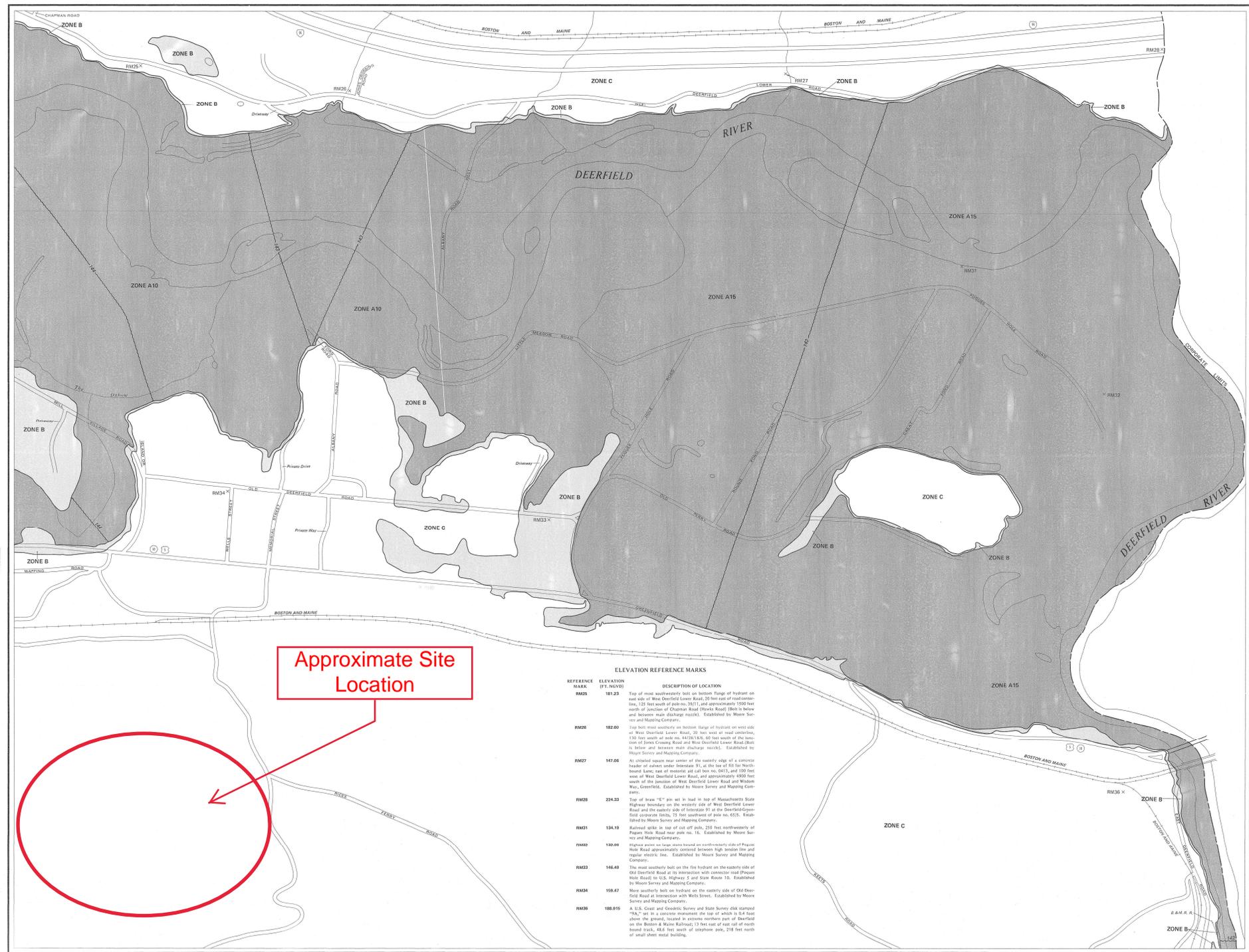
LUCAS
 ENVIRONMENTAL, LLC



Aerial Map
Notice of Intent
Eaglebrook School
Deerfield, MA

FIGURE 2

LUCAS
 ENVIRONMENTAL, LLC



KEY TO MAP

- 100-Year Flood Boundary
- 100-Year Flood Boundary
- Zone Designations* With Date of Identification
- 100-Year Flood Boundary
- 300-Year Flood Boundary
- Rise Flood Elevation Line With Elevation In Feet**
- Rise Flood Elevation In Feet When Uniform Width Zone**
- Elevation Reference Mark
- Rise Mark

ZONE B
ZONE A15
ZONE A10
ZONE B

IEL 9831
RM27
M1.5

**Referenced to the National Geodetic Vertical Datum of 1929

***EXPLANATION OF ZONE DESIGNATIONS**

ZONE	EXPLANATION
A	Area of 100-year flood; base flood elevations and flood hazard factors determined.
A0	Area of 100-year shallow flooding where depths are between one (1) and three (3) feet; average depths of inundation are shown, but no flood hazard factors are determined.
AH	Area of 100-year shallow flooding where depths are between one (1) and three (3) feet; base flood elevations are shown, but no flood hazard factors are determined.
A1A0	Area of 100-year flood; base flood elevations and flood hazard factors determined.
A1B0	Area of 100-year flood; base flood elevations and flood hazard factors determined.
B	Area between limits of the 100-year flood and 500-year flood or certain areas subject to 100-year flooding with average depths less than one (1) foot or where the contributing drainage area is less than one square mile (all of which is subject to the base flood). Areas of minimal flooding (No shading).
C	Area of undetermined, but possible, flood hazards.
V	Area of 100-year coastal flood with velocity (wave action) base flood elevations and flood hazard factors not determined.
VI V30	Area of 100-year coastal flood with velocity (wave action) base flood elevations and flood hazard factors determined.

NOTES TO USER

Certain areas are in the special flood hazard areas (zones A and V) may be protected by flood control structures.

This map is for flood insurance purposes only; it does not necessarily show all areas subject to flooding in the community or all flood hazard factors outside special flood hazard areas.

For adjoining map panels, see separately printed Index to Map Panels.

INITIAL IDENTIFICATION:
SEPTEMBER 15, 1974

FLOOD HAZARD BOUNDARY MAP REVISIONS:
JULY 28, 1978

FLOOD INSURANCE RATE MAP EFFECTIVE:
JULY 2, 1980

FLOOD INSURANCE RATE MAP REVISIONS:

Refer to the FLOOD INSURANCE RATE MAP EFFECTIVE date shown on this map to determine what annual rates apply to insurance in the areas where elevations or depths have been established.

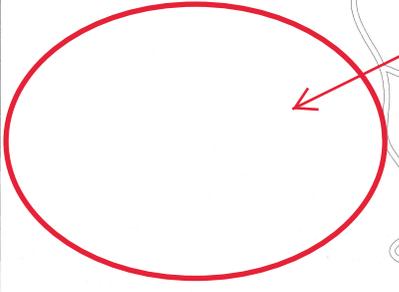
To determine if flood insurance is available in this community, contact your insurance agent, or call the National Flood Insurance Program at (800) 338-6209 or (800) 424-8872.



ELEVATION REFERENCE MARKS

REFERENCE MARK	ELEVATION (FT. NAVD83)	DESCRIPTION OF LOCATION
RM25	181.23	Top of most westerly bolt on bottom flange of hydrant on east side of West Deerfield Lower Road, 25 feet east of road centerline, 125 feet south of pole no. 39171, and approximately 1500 feet north of junction of Chapman Road (Hicks Road) (Bolt is below and between main discharge nocks). Established by Moore Survey and Mapping Company.
RM26	182.00	Top bolt most westerly on bottom flange of hydrant on west side of West Deerfield Lower Road, 25 feet east of road centerline, 150 feet south of pole no. 44228/14, 60 feet south of the junction of Jones-Corbett Road and West Deerfield Lower Road (Bolt is below and between main discharge nocks). Established by Moore Survey and Mapping Company.
RM27	147.06	As unbolted square near center of the easterly edge of a concrete header or culvert under Interstate 91, at the top of I-91 for Northbound lanes; east of restrooms and toll box no. 2413, and 500 feet west of West Deerfield Lower Road, and approximately 4500 feet south of the junction of West Deerfield Lower Road and Boston Way, Greenfield. Established by Moore Survey and Mapping Company.
RM28	224.33	Top of brass "E" pin set in lead in top of Massachusetts State Highway boundary on the westerly side of West Deerfield Lower Road and the easterly side of Interstate 91 at the Deerfield-Greenfield connector limits, 75 feet southeast of pole no. 6526. Established by Moore Survey and Mapping Company.
RM31	134.19	Railroad spike in top of cut-off pile, 285 feet southwest of Payson Park Road near pole no. 18. Established by Moore Survey and Mapping Company.
RM32	132.00	Highest point on large stone structure on northwesterly side of Payson Park Road approximately centered between high tension line and regular electric line. Established by Moore Survey and Mapping Company.
RM33	146.48	The most westerly bolt on the fire hydrant on the easterly side of Old Deerfield Road at its intersection with connector road (Payson Park Road) to U.S. Highway 2 and State Route 19. Established by Moore Survey and Mapping Company.
RM34	159.47	More westerly bolt on hydrant on the easterly side of Old Deerfield Road at intersection with Wells Street. Established by Moore Survey and Mapping Company.
RM36	188.915	A U.S. Coast and Geodetic Survey and State Survey disk stamped "RA," set in a concrete monument the top of which is 0.4 feet above the ground, located in extreme northern part of Deerfield on the Boston & Maine Railroad 15 feet east of road cut of north bound track, 48.6 feet south of telephone pole, 21.8 feet north of small steel metal building.

Approximate Site Location



NATIONAL FLOOD INSURANCE PROGRAM

FIRM FLOOD INSURANCE RATE MAP

TOWN OF DEERFIELD, MASSACHUSETTS, FRANKLIN COUNTY

PANEL 8 OF 12
(SEE MAP INDEX FOR PANELS NOT PRINTED)

COMMUNITY-PANEL NUMBER
25015 0005 B

EFFECTIVE DATE:
JULY 2, 1980

U.S. DEPARTMENT OF HOUSING AND URBAN DEVELOPMENT
FEDERAL INSURANCE ADMINISTRATION

FIGURE 4



SECTION IV – APPENDICES



APPENDIX A

PHOTOGRAPHIC DOCUMENTATION

PHOTOGRAPHIC DOCUMENTATION

DATE: August 31, 2022



Photograph 1: Wetland A and Bank 1, view to south with Pine Nook Road on the right.



Photograph 2: Wetland A and Bank 1, view to south at flag WFA-1.

PHOTOGRAPHIC DOCUMENTATION

DATE: August 31, 2022



Photograph 3: Broken drain pipe on slope upgradient of Wetland A and Bank 1.



Photograph 4: View looking east across the baseball field toward the location of proposed dining hall near top of grassy slope.

PHOTOGRAPHIC DOCUMENTATION

DATE: September 1, 2022



Photograph 5: Wetland B – typical vegetation near the power line ROW.



Photograph 6: Wetland C – typical vegetation.

PHOTOGRAPHIC DOCUMENTATION

DATE: September 1, 2022



Photograph 7: Wetland D – typical vegetation.



Photograph 8: Wetland E upper end under the power line ROW.

PHOTOGRAPHIC DOCUMENTATION

DATE: September 1, 2022



Photograph 9: Wetland F – drainage channel and BVW fringe.



Photograph 10: Wetland G – mowed shallow depression IVW area.

STREAMSTATS DOCUMENTATION

StreamStats Report - 271 Pine Nook Road, Deerfield, MA

Region ID: MA

Workspace ID: MA20220830142253940000

Clicked Point (Latitude, Longitude): 42.54110, -72.59980

Time: 2022-08-30 10:23:17 -0400



+ Collapse All

➤ Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
ACRSDFT	Area underlain by stratified drift	0.0871	square miles
BSLDEM10M	Mean basin slope computed from 10 m DEM	15.629	percent
BSLDEM250	Mean basin slope computed from 1:250K DEM	10.958	percent
CAT1ROADS	Length of interstates lmtd access highways and ramps for lmtd access highways, includes cloverleaf interchanges (USGS Ntl Transp Dataset)	0	miles

Parameter Code	Parameter Description	Value	Unit
CAT2ROADS	Length of sec hwy or maj connecting roads; main arteries & hwys not lmted access, usually in the US Hwy or State Hwy systems (USGS Ntl Transp Dataset)	0	miles
CAT3ROADS	Length of local connecting roads; roads that collect traffic from local roads & connect towns, subdivisions & neighborhoods (USGS Nat Transp Dataset)	0	miles
CAT4ROADS	Length of local roads; generally paved street, road, or byway that usually have single lane of traffic in each direction (USGS Ntnl Transp Dataset)	1.92	miles
CENTROIDX	Basin centroid horizontal (x) location in state plane coordinates	110275.3	meters
CENTROIDY	Basin centroid vertical (y) location in state plane units	921890.3	meters
CROSCOUNT1	Number of intersections between streams and roads, where the roads are interstate, limited access highway, or ramp (CAT1ROADS)	0	dimensionless
CROSCOUNT2	Number of intersections between streams and roads, where the roads are secondary highway or major connecting road (CAT2ROADS)	0	dimensionless
CROSCOUNT3	Number of intersections between streams and roads, where roads are local conecting roads (CAT3ROADS)	0	dimensionless
CROSCOUNT4	Number of intersections between streams and roads, where roads are local roads (CAT4ROADS)	4	dimensionless
CRSDFT	Percentage of area of coarse-grained stratified drift	35.33	percent
CSL10_85	Change in elevation divided by length between points 10 and 85 percent of distance along main channel to basin divide - main channel method not known	296	feet per mi
DRFTPERSTR	Area of stratified drift per unit of stream length	0.18	square mile per mile
DRNAREA	Area that drains to a point on a stream	0.25	square miles

Parameter Code	Parameter Description	Value	Unit
ELEV	Mean Basin Elevation	450	feet
FOREST	Percentage of area covered by forest	59.45	percent
LAKEAREA	Percentage of Lakes and Ponds	0.5	percent
LC06STOR	Percentage of water bodies and wetlands determined from the NLCD 2006	0	percent
LC11DEV	Percentage of developed (urban) land from NLCD 2011 classes 21-24	19.4	percent
LC11IMP	Average percentage of impervious area determined from NLCD 2011 impervious dataset	3.73	percent
LFPLENGTH	Length of longest flow path	0.99	miles
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	1	dimensionless
MAXTEMPC	Mean annual maximum air temperature over basin area, in degrees Centigrade	14.4	degrees C
OUTLETX	Basin outlet horizontal (x) location in state plane coordinates	109665	feet
OUTLETY	Basin outlet vertical (y) location in state plane coordinates	921755	feet
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	35.33	percent
PRECPRIS00	Basin average mean annual precipitation for 1971 to 2000 from PRISM	45.3	inches
STRMTOT	total length of all mapped streams (1:24,000-scale) in the basin	0.49	miles
WETLAND	Percentage of Wetlands	0.36	percent

➤ Peak-Flow Statistics

Peak-Flow Statistics Parameters [Peak Statewide 2016 5156]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
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Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.16	512
ELEV	Mean Basin Elevation	450	feet	80.6	1948
LC06STOR	Percent Storage from NLCD2006	0	percent	0	32.3

Peak-Flow Statistics Flow Report [Peak Statewide 2016 5156]

PII: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PII	Plu	ASEp
50-percent AEP flood	17	ft ³ /s	8.54	33.8	42.3
20-percent AEP flood	29.1	ft ³ /s	14.4	58.9	43.4
10-percent AEP flood	39.1	ft ³ /s	18.8	81.2	44.7
4-percent AEP flood	53.9	ft ³ /s	25	116	47.1
2-percent AEP flood	66.4	ft ³ /s	29.8	148	49.4
1-percent AEP flood	79.9	ft ³ /s	34.7	184	51.8
0.5-percent AEP flood	94.8	ft ³ /s	39.9	225	54.1
0.2-percent AEP flood	117	ft ³ /s	46.9	292	57.6

Peak-Flow Statistics Citations

Zarriello, P.J., 2017, Magnitude of flood flows at selected annual exceedance probabilities for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2016–5156, 99 p. (<https://dx.doi.org/10.3133/sir20165156>)

➤ Low-Flow Statistics

Low-Flow Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	10.958	percent	0.32	24.6

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRFTPERSTR	Stratified Drift per Stream Length	0.18	square mile per mile	0	1.29
MAREGION	Massachusetts Region	1	dimensionless	0	1

Low-Flow Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Low-Flow Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
7 Day 2 Year Low Flow	0.0367	ft ³ /s
7 Day 10 Year Low Flow	0.0219	ft ³ /s

Low-Flow Statistics Citations

Ries, K.G., III, 2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (<http://pubs.usgs.gov/wri/wri004135/>)

➤ Flow-Duration Statistics

Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	1.61	149
DRFTPERSTR	Stratified Drift per Stream Length	0.18	square mile per mile	0	1.29
MAREGION	Massachusetts Region	1	dimensionless	0	1
BSLDEM250	Mean Basin Slope from 250K DEM	10.958	percent	0.32	24.6

Flow-Duration Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Flow-Duration Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
50 Percent Duration	0.232	ft ³ /s
60 Percent Duration	0.152	ft ³ /s
70 Percent Duration	0.116	ft ³ /s
75 Percent Duration	0.0946	ft ³ /s
80 Percent Duration	0.106	ft ³ /s
85 Percent Duration	0.0839	ft ³ /s
90 Percent Duration	0.0784	ft ³ /s
95 Percent Duration	0.0469	ft ³ /s
98 Percent Duration	0.0309	ft ³ /s
99 Percent Duration	0.0216	ft ³ /s

Flow-Duration Statistics Citations

Ries, K.G., III, 2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (<http://pubs.usgs.gov/wri/wri004135/>)

➤ August Flow-Duration Statistics

August Flow-Duration Statistics Parameters [Statewide Low Flow WRIR00 4135]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	1.61	149
BSLDEM250	Mean Basin Slope from 250K DEM	10.958	percent	0.32	24.6
DRFTPERSTR	Stratified Drift per Stream Length	0.18	square mile per mile	0	1.29
MAREGION	Massachusetts Region	1	dimensionless	0	1

August Flow-Duration Statistics Disclaimers [Statewide Low Flow WRIR00 4135]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

August Flow-Duration Statistics Flow Report [Statewide Low Flow WRIR00 4135]

Statistic	Value	Unit
August 50 Percent Duration	0.0857	ft ³ /s

August Flow-Duration Statistics Citations

Ries, K.G., III, 2000, Methods for estimating low-flow statistics for Massachusetts streams: U.S. Geological Survey Water Resources Investigations Report 00-4135, 81 p. (<http://pubs.usgs.gov/wri/wri004135/>)

➤ Bankfull Statistics

Bankfull Statistics Parameters [Bankfull Statewide SIR2013 5155]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.6	329
BSLDEM10M	Mean Basin Slope from 10m DEM	15.629	percent	2.2	23.9

Bankfull Statistics Parameters [Appalachian Highlands D Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.07722	940.1535

Bankfull Statistics Parameters [New England P Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	3.799224	138.999861

Bankfull Statistics Parameters [USA Bieger 2015]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
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Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.07722	59927.7393

Bankfull Statistics Disclaimers [Bankfull Statewide SIR2013 5155]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Bankfull Statistics Flow Report [Bankfull Statewide SIR2013 5155]

Statistic	Value	Unit
Bankfull Width	10	ft
Bankfull Depth	0.708	ft
Bankfull Area	6.98	ft ²
Bankfull Streamflow	23.8	ft ³ /s

Bankfull Statistics Flow Report [Appalachian Highlands D Bieger 2015]

Statistic	Value	Unit
Bieger_D_channel_width	8.55	ft
Bieger_D_channel_depth	0.753	ft
Bieger_D_channel_cross_sectional_area	6.5	ft ²

Bankfull Statistics Disclaimers [New England P Bieger 2015]

One or more of the parameters is outside the suggested range. Estimates were extrapolated with unknown errors.

Bankfull Statistics Flow Report [New England P Bieger 2015]

Statistic	Value	Unit
Bieger_P_channel_width	17.1	ft
Bieger_P_channel_depth	1.01	ft
Bieger_P_channel_cross_sectional_area	17.1	ft ²

Bankfull Statistics Flow Report [USA Bieger 2015]

Statistic	Value	Unit
-----------	-------	------

Statistic	Value	Unit
Bieger_USA_channel_width	7.6	ft
Bieger_USA_channel_depth	0.897	ft
Bieger_USA_channel_cross_sectional_area	8.08	ft ²

Bankfull Statistics Flow Report [Area-Averaged]

Statistic	Value	Unit
Bankfull Width	10	ft
Bankfull Depth	0.708	ft
Bankfull Area	6.98	ft ²
Bankfull Streamflow	23.8	ft ³ /s
Bieger_D_channel_width	8.55	ft
Bieger_D_channel_depth	0.753	ft
Bieger_D_channel_cross_sectional_area	6.5	ft ²
Bieger_P_channel_width	17.1	ft
Bieger_P_channel_depth	1.01	ft
Bieger_P_channel_cross_sectional_area	17.1	ft ²
Bieger_USA_channel_width	7.6	ft
Bieger_USA_channel_depth	0.897	ft
Bieger_USA_channel_cross_sectional_area	8.08	ft ²

Bankfull Statistics Citations

Bent, G.C., and Waite, A.M., 2013, Equations for estimating bankfull channel geometry and discharge for streams in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2013–5155, 62 p., (<http://pubs.usgs.gov/sir/2013/5155/>)
Bieger, Katrin; Rathjens, Hendrik; Allen, Peter M.; and Arnold, Jeffrey G., 2015, Development and Evaluation of Bankfull Hydraulic Geometry Relationships for the Physiographic Regions of the United States, Publications from USDA-ARS / UNL Faculty, 17p. (https://digitalcommons.unl.edu/usdaarsfacpub/1515?utm_source=digitalcommons.unl.edu%2Fusdaarsfacpub%2F1515&utm_medium=PDF&utm_

➤ Probability Statistics

Probability Statistics Parameters [Perennial Flow Probability]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.25	square miles	0.01	1.99
PCTSNDGRV	Percent Underlain By Sand And Gravel	35.33	percent	0	100
FOREST	Percent Forest	59.45	percent	0	100
MAREGION	Massachusetts Region	1	dimensionless	0	1

Probability Statistics Flow Report [Perennial Flow Probability]

PIl: Prediction Interval-Lower, Plu: Prediction Interval-Upper, ASEp: Average Standard Error of Prediction, SE: Standard Error (other -- see report)

Statistic	Value	Unit	PC
Probability Stream Flowing Perennially	0.768	dim	71

Probability Statistics Citations

Bent, G.C., and Steeves, P.A., 2006, A revised logistic regression equation and an automated procedure for mapping the probability of a stream flowing perennially in Massachusetts: U.S. Geological Survey Scientific Investigations Report 2006-5031, 107 p. (http://pubs.usgs.gov/sir/2006/5031/pdfs/SIR_2006-5031rev.pdf)

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USGS Product Names Disclaimer: Any use of trade, firm, or product names is for descriptive purposes only and does not imply endorsement by the U.S. Government.

Application Version: 4.10.1

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

ABUTTER INFORMATION



ABUTTER NOTIFICATION

Notification to Abutters

By Hand Delivery, Certified Mail (return receipt requested), or Certificates of Mailing

This is a notification required by law. You are receiving this notification because you have been identified as the owner of land abutting another parcel of land for which certain activities are proposed. Those activities require a permit under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, § 40).

In accordance with the second paragraph of the Massachusetts Wetlands Protection Act, Massachusetts General Laws Chapter 131, Section 40), and 310 CMR 10.05(4)(a) of the Wetlands Regulations, you are hereby notified of the following.

- A. A Notice of Intent was filed with the Deerfield Conservation Commission on March 9, 2023 seeking permission to remove, fill, dredge, or alter an area subject to protection under M.G.L. c. 131 §40. The following is a description of the proposed activity/activities:

Activities Proposed: The proposed project includes the construction of a new dining hall at the Eaglebrook School. Associated work includes construction of new sidewalks, reconstruction of a portion of a parking lot to a cul-de-sac access drive, site grading, and construction of a subsurface stormwater infiltration system. Portions of the proposed work are within the 100-Foot Buffer Zone to BVW and Inland Bank. Approximately 250 square feet of temporary disturbance is proposed within BVW for installation of a culvert. The disturbed wetland area will be restored in place.

- B. The name of the applicant is The Eaglebrook School

- C. The Address of the Land where the activity is proposed is 285 Pine Brook Road, Deerfield, MA
Parcels 62-13, 62-14, 68-5, 68-6, 69-52 & 69-58

- D. Copies of the Notice of Intent may be examined at the office of the Town of Deerfield Conservation Commission, located at 8 Conway Street, South Deerfield, MA 01373
The regular business hours of the Commission are 9:00 AM to 4:00PM
on the following days of the week: Monday to Thursday
The Commission may be reached at 413.665.1400; Ext. 108

- E. Copies of the Notice of Intent may be obtained from either (check one) the Applicant or the Applicant's representative by calling this telephone number 617.405.4140
Name of Representative: Christopher M. Lucas, Lucas Environmental, LLC
An administrative fee may be applied for providing copies of the NOI and plans.

- F. Information regarding the date, time, and location of the public hearing regarding the Notice of Intent may be obtained from the Deerfield Conservation Commission.

NOTE: Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in the Greenfield Recorder

NOTE: To preserve your appeal rights you must submit comments/concerns in writing. Notification provided pursuant to the above requirement does not automatically confer standing to the recipient to request Departmental Action for the underlying matter. See 310 CMR 10.05(7)(a)4.

NOTE: You also may contact the nearest Department of Environmental Protection (MassDEP) Regional Office for more information about this application or the Wetlands Protection Act. Western Region: 413.784.1100.



100 foot Abutters List Report

Deerfield, MA
February 17, 2023

Subject Property:

Parcel Number: 62-13
CAMA Number: 62-13
Property Address: 283 PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Abutters:

Parcel Number: 61-55
CAMA Number: 61-55
Property Address: OFF PINE NOOK RD

Mailing Address: VALESKI INVESTMENT TRUST VALESKI
CONRAD R TRUSTEE
8 WARD AVE
S DEERFIELD, MA 01373

Parcel Number: 61-56
CAMA Number: 61-56
Property Address: PINE NOOK RD

Mailing Address: TOWN OF DEERFIELD
8 CONWAY ST
SO DEERFIELD, MA 01373

Parcel Number: 62-1
CAMA Number: 62-1
Property Address: 3 RICES FERRY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 62-11
CAMA Number: 62-11
Property Address: PINE NOOK RD

Mailing Address: DEERFIELD FIRE DISTRICT
OLD MAIN ST
DEERFIELD, MA 01342

Parcel Number: 62-12
CAMA Number: 62-12
Property Address: PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 62-14
CAMA Number: 62-14
Property Address: OFF PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 62-2
CAMA Number: 62-2
Property Address: PINE NOOK RD

Mailing Address: DEERFIELD FIRE DISTRICT
OLD MAIN ST
DEERFIELD, MA 01342

Parcel Number: 62-3
CAMA Number: 62-3
Property Address: RICES FERRY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 62-4
CAMA Number: 62-4
Property Address: 278 PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 62-5
CAMA Number: 62-5
Property Address: RICES FERRY RD

Mailing Address: DEERFIELD FIRE DISTRICT
OLD MAIN ST
DEERFIELD, MA 01342



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2/17/2023

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100 foot Abutters List Report

Deerfield, MA
February 17, 2023

Parcel Number: 62-7 CAMA Number: 62-7 Property Address: PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 62-9 CAMA Number: 62-9 Property Address: PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 67-2 CAMA Number: 67-2 Property Address: OLD PINE NOOK RD	Mailing Address: DEERFIELD ACADEMY TRUSTEES OF PO BOX 87 DEERFIELD, MA 01342
Parcel Number: 68-2 CAMA Number: 68-2 Property Address: PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION C/O EAGLEBROOK SCHOOL PINE NOOK ROAD DEERFIELD, MA 01342
Parcel Number: 68-3 CAMA Number: 68-3 Property Address: PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 68-4 CAMA Number: 68-4 Property Address: OFF OLD PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 68-5 CAMA Number: 68-5 Property Address: OFF COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 68-6 CAMA Number: 68-6 Property Address: 265 PINE NOOK RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-50 CAMA Number: 69-50 Property Address: 11 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-52 CAMA Number: 69-52 Property Address: COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-58 CAMA Number: 69-58 Property Address: COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 80-1 CAMA Number: 80-1 Property Address: OLD PINE NOOK RD	Mailing Address: TOWN OF DEERFIELD 8 CONWAY ST SO DEERFIELD, MA 01373



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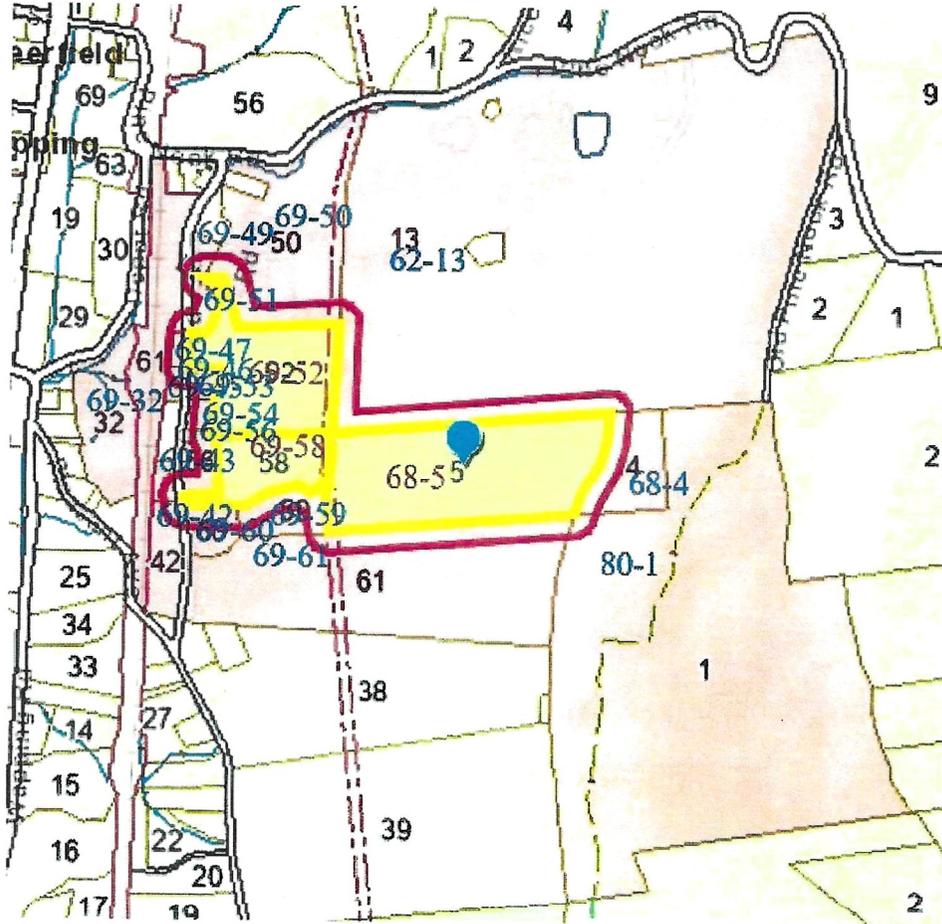
2/17/2023

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BOARD OF ASSESSORS

8 Conway Street
South Deerfield, MA 01373
Tel: (413) 665-1400, x106
Fax: (413) 665-7275



100 Ft Abutters to Map 68 Lot 5 & Map 69 Lots 52 and 58

This is to certify that, according to the most recent real estate tax list for the Town of Deerfield and given the information provided to us by the requestor, the names and addresses of the assessed owners of properties abutting the parcel shown on the above sketch are listed on the following page(s):

March 3, 2023
Date

Aren S. Menard
Admin. Assistant
Board of Assessors
Town of Deerfield



100 foot Abutters List Report

Deerfield, MA
March 03, 2023

Subject Properties:

Parcel Number: 68-5
CAMA Number: 68-5
Property Address: OFF COUNTY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 69-52
CAMA Number: 69-52
Property Address: COUNTY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 69-58
CAMA Number: 69-58
Property Address: COUNTY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Abutters:

Parcel Number: 62-13
CAMA Number: 62-13
Property Address: 283 PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 68-4
CAMA Number: 68-4
Property Address: OFF OLD PINE NOOK RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 69-32
CAMA Number: 69-32
Property Address: DEPOT RD

Mailing Address: HANCOCK MARY ALICE
PO BOX 43252
TUCSON, AZ 85733

Parcel Number: 69-42
CAMA Number: 69-42
Property Address: COUNTY RD

Mailing Address: ZURON RICHARD J
51 COUNTY RD
DEERFIELD, MA 01342

Parcel Number: 69-43
CAMA Number: 69-43
Property Address: 38 COUNTY RD

Mailing Address: RUTKA JONATHAN PAUL + CANDICE D
38 COUNTY RD
DEERFIELD, MA 01342

Parcel Number: 69-45
CAMA Number: 69-45
Property Address: 30 COUNTY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342

Parcel Number: 69-46
CAMA Number: 69-46
Property Address: COUNTY RD

Mailing Address: ALLEN CHASE FOUNDATION
EAGLEBROOK SCHOOL
PO BOX 7
DEERFIELD, MA 01342



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3/3/2023

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100 foot Abutters List Report

Deerfield, MA
March 03, 2023

Parcel Number: 69-47 CAMA Number: 69-47 Property Address: 22 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION C/O EAGLEBROOK SCHOOL PINE NOOK RD DEERFIELD, MA 01342
Parcel Number: 69-49 CAMA Number: 69-49 Property Address: COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-50 CAMA Number: 69-50 Property Address: 11 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-51 CAMA Number: 69-51 Property Address: COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-53 CAMA Number: 69-53 Property Address: 27 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION C/O EAGLEBROOK SCHOOL PINE NOOK RD DEERFIELD, MA 01342
Parcel Number: 69-54 CAMA Number: 69-54 Property Address: 33 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-56 CAMA Number: 69-56 Property Address: 37 COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION C/O EAGLEBROOK SCHOOL PINE NOOK RD DEERFIELD, MA 01342
Parcel Number: 69-59 CAMA Number: 69-59 Property Address: OFF COUNTY RD	Mailing Address: ALLEN CHASE FOUNDATION EAGLEBROOK SCHOOL PO BOX 7 DEERFIELD, MA 01342
Parcel Number: 69-60 CAMA Number: 69-60 Property Address: 45 COUNTY RD	Mailing Address: ZURON DEBRA MARTHA C 45 COUNTY RD DEERFIELD, MA 01342
Parcel Number: 69-61 CAMA Number: 69-61 Property Address: 51 COUNTY RD	Mailing Address: ZURON RICHARD J 51 COUNTY RD DEERFIELD, MA 01342
Parcel Number: 80-1 CAMA Number: 80-1 Property Address: OLD PINE NOOK RD	Mailing Address: TOWN OF DEERFIELD 8 CONWAY ST SO DEERFIELD, MA 01373



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3/3/2023

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FILING FEE INFORMATION



CALCULATED FILING FEE STATEMENT

The proposed project is located at 285 Pine Nook Road in Deerfield, Massachusetts, and consists of the construction of a dining hall and associated access drive, sidewalks, utilities, site grading, and stormwater management system. Proposed activities are included under Category 3(b) under the Wetlands Filing Fee Calculation Worksheet.

Category 3(b): *Construction of each building for any commercial, industrial, institutional, or apartment/condominium/townhouse-type development, any part of which is in a buffer zone or resource area. Any activities associated with the construction of said building, including associated site preparation, and construction of retention/detention basins, septic systems, parking lots, utilities, point source discharges, package sewage treatment plants, and roadways and driveways other than those roadways and driveways reviewable under 310 CMR 10.53(3)(e), shall not be subject to additional fees if all said activities are reviewed under a single Notice of Intent.* The fee is \$1,050.00 per activity under the WPA.

Wetlands Protection Act Fees:

Category 3(b) = \$1,050.00

State Share of WPA Filing Fee: $(\$1,050.00/2) - \$12.50 = \$512.50$

Town Share of WPA Filing Fee: $(\$1,050.00/2) + \$12.50 = \$537.50$

Check Payable to: Town of Deerfield for \$537.50

Check Payable to: Commonwealth of Massachusetts for \$512.50



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:

283 Pine Nook Road Deerfield
 a. Street Address b. City/Town
 65711 & 3902 (2 checks) \$512.20 & \$0.30
 c. Check number d. Fee amount

2. Applicant Mailing Address:

Wes Smith
 a. First Name b. Last Name
 Eaglebrook School
 c. Organization
 271 Pine Nook Road
 d. Mailing Address
 Deerfield MA 01342
 e. City/Town f. State g. Zip Code
 413.774.9166 wsmith@eaglebrook.org
 h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

Wes Smith
 a. First Name b. Last Name
 Allen Chase Foundation
 c. Organization
 P.O. Box 7
 d. Mailing Address
 Deerfield MA 01342
 e. City/Town f. State g. Zip Code
 413.774.9166 wsmith@eaglebrook.org
 h. Phone Number i. Fax Number j. Email Address

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

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.



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
Category 3(b)	1	\$1,050.00	\$1,050.00
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee:	\$1,050.00
State share of filing Fee:	\$512.50
City/Town share of filing Fee:	\$537.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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

65711

EAGLEBROOK SCHOOL • Deerfield, Mass. 01342-0701

INVOICE NO.	INVOICE DATE	DESCRIPTION	AMOUNT	DISCOUNT	NET AMOUNT
Permit	2/21/2023	Lucas Environmental			
			Totals:	\$512.20 \$0.00	\$512.20 \$512.20
TOTALS					



ALLEN-CHASE FOUNDATION
EAGLEBROOK SCHOOL
Deerfield, Massachusetts 01342-0701

PEOPLE'S UNITED BANK
GREENFIELD, MASSACHUSETTS

51-7218
2211

65711

CHECK DATE	CHECK NO.
2/21/2023	65711

CHECK AMOUNT
\$** 512.20

PAY **Five hundred twelve and 20/100 Dollars**

TO THE ORDER OF
Commonwealth of Massachusetts

Eric M. Kelly

AUTHORIZED SIGNATURE

AUTHORIZED SIGNATURE

EAGLEBROOK SCHOOL • Deerfield, Mass. 01342-0701

65712

INVOICE NO.	INVOICE DATE	DESCRIPTION	AMOUNT	DISCOUNT	NET AMOUNT
Permits	2/21/2023	Lucas Environmental	\$537.50	\$0.00	\$537.50
Totals:			\$537.50	\$0.00	\$537.50
TOTALS					



ALLEN-CHASE FOUNDATION
 EAGLEBROOK SCHOOL
 Deerfield, Massachusetts 01342-0701

PEOPLE'S UNITED BANK
 GREENFIELD, MASSACHUSETTS

51-7218
 2211

65712

CHECK DATE	CHECK NO.
2/21/2023	65712

CHECK AMOUNT
\$** 537.50

PAY **Five hundred thirty seven and 50/100 Dollars**

TO THE ORDER OF TOWN OF DEERFIELD
 8 Conway Street
 South Deerfield, MA 01373

Eric M. Kelly
 AUTHORIZED SIGNATURE
 AUTHORIZED SIGNATURE



LUCAS ENVIRONMENTAL, LLC
500A WASHINGTON STREET
QUINCY, MA 02169

Citizens Bank

5-7017/2110

3/7/2023

PAY TO THE
ORDER OF

Commonwealth of Massachusetts

\$ **0.30

Zero and 30/100

DOLLARS

MEMO

285 Pine Nook Road, Deerfield Check #2



Christopher M. Lucas
AUTHORIZED SIGNATURE



THIS DOCUMENT CONTAINS HEAT SENSITIVE INK. TOUCH OR PRESS HERE - RED IMAGE DISAPPEARS WITH HEAT.

LUCAS ENVIRONMENTAL, LLC

Commonwealth of Massachusetts

285 Pine Nook Road, Deerfield Check #2

3/7/2023

0.30

3902

Details on back. Security Features Included.



APPENDIX E

WETLAND DELINEATION FIELD DATA FORMS



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFA-7

Transect Number: WET-1

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: August 31, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Yellow birch (<i>Betula alleghaniensis</i>)	38.0	100%	YES	FAC*
<u>Saplings</u>				
None				
<u>Shrubs</u>				
Yellow birch (<i>Betula alleghaniensis</i>)	3.0	33.3%	YES	FAC*
Green ash (<i>Fraxinus pennsylvanica</i>)	3.0	33.3%	YES	FACW*
American elm (<i>Ulmus americana</i>)	3.0	33.3%	YES	FACW*
<u>Herbaceous</u>				
Jewelweed (<i>Impatiens capensis</i>)	10.5	100%	YES	FACW*
<u>Vines</u>				
None				

* Use an asterisk to mark 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: **0**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFA-7

Transect Number: WET-1

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
397D – Wethersfield very fine sandy loam, 15-25% slopes
656 – Udorthents-Urban land complex

Hydric Soil Inclusions: **Wilbraham**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-4"	10YR 3/1	
B	4-12"+	10YR 4/2	10YR 5/1 (10%)

Remarks: Fine sandy loam

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: 9 inches
- Depth to soil saturation in observation hole: 2 inches
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: stream
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric soils present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFA-7

Transect Number: UPL-1

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: August 31, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Sugar maple (<i>Acer saccharum</i>)	63.0	50.6%	YES	FACU
Yellow birch (<i>Betula alleghnaiensis</i>)	20.5	16.5%	NO	FAC*
Black birch (<i>Betula lenta</i>)	20.5	16.5%	NO	FACU
Eastern hemlock (<i>Tsuga canadensis</i>)	20.5	16.5%	NO	FACU*
<u>Saplings</u>				
None				
<u>Shrubs</u>				
American witchhazel (<i>Hamamelis virginiana</i>)	10.5	50.0%	YES	FACU
Sugar maple (<i>Acer saccharum</i>)	10.5	50.0%	YES	FACU
<u>Herbaceous</u>				
Intermediate woodfern (<i>Dryopteris intermedia</i>)	10.5	33.3%	YES	FAC*
Christmas fern (<i>Polystichum acrostichoides</i>)	10.5	33.3%	YES	FACU
Jewelweed (<i>Impatiens capensis</i>)	10.5	33.3%	YES	FACW*

Vines
None

* Use an asterisk to mark 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: 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFA-7

Transect Number: UPL-1

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
397D – Wethersfield very fine sandy loam, 15-25% slopes
656 – Udorthents-Urban land complex

Hydric Soil Inclusions: **Wilbraham**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Oe	1-0"		
A	0-6"	10YR 3/2	
B	6-14"	10YR 4/4	
Refusal			

Remarks: **A is very fine sandy loam, B is fine sandy loam**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 14" refusal**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric soils present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFB-6/7

Transect Number: WET-2

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
None				
<u>Saplings</u>				
None				
<u>Shrubs</u>				
Common elderberry (<i>Sambucus nigra</i>)	3.0	33.3%	YES	FACW*
Black locust (<i>Robinia pseudoacacia</i>)	3.0	33.3%	YES	FACU
Blackberry (<i>Rubus allegheniensis</i>)	3.0	33.3%	YES	FACU
Raspberry (<i>Rubus idaeus</i>)	T	NA	NO	FACU
<u>Herbaceous</u>				
Jewelweed (<i>Impatiens capensis</i>)	63.0	82.4%	YES	FACW*
Ostrich fern (<i>Matteuccia struthiopteris</i>)	10.5	13.7%	NO	FAC*
Sensitive fern (<i>Onoclea sensibilis</i>)	3.0	3.9%	NO	FACW*
<u>Vines</u>				
None				

* Use an asterisk to mark 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: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFB-6/7

Transect Number: WET-2

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-6"	10YR 4/2	
B	6-11"	2.5Y 5/2	10YR 4/4 (1%)
C	11-17"+	2.5Y 5/1	10YR 4/4 (20%) 5YR 4/6 (10%)

Remarks: **A is fine sandy loam, B is silt loam, C is loam**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 17" (drought)**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric soils present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFB-6/7

Transect Number: UPL-2

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Eastern cottonwood (<i>Populus deltoides</i>)	85.5	80.7%	YES	FAC*
Black locust (<i>Robinia pseudoacacia</i>)	20.5	19.3%	NO	FACU
<u>Saplings</u>				
Black locust (<i>Robinia pseudoacacia</i>)	3.0	100%	YES	FACU
<u>Shrubs</u>				
Multiflora rose (<i>Rosa multiflora</i>)	20.5	60.3%	YES	FACU
Black locust (<i>Robinia pseudoacacia</i>)	10.5	30.9%	YES	FACU
Sugar maple (<i>Acer saccharum</i>)	3.0	8.8%	NO	FACU
<u>Herbaceous</u>				
New York fern (<i>Thelypteris noveboracensis</i>)	10.5	53.8%	YES	FAC*
Oriental bittersweet (<i>Celastrus orbiculatus</i>)	3.0	15.4%	NO	FACU
White wood aster (<i>Eurybia divaricata</i>)	3.0	15.4%	NO	UPL
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	3.0	15.4%	NO	FACU
<u>Vines</u>				
Oriental bittersweet (<i>Celastrus orbiculatus</i>)	10.5	100%	YES	FACU

* Use an asterisk to mark 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: **4**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFB-6/7

Transect Number: UPL-2

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-5"	10YR 4/2	
B	5-14"	2.5Y 4/3	
C	14-17"+	2.5Y 5/2	10YR 4/4 (2%)

Remarks: **A & B (fine sandy loam), B (very fine sandy loam)**

3. Other: Depleted matrix too deep to be considered hydric

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 17 inches**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		
	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric soils present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFC-13

Transect Number: WET-3

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Red maple (<i>Acer rubrum</i>)	63.0	75.0%	YES	FAC*
Black birch (<i>Betula lenta</i>)	10.5	12.5%	NO	FACU
White pine (<i>Pinus strobus</i>)	10.5	12.5%	NO	FACU
<u>Saplings</u>				
None				
<u>Shrubs</u>				
White ash (<i>Fraxinus americana</i>)	3.0	100%	YES	FACU
<u>Herbaceous</u>				
Jewelweed (<i>Impatiens capensis</i>)	10.5	30.4%	YES	FACW*
Skunk cabbage (<i>Symplocarpus foetidus</i>)	10.5	30.4%	YES	OBL*
Cinnamon fern (<i>Osmunda cinnamomea</i>)	10.5	30.4%	YES	FACW*
Poison ivy (<i>Toxicodendron radicans</i>)	3.0	8.7%	NO	FAC*
<u>Vines</u>				
Oriental bittersweet (<i>Celastrus orbiculatus</i>)	T	NA	NO	FACU

* Use an asterisk to mark 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: **4** Number of dominant non-wetland indicator plants: **1**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFC-13

Transect Number: WET-3

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Oe	1-0"		
A	0-7"	10YR 2/1	10YR 4/4 (1%)
A/B	7-14"	10YR 2/1	5YR 3/3 (2%)
R			

Remarks: **A and B are loamy fine sand**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: **9 inches** _____
- Depth to soil saturation in observation hole: **At surface** _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion		
	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric soils present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFC-13

Transect Number: UPL-3

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Red maple (<i>Acer rubrum</i>)	63.0	67.0%	YES	FAC*
Quaking aspen (<i>Populus tremuloides</i>)	20.5	21.8%	YES	FACU
Black birch (<i>Betula lenta</i>)	10.5	11.2%	NO	FACU
<u>Saplings</u>				
None				
<u>Shrubs</u>				
White ash (<i>Fraxinus americana</i>)	10.5	63.6%	YES	FACU
Black birch (<i>Betula lenta</i>)	3.0	18.2%	NO	FACU
American chestnut (3.0	18.2%	NO	FACU
<u>Herbaceous</u>				
Jewelweed (<i>Impatiens capensis</i>)	3.0	20.0%	YES	FACW*
Poison ivy (<i>Toxicodendron radicans</i>)	3.0	20.0%	YES	FAC*
Cinnamon fern (<i>Osmunda cinnamomea</i>)	3.0	20.0%	YES	FACW*
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	3.0	20.0%	YES	FACU
Sugar maple (<i>Acer saccharum</i>)	3.0	20.0%	YES	FACU
<u>Vines</u>				
Oriental bittersweet (<i>Celastrus orbiculatus</i>)	10.5	100%	YES	FACU

NOTE: Upland plot irregularly shaped due to narrow wooded/natural vegetated area between flag and athletic field.

* Use an asterisk to mark 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: 4 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 NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFC-13

Transect Number: UPL-3

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Oe	1-0"		
A	0-11"	10YR 3/1	
B	11-18"+	10YR 4/4	

Remarks: **A & B (fine sandy loam)**

3. Other: **Soil is very dry; colors are for moistened soil.**

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 18 inches**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric soils present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFD-35

Transect Number: WET-4

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Sycamore (<i>Platanus occidentalis</i>)	63.0	67.0%	YES	FACW*
Red maple (<i>Acer rubrum</i>)	20.5	21.8%	YES	FAC*
Black birch (<i>Betula lenta</i>)	10.5	11.2%	NO	FACU

Saplings
None

Shrubs
None

<u>Herbaceous</u>				
Ostrich fern (<i>Matteuccia struthiopteris</i>)	85.5	96.6%	YES	FAC*
Jewelweed (<i>Impatiens capensis</i>)	3.0	3.4%	NO	FACW*

Vines
None

* Use an asterisk to mark 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: **3** Number of dominant non-wetland indicator plants: **0**

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFD-35

Transect Number: WET-4

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
Oe	2-0"		
A	0-5"	10YR 2/1	5YR 3/4 (10%)
B	5-16"	10YR 4/2	2.5YR 3/6 (10%) 10YR 4/6 (20%)

Remarks: **Fine sandy loam**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 16" (drought)**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric soils present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFD-35

Transect Number: UPL-4

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Black locust (<i>Robinia pseudoacacia</i>)	38.0	43.9%	YES	FACU
White pine (<i>Pinus strobus</i>)	38.0	43.9%	YES	FACU
Black birch (<i>Betula lenta</i>)	10.5	12.1%	NO	FACU
<u>Saplings</u>				
None				
<u>Shrubs</u>				
Black raspberry (<i>Rubus occidentalis</i>)	T	NA	NO	UPL
<u>Herbaceous</u>				
Yellow jewelweed (<i>Impatiens pallida</i>)	38.0	55.1%	YES	FACW*
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	20.5	29.7%	YES	FACU
White snakeroot (<i>Ageratina altissima</i>)	10.5	15.2%	NO	FACU
<u>Vines</u>				
Virginia creeper (<i>Parthenocissus quinquefolia</i>)	3.0	100%	YES	FACU

* Use an asterisk to mark 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: 1 **Number of dominant non-wetland indicator plants: 4**
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFD-35

Transect Number: UPL-4

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-16"	10YR 2/2	
B	16-22"	10YR 4/2	10YR 4/4

Remarks: **A (loamy fine sand), B (fine sandy loam)**

3. Other: **Depleted matrix too deep to be considered hydric**

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 22 inches**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric soils present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFF-6

Transect Number: WET-5

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
Eastern hemlock (<i>Tsuga canadensis</i>)	20.5	100%	YES	FACU*
<u>Saplings</u>				
None				
<u>Shrubs</u>				
None				
<u>Herbaceous</u>				
Jewelweed (<i>Impatiens capensis</i>)	38.0	86.4%	YES	FACW*
Bitter dock (<i>Rumex obtusifolius</i>)	3.0	6.8%	NO	FAC*
White wood aster (<i>Eurybia divaricata</i>)	3.0	6.8%	NO	UPL
<u>Vines</u>				
None				

* Use an asterisk to mark 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: 0

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants: YES NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFF-6

Transect Number: WET-5

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO
 Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-3"	10YR 2/2	
B	3-11"	10YR 4/2	7.5YR 4/4 (10%)
C	11-18"+	10YR 4/1	7.5YR 4/4 (10%)

Remarks: **A (fine sandy loam), B (loamy fine sand), C (fine sandy loam)**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: **None to 21" (drought)**
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Hydric soils present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFF-6

Transect Number: UPL-5

Applicant: Eaglebrook School Prepared by: Lucas Environmental, LLC Project Location: 285 Pine Nook Road, Deerfield, MA

- 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

Date of Delineation: September 1, 2022

A. Sample Layer and Plant Species (by common/scientific name)	B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category*
<u>Tree</u>				
White pine (<i>Pinus strobus</i>)	20.5	33.1%	YES	FACU
Red oak (<i>Quercus rubra</i>)	20.5	33.1%	YES	FACU
Eastern hemlock (<i>Tsuga canadensis</i>)	10.5	16.9%	NO	FACU*
Red pine (<i>Pinus resinosa</i>)	10.5	16.9%	NO	FACU
<u>Saplings</u>				
Red maple (<i>Acer rubrum</i>)	20.5	100%	YES	FAC*
<u>Shrubs</u>				
Red maple (<i>Acer rubrum</i>)	10.5	50.5%	YES	FAC*
Black birch (<i>Betula lenta</i>)	10.5	50.0%	YES	FACU
<u>Herbaceous</u>				
White wood aster (<i>Eurybia divaricata</i>)	10.5	77.8%	YES	UPL
Canada mayflower (<i>Maianthemum canadense</i>)	3.0	22.2%	YES	FACU
<u>Vines</u>				
None				

* Use an asterisk to mark 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 NO



WETLAND DELINEATION FIELD DATA FORM

Observation Plot Number: WFF-6

Transect Number: UPL-5

SECTION II. INDICATORS OF HYDROLOGY

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site? YES NO

Title/Date: **Custom Soil Resource Report for Franklin County, Massachusetts. (GIS Data from the Soil Survey Geographic - SSURGO data base produced by the USDA, NRCS) Accessed online February 14, 2023**

Map Number/Soil Type Mapped:
420D – Canton fine sandy loam, 15 to 25 percent slopes
651 – Udorthents smoothed

Hydric Soil Inclusions: **Swansea (on less steep areas)**

Are field observations consistent with soil survey? YES NO

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
OE	1-0"		
A	0-2"	10YR 2/1	
B	2-14"+	10YR 4/4	

Remarks: **Fine sandy loam**

3. Other:

Conclusion: Is soil hydric? YES NO

Other Indicators of Hydrology:

- 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 (stream, lake, or tidal gauge; aerial photo; other): _____
- Other: _____

Vegetation and Hydrology Conclusion	YES	NO
Number of wetland indicator plants greater than or equal to number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Hydric soils present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>