

NOVEMBER 7, 2023

Andover Conservation Commission
36 Bartlet Street
Andover, MA 01810

**RE: Notice of Intent
Haggetts Pond Rail Trail Improvements
Andover, MA**

Dear Members of the Andover Conservation Commission,

On behalf of the Town of Andover (the Applicant), BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) with the Andover Conservation Commission, to improve and provide universal accessibility to approximately 1.18 miles of existing unimproved rail trail between Lowell Street and High Plain Road. As part of the improvements, the Town wishes to add a small accessible boardwalk spur off the Haggetts Pond portion of the rail trail for a look out over Haggett's Pond. The project will also include improvements to the existing parking areas on Haggetts Pond Road, and the creation of additional parking on the trail side of Haggetts Pond Road and High Plain Road. The proposed improvements to the rail trail will comprise a combination of asphalt and gravel surfaces. A boardwalk is proposed to cross a small wetland for the pond overlook spur. The parking area at High Plain Road and the boardwalk spur will require a small amount of wetland fill. All improvements will meet the accessibility requirements required for this project as well as the requirements of the Wetlands Protection Act.

This NOI has been prepared in accordance with the Massachusetts Wetlands Protection Act (MGL c.131 §40) and regulations (310 CMR 10.00 *et seq.*), and the Town of Andover Wetlands Protection By-law, (Article XIV – hereafter the “Andover By-law”).

The project proposes work within the 100-ft Buffer Zone to Bordering Vegetated Wetlands and Inland Bank, Surface Water Protection Zone, and Outstanding Resource Water. Portions of the Trail also transect Natural Heritage Endangered Species Program (NHESP) Priority and Estimated Habitat areas. A streamlined review under MESA is being sought, and the Project will avoid in-water work and includes special precautions to avoid sedimentation to Priority Habitat. In some locations, the existing railbed passes within the locally regulated 25-ft No Disturb and/or 50-ft No Build Zone to resource areas. The Applicant is requesting a waiver from these set-back requirements, for a Project which is in the public interest (*Article XIV§8*), and which will limit disturbance of the land to the existing railbed and the areas to provide safe and adequate parking.

The trail will be an 8-ft wide asphalt surface with a gravel base and there will be an additional 3-ft stone dust walking surface on one side, with 1-ft wide gravel shoulders located within the footprint of the historic railbed.

Existing culverts will be maintained and cleaned and Best Management Practices (BMPs) including sediment and erosion controls, will be implemented during construction to minimize adverse impacts to resource areas.

The Project has been designed to avoid and minimize impacts to wetland resource areas, and portions of the Project also qualify as a Limited Project for the construction of footpaths and bike paths (310 CMR 10.53(3)(j)) and for a wetland crossing (310 CMR 10.55(4)(c)). Therefore, this NOI serves as a request for an Order of Conditions from the Andover Conservation Commission, and a waiver of the setback zone requirements, to allow the Project to proceed as described herein.

We respectfully request that this matter be heard at the next scheduled Conservation Commission hearing. A copy of this NOI has been submitted to DEP NERO. A copy has also been submitted to the Natural Heritage & Endangered Species Program for a streamlined review under MESA. Abutters within 100-feet of the Project will be notified of this filing. If you have any questions regarding the enclosed information, please contact me at (617) 896-4529. Thank you for your consideration in this matter.

Sincerely,
BSC Group, Inc.



Matt Burne
Senior Ecologist, PWS

Enclosed:
Two copies of the Notice of Intent application including Forms, Figures, Plans, and Supporting Narrative.

APPLICATION CHECKLIST NOTICE OF INTENT (NOI)

This checklist must be completed, signed and submitted with any Notice of Intent (NOI). One copy of this checklist is required to be submitted along with the nine paper copies of the NOI submitted to the Andover Conservation Department.

All required information and notifications must be included in order for the application to be considered complete.

Note: NOI applications and their required supplemental materials are complex. Completion and filing of NOIs are best handled by professional(s) such as wetland scientists, engineers, land surveyors, or a combination of these professionals and others. Supplemental materials that may be required include a site-specific instrument survey, a wetland delineation, a plan drawn and stamped by a professional engineer, a stormwater management analysis, and/or other documents and information.

Nine (9) paper hard copies of the entire application (via hand delivery or mailing) must be submitted to the Andover Conservation Department at 36 Bartlet Street, Andover, MA 01810. The Andover Conservation Department's email is: Cdpconservation@andoverma.us. The Andover Conservation Department's phone number is: (978) 623 8630.

One (1) paper copy of the entire application shall be mailed by certified mail or hand delivered by the applicant to the Massachusetts Department of Environmental Protection (MassDEP) at this address:

MassDEP Northeast Regional Office
150 Presidential Way
Woburn, MA 01801

Step 1 X. Review the Notice of Intent Instructions and Supporting Materials available on the MassDEP website here: <https://www.mass.gov/how-to/wpa-form-3-wetlands-notice-of-intent>

Step 2 X. Review the Following on the Andover Conservation Permits and Applications website:

Town of Andover's Applicant's Guide for Wetland Permitting

[Town of Andover Applicant's Guide for Wetland Permitting](#)

Town of Andover's Wetlands Protection By-law, Regulations, and By-law Fact Sheet

The Town of Andover's Wetlands Protection By-law is here:

[Town of Andover Wetlands Protection By-law](#)

The Town of Andover's Wetland Protection Regulations are here:

[Town of Andover Wetland Protection Regulations](#)

The Town of Andover's Wetland Protection By-law Fact Sheet is here:

[Town of Andover Wetlands Protection By-law Fact Sheet](#)

Step 3 X. Download and complete the Notice of Intent form (WPA Form 3) from the MassDEP website here: <https://www.mass.gov/doc/wpa-form-3-notice-of-intent-0/download>

The same NOI application can be used for submitting an NOI application under the Wetlands Protection Act and the Town of Andover's Wetlands Protection By-law. Many – but not all – projects are jurisdictional under both sets of regulations.

Step 4 X . Assemble the appropriate application materials and supporting documents.

At a minimum, these documents may include (but are not limited to) the following:

4A: The completed and signed WPA Form 3 – Notice of Intent.

4B: A clear project narrative that provides the following: scope of work, wetland resource area description and delineation details, summary of existing conditions, summary of proposed conditions, construction details, any other pertinent information. Tell the story of what you want to accomplish.

4C: NOI Wetland Fee Transmittal Form with the appropriate payments.

Note: The NOI Wetland Fees vary by the type of project that is being applied for. Fees are due to the both the Town of Andover and the State of Massachusetts, so you will need multiple checks.

4D: Andover By-law fee. Please refer to pages 14-16 of the [Town of Andover Wetland Protection Regulations](#) for fee amounts. The fee amount will vary based on the specifics of the proposed project.

4E: Legal advertisement fee for \$185 by check made payable to the Town of Andover.

Note: The Town of Andover does not charge this fee – the Lawrence Eagle-Tribune does – and public notification in a newspaper is a requirement under the Wetlands Protection Act and the Andover Wetlands Protection By-Law. Andover Conservation staff coordinate publishing of the legal ad with Eagle Tribune staff. Fees are due and payable at the time of application. The application will be deemed deficient and the application will not be accepted if the payment is not included.

4E: Copy of certified abutters list (please see Step 5 for more information).

4F: Priority and Estimated Habitat Map, showing data from MA Natural Heritage. These data are available on MassMapper, the MassGIS online data viewer.

4G: Plan set that clearly illustrates project details and that conforms to the requirements in the Notice of Intent Instructions and Supporting Materials. Plans should include the following:

- Location of the wetland resource area. The wetland boundary should be flagged by a wetland scientist.
- Location and full extent of the proposed work, including the distance between the proposed work and the wetland resource area.
- A clear note providing the date when structure(s) on the property were constructed.
- Existing conditions (structures, tree line, limit of existing lawn, driveway, property lines, fences, pools).
- Clearly show boundaries of all resource areas including the 100 foot, 50 foot and 25 foot buffer zones as defined in the Wetlands Protection Act and the Andover Wetlands Protection By-law.
- Details of the proposed project, including (but not limited to) locations of all proposed structures, grading, trees to be removed, changes to edge of lawn, plantings (including trees) and the proposed tree line. Show the distance between the limit of the proposed work and the nearest edge of the wetland resource area. Show any erosion/sedimentation controls clearly.

*******At a minimum, submitted plans shall clearly and accurately show the present conditions and proposed scope of work and depict the location of wetlands. Applications that do not clearly describe the proposed scope of work and that do not provide a sufficient site plan will not be accepted.*******

4H: Stormwater Management Report and pertinent details, if applicable.

4I: Copy of Town of Andover-specific waiver/permissions documents:

- Waiver for 21 day hearing period.
- Permission to Access Site

4J: A copy of the current property deed if available.

Step 5 X . Assemble Certified Abutters List.

5A: Contact Andover Conservation Staff to obtain an abutter’s list of abutters within 100 feet of the property. Notifying abutters about an NOI filing is a requirement under both the state’s Wetlands Protection Act and the Town of Andover’s Wetlands Protection Bylaw.

5B: Abutter Notification Form to be sent via certified mail or certificate of mailing not less than 7 calendar days prior to the public hearing. The form shall clearly state the date, time, and location of the hearing. If the hearing is to be held virtually, the place to locate the link for the hearing shall be provided as well. Abutters/interested parties must contact the Andover Conservation Office for the meeting link.

A copy of the completed Abutter Notification Form must be emailed to Conservation staff at cdpconservation@andoverma.us for review and approval prior to mailing to abutters.

This review may take up to 2 days, so please allow sufficient time prior to the mailing deadline.

Proof of mailing of the completed Abutter Notification Form to be forwarded to Conservation Staff prior to the hearing date.

Step 6 X . Acknowledgement that you (the applicant or the applicant’s representative) have read the following documents:

- A. The Wetland Permitting Applicant’s Guide (provided by the Town of Andover Conservation Department); and
- B. The Instructions and Supporting Materials for Notices of Intent (provided by the Massachusetts Department of Environmental Protection).

Applications which are incomplete will not be accepted/“stamped in” or placed on a Conservation Commission Meeting Agenda until the application is complete.



Signature of Applicant or Applicant’s Representative

Nov 7, 2023

Date



TOWN OF ANDOVER

Conservation Department
Town Offices
36 Bartlet Street
Andover, MA 01810
(978) 623-8311
www.andoverma.gov

PERMISSION TO ACCESS SITE

Property Owner

Name: Town of Andover

Address: 36 Bartlet Street, Andover, MA 01810

Phone: 978-623-8221

Email: michael.lindstrom@andoverma.us

Property Location:

51 R Haggetts Pond Road (south) to High Plain Road (north)

(Street Address)

Andover's Assessor's Map No. 195-1, 195-2, 196-14 Lot No. _____

I hereby give my permission to the Andover Conservation Commission, its agents and members or their designees, to access the site named above as needed to perform their duties.

Signature of Property Owner: _____

Date: November 8, 2023



Town of Andover
 Town Offices, Conservation Division
 36 Bartlet Street
 Andover, MA 01810
 (978) 623-8630
 www.conservation@andoverma.gov

WAIVER

"Please complete this form and return with your RDA Application."

Date:

I, Matt Burne, PWS hereby waive the twenty-one day time period for a public
Name of Applicant or Representative
 hearing / meeting following receipt of my filing of;

- Notice of Intent
- Request for Determination of Applicability
- Other _____

by the Andover Conservation Commission under Massachusetts General Laws, Ch. 131, sec. 40, and/or under Andover General Bylaws, Article XIV.

The request was submitted on: 11/8/2023 for work at: Haggetts Pond Rail Trail
Date Received in Conservation Dept. Location / Address of where work will be done

Please be advised that you will be notified of the meeting date, once this application has been assigned to a Conservation Meeting Agenda.

I am the: Applicant
 Applicant's Representative
 Property Owner



 (Signature)

November 8, 2023

 (Date)

NOTICE OF INTENT

HAGGETTS POND RAIL TRAIL ANDOVER, MASSACHUSETTS

NOVEMBER 7, 2023

Applicant:

Town of Andover
36 Bartlet Street
Andover, Massachusetts, 01810

BSC Job Number: 8-9985.01



Table of Contents

Haggetts Pond Rail Trail.
Andover, Massachusetts
Notice of Intent

FORMS	WPA FORM 3 - NOTICE OF INTENT FORM
ATTACHMENT A	PROJECT NARRATIVE NHESP/MESA FILING
ATTACHMENT B	USGS SITE LOCUS MAP FEMA FIRM PROJECT PLANS (UNDER SEPARATE COVER)
ATTACHMENT C	SITE PHOTOGRAPHS WETLAND DATA SHEETS
ATTACHMENT D	ABUTTERS LIST ABUTTERS NOTIFICATION LETTER AFFIDAVIT OF SERVICE
ATTACHMENT E	STORMWATER REPORT



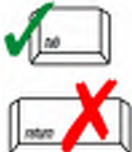
Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

MassDEP File Number
Document Transaction Number
Andover
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):

51R Haggetts Pond Rd, 0 Haggetts Pond Rd, 52 Haggetts Pond Rd	Andover	01810
	b. City/Town	c. Zip Code
Latitude and Longitude:	42.651499	-71.203968
	d. Latitude	e. Longitude
195-1, 195-2, 196-14	g. Parcel /Lot Number	
f. Assessors Map/Plat Number		

2. Applicant:

Michael	Lindstrom	
a. First Name	b. Last Name	
Town of Andover		
c. Organization		
36 Bartlet Street		
d. Street Address		
Andover	MA	01810
e. City/Town	f. State	g. Zip Code
978-623-8221	Michael.lindstrom@andoverma.us	
h. Phone Number	i. Fax Number	j. Email Address

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

_____	_____	
a. First Name	b. Last Name	

c. Organization		

d. Street Address		
_____	_____	_____
e. City/Town	f. State	g. Zip Code
_____	_____	_____
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

Matt	Burne	
a. First Name	b. Last Name	
BSC Group Inc.		
c. Company		
803 Summer Street, Third Floor		
d. Street Address		
Boston	MA	02127
e. City/Town	f. State	g. Zip Code
617-896-4594	mburne@bscgroup.com	
h. Phone Number	i. Fax Number	j. Email address

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

n/a	n/a	n/a
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input type="checkbox"/> Bank	1. linear feet	2. linear feet
b. <input checked="" type="checkbox"/> Bordering Vegetated Wetland	785 (permanent) 1. square feet	1570 2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

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

2. Width of Riverfront Area (check one):

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

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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



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

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

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

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

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	
	1. square feet	2. cubic yards dune nourishment

	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	

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

a. square feet of BVW

b. square feet of Salt Marsh

5. Project Involves Stream Crossings

a. number of new stream crossings

b. number of replacement stream crossings



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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

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

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

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

- 8/2021
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*

- Percentage/acreage of property to be altered:
 - (a) within wetland Resource Area _____ percentage/acreage
 - (b) outside Resource Area _____ percentage/acreage
- Assessor's Map or right-of-way plan of site

- Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work **
 - (a) Project description (including description of impacts outside of wetland resource area & buffer zone)
 - (b) Photographs representative of the site

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

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

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



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

(c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).
 Make check payable to "Commonwealth of Massachusetts - NHESP" and **mail to NHESP** at above address

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

- (d) Vegetation cover type map of site
- (e) Project plans showing Priority & Estimated Habitat boundaries
- (f) OR Check One of the Following

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

2. Separate MESA review ongoing. _____ a. NHESP Tracking # _____ b. Date submitted to NHESP

3. Separate MESA review completed.
 Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?
- a. Not applicable – project is in inland resource area only b. Yes No

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

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

North Shore - Hull to New Hampshire border:

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

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

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

- c. Is this an aquaculture project? d. Yes No

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



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

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

- 4. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
 a. Yes No If yes, provide name of ACEC (see instructions to WPA Form 3 or MassDEP Website for ACEC locations). **Note:** electronic filers click on Website.
 b. ACEC

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

D. Additional Information

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

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

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

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



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Bureau of Resource Protection - Wetlands

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F. Signatures and Submittal Requirements

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

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

<p style="text-align: center;"></p> <p>1. Signature of Applicant</p>	<p style="text-align: center;">11/8/23</p> <p>2. Date</p>
<p>3. Signature of Property Owner (if different)</p> <p style="text-align: center;"></p>	<p>4. Date</p> <p>11/07/2023</p>
<p>5. Signature of Representative (if any)</p>	<p>6. Date</p>

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



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

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



A. Applicant Information

1. Location of Project:

51R Haggetts Pond Rd, 0 Haggetts Pond Rd,
 52 Haggetts Pond Rd

Andover

b. City/Town

Fee exempt

d. Fee amount

c. Check number

2. Applicant Mailing Address:

Michael

a. First Name

Lindstrom

b. Last Name

Town of Andover

c. Organization

36 Bartlet Street

d. Mailing Address

Andover

e. City/Town

MA

f. State

01810

g. Zip Code

978-623-8221

h. Phone Number

i. Fax Number

Michael.lindstrom@andoverma.us

j. Email Address

3. Property Owner (if different):

a. First Name

b. Last Name

c. Organization

d. Mailing Address

e. City/Town

f. State

g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

B. Fees

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

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

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

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

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

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

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

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



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

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee: _____
 a. Total Fee from Step 5

State share of filing Fee: _____
 b. 1/2 Total Fee **less** \$12.50

City/Town share of filing Fee: _____
 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.)

Attachment A

Haggetts Pond Rail Trail
Andover, Massachusetts
Notice of Intent

PROJECT NARRATIVE
NHESP/MESA FILING

1 Introduction

On behalf of the Town of Andover (the Applicant), BSC Group, Inc. (BSC) is filing this Notice of Intent (NOI) with the Andover Conservation Commission, to improve and provide accessibility to approximately 1.18 miles of existing rail trail between Lowell Street and High Plain Road. Additionally, the Town wishes to add a small accessible boardwalk spur for a look out over Haggetts Pond. The project will include improvements to the existing parking areas on the south side of Haggetts Pond Road, and the creation of additional parking on the north side of Haggetts Pond Road (1,777 sq ft) as well as at High Plain Road (10,803 sq ft). The proposed trail will comprise an 8-ft wide asphalt surface with 3-ft wide stone dust walking shoulder on one side and 1-ft wide gravel shoulders. A boardwalk is proposed to cross a small wetland for the pond overlook. The parking area at High Plain Road and the boardwalk will require a small amount of wetland fill. Work will be required within Bordering Vegetated Wetlands, 100-ft Buffer Zone to Bordering Vegetated Wetlands and Inland Bank, Surface Water Protection Zones, and Outstanding Resource Waters, as well as Natural Heritage Endangered Species Program (NHESP) Priority and Estimated Habitat areas.

This NOI has been prepared in accordance with the Massachusetts Wetlands Protection Act (*MGL c.131 §40*) and regulations (*310 CMR 10.00*), and the Town of Andover Wetlands Protection By-law, (*Article XIV – hereafter the “Andover By-law”*). A pre-filing conference has been held with the Natural Heritage & Endangered Species Program and the project will undergo a streamlined MESA review.

Activities are proposed within the old railbed, and the proposed trail will maintain existing grades. Existing culverts will be cleaned, repaired or replaced in kind (as needed). No impacts to Bank or Land Under Water (LUW) are associated with these in-kind replacements. Throughout the Project, Best Management Practices (BMPs) including sediment and erosion controls, will be implemented during construction to minimize adverse impacts to resource areas.

The Project has been designed to avoid and minimize impacts to wetland resource areas. Therefore, this NOI serves as a request for an Order of Conditions from the Andover Conservation Commission.

Project Description & Proposed Work

The proposed Haggetts Pond Rail Trail will typically be an 8-ft wide asphalt trail (49,752 sq ft total) with a 3-ft stone dust walking surface on one side and 1-ft gravel shoulders (31,095 sq ft total), providing safe space for cycle and pedestrian use. Existing conditions along the trail are generally densely packed soil or gravel supporting an approximately 8 to 12-ft wide trail. Specific components of the Project include:

- Site preparation: installation of sediment and erosion controls, grading (where required), and vegetation trimming (where required).
- Cleaning of culverts.

- Construction of a 1.18-mile long, 8-ft wide asphalt trail with an adjacent 3-ft stone dust walking surface and 1-ft stabilized gravel apron on either side and with a boardwalk wetland crossing.
- Construction and improvement of parking areas at Haggett’s Pond Road and High Plain Road, including a 365 sq ft filled wetland crossing at the High Plain Road parking area and 420 sq ft at the proposed boardwalk wetland crossing.
- Installation of informational/educational signage. Locations to be determined.
- Site stabilization & restoration.

Construction of the Haggetts Pond Rail Trail is anticipated to begin in January 2024 and take approximately 12 months. A draft construction sequence/timeline is provided in **Table 1**, below.

Table 1: Anticipated construction sequence and timeframe

Activity	Anticipated timeframe
Installation of sediment and erosion controls	4 weeks
Site preparation (vegetation management, etc.)	8 weeks
Site preparation – grading and slope stabilization.	12 weeks
Culvert maintenance	1 weeks
Trail and Parking Area paving	2 weeks
Site stabilization and restoration (including tree and shrub plantings, etc.)	4 weeks

Project Need

The Haggetts Pond Rail Trail project aims to provide a safe, accessible trail through town, portions of which will be along the Haggetts Pond, providing opportunities for the community to connect with nature, and benefit from the health benefits of the trail. Goals for the Project include:

- Develop an inviting all-inclusive trail that connects key destinations in the community, including the pond and its wooded banks.
- Provide opportunities for recreation, outdoor fitness, and engagement with nature.
- Enhance environmental equity and health benefits.
- Improve connectivity with regional trail systems including the Bay Circuit Trail and local conservation land trails at High Plain Reservation and Bellevue Conservation Area.

2 Existing Conditions

The Haggetts Pond Rail Trail is proposed within the footprint of an abandoned railbed, existing parking areas, upland area, and existing paved roadways within the Town of Andover. A such, new impacts to adjacent resource areas will be minimal. Land use adjacent to the trail includes areas of residential development, and areas of mixed forest. The railbed transects several soil types from northeast to southwest, primarily including areas of Freetown muck, Hinckley loamy sand, Canton fine sandy loam, and Windsor loamy sand.

Along its route, the existing trail passes near a number of wetland resources. These include areas of Bordering Vegetated Wetland (BVW), intermittent streams, hydrologic connections, and Haggetts Pond. All stream and hydrologic connection crossings are via existing or culverts.

Resource Area Summary

A desktop review of the Project area was conducted using available resources such as MassGIS data layers, USGS 7.5 Minute Quadrangle, aerial photography, and FEMA insurance maps. Wetlands were delineated along the Project route in June, July, and August 2023. Wetland resource areas present within the proposed limit of work include Bordering Vegetated Wetlands, and 100-ft BZ and Inland Bank.

2.1.1 *Bordering Vegetated Wetlands (BVW)*

The Trail route spur to the Haggetts Pond viewing area crosses over a wetland, which will require a boardwalk crossing to make the Trail accessible. BVW along the Trail route supports a mixture of palustrine scrub-shrub (PSS), palustrine forest (PFO), and palustrine emergent (PEM) community types, with dominant species including Red Maple (*Acer rubrum*), highbush blueberry (*Vaccinium corymbosum*), sweet pepperbush (*Clethra alnifolia*), cinnamon fern (*Osmundastrum cinnamomeum*), jewelweed (*Impatiens capensis*), and broadleaf cattail (*Typha latifolia*).

2.1.2 *Watercourses*

The Trail route crosses one intermittent stream and several hydrologic connections via existing culverts.

2.1.3 *Inland Bank*

Inland Bank is present along the Project route, near the proposed limit of work. No new impacts to bank are proposed.

2.1.4 *100-ft Buffer Zone (BZ) to Inland Bank*

The Andover Wetlands By-law regulates the 100-ft BZ as a jurisdictional area, with additional setback zones in place for the first 25-ft (no disturb zone), and 50-ft (no build zone). Additionally, because this project is located within the Fish Brook/Haggetts Pond Watershed Protection Overlay District, there is a 50-ft no disturb zone. In some locations, the existing railbed passes within these setback areas (refer to the plan set in **Attachment B**). Given that the Project is in the public interest and will limit disturbance to the footprint of the existing railbed and necessary parking areas, the Applicant is requesting a waiver from the setback conditions of the Andover By-law (Article XVI) for activities within 25 and 50-ft of BVW and Inland Bank.

2.1.5 *Natural Heritage Endangered Species Program (NHESP) Habitat*

Between High Plain Road and Haggetts Pond Road, the northern half of the proposed Trail route is located within NHESP Priority and Estimated Habitat (PH756/EH604). Appropriate sediment and erosion controls will be implemented during construction to avoid sedimentation within rare species habitat. Construction phase and long-term stormwater management measures according to the streamlined stormwater management plan (**Attachment F**) will ensure that there are no water

quality impacts resulting from the Project. The Project is being reviewed by the NHESP under the streamlined MESA review process as part of this filing and may require additional measures based upon their review to ensure compliance with MESA and with the rare species section of the Wetlands Protection Act regulations (310 CMR 10.59).

2.1.6 Outstanding Resource Waters (ORW) and Surface Water Protection Zones (SWPZ)

The majority of the project falls within Outstanding Resource Waters (ORW) and Surface Water Protection Zones (SWPZ). No water quality impacts are expected to result from this project. Please refer to the streamlined stormwater management plan (**Attachment F**) for construction phase and long-term stormwater management measures.

2.1.7 Other Resource Areas

No other jurisdictional resource areas were identified within the Project limit of work, including 200-ft Riverfront Area, Areas of Critical Environmental Concern (ACECs), Bordering Land Subject to Flooding (BLSF), and DFW Coldwater Fisheries Resources.

Permitting and Regulatory Requirements

Table 2 (below), provides a summary of the permits and approvals required for the project.

Table 2: Summary of permits required.

Agency	Permit/Approval/Consultation	Jurisdiction
Federal		
US Environmental Protection Agency (USEPA)	National Pollutant Discharge Elimination System (NPDES) Construction General Permit for Stormwater Discharges and Construction Dewatering Activities	The Project involves greater than one acre of land disturbance.
State		
MassDEP	Order of Conditions	The Project involves work within jurisdictional resource areas of the WPA.
Natural Heritage Endangered Species Program (NHESP)	Streamlined review	The Project involves work within state-listed species habitat
Local		
Andover Conservation Commission	Order of Conditions	The Project involves work within jurisdictional resource areas of the WPA and Andover Wetlands Ordinance.

3 Anticipated Impacts and Proposed Mitigation

Anticipated impacts associated with the Haggetts Pond Rail Trail project are summarized in **Table 3**, below.

Table 3: Project Impacts

Impact	100-ft BZ	Local 50-ft BZ	Bank	BVW	ORW	SWPZ	NHESP
New impervious surface (asphalt, gravel apron)	10,518-sf	17,049-sf	0-lf	26-sf	98,305-sf	63,271-sf	55,683-sf
<i>Mitigation for impacts associated with the increase in impervious surface will include stormwater management.</i>							
Other land alteration (grading, etc.)	6,626-sf	4,847-sf	0-lf	785-sf	50,811-sf	13,501-sf	15,942-sf
<i>Mitigation for impacts associated with other construction activities will include the use of sediment and erosion controls, site stabilization and restoration (including planting of trees and shrubs and seeding of wildflowers).</i>							

Soil Erosion and Sediment Controls

Siltation barriers composed of Filtrexx™ silt sock (or approved equivalent), will be installed prior to the start of work, along the limits of work proximate to wetland resource areas. These siltation barriers will demarcate limits of work and provide additional assurance that construction equipment will stay within the area proposed. All barriers will remain in place until disturbed areas are stabilized. Catch basins and other drainage inlets will be protected. Erosion and sediment controls will be inspected on a regular basis and maintained in working order until all disturbed areas are stabilized. An adequate stockpile of erosion control materials will be always onsite for emergency or routine replacement.

Temporary Work Access

The proposed work area will be accessed via existing paved roadways. Portions of the trail may require a wider path for temporary construction access, along the alignment of the proposed trail based on the contractor’s means and methods.

If necessary, temporary crushed stone aprons (anti-sediment tracking pads) shall be constructed at upland site entrances for access to the work sites. Anti-sediment tracking pads clean the tires of construction vehicles and minimize the tracking of soil onto the adjacent roadways. The last crew to leave the site is responsible for regularly sweeping the roadways where sediment and/or rock have been tracked onto the street.

Vegetation Management and Site Preparation

To construct the Haggetts Rail Trail, a 15-ft wide construction area/limit of work will be required. Cutting and removal of trees will be required for the parking lot areas and some portions of the trail. All tree removal will be approved by the Town/Engineer in the field during construction to ensure that any trees in close proximity to the trail or parking areas that do not need to be removed will be protected to remain. In some instances, the trail alignment will/can be adjusted to limit tree removal during construction. Some trimming and removal of shrubs and saplings will be required throughout the limit of work for the Trail.

Culverts will be cleaned (where required).

The railbed will be graded to provide an 8-ft wide paved trail area, an adjacent 3-ft stone dust walking surface on the west side of the paved surface (away from Haggetts Pond) plus 1-ft gravel shoulders. The trail will be graded such that runoff from the trail will flow overland away from the Pond.

Throughout site preparation and construction, Best Management Practices (BMPs) will be employed to avoid, minimize, and mitigate impacts to wetland resource areas. These measures are described in more detail in *Section 3.1*, and in **Attachment E**.

Multi-Use Trail Construction

The proposed sequence of construction for this Project is as follows:

1. Installation of erosion and sediment control measures and construction fencing;
2. Installation of the construction entrance and contractor laydown area;
3. Clear vegetation and install fencing for temporary construction access;
4. Only cut/remove significant trees at the approval of the Town and/or Engineer.
5. Rough grade areas along path portion of the Project corridor and parking areas;
6. Final grade for compacted stone and pavement portion;
7. Install remainder of landscaping and fencing; and
8. Install project signage.

The equipment, phasing, and access areas shall be subject to means and methods of the contractor.

Stormwater Management

The proposed stormwater management system has been designed to comply with MassDEP's stormwater management standards that were incorporated into the Regulations on January 2, 2008 (see *310 CMR 10.05(6)(k)*). For footpaths, bike paths and other paths for pedestrian and/or nonmotorized vehicle access, the proposed activities are required to meet the stormwater management standards to the maximum extent practicable (*310 CMR 10.05(6)(m)6.*). Refer to the Stormwater Report in **Attachment F**.

Impervious Areas and Stormwater Management

The proposed impervious areas and stormwater management are summarized as follows:

The proposed Shared-Use Path will result in a replacement of impervious area within the rail ROW. Stormwater will be managed from the rail trail by sheet-flow to the trail shoulders away from Haggetts Pond. The stone dust and gravel shoulders will trap sediment and aid in infiltration, directing the water flow through the grass buffers for infiltration. The new surface is overlaid on the site of an existing compacted stabilized soil and gravel rail bed. Post development stormwater discharge from the trail will follow existing drainage conveyance patterns. The trail is designed to shed runoff to the trail shoulder and as such, is neither designed nor anticipated to shed significant runoff into any roads that intersect the trail.

The Project is not anticipated to increase pollutant loads within the Project Locus Area significantly above the existing conditions. The rail trail will be used by pedestrians and bicyclists, which will

not contribute contaminants to the path surface. Trash and dog waste stations will be provided at the parking lot locations. Other than emergency situations, motor vehicle access along the path will be limited to maintenance. In addition, the rail trail will not be plowed and/or treated in the winter. Therefore, there will be little to no contaminants on the path surface to be washed off by storm water runoff.

Site Restoration

Once construction is complete, the site will be fully stabilized and, to the extent possible, revegetated with native vegetation. Due to the nature of the Project, some permanent alteration of 100-ft BZ is unavoidable. This includes areas permanently converted to impervious surface for the new trail and parking areas.

4 Conformance with the Performance Standards of the WPA

Culvert Maintenance and Repair

Six culverts will be cleaned, in accordance with the Limited Project provisions at 310 CMR 10.53(3)(k).

Work within Bordering Vegetated Wetland and Buffer Zones

The Project will have minimal impact on jurisdictional wetland resources and Buffer Zones. A wetland crossing of 365 sq ft is required at the north end of the project to connect the improved trail surface to the proposed parking area. This fill meets the performance standard at 310 CMR 10.55(4)(c):

“Notwithstanding the provisions of 310 CMR 10.55(4)(a), the issuing authority may issue an Order of Conditions permitting work which results in the loss of a portion of Bordering Vegetated Wetland when; 1. said portion has a surface area less than 500 square feet; 2. said portion extends in a distinct linear configuration (“finger-like”) into adjacent uplands; and 3. in the judgment of the issuing authority it is not reasonable to scale down, redesign or otherwise change the proposed work so that it could be completed without loss of said wetland.”

The proposed spur trail will require a boardwalk crossing of 420 sq ft of Bordering Vegetated Wetland (BVW) which may be permitted as a limited project, in accordance with the 310 CMR 10.53(3)(j):

“The construction and maintenance of catwalks, footbridges, wharves, docks, piers, boathouses, boat shelters, duck blinds, skeet and trap shooting decks and observation decks; provided, however, that such structures are constructed on pilings or posts so as to permit the reasonably unobstructed flowage of water and adequate light to maintain vegetation.”

The Haggetts Pond Rail Trail is designed in conformance with the requirements for a limited Project new footpath/bike path/pedestrian access way within 100-ft Buffer Zone to BVW and a 365 sq ft crossing in BVW at the High Plain Road Parking area access to the trail, and a 420 sq ft crossing for the boardwalk. The trail surface will be 12-ft wide (8-ft paved), and no fencing or wildlife barriers are being installed. Please note that there is a portion of post and rail fencing to be installed along portions of the trail that abut Haggetts Pond to deter pedestrians from entering the Pond. BMPs will be utilized during construction to minimize impacts to resource areas. The proposed trail is compatible with the character of the area, as the railbed is already used as trails. The Project will provide an improvement over existing conditions by repairing and replacing structurally deficient culverts, and by provided improved stormwater management.

Work will be conducted in a manner that protects the interests of the WPA; sediment and erosion controls will be used to protect public and private water supplies, and to prevent pollution from sediment release. BMPs to prevent spills and pollution from machinery and vehicles will also be followed. The Project is not anticipated to result in the loss of wildlife habitat, as the Trail will be located within the disturbed footprint of an abandoned railroad bed. There may be some indirect impacts from the increase in human activity within Buffer Zone along the new trail, but this will again be limited to the existing railbed and immediate surroundings.

Work Within Outstanding Resource Waters (ORW) and Surface Water Protection Zones (SWPZ)

The Project is not anticipated to cause any discharges to ORW or SWPZ, however in accordance with *310 CMR 10.05 (6)(m)(6)*, a streamlined stormwater management plan (**Attachment F**) addresses construction phase and long-term stormwater management measures.

Rare Species

Portions of the Project are located within mapped NHESP Priority/Estimated Habitat. Minimal work is proposed within wetland, and construction-related water quality impacts will be avoided using appropriate sediment and erosion controls. The installation of new stormwater management features will provide a long-term net improvement in water quality entering Haggetts Pond and surrounding wetland resources. As previously mentioned, this Project is being reviewed by the NHESP under the streamlined MESA review process as part of this filing.

Alternatives Analysis

An alternatives analysis for the Project has not been prepared for this project. There were no alternative Project designs which would significantly reduce impacts within BVW and the 100-Ft Buffer Zone while also fulfilling the Project goal of providing a multi-use rail trail. Work will limit alteration to the existing trail (previously disturbed railbed) and parking areas adjacent to the trail. Once construction is complete, trail margins will be re-vegetated through seeding of open areas with native wildflowers and grasses.

Stormwater Management

A stormwater checklist and report are provided in **Attachment E**. Stormwater mitigation has been designed in conformance with the MA Stormwater Management Guidelines.

5 Conformance with the Andover Wetlands By-law

Limited Projects

As mentioned previously in **Section 4**, work associated with the spur trail that is proposed within Bordering Vegetated Wetland (BVW) may be permitted as a limited project in accordance with *310 CMR 10.53(3)(j)* as referenced in the Andover By-law (Regulations Section 4 (4)).

Work Within Vegetative Buffer Zone

As a Project in the public interest, the Applicant is requesting a waiver in accordance with Article XIV§8 of the Andover By-law from the setback requirements under Regulations Section 4 (2). Areas of the Trail route which fall within the 25-ft and 50-ft setback areas are restricted to the existing trail (historic railbed) and needed accessible parking areas.

Article XIV§8: “The Commission may waive the provisions of this by-law upon the written request of any applicant for a determination or permit, when, in its judgment, such action is consistent with the purpose and intent of this by-law, and when strict enforcement of the requirements of this by-law would result in hardship to the applicant.”

Work Within Bordering Vegetated Wetlands

This project requires a 365 sq ft wetland crossing in from the parking lot off High Plain Road to provide a safe, accessible path to the trail. Additionally, the proposed boardwalk spur will require 420 sf of additional wetland crossings. Both crossing areas are proposed to be fully mitigated with the creation of new wetland areas at 2-times area that is proposed to be filled. The Applicant is requesting a waiver per Article XIV§8 from replication requirements in Section 7 (4)(d). There are no safe and accessible alternatives that would significantly reduce impacts within BVW while also fulfilling the Project goal of providing a multi-use rail trail.

Section 7 (4)(d)(2): Notwithstanding section 7(3) (d) 1. Above, the Conservation Commission may issue a Permit allowing the work which results in the loss of isolated vegetated wetlands when said area is replaced in accordance with the following general conditions and any additional, specific conditions the Conservation Commission deems necessary to ensure that the replacement area will function in a manner similar to the area that will be lost...”

6 CONCLUSION

Although the Project will be conducted within the 100-ft Buffer Zone the proposed Project will:

- Minimize disturbance by using an existing, abandoned railbed, and existing paved roadways.

- Avoid impacts to BVW by limiting work to the existing railbed for the proposed trail and limiting the parking areas.
- Use appropriate construction BMPs to protect resource areas from sedimentation and soil disturbance during construction.
- Enhance public access to the Haggetts Pond and provide sustainable transit options and recreational activities.

This Project will serve to enhance access and trail connectivity in the Haggetts Pond Conservation Area and other nearby conservation areas. As such, it is compatible with the public enjoyment and access of the area, and furthers a goal of protecting, enhancing, and increasing publicly owned open space and public access. Therefore, the Town of Andover (the Applicant), requests that the Andover Conservation Commission find this project in compliance with the interests identified in the Massachusetts Wetlands Protection Act and associated regulations, and the Andover By-law. The Applicant respectfully requests that the Commission issue an Order of Conditions, and a waiver for the setback requirements of the Andover By-law, allowing the Project to proceed as described in this Notice of Intent.



MASSWILDLIFE

MASSACHUSETTS REQUEST FOR STATE-LISTED SPECIES INFORMATION

Please complete this form to request state-listed species information from the Natural Heritage & Endangered Species Program for a particular location (please submit only one project per form).

Fee: \$50.00, Payable to Comm. of MA – NHESP (as required in 321 CMR 10.17(3)). Please **mail** this completed form, a map with location clearly marked, and fee to: *NHESP Regulatory Review, MassWildlife Field Headquarters, 1 Rabbit Hill Road, Westborough, MA 01581.*

No fee required if request is for conservation purposes or habitat management *and* you are a non-profit conservation group, government agency or are working with a government agency. The completed form and map with location clearly marked can be mailed to the address above or *emailed* to: natural.heritage@mass.gov.

Project Details

* **Project or Site Name:** _____

* **Street Address/Location:** _____

* **Town(s):** _____

* **Total Site Acreage:** _____ **Acreage of Disturbance (if proposed)¹:** _____

Description current site conditions and proposed project (if necessary, attach additional sheet): _____

Do you have a previous NHESP Tracking number? (Yes / No) If yes, please provide: _____

Map

* **Required:** Enclose a map with the site location clearly marked and centered on the page.

Landowner Info

* **Are you the Record Owner² of the property? (Yes No) * If No, are you a representative of the Record Owner or do you have permission from the Record Owner to submit this request or filing? (Yes) No)**

* **Landowner Name:** _____

* **Address:** _____

* **City:** _____ * **State:** _____ * **Zip Code:** _____

Email (if available): _____ **Telephone:** _____

Comments/Purpose of request³: _____

¹ If a project is being proposed, please provide the potential acreage of disturbance and/or site clearing.

² Record Owner means any person or entity holding a legal or equitable interest, right or title to real property, as reflected in a written instrument or recorded deed, or any person authorized in writing by such person.

³ Please describe the purpose of your request for rare species information and the authorization you have to submit this request.

Applicant Info

Applicant Name (if different from Landowner): _____

Organization Name (if applicable): _____

Address: _____

City: _____ State: _____ Zip Code: _____

Email (if available): _____ Telephone: _____

****For No-Fee Request Only***

* Are you a non-profit conservation group, government agency or working with a government agency? (Yes / No)

* If yes, provide the name of the non-profit group or government agency: _____

* Is your request for conservation purposes or habitat management? (Yes / No)

Comments: _____

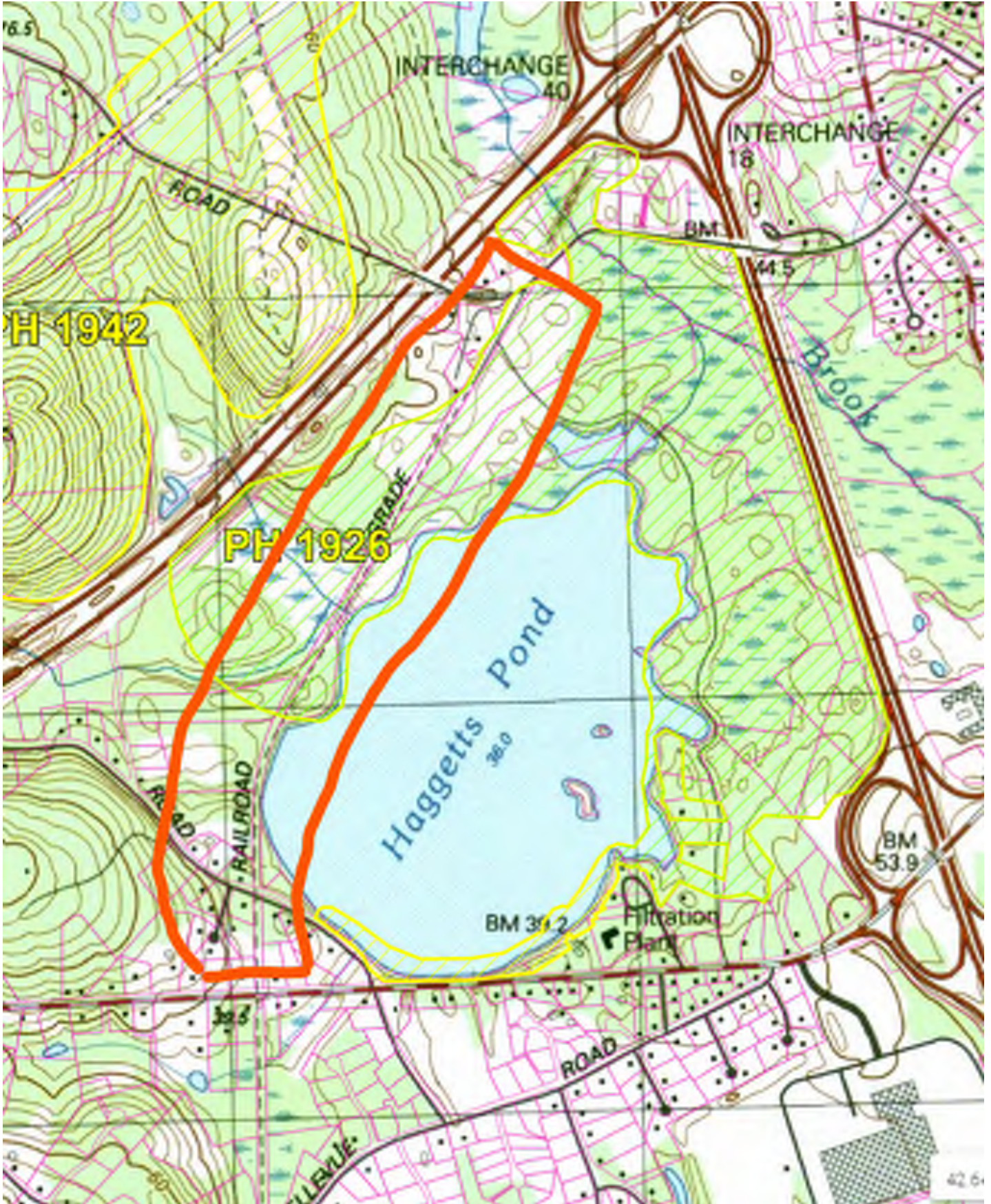
I hereby certify under the pains and penalties of perjury that the information contained is true and complete to the best of my knowledge.

*Applicant Signature: _____  _____ *Date: _____

A written response will be returned within 30 days of receipt of all information required.

Haggetts Pond Trail

Andover, MA





NHESP Payment Confirmation

Thank you for submitting a Request for State-listed Species Information. A response will be returned within 30 days of receipt of all required information. You will be notified if additional information is needed to proceed with the request.

Project Details

Tracking Number

IR-65401

Location

Between High Plain Road and Haggetts Pond Road, Andover, MA

Status

Submitted

Town(s)

Andover

Title

Haggetts Pond Trail

Type

Information Request

Submitted Date

09/18/2023

Fee Details

Invoice Number

949597f2-9b81-45b9-b201-1e6f1642f1b0

Transaction Date

09/18/2023

Transaction Number

1daa1cd3-0f9a-4427-9468-4542cadb3658

Attachment B

Haggetts Pond Rail Trail
Andover, Massachusetts
Notice of Intent

USGS SITE LOCUS MAP
FEMA FIRM
PROJECT PLANS (UNDER SEPARATE COVER)

Attachment C

Haggetts Pond Rail Trail
Andover, Massachusetts
Notice of Intent

SITE PHOTOGRAPHS
WETLAND DATA SHEETS



Photo #1: High Plain Road (north end) entrance, vicinity of proposed parking (right side of view). Looking south.



Photo #2: Existing condition of trail at north end, wetland drainage swale on right near proposed crossing.



Photo #3: View of an existing side footpath through a field to Haggetts Pond. Field is owned by the Town and maintained by volunteers on an annual basis. Looking east.



Photo #4: View of a stream crossing and existing culvert, looking north-northeast.



Photo #5: View of the section of the trail that is poorly drained.



Photo #6: Typical trail condition.



Photo #7: View of an existing side trail (to the right) off the main trail that leads to an overlook of Haggetts Pond. Looking north.



Photo #8: Cattail marsh on the west side of the existing trail.



Photo #9: Existing trail conditions immediately adjacent to Haggetts Pond in the southern portion of the project area.



Photo #10: Southern trail head, gate, and existing parking at Haggetts Pond Road.



Photo #11: Wet area will be crossed with a boardwalk spur trail to access pond shore/viewing platform.

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland? Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____	
Wetlands hydrology present?	Yes _____ No _____	
Remarks, Photo Details, Flagging, etc.:		

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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

VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

- Tree - Woody plants 3 in. (7.62 cm) or more in diameter at breast height (DBH), regardless of height
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- Woody vines - All woody vines greater than 3.3 ft. (1 m) in height

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

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: _____ City/Town: _____ Sampling Date: _____

Applicant/Owner: _____ Sampling Point or Zone: _____

Investigator(s): _____ Latitude / Longitude: _____

Soil Map Unit Name: _____ NWI or DEP Classification: _____

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

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

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

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

Wetland vegetation criterion met?	Yes _____ No _____	Is the Sampled Area within a Wetland?	Yes _____ No _____
Hydric Soils criterion met?	Yes _____ No _____		
Wetlands hydrology present?	Yes _____ No _____		
Remarks, Photo Details, Flagging, etc.:			

HYDROLOGY

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

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VEGETATION – Use both common and scientific names of plants.

<u>Tree Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Shrub/Sapling Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
				_____ = Total Cover			
<u>Herb Stratum</u>		Plot size _____					
				Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indicator? (yes/no)
Common name		Scientific name					
1.							
2.							
3.							
4.							
5.							
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			

VEGETATION – continued.

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

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

Definitions of Vegetation Strata

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

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

Attachment D

Haggetts Pond Rail Trail
Andover, Massachusetts
Notice of Intent

ABUTTERS LIST
ABUTTER NOTIFICATION LETTER
AFFIDAVIT OF SERVICE

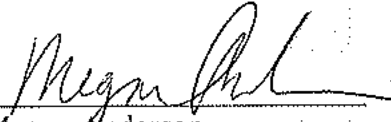


**BOARD OF ASSESSORS
TOWN OFFICES
36 BARTLET ST
ANDOVER, MA 01810
978-623-8930**

**BOARD OF ASSESSORS
CERTIFICATION OF ABUTTERS**

PETITION # C23-20

I hereby certify the attached list of abutters as they currently appear on the Assessors' Office records.



Megan Anderson
Senior Assessor

October 31, 2023

0 HIGH PLAIN RD ANDOVER, MA 01810 172 0 9

LUC: 932

TOWN OF ANDOVER
INHABITANTS OF
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HIGH PLAIN RD ANDOVER, MA 01810 173 0 2

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

51-R HAGGETTS POND RD ANDOVER, MA 01810 195 0 1

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 195 0 2

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 195 0 3

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HIGH PLAIN RD ANDOVER, MA 01810 195 0 4

LUC: 930

TOWN OF ANDOVER
INHABITANTS OF
36 BARTLET ST
ANDOVER, MA 01810-0000

13 WOODHILL RD ANDOVER, MA 01810 195 0 5

LUC: 932

TOWN OF ANDOVER
CONSERVATION COMMISSION
36 BARTLET ST
ANDOVER, MA 01810-0000

256 HIGH PLAIN RD ANDOVER, MA 01810 172 0 10

LUC: 101

FRANCIS FAMILY TRUST
FRANCIS KEITH + KARYN TRS
256 HIGH PLAIN RD
ANDOVER, MA 01810-0000

48 HAGGETTS POND RD ANDOVER, MA 01810 195 0 13

LUC: 101

WITMAN FAMILY TRUST
WITMAN SANDERS+ELIZABETH TRS
48 HAGGETTS POND RD
ANDOVER, MA 01810-0000

52 HAGGETTS POND RD ANDOVER, MA 01810 195 0 14

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

2 LAKESIDE CI ANDOVER, MA 01810 195 0 15

LUC: 101

MARCIANO JOHN A
2 LAKESIDE CI
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 195 0 22

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 195 0 23

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HIGH PLAIN RD ANDOVER, MA 01810 194 0 1 A

LUC: 932

TOWN OF ANDOVER
INHABITANTS OF
36 BARTLET ST
ANDOVER, MA 01810-0000

275 HIGH PLAIN RD ANDOVER, MA 01810 194 0 1 B

LUC: 101

DILLMAN REALTY TRUST
DILLMAN RICHARD+SUANNE TRS
275 HIGH PLAIN RD
ANDOVER, MA 01810-0000

275-R HIGH PLAIN RD ANDOVER, MA 01810 194 0 1 C

LUC: 101

DURANT DONALD B
DURANT LESLEY A TE
275 R HIGH PLAIN RD
ANDOVER, MA 01810-0000

51-R HAGGETTS POND RD ANDOVER, MA 01810 194 0 1 D

LUC: 932

TOWN OF ANDOVER
CONSERVATION COMMISSION
36 BARTLET ST
ANDOVER, MA 01810-0000

55 HAGGETTS POND RD ANDOVER, MA 01810 195 0 21 B

LUC: 101

DESAI ANKUR M
JARIWALA MAHESHWARI I TE
55 HAGGETTS POND RD
ANDOVER, MA 01810-0000

51 HAGGETTS POND RD ANDOVER, MA 01810 195 0 21 E

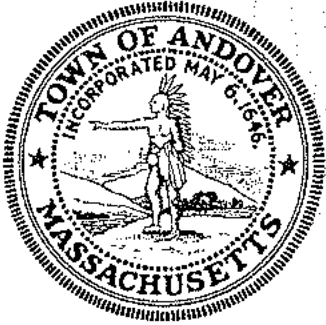
LUC: 932

TOWN OF ANDOVER
CONSERVATION COMMISSION
36 BARTLET ST
ANDOVER, MA 01810-0000

69 HAGGETTS POND RD ANDOVER, MA 01810 195 0 21 G

LUC: 130

ITHACA NOMINEE TRUST
MCCOY DANA
100 FERRY ST
HUDSON, NH 03051-0000

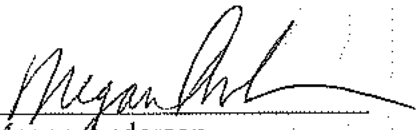


**BOARD OF ASSESSORS
TOWN OFFICES
36 BARTLET ST
ANDOVER, MA 01810
978-623-8930**

**BOARD OF ASSESSORS
CERTIFICATION OF ABUTTERS**

PETITION # C23-21

I hereby certify the attached list of abutters as they currently appear on the Assessors' Office records.



Megan Anderson
Senior Assessor

October 31, 2023

51-R HAGGETTS POND RD ANDOVER, MA 01810 195 0 1

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

449 LOWELL ST ANDOVER, MA 01810 196 0 6

LUC: 101

DONNA M HALEY REVOC TRUST
HALEY DONNA M TR
449 LOWELL ST
ANDOVER, MA 01810-0000

443 LOWELL ST ANDOVER, MA 01810 196 0 7

LUC: 101

PAGE JAMES T
GRAY CHARLOTTE A JT
443 LOWELL ST
ANDOVER, MA 01810-0000

48 HAGGETTS POND RD ANDOVER, MA 01810 196 0 13

LUC: 101

WITMAN FAMILY TRUST
WITMAN SANDERS-ELIZABETH TRS
48 HAGGETTS POND RD
ANDOVER, MA 01810-0000

52 HAGGETTS POND RD ANDOVER, MA 01810 196 0 14

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

2 LAKESIDE CI ANDOVER, MA 01810 196 0 15

LUC: 101

MARCIANO JOHN A
2 LAKESIDE CI
ANDOVER, MA 01810-0000

6 LAKESIDE CI ANDOVER, MA 01810 196 0 16

LUC: 101

REVELSTOKE-THINGVELLIR TRUST
TREMBLANT-SOLHEIMAJOKULL TRUST
6 LAKESIDE CI
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 196 0 22

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 196 0 23

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

444 LOWELL ST ANDOVER, MA 01810 197 0 10

LUC: 101

BENOIT KRISTEN L
444 LOWELL ST
ANDOVER, MA 01810-0000

55 HAGGETTS POND RD ANDOVER, MA 01810 196 0 21 B

LUC: 101

DESAI ANKUR M
JARIWALA MAHESHWARI TE
55 HAGGETTS POND RD
ANDOVER, MA 01810-0000

448 LOWELL ST ANDOVER, MA 01810 197 0 11 A

LUC: 101

CHEPOLIS CATHERINE
JACKSON ALLISON JT
448 LOWELL ST
ANDOVER, MA 01810-0000

446 LOWELL ST ANDOVER, MA 01810 197 0 11 D

LUC: 957

AVIS
PO BOX 5097
ANDOVER, MA 01810-0000




**BOARD OF ASSESSORS
TOWN OFFICES
36 BARTLET ST
ANDOVER, MA 01810
978-623-8930**

**BOARD OF ASSESSORS
CERTIFICATION OF ABUTTERS**

PETITION # C23-22

I hereby certify the attached list of abutters as they currently appear on the Assessors' Office records.


Megan Anderson
Senior Assessor

October 31, 2023

0 HIGH PLAIN RD ANDOVER, MA 01810 173 0 2

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

51-R HAGGETTS POND RD ANDOVER, MA 01811 195 0 1

LUC: 930

TOWN OF ANDOVER
WATER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HAGGETTS POND RD ANDOVER, MA 01810 195 0 2

LUC: 930

TOWN OF ANDOVER
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HIGH PLAIN RD ANDOVER, MA 01810 195 0 4

LUC: 930

TOWN OF ANDOVER
INHABITANTS OF
36 BARTLET ST
ANDOVER, MA 01810-0000

13 WOODHILL RD ANDOVER, MA 01810 195 0 5

LUC: 932

TOWN OF ANDOVER
CONSERVATION COMMISSION
36 BARTLET ST
ANDOVER, MA 01810-0000

0 HIGH PLAIN RD ANDOVER, MA 01810 194 0 1 A

LUC: 932

TOWN OF ANDOVER
INHABITANTS OF
36 BARTLET ST
ANDOVER, MA 01810-0000

51 HAGGETTS POND RD ANDOVER, MA 01810 195 0 21 E

LUC: 932

TOWN OF ANDOVER
CONSERVATION COMMISSION
36 BARTLET ST
ANDOVER, MA 01810-0000

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

! "# !! \$%& "

To Whom It May Concern,

You are an abutter within 100 feet of the proposed project described below. A application has been filed with the Andover Conservation Commission by:

Town of Andover

For work located at:

0, 51R, and 52 Haggetts Pond Rd

The proposed project includes:

Construction of an accessible gravel/asphalt and boardwalk rail trail and associated parking areas along the existing trail between High Plain Rd and Lowell St.

The Applicant's Agent is:

BSC Group

Pursuant to S.2475 "An Act Relative to Extending Certain COVID-19 Measures Adopted During the State of Emergency", which was enacted into law on June 16, 2021, and which was extended by legislation enacted on July 16, 2022, this meeting of the Andover Conservation Commission will be conducted via remote participation to the greatest extent possible. The virtual meeting will be broadcast on Comcast Channel 22 and Verizon Channel 45.

The meeting link is also available on the posted Meeting Notice posted on the Town of Andover website 48 hours prior to the hearing date.

DATE: _____

TIME: _____

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

NOTE: Plans and application describing the proposed activity are on file with the Andover Conservation Commission (978) 623-8630.

NOTE: You also may contact the Department of Environmental Protection, Northeast Regional Office for more information about this application or the Wetlands Protection Act at 978 694-3200.

Attachment E

Haggetts Pond Rail Trail
Andover, Massachusetts
Notice of Intent

STORMWATER REPORT

