GPI

Engineering | Design | Planning | Construction Management

NOTICE OF INTENT APPLICATION

Clement Farm Disc Golf Course

Haverhill, Massachusetts

April 2026

Prepared By:
Greenman-Pedersen, Inc.
181 Ballardvale Street,
Suite 202,
Wilmington, MA 01887
(978) 570-2999

Submitted To:
City of Haverhill
Conservation Commission
City Hall – Room 300
4 Summer Street
Haverhill, MA 01830-5885

Prepared For:
City of Haverhill
Mayor's Office
City Hall – Room 100
4 Summer Street
Haverhill, MA 01830-5885

City of Haverhill Conservation Commission

HCC Local Application Form 3
Notice of Intent

A. STATUTE APPLICABILITY

This application is being filed with the Commission in accordance with the following (check all that apply):

- ☒ Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40
- ☒ Haverhill Municipal Ordinance Chapter 253

B. GENERAL INFORMATION

Applicant City of Haverhill, Mayor Melinda E. Barrett
Property Owner City of Haverhill
Representative Greenman-Pedersen, Inc., Alexa Marquis
Location (Street Address) 1314 Main Street
Assessor's Parcel Identification Map 654 Lot 608-2

C. APPLICATION CHECKLIST

The Commission requires the submittal of this original, completed Form; one (1) paper copy of site plans; and one (1) paper copy of all other materials. Additionally, the Commission requires the submittal of individual PDFs of this Form and all listed application materials. If practical, related items may be combined into a single PDF. PDFs should not mix larger format sheets (e.g. site plans) with smaller sheets (e.g. letters). These submittal requirements also apply to supplemental information provided during the public hearing. The following materials shall be submitted with this form:

- ☒ Completed, current WPA Form 3, 3A, or 4 and NOI Wetland Fee Transmittal Form
- ☒ Project Narrative with description of resource areas & delineation methodology and demonstration of compliance with pertinent Performance Standards
- ☒ Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan
- ☒ Site Plans clearly describing the location and nature of the work, including such information as site boundaries, wetlands, topography, existing and proposed conditions, vegetation cover, soils, erosion & sedimentation controls, Title 5 compliance, flood storage calculations…(24" x 36" max. sheet size)
- ☒ MassDEP Bordering Vegetated Wetland Delineation Field Data Forms, as appropriate
- ☐ Wetland Resource Area Impact Mitigation Plan prepared in accordance with MA Inland Wetland Replication Guidelines, if applicable
- ☒ Demonstration of compliance with MA River & Stream Crossing Standards, if applicable (The HCC applies the General Standards to all resource area crossings for wildlife passage.)
- ☐ Simplified or Detailed Wildlife Habitat Evaluation (Appendix A or B), if applicable (See "MA Wildlife Habitat Protection Guidance for Inland Wetlands")
- ☒ Demonstration of compliance with MA Stormwater Management Standards, including but not limited to
  - ☒ Stormwater Report with pertinent calculations based on NOAA Atlas 14 rainfall data
  - ☒ Checklist for Stormwater Report
  - ☒ Long-Term Pollution Prevention Plan
  - ☒ Operation and Maintenance Plan
  - ☒ Illicit Discharge Compliance Statement

- ☒ 8½" x 11" sections of the following maps with project location clearly identified
  - ☒ USGS Quadrangle
  - ☒ MassGIS Orthophoto
  - ☒ City of Haverhill Parcel ID Map, also identifying properties within 300' of subject property
  - ☒ NRCS Soils Map and Resource Report
  - ☒ FEMA Flood Insurance Rate Map, if applicable
  - ☐ MA NHESP Estimated Habitats of Rare Wildlife and Priority Habitats of Rare Species, if applicable
  - ☐ MassDEP/UMass-Amherst Habitat of Potential Regional or Statewide Importance, if applicable
- ☐ Proof of NOI filing with the MA Natural Heritage & Endangered Species Program, if applicable
- ☐ Appropriate Filing Fees, payable to the City of Haverhill, under the Act and Ordinance
- ☐ Other: _____

D. LOCAL PERMIT DOCUMENTATION

In accordance with 310 CMR 10.05(4)(e), list all obtainable permits, variances, and approvals required by local ordinance with respect to the proposed activity and status of same: _____

_____

E. APPLICATION CERTIFICATION

I have read the Department of Environmental Protection's "Instructions for Completing Application" and the City's Municipal Ordinance under Chapter 253, with all applicable regulations and policies, for the filing of this application with the Haverhill Conservation Commission and agree to its terms and conditions, as amended. I understand the submitted NOI, its plans, and all its supporting materials are public records and may be uploaded to the City's website for public review. As required by the Commission, the wetland resource area(s) are flagged, the corners of proposed structures are staked, and the centerline of proposed roadway(s) and/or driveway(s) are marked, as appropriate, to facilitate site inspections by Commissioners and Conservation Staff.

Signed: _____ _____
(APPLICANT) (DATE)

F. SITE ACCESS ACKNOWLEDGEMENT

I hereby grant the Haverhill Conservation Commission and its officials permission to enter upon my property at 1314 Main Street (Map 654 Lot 608-2) to review the filed Notice of Intent and
(STREET ADDRESS AND ASSESSOR'S PARCEL ID)
future site conditions for compliance with the issued Order of Conditions. The sole purpose of this acknowledgement is to allow the Commission and its officials to perform their duties under the Massachusetts Wetlands Protection Act and the City's wetlands protection ordinance.

Signed: _____ _____
(PROPERTY OWNER) (DATE)

G. AFFIDAVIT OF SERVICE FOR ABUTTER NOTIFICATION

I, Alexa Marquis (NAME OF PERSON MAKING AFFIDAVIT), hereby certify under the pains and penalties of perjury that on May 6, 2026 (DATE) I gave notification to all abutters pursuant to the requirements of the second paragraph of Massachusetts General Laws Chapter 131, Section 40, the DEP Guide to Abutter Notification dated April 8, 1994, and Haverhill Municipal Ordinance Chapter 253, Section 5 in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act and said ordinance by City of Haverhill, Mayor Melinda E. Barrett (NAME OF APPLICANT) with the Haverhill Conservation Commission on April 30, 2026 (DATE) for property located at 1314 Main Street (Map 654 Lot 608-2) (STREET ADDRESS AND ASSESSOR'S PARCEL ID)

The list of the abutters to whom the Abutter Notification Form sent, with their addresses and Assessor's parcel identification information that corresponds with the submitted map section, are attached to this application.

Signed: Alexa Marquis (NAME OF PERSON MAKING AFFIDAVIT) 4/30/2026 (DATE)

H. ABUTTER NOTIFICATION FORM

In accordance with the second paragraph of Massachusetts General Laws Chapter 131, Section 40 (the Wetlands Protection Act) and Haverhill Municipal Ordinance Chapter 253, Section 5, you are hereby notified of the following:

1. The name of the applicant is City of Haverhill, Mayor Melinda E. Barrett
2. Brief Project Description: The Project will improve the accessibility, safety, amenities, and environmental quality of Clement Farm with new stone dust walkway features and a designated gravel parking area, stream crossing replacement, addition of picnic tables, construction of a compostable toilet facility, tree plantings, and creation of a native pollinator meadow.
3. The applicant has filed a Notice of Intent ("NOI") with the Haverhill Conservation Commission seeking permission to remove, fill, dredge or alter an Area Subject to Protection Under the Wetlands Protection Act and/or Haverhill Municipal Ordinance Chapter 253 and/or to perform work within the buffer zone of such an Area.
4. The address of the lot where the activity is proposed is 1314 Main Street (Map 654 Lot 608-2)
   (INCLUDE ASSESSOR'S MAP/BLOCK/LOT)
5. Copies of the NOI may be examined at *the Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also find helpful application materials on the "Projects Under Review" section of the Commission's website.
6. Copies of the NOI may be obtained from either (check one) the applicant _____, or the applicant's representative ✓, by calling this telephone number (978) 570-2559 between the hours of 9am and 5pm on the following days of the week Monday through Friday
7. Information regarding the *date, time, and place* of the public hearing may be obtained from the *Haverhill Conservation Department Office* between the hours of *8am and 4pm* from *Monday through Friday*. Contact information is below. You may also consult the "Agenda" section of the Commission's website.

NOTE: Notice of the public hearing, including its date, time and place, will be published at least five (5) days in advance in the *Haverhill Gazette newspaper*.

NOTE: Notice of the public hearing, including its date, time, and place, will be posted in Haverhill City Hall not less than forty-eight (48) hours in advance.

NOTE: You may contact the Haverhill Conservation Department for more information about this application, the Wetlands Protection Act, and Haverhill Municipal Ordinance Chapter 253. Please note the Department has only one staff person; every effort will be made to assist you in a timely manner.

Website: http://www.cityofhaverhill.org/departments/conservation_commission/index.php.
Email: conservation@cityofhaverhill.com
Phone: 978.374.2334

NOTE: For additional information about this application and the Act, you may contact the MA Department of Environmental Protection Northeast Regional Office Service Center.

Website: http://www.mass.gov/eea/agencies/massdep/about/contacts/northeast-region.html
Phone: 978.694.3200

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Haverhill, MA

REF: NEX-2600113.00

April 30, 2026

Ms. Harmony Wilson, Chair
Haverhill Conservation Commission
City Hall Room 300
4 Summer Street
Haverhill, MA 01830

SUBJECT: Notice of Intent Application
Proposed Improvements at Clement Farm Disc Golf Course
Haverhill, MA

Dear Ms. Wilson and Members of the Commission:

On Behalf of the City of Haverhill – Mayor's Office, Greenman-Pedersen, Inc. (GPI) is submitting for your review a Notice of Intent (NOI) application under the Massachusetts Wetlands Protection Act, (M.G.L. Chapter 131 Section 40) for the proposed improvements at the Clement Farm Disc Golf Course in the City of Haverhill, Massachusetts (the Project).

The Project is located at 1314 Main Street and includes the existing dirt parking area, lawn field, first tee resting area and patio, and the route to the first tee's orange basket which includes a timber footbridge stream crossing.

The purpose of the project is to improve the accessibility, safety, and amenities of Clement Farm with new stone dust walkway features and a designated gravel parking area, addition of picnic tables, construction of a compostable toilet facility, tree plantings, and creation of a native pollinator meadow. This project is being funded by the Parkland Acquisitions and Renovations for Communities (PARC) Grant Program, established to assist cities and towns in acquiring and developing land for park and outdoor recreation purposes.

Work is proposed within areas Subject to Protection under the Act including Bank to intermittent stream, 100-foot Buffer Zone, and the City of Haverhill's 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone.

Should you have any questions, or require additional information, please contact me directly by phone (978) 570-2559 or email amarquis@gpinet.com.

Sincerely,

GREENMAN-PEDERSEN, INC.

Alexa Marquis
Environmental Analyst

ENCLOSURE(s) Notice of Intent Application and Supporting Documents

CC. Mayor Melinda E. Barrett, City of Haverhill
Jamie Falise, GPI – Planning and Design Team Lead
Ronald Headrick, GPI – Director of Planning and Design
Samuel Campbell, GPI – Environmental Department Head

WPA Form 3 – Notice of Intent

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:
MassDEP File Number
Document Transaction Number
Haverhill
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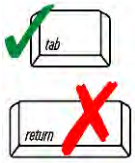
Important: When filling out forms on the computer, use only the tab key to move your cursor - do not use the return key.



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):

1314 Main Street — a. Street Address
Haverhill — b. City/Town
01830 — c. Zip Code

Latitude and Longitude:
42.813401 — d. Latitude
-71.105814 — e. Longitude

654 — f. Assessors Map/Plat Number
608-2 — g. Parcel /Lot Number

2. Applicant:

Melinda — a. First Name
Barrett — b. Last Name
City of Haverhill — c. Organization
City Hall - Room 100, 4 Summer Street — d. Street Address
Haverhill — e. City/Town
MA — f. State
01830-5885 — g. Zip Code
978-374-2300 — h. Phone Number
978-373-7544 — i. Fax Number
mayor@haverhillma.gov — 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):

Alexa — a. First Name
Marquis — b. Last Name
Greenman-Pedersen, Inc. — c. Company
181 Ballardvale Street, Suite 202 — d. Street Address
Wilmington — e. City/Town
MA — f. State
01887 — g. Zip Code
978-570-2559 — h. Phone Number
i. Fax Number
amarquis@gpinet.com — j. Email address

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

Fee Exempt - Municipal — a. Total Fee Paid
b. State Fee Paid
c. City/Town Fee Paid

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

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A. General Information (continued)

6. General Project Description:

The project will improve the accessibility, safety, and amenities of Clement Farm with new stone dust walkway features and a designated gravel parking area, stream crossing replacement, addition of picnic tables, construction of a compostable toilet facility, tree plantings, and creation of native pollinator meadow.

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

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

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

1. ☒ Yes ☐ No

If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

310 CMR 10.53(j)
2. Limited Project Type

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

8. Property recorded at the Registry of Deeds for:

Southern Essex
a. County

b. Certificate # (if registered land)

2838
c. Book

461
d. Page Number

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

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

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

Massachusetts Department of Environmental Protection
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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. ☒ Bank	56 lf temp 1. linear feet	56 lf 2. linear feet
b. ☐ Bordering Vegetated Wetland	1. square feet	2. square feet
c. ☐ 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. ☐ Bordering Land Subject to Flooding	1. square feet 3. cubic feet of flood storage lost	2. square feet 4. cubic feet replaced
e. ☐ Isolated Land Subject to Flooding	1. square feet 2. cubic feet of flood storage lost	3. cubic feet replaced
f. ☐ Riverfront Area	1. Name of Waterway (if available) - **specify coastal or inland**	

2. Width of Riverfront Area (check one):

☐ 25 ft. - Designated Densely Developed Areas only

☐ 100 ft. - New agricultural projects only

☐ 200 ft. - All other projects

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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

Massachusetts Department of Environmental Protection
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Provided by MassDEP:

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City/Town

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

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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. ☐ Designated Port Areas	Indicate size under Land Under the Ocean, below	
b. ☐ Land Under the Ocean	1. square feet 2. cubic yards dredged	
c. ☐ Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. ☐ Coastal Beaches	1. square feet	2. cubic yards beach nourishment
e. ☐ Coastal Dunes	1. square feet	2. cubic yards dune nourishment

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
f. ☐ Coastal Banks	1. linear feet	
g. ☐ Rocky Intertidal Shores	1. square feet	
h. ☐ Salt Marshes	1. square feet	2. sq ft restoration, rehab., creation
i. ☐ Land Under Salt Ponds	1. square feet 2. cubic yards dredged	
j. ☐ Land Containing Shellfish	1. square feet	
k. ☐ 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. ☐ 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

0
a. number of new stream crossings

1
b. number of replacement stream crossings

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

   a. ☐ Yes ☒ No

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

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

   b. Date of map

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

   c. Submit Supplemental Information for Endangered Species Review*

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

         (a) within wetland Resource Area _____ percentage/acreage

         (b) outside Resource Area _____ percentage/acreage

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

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

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

   (b) ☒ Photographs representative of the site

* Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see https://www.mass.gov/ma-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 - Bourne to Rhode Island border, and the Cape & Islands:

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

North Shore - Plymouth to New Hampshire border:

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.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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D. Additional Information (cont'd)

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

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

Notice of Intent Plans
a. Plan Title

Greenman-Pedersen, Inc.
b. Prepared By

c. Signed and Stamped by

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

5. ☐ If there is more than one property owner, please attach a list of these property owners not listed on this form.

6. ☐ Attach proof of mailing for Natural Heritage and Endangered Species Program, if needed.

7. ☐ Attach proof of mailing for Massachusetts Division of Marine Fisheries, if needed.

8. ☒ Attach NOI Wetland Fee Transmittal Form

9. ☒ Attach Stormwater Report, if needed.

E. Fees

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

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

2. Municipal Check Number

3. Check date

4. State Check Number

5. Check date

6. Payor name on check: First Name

7. Payor name on check: Last Name

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Haverhill
City/Town

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant	2. Date
3. Signature of Property Owner (if different) Alexa Margevis	4. Date 4/30/2026
5. Signature of Representative (if any)	6. Date

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

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

A. Applicant Information

1. Location of Project:

1314 Main Street	Haverhill
a. Street Address	b. City/Town
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Melinda	Barrett
a. First Name	b. Last Name

City of Haverhill
c. Organization

City Hall - 4 Summer Street, Room 100
d. Mailing Address

Haverhill	MA	01830-5885
e. City/Town	f. State	g. Zip Code

978-374-2300	978-7544	mayor@haverhillma.gov
h. Phone Number	i. Fax Number	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

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

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

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

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

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

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

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

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

NOI Wetland Fee Transmittal Form

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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
N/A Municipal Project - Fee Exempt			

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 filling 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.

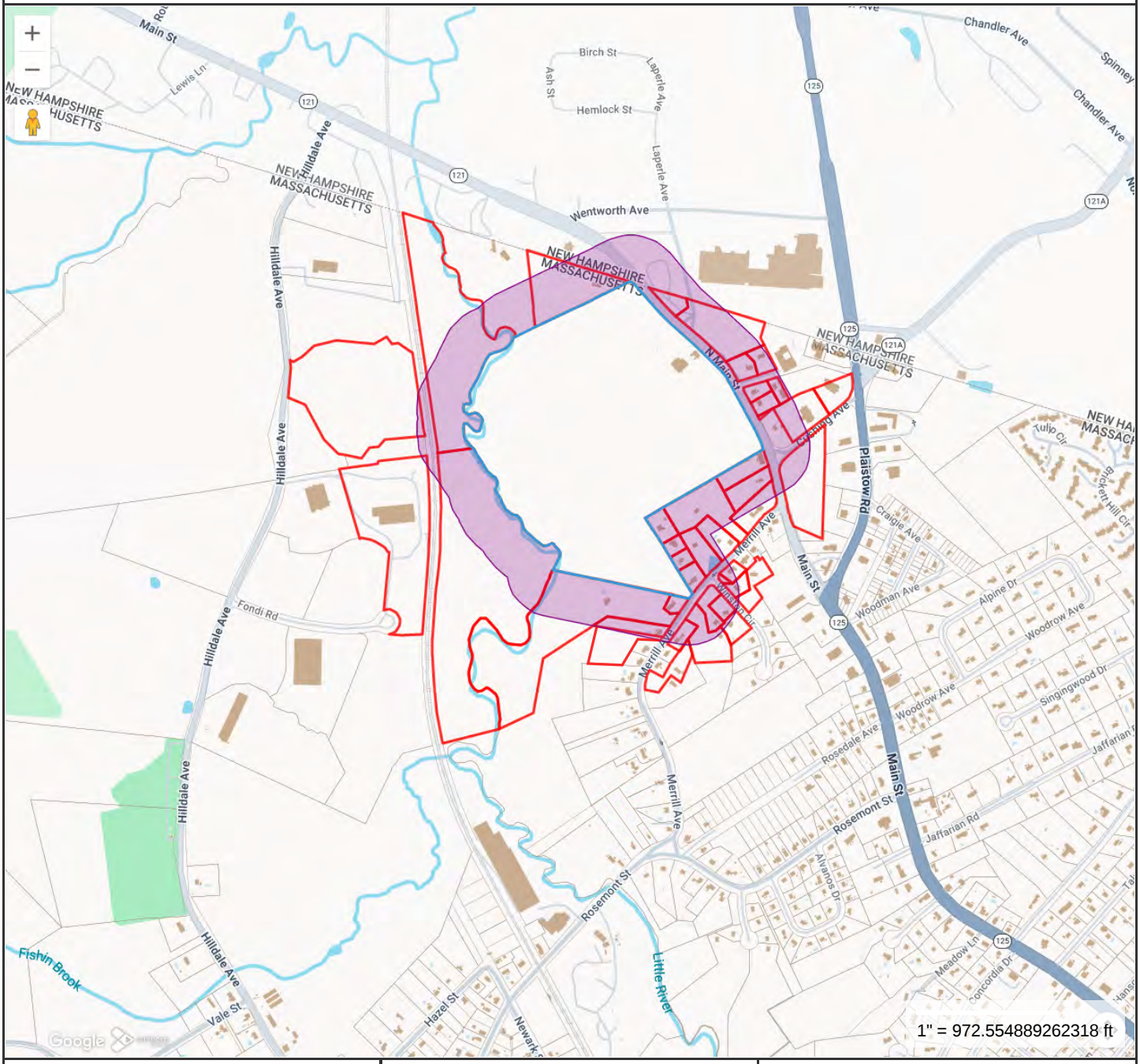
Department of Environmental Protection
Box 4062
Boston, MA 02211

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.)

Abutters Within 300-feet of Project Limits

Abutters Within 300-feet of Project Limits



Property Information

Property ID	654-608-2
Location	1314 MAIN ST
Owner	CITY OF HAVERHILL

MAP FOR REFERENCE ONLY
NOT A LEGAL DOCUMENT

City of Haverhill, MA makes no claims and no warranties, expressed or implied, concerning the validity or accuracy of the GIS data presented on this map.

Geometry updated June 25, 2025
Data updated June 25, 2025

Print map scale is approximate. Critical layout or measurement activities should not be done using this resource.

GELPAC POLY USA, INC
60 FONDI ROAD

POST DANA D
P O BOX 930

ESSEX COUNTY GREENBELT ASSOC, INC
82 EASTERN AVENUE

BIG BEND, LLC C/O NETTS
304 VICTORY RD., SUITE 2

GARDELLA SEAN-ETAL TINA CONVERSE-GARDELLA
2 WINSTON CIRCLE

DALIPI ANDREW- ETUX DALIPI NAJADA
15 WINSTON CIRCLE

MARIUS CAMILOR-ETUX VIXAMA KERLYNE
5 WINSTON CIRCLE

MORIN JASON-ETUX MORIN RENEE
6 WINSTON CR

ELWELL GREGORY ETUX ELWELL STACY
9 WINSTON CR

SHAW KATIE SHAW BRIAN
17 WINSTON CR

LAWLESS CAROLINE
88 MERRILL AVE

CCL REALTY TRUST PATENAUDE MICHAEL P
P.O. BOX 60

GILBERT THOMAS M ETUX GILBERT-JORDAN JANET F.
32 MERRILL AVE

ROMANO FAMILY IRREVOCABLE TRUS ROMANO ANTHONY-TRUSTEE
115 PRINCETON ST

BEAUMONT DALE
71 MERRILL AVE

FERRIN DOUGLAS C
59 MERRILL AV

OSTERBERG JACOB G
61 MERRILL AV

PAONE JO-DEE B
121 ROSEMONT ST

PLAISTOW PROJECT LLC C/O NORTHSTAR CENTERS LLC
1159 2nd AVE, PMB#403

NORTHERN MASS TELEPHONE WORKERS COMMUNITY CREDIT UNION
PO BOX 7008

BRESNAHAN JOHN
1291 MAIN ST

30 CUSHING AVENUE RLTY TR LEO J MOTSIS, TR
516 TREMONT ST., UNIT 6

NORTH PARISH CEMETERY JOHN COLBY, SUPT.
1 NO MAIN ST

ORTIZ-FRANK JORGE-ETUX BOVER LAURA
2 PARADISE LANE

HOYOS CLAUDIA Y
6 PARADISE LN

VALSAMIS NICHOLAS M-LIFE EST VALSAMIS MICHAEL
1289 MAIN STREET

SWETT JOHN
1287 MAIN ST

RIZWAN MOHAMMAD
1265 MAIN ST

ZERVELES ANNETTE
1NORINO DRIVE

RCA HOLY ANGELS
UNKNOWN

BILODEAU DONALD W
1260 MAIN ST

ELEFTERAKIS DIMITRI J-ETAL WOLTERS MARIA E
1240 MAIN ST

KENNEDY SHEILA M
47 MERRILL AVE

JABER MICHAEL P ETUX JABER CAMILLE M
31 MERRILL AV

CHERRY MARK A ETUX COLLINS MAUREEN E
33 MERRILL AVE

SYDNEY FAMILY REVOCABLE TR SYDNEY LESTER M-TRUSTEE
19 MERRILL AV

LAFONTAINE RICHARD A NANCY M LAFONTAINE
1270 MAIN ST

HARRIS THEODORE H. NGUYEN VY
45 MERRILL AVENUE

GIULIA DEMERITT TRUST DEMERITT GIULIA-TRUSTEE
43 MERRILL AVE

WILLIAMS CRAIG-ETUX GASLYNE JEAN-FRANCOIS
41 MERRILL AVE

Notice of Intent Project Narrative

WPA FORM 3 – NOTICE OF INTENT

PROJECT NARRATIVE

1.0 Introduction

Greenman-Pedersen, Inc., (GPI) is submitting this Notice of Intent for the proposed improvements to the accessibility, safety, and amenities at Clement Farm in the City of Haverhill, Massachusetts (the project). USGS and aerial locus maps of the project limits are included in **Figure 1** and **Figure 2**, respectively.

This project is being funded by the Parkland Acquisitions and Renovations for Communities (PARC) Grant Program, established to assist cities and towns in acquiring and developing land for park and outdoor recreation purposes. Clement Farm is a public park owned by the City of Haverhill and features 53 acres of recreational land, 1.51 miles of hiking trails, and a disc golf course.

The purpose of the project is to improve the accessibility, safety, and amenities of Clement Farm with new stone dust walkway features and a designated gravel parking area, addition of picnic tables, construction of a compostable toilet facility, tree plantings, and creation of a native pollinator meadow. Improvements proposed by the project are described further in **Section 3.0**.

This Notice of Intent (NOI) has been submitted under the Massachusetts Wetlands Protection Act, M.G.L. Chapter 131, Section 40 (the Act); work is proposed within areas Subject to Protection under the Act. Wetland resource area delineations were conducted within the project limits on March 30, 2026 by GPI's Wetland Scientist. Jurisdictional wetland resource areas within and adjacent to the project limits have been survey located and are depicted in **Attachment B**, Notice of Intent Plans.

Jurisdictional wetland resource areas within the project limits include Bordering Vegetated Wetlands (BVW), Bank to intermittent stream, and Land Under Water Bodies and Waterways (LUWW). The project is also located within the 100-foot Buffer Zone and the City of Haverhill's 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone.

2.0 Existing Conditions

2.1 Existing Site Conditions

Clement Farm Conservation Area is a 53-acre public open space located at 1314 Main Street in the northern part of Haverhill, MA. The property includes approximately 40 acres of upland forest, an open field near Route 121, five ball fields, and a paved car parking lot adjacent to the American Legion Post #4 building. It also houses the Clement Farm Disc Golf Course, which is a volunteer-built and maintained course. The disc golf was once forestry skidder trails created as part of a Forest Cutting Plan implemented by the City in 2013.

In its existing condition, a "Seasonal Parking" sign is located at the entrance of the Clement Farm disc golf course, but is obscured by overgrown vegetation. Along Main Street, the entrance to the park is located approximately 140 linear feet north of the 1270 Main Street property.

Photo 1. View of the field entrance to Clement Farm. A "Seasonal Parking" sign is shrouded by vegetation and located to the right of the driveway entrance. The driveway entrance is not paved.

The parking area is made up of dirt and lawn and does not provide marked or designated parking spaces. Picnic tables, a paver patio, and a disc golf map are located directly north of the parking area along the roadway and separated by a stone wall. There are no walkways or toilet facilities located at this location within the project limits. The field is maintained lawn and does not provide food sources or habitat for pollinators. The field is surrounded by woodlands and wetlands. A footbridge over a small intermittent stream is provided at the woodland edge to the west and used by both hikers and disc golfers.

Photo 2. View of the parking area at the disc golf course entrance. Parking area is hard packed dirt with no designated or marked spaces.

2.2 Wetland Resource Areas

Wetland resource area delineations were conducted within the project limits on March 30, 2026 by GPI. Jurisdictional wetland resource areas within and adjacent to the project limits have been survey located and are depicted on the attached Notice of Intent Plans as **Attachment B**. Jurisdictional wetland resource areas within the project limits include BVW, Bank to intermittent

stream, and LUWW. The project is also located within the 100-foot Buffer Zone and the Ordinance's 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone. An Environmental Constraints Map is provided as **Figure 3**. The Bordering Vegetated Wetland Determination Forms are provided as **Appendix A**.

2.2-1 Bank to Intermittent Stream

Bank was delineated in one location proximate to the project limits and is associated with an unnamed intermittent stream. The stream crosses beneath a 10-foot long by 3-foot wide timber footbridge. Work is proposed along the bank. **Table 2.2-1** provides a description of the stream within and adjacent to the project limits.

Table 2.2-1

Flag Series	Waterbody Name	Description / Notes
BK# A Series BK# B Series BK# C Series	Unnamed Intermittent Stream	The intermittent stream is a tributary to Little River, a perennial stream located west of the project limits. The intermittent stream flows from flagged wetland Series WF# A and WF# B to the northwest, and from wetland Series WF# C to the southwest. This stream was determined to be intermittent as it does not appear on the latest USGS Topographic Maps, it has a drainage area less than one square mile (0.05 miles), and has a 99% Flow Duration less than 0.01 cfs (0.000164 cfs) according to StreamStats.

2.2-2 Bordering Vegetated Wetlands

BVW was delineated in two locations proximate to the Project limits as described in **Table 2.2-2**. Work is proposed within the associated 100-foot Buffer Zone to BVW as well as the Ordinance's 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone. Please see **Appendix A** for the Bordering Vegetated Wetland Determination Forms.

Table 2.2-2

Flag Series	Location	Description / Notes
WF# A-1 to WF# A-22 And WF# B-1 to WF# B-3	Approximately 150 feet west from Main Street roadway at the southern portion of project limits and adjacent to the 1270 Main Street property.	Wetland Hydrology Indicators observed on site include water stained leaves, woody plants with adventitious roots, inundation, and geographic position in which the wetland was located within a depression. Vegetation within the BVW includes red maple (Acer rubrum), white pine (Pinus strobus), highbush blueberry (Vaccinium corymbosum), sweet-pepper bush (Clethra alnifolia), cinnamon

		fern (Osmundastrum cinnamomeum), and sensitive fern (Onoclea sensibilis).
WF# C-1 to WF# C-11	At the northern portion of the project limits adjacent to Main Street roadway and approximately 100 feet south of the American Legion Post #4 building.	Wetland Hydrology Indicators observed on site include water-stained leaves, free water in soil test hole, saturated soil, woody plants with adventitious roots, and inundation. Vegetation within the BVW includes red maple (Acer rubrum), American elm (Ulmus americana), white ash (Fraxinus americana), Morrow's honesuckle (Lonicera morrowii), and black birch (Betula lenta).

2.2-3 Land Under Water Bodies and Waterways

LUWW was identified in one location between the delineated Bank boundaries of the intermittent stream. The project does not propose work within LUWW.

2.2-4 100-foot Buffer Zone

Due to project's location adjacent to several wetland resource areas, including Bank and BVW, work within the 100-foot Buffer Zone is essentially unavoidable. The 100-foot Buffer Zone within the project limits is generally maintained lawn and utilized by the public for recreation. Undisturbed portions of the 100-foot Buffer Zone will be left unaltered to the maximum extent practicable. Erosion control and sedimentation control measures and construction techniques will be employed and maintained to protect adjacent wetland resource areas. The limits of all jurisdictional wetland resource areas are depicted on the Project Plans provided in **Attachment B**.

2.3 Jurisdictional Wetland Resource Areas – City of Haverhill

The City of Haverhill Conservation Commission generally maintains the same jurisdictional wetland resource area definitions as the Act and establishes a 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone per the City of Haverhill Wetland Protection Ordinance (the Ordinance).

The Ordinance defines the 25-foot No Build-No Disturbance Zone as:

"An area set aside from development to allow for a buffer area between wetlands and buildings, zero to 25 feet from the flagged wetlands on the site where no disturbance or building is allowed…"

The Ordinance defines the 50-foot No Build Zone as:

"Twenty-five to 50 feet from the flagged wetlands on the site where no building is allowed."

Work within the 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone is essentially unavoidable in some areas. The project has been designed to avoid work within these zones to the maximum extent practicable.

2.4 Other Sensitive Environmental Areas

Clement Farm is subject to Article 97 protection, however, the project does not propose a disposition or change in land use. The project will enhance existing recreational uses provided by Clement Farm.

A review of the current MassGIS data layer for the Massachusetts Natural Heritage Atlas (effective August 1, 2021) under the Natural Heritage and Endangered Species Program (NHESP) indicates that the project limits are located east of Priority Habitat of Rare Species identified as PH 2143. However, the project limits are not located directly within or adjacent to Priority Habitat.

No Certified Vernal Pools under the jurisdiction of the Wetlands Protection Act Regulations (310 CMR 10.00 et seq.) or the Massachusetts Endangered Species Act (321 CMR 10.00 et seq.) occur within or adjacent to the Project limits.

The project is not located within any Stormwater Critical Areas. Please see **Figure 4** for the Stormwater Critical Areas Locus Map.

3.0 Proposed Conditions

The project proposes to enhance recreational opportunities for visitors of Clement Farm in addition to creating environmentally conscious elements that improve the overall aesthetic and ecological function to the park.

Proposed improvements include formalizing the existing unpaved parking area through construction of a new gravel parking lot that can accommodate up to 47 vehicles. Of the 47 parking spaces, two will be designated Americans with Disabilities Act (ADA) / Architectural Access Borad (AAB) accessible and will be built on cement concrete pads. A grass area is proposed for overflow parking to accommodate up to 14 vehicles. All areas previously degraded by the existing parking that are no longer utilized will be seeded with a native grass mix.

Other improvements include regrading and resurfacing existing walking paths through the installation of stone dust. The project does not propose to construct paths with asphalt or concrete surfaces.

The project also proposes installing a new park entry sign, four new interpretive signs, and six new picnic tables. Of the six new picnic tables, one will be ADA/AAB accessible with a concrete pad. A new accessible disc golf basket and practice area will be installed adjacent to the parking area as well as a new compostable toilet facility.

Vegetation management, including removal of dead trees and tree trimming / pruning, will be conducted along the Main Street Right of Way to remove overgrowth. Six trees on the park property and along the Main Street ROW are proposed to be removed. Eight trees are proposed to be planted along the parking area to provide aesthetic value and shade.

The project also proposes to create a pollinator habitat meadow along the walking path in open areas of existing mowed field. This will transform a lawn with no ecological value to a thriving ecosystem for pollinating insects and mammals. A pollinator habitat will provide a food source to the local wildlife and improve the visual aesthetic of the park.

A portion of the stone walls on either side of the existing driveway entrance and exit will be removed to facilitate the two new driveway entrances and exits. The project proposes to construct a new section of stone wall that separates both driveways. The new park entry sign will be installed in front of the new stone wall.

The Project proposes two stormwater control measures (SCMs). There will be a vegetated swale north of the footbridge and adjacent to the stone dust path. There will also be an infiltration trench with a level spreader to the south of the footbridge and adjacent to the stone dust path. Runoff will be directed to these SCMs through sheet flow. No closed drainage infrastructure is proposed as part of this project.

Finally, the project proposes to replace the existing 10-foot by 3-foot timber footbridge that spans the intermittent stream at the project's southwestern most limit. The replacement 12-foot by 6-foot footbridge will meet the Massachusetts Stream Crossing Standards to the maximum extent practicable.

4.0 Wetland Resource Area Impacts

The project proposes work within the 100-foot Buffer Zone and the Ordinance's 25-foot No Build-No Disturbance Zone and the 50-foot No Build Zone. Work is proposed along the Bank of the unnamed intermittent stream. Work is not proposed within either of the two BVWs or within LUWW of the unnamed intermittent stream.

4.1 Proposed Activities in Jurisdictional Wetland Resource Areas

4.1-1 Bank to Intermittent Stream

The project will result in work along Bank to intermittent stream at the timber footbridge. Temporary alterations include erosion and sedimentation controls that will act as a limit of work, construction phase site access in order to replace the bridge, and restoration of vegetation with a native seed mix.

Under the General Provisions of the Act, the proposed replacement stream crossing must comply with the Massachusetts Stream Crossing Standards to the maximum extent practicable per 310 CMR 10.53(8)(a). Please refer to **7.2 Massachusetts River and Stream Crossing Standards** for a summary of the proposed structures' compliance with the Massachusetts Stream Crossing Standards.

A summary of the total impacts to each zone proposed by the Project is included in **Table 4.1-1**.

Table 4.1-1

Bank Flagging	Permanent (lf)	Temporary (lf)	Notes
BK#C4 – BK#C7	0	28	Erosion controls, construction phase site access to replace existing footbridge, restoration of vegetation.
BK#B21 – BK#B23	0	28	Erosion controls, construction phase site access to replace existing footbridge, restoration of vegetation.
Total (sf)	0	56	

4.2-1 Buffer Zones

The project will result in work within the 25-foot No Build-No Disturbance Zone, 50-foot No Build Zone, and 100-foot Buffer Zone. Permanent alterations resulting in a loss of resources located within these zones are associated with the regrading and resurfacing of dirt walkways with stone dust, regrading and placement of gravel to construct the parking lot area, relocation of disc golf basket, and installation of signage. Temporary alterations include erosion and sedimentation controls, construction phase site access, and restoration of vegetation. All temporarily altered areas will be restored with a native seed mix.

A summary of the total impacts to each zone proposed by the Project is included in **Table 4.2-1**.

Table 4.2-1

	25-foot No Build-No Disturbance Zone	50-foot No Build Zone	100-foot Buffer Zone
Permanent (sf)	547	1,046	4,665
Temporary (sf)	2,176	4,109	7,326
Total (sf)	2,723	5,155	11,991

5.0 Avoidance, Minimization, and Mitigation Measures

The project was designed with an interest to avoid, minimize, and mitigate impacts to wetland resource areas to the maximum extent practicable. The project does not propose to permanently or temporarily alter BVW or LUWW.

5.1 Avoidance

The project has been designed to avoid any direct or indirect impacts to BVW. Due to the proximity to wetland resource areas including BVW and Bank, the project will result in impacts within the 100-foot Buffer Zone, 25-foot No Build-No Disturbance Zone, and 50-foot No Build Zone.

The project proposes the replacement of an existing stream crossing, this requires temporary impacts along the Bank of the intermittent stream. Erosion controls are proposed along the western and eastern Bank of the stream to prevent sediments from migrating into the stream and downgradient resource areas while also acting as a limit of work during replacement of the stream crossing.

5.2 Minimization

The work area adjacent to the WF# A and WF# B Series BVW has been minimized to the maximum extent practicable while still providing adequate space to facilitate construction activities and implement a grass swale in order to meet the Massachusetts Stormwater Standards. The project does not propose impacts to the BVW, but it will result in impacts to the 100-foot Buffer Zone, 25-foot No Build-No Disturbance Zone, and 50-foot No Build Zone. The limits of the gravel parking area have been designed to minimize impacts to these zones to the maximum extent practicable while also ensuring there is adequate parking available to visitors of Clement Farm. Temporary impacts along the Banks of the intermittent stream have been minimized to the maximum extent practicable while offering the necessary space needed to replace the existing stream crossing.

5.3 Mitigation

The project proposes to restore vegetation in areas temporarily impacted by construction phase site access. The project also proposes to restore previously degraded areas such as the old parking area with a native grass mix.

5.3.1 Stream Crossing Replacement

The project proposes to replace the existing footbridge over an intermittent stream that meets the Massachusetts Stream Crossing Standards to the maximum extent practicable and provides a significant improvement over the existing condition. The proposed crossing structure will provide a more open crossing that spans bankfull width, thus improving wildlife passage while also not changing the hydrology of the intermittent stream during low flow or flooding events. Please refer to **7.2 Massachusetts River and Stream Crossing Standards** for a summary of the proposed structures' compliance with the Massachusetts Stream Crossing Standards.

5.4 Erosion and Sedimentation Control

Erosion and sedimentation controls will be installed and maintained where activities are proposed within 100 feet of wetland resource areas. The proposed erosion and sedimentation control measures will provide a limit of work barrier while also preventing sediments and suspended solids from migrating into or towards downgradient wetland resource areas.

Erosion controls shall consist of compost filter tubes and silt fences. No hay bales shall be used at any time on this project. The erosion and sedimentation control measures will be constructed in accordance with the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban areas, March 1997 and the USDA SCS's Erosion and Sediment control in the Site Development, Massachusetts Conservation Guide, September – 1983. Best management practices for erosion and sedimentation control will be adhered to for all phases of construction to minimize potential impacts to wetland resource areas and wildlife habitat.

The project proposes 1.26 acres of disturbance to the project limits. The contractor will be responsible for obtaining the National Pollution Discharge Elimination System (NPDES) Construction General Permit. A Stormwater Pollution Prevention Plan (SWPPP) will be submitted prior to any land disturbance.

6.0 Stormwater

The Project is subject to the Massachusetts Stormwater Standards which are incorporated into the Wetlands Protection Regulations, 310 CMR 10.05 (6)(b) and defined at 310 CMR 10.05 (6)(k) through (q). A Stormwater Checklist and Report have been completed and submitted with this NOI, as required. Please see **Attachment A**.

7.0 Regulatory Compliance

7.1 10.54(4) General Performance Standards for Bank

The project is subject to the General Performance Standards for Bank due to the replacement of the existing stream crossing that spans an intermittent stream. The project's compliance with the General Performance Standards for Bank at 310 CMR 10.54(4) are described below.

(a) Where the presumption set forth in 310 CMR 10.54(3) is not overcome, any proposed work on a Bank shall not impair the following:

1. *the physical stability of the Bank;*
2. *the water carrying capacity of the existing channel within the Bank;*
3. *ground water and surface water quality;*
4. *the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;*
5. *the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a single lot, for which Notice(s) of Intent is filed on or after November 1, 1987, that (cumulatively) alter(s) up to 10% or 50 feet (whichever is less) of the length of the bank found to be significant to the protection of wildlife habitat, shall not be deemed to impair its capacity to provide important wildlife habitat functions. In the case of a bank of a river or an intermittent stream, the impact shall be measured on each side of the stream or river. Additional alterations beyond the above threshold may be permitted if they will have no adverse effects on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.*
6. *Work on a stream crossing shall be presumed to meet the performance standard set forth in 310 CMR 10.54(4)(a) provided the work is performed in compliance with the Massachusetts Stream Crossing Standards by consisting of a span or embedded culvert in which, at a minimum, the bottom of a span structure or the upper surface of an embedded culvert is above the elevation of the top of the bank, and the structure spans the channel width by a minimum of 1.2 times the bankfull width. This presumption is rebuttable and may be overcome by the submittal of credible evidence from a competent source. Notwithstanding the requirement of 310 CMR 10.54(4)(a)5., the impact on bank caused by the installation of a stream crossing is exempt from the requirement to perform a habitat evaluation in accordance with the procedures contained in 310 CMR 10.60.*

The Project proposes the replacement of an existing timber stream crossing that conveys the flow of an intermittent stream and meets the General Performance Standards for Bank at 310 CMR 10.54(4). In accordance with 310 CMR 10.54(4)(a), the proposed improvements will not impair:

1. the physical stability of the Bank; the replacement of the existing structure with one that will extend beyond the span of the stream will protect against erosion and scour on the slopes adjacent to the existing Banks, contributing to the stability of the Banks.
2. the water carrying capacity within the Bank; the project will not result in any work or alteration between the Banks of the stream. Impacts to water carrying capacity are not anticipated.
3. the groundwater and surface water quality; the project proposes to replace the existing stream crossing. There are no existing storm drains within proximity of the crossing and it is not anticipated that the replacement crossing will impact groundwater and / or surface water.
4. the capacity of the Bank to provide breeding habitat, escape cover, and food for fisheries; the replacement structure will not result in any adverse effects on the Bank's ability to support wildlife habitat functions.
5. the capacity of the Bank to provide important wildlife habitat functions; the project will temporarily alter 56 linear feet of Banks to intermittent stream and will not have any adverse effects on the Banks' ability to provide important wildlife habitat functions.
6. compliance with the Massachusetts Stream Crossing Standards; the project proposes to meet the Massachusetts Stream Crossing Standards to the maximum extent practicable. The project is in compliance with the Massachusetts Stream Crossing Standards as demonstrated in **Section 7.2**.

(b) Notwithstanding the provisions of 310 CMR 10.54(4)(a), structures may be permitted in or on a Bank when required to prevent flood damage to facilities, buildings and roads constructed prior to the effective date of 310 CMR 10.51 through 10.60 or constructed pursuant to a Notice of Intent filed prior to the effective date of 310 CMR 10.51 through 10.60 (April 1, 1983), including the renovation or reconstruction (but not substantial enlargement) of such facilities, buildings and roads, provided that the following requirements are met:

1. *The proposed protective structure, renovation, or reconstruction is designed and constructed using best practical measures so as to minimize adverse effects on the characteristics and functions of the resource area;*
2. *The applicant demonstrates that there is no reasonable method of protecting, renovating, or rebuilding the facility in question other than the one proposed.*

310 CMR 10.54(4)(b) is not applicable as none of the improvements proposed along the intermittent stream are related to the construction of structures intended to prevent flood damage to facilities, buildings, or roads constructed prior to the effective date.

(c) Notwithstanding the provisions of 310 CMR 10.54(4)(a) or (b), no project may be permitted which will have any adverse effect on the specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.

The project limits are not located within NHESP Priority Habitat. There are no NHESP Certified or potential vernal pools within the project limits. The project anticipates compliance with 310 CMR 10.54(4)(c).

The proposed work complies with all of the applicable performance standards for Bank at 310 CMR 10.54.

7.2 Massachusetts River and Stream Crossing Standards

As described in **5.3.1 Stream Crossing Replacement**, the project proposes to replace the existing footbridge that conveys an intermittent stream. The proposed crossing structure meets the Massachusetts Stream Crossing Standards and provides an improvement over the existing conditions. Replacement of the footbridge structure will either be conducted by hand or through mechanical means from the banks of the stream. The project does not propose work within the stream and LUWW. Erosion controls will be implemented during the removal of the existing footbridge and installation of the new footbridge to ensure sediment does not impact downgradient wetland resource areas during construction. A summary of the existing and proposed structures' compliance with the Massachusetts Stream Crossing Standards is provided below.

Standard 1 – Type of Crossing: *Spans (bridges, 3-sided box culverts, open-bottom culverts or arches) are strongly preferred.*

Existing Structure: The existing stream crossing consists of a 10-foot by 3-foot timber footbridge with an open bottom. The existing culvert meets Standard 1.

Proposed Structure: The proposed structure is an open bottom, 12-foot by 6-foot timber footbridge with 1-foot by 8-foot flush granite abutments. **The proposed structure meets Standard 1.**

Standard 2 – Embedment: *All culverts should be embedded (sunk into stream) a minimum of 2 feet, and round pipe culverts at least 25%. If pipe culverts cannot be embedded this deep, then they should not be used. When embedment materials include elements > 15 inches in diameter,*

embedment depths should be at least twice the D_{84} (particle width larger than 84% of particles) of particles of the embedment materials.

Existing Structure: The existing footbridge is not a culvert and is not embedded into the stream. The existing structure meets Standard 2.

Proposed Structure: The proposed replacement footbridge is not a culvert and is not embedded into the stream. **The proposed structure meets Standard 2.**

Standard 3 – Crossing Span: *Spans channel width (a minimum of 1.2 times the bankfull width of the stream).*

Existing Structure: Within the vicinity of the existing footbridge, the intermittent stream has an average bankfull width of approximately 8 feet. A structure spanning the channel a minimum of 1.2 times bankfull width would have a width of 9.6 feet. The existing footbridge has an open span of 8 feet. The existing footbridge does not meet Standard 3.

Proposed Structure: The proposed crossing structure has an open span of 10 feet. The proposed structure spans the channel greater than 1.2 times bankfull width and provides an improvement over the existing conditions. **The proposed structure meets Standard 3**.

Standard 4 – Openness: *Openness ratio (cross-sectional area / crossing length) of at least 0.82 feet (0.25 meters). The crossing should be wide and high relative to its length.*

Existing Structure: The existing structure has a cross-sectional area of 8 square feet. The existing structure is 10 feet long. The existing structure has an openness ratio of 0.8 and does not meet Standard 4.

Openness Ratio = (cross-sectional area / crossing length)
Openness Ratio = (8 x 1) / 10
Openness Ratio = (8) / 10
Openness Ratio = 0.8

Proposed Structure: The proposed structure has a cross-sectional area of 20 square feet and a crossing length of 12 feet. The openness ratio of the proposed structure is 1.6, well above the minimum openness ration of 0.82. **The proposed structure meets Standard 4.**

Openness Ratio = (cross-sectional area / crossing length)
Openness Ratio = (10 x 2) / 12
Openness Ratio = (20) / 12
Openness Ratio = 1.6

Standard 5 – Substrate: *Natural bottom substrate should be used within the crossing, and it should match the upstream and downstream substrates. The substrate and design should resist displacement during floods and maintain an appropriate bottom during normal flows.*

Existing Structure: The existing streambed is made up of natural substrate. The existing footbridge meets Standard 5.

Proposed Structure: The proposed stream crossing replacement will not conduct work within the stream and does not propose to alter the existing streambed substrate. **The proposed structure meets Standard 5.**

Standard 6 – Water Depth and Velocity: *Water depths and velocities are comparable to those found in the natural channel at a variety of flows.*

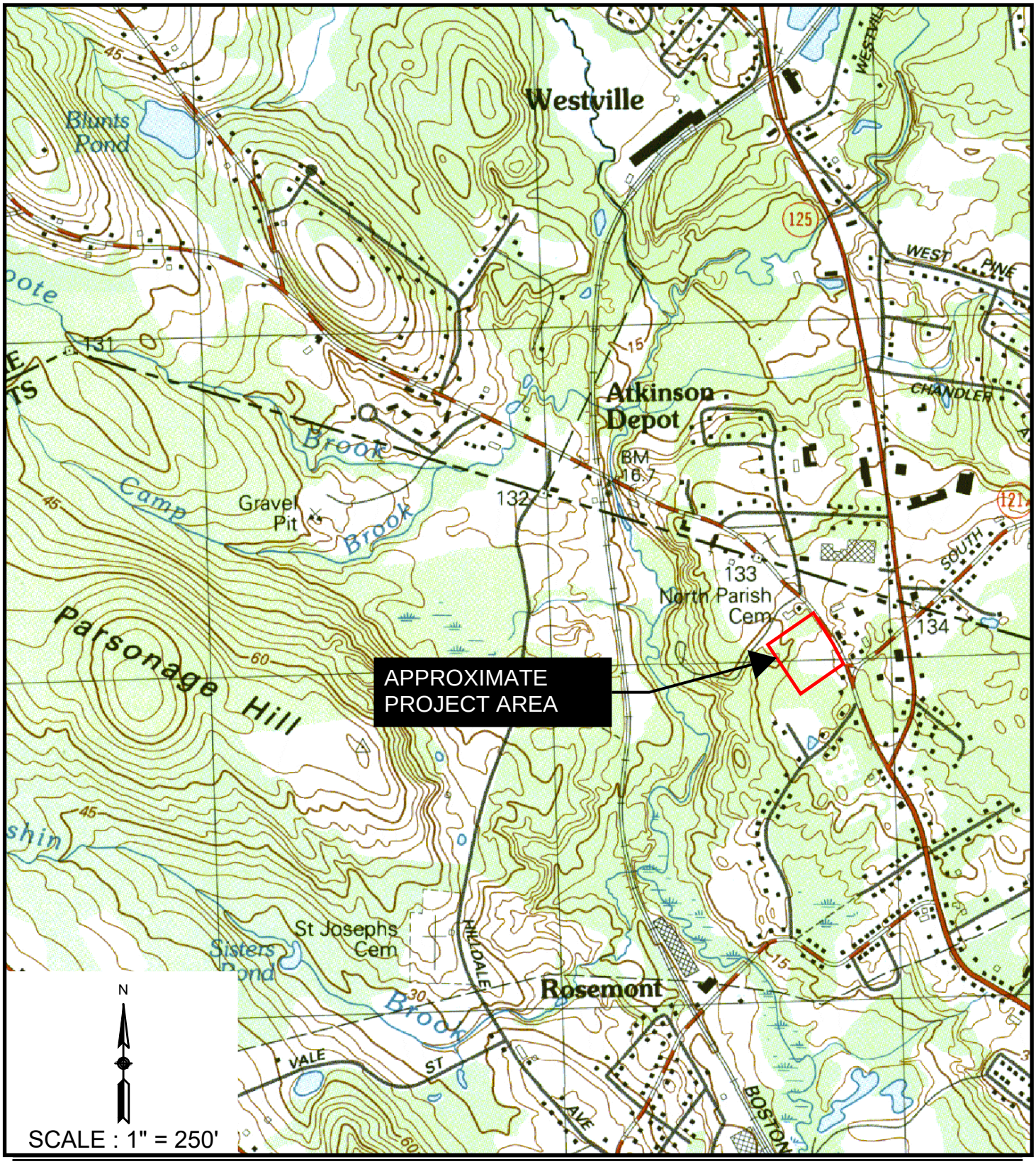
Existing Structure: The existing footbridge may impact water depth and velocity during extreme precipitation events, acting as a choke point for flow traveling from the WF# A and WF# B Series wetland to Little River located west of the project limits. This segment of the intermittent stream is relatively flat until flow travels west of the footbridge. The existing footbridge does not appear to meet Standard 6.

Proposed Structure: The proposed replacement footbridge does not anticipate to impact water depth and velocity of the intermittent stream. With a larger clear span, the footbridge will better meet the Massachusetts Stream Crossing Standards and benefit the overall function of the intermittent stream. **The proposed structure meets Standard 6.**

8.0 Conclusion

The proposed parking facilities, amenities, and recreational opportunities proposed at Clement Farm in Haverhill, Massachusetts have been designed to avoid work within and alteration of jurisdictional wetland resource areas where possible. Where impacts are unavoidable, they have been minimized and appropriately mitigated. The proposed mitigation measures allow the project to comply with the Performance Standards outlined in the Wetlands Protection Act. The applicant respectfully requests that the Haverhill Conservation Commission find the proposed improvements and mitigation measures described in this NOI adequately protective of the interests identified within the WPA and issue an Order of Conditions approving the work described in this NOI and shown on the accompanying plans.

Figure 1 – USGS Topographic Locus Map



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181 Ballardvale Street
Suite 202
Wilmington, MA 01887

0 250 500 750 1000
SCALE: 1" = 250'

CLEMENT FARM
DISC GOLF COURSE
HAVERHILL, MA

Figure 2 – Aerial Locus Map

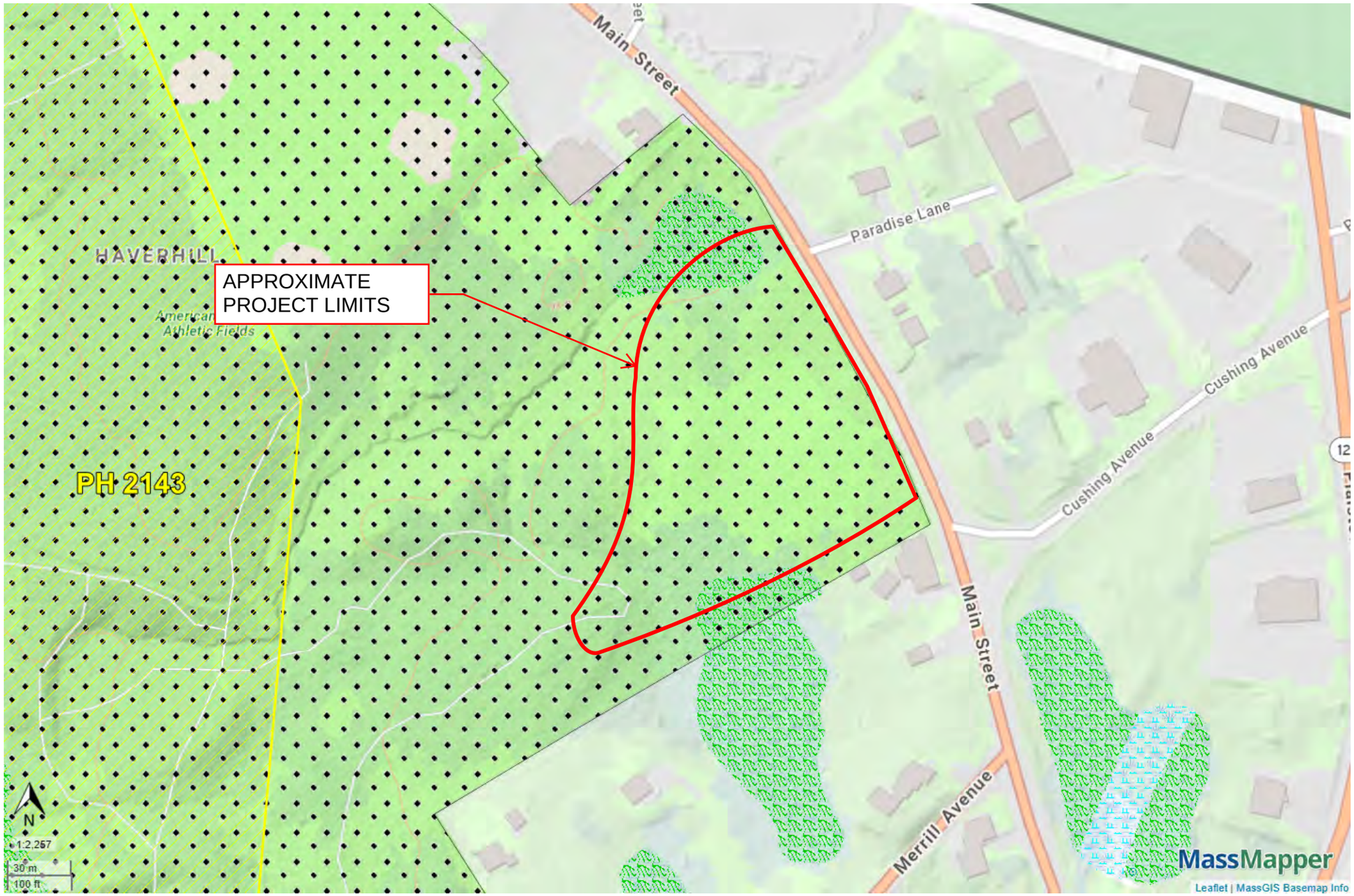
Aerial Locus Map

CLEMENT FARM
DISC GOLF COURSE
HAVERHILL, MA

Printed Apr 14, 2026

Figure 3 – Environmental Constraints Map

Environmental Constraints Locus Map



Legend

NHESP Priority Habitats of Rare Species

NHESP Estimated Habitats of Rare Wildlife

NHESP Certified Vernal Pools

Potential Vernal Pools

Openspace Article 97

DEP Wetlands Detailed

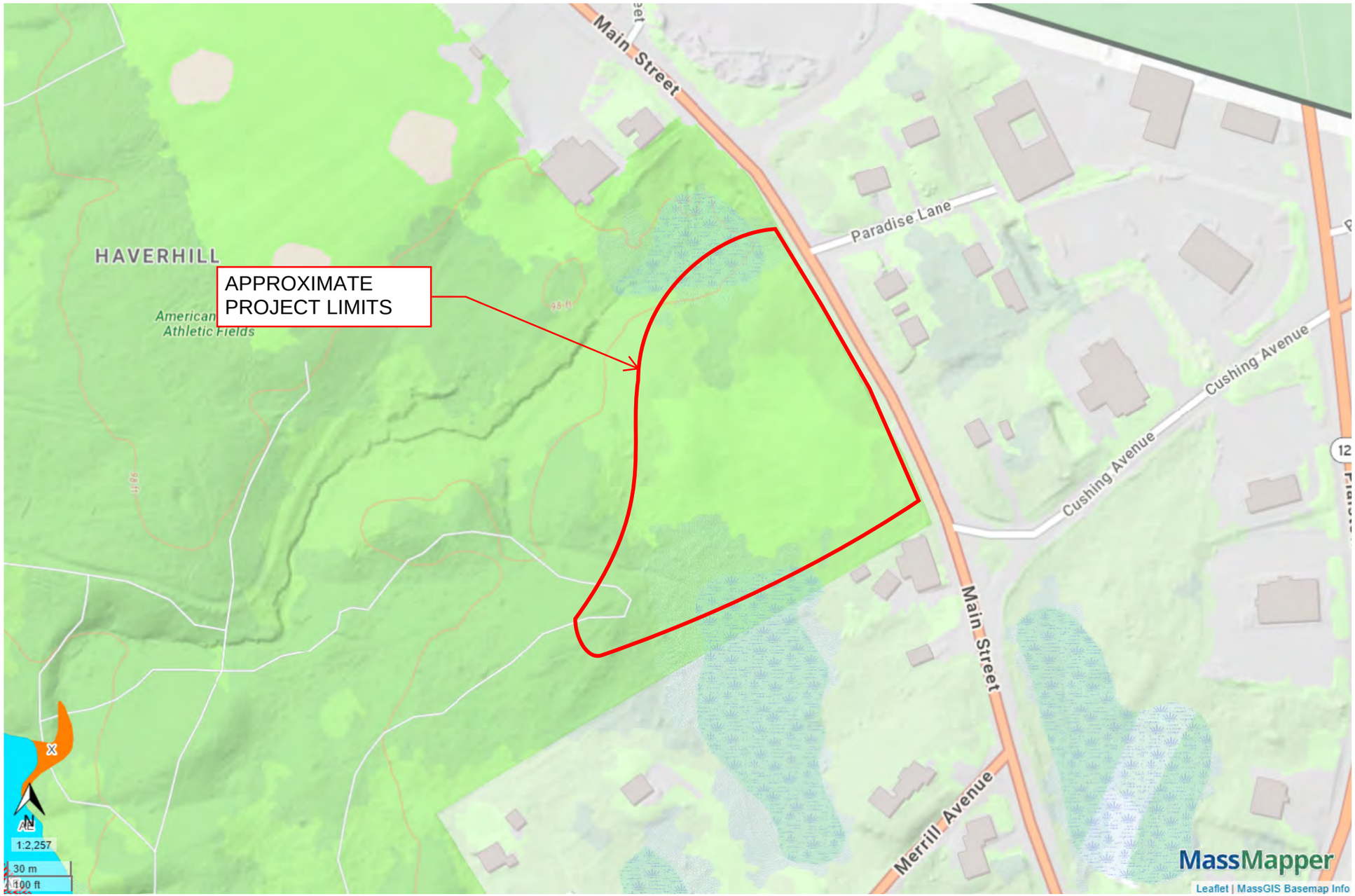
- Barrier Beach System
- Barrier Beach-Deep Marsh
- Barrier Beach-Wooded Swamp Mixed Trees
- Barrier Beach-Coastal Beach
- Barrier Beach-Coastal Dune
- Barrier Beach-Marsh
- Barrier Beach-Salt Marsh
- Barrier Beach-Shrub Swamp
- Barrier Beach-Wooded Swamp Coniferous
- Barrier Beach-Wooded Swamp Deciduous
- Bog
- Coastal Bank Bluff or Sea Cliff
- Coastal Beach
- Coastal Dune
- Cranberry Bog
- Deep Marsh
- Barrier Beach-Open Water
- Open Water
- Rocky Intertidal Shore
- Salt Marsh
- Shallow Marsh Meadow or Fen
- Shrub Swamp
- Tidal Flat
- Wooded Swamp Coniferous
- Wooded Swamp Deciduous
- Wooded Swamp Mixed Trees

CLEMENT FARM
DISC GOLF COURSE
HAVERHILL, MA

Printed Apr 14, 2026

Figure 4 – Stormwater Critical Areas Map

Stormwater Critical Areas Locus Map



Legend

IWPAs

Zone A

Zone Is

Zone IIs

Public Water Supplies

- Communtiy Groundwater Well
- Non-Communtiy Groundwater Well
- Surface Water Intake
- Emergency Surface Water Intake
- Community Labels
- Non-Community Labels

DFW Coldwater Fisheries Resources

Outstanding Resource Waters

- ACEC
- Cape Cod National Seashore
- Protected Shoreline
- Public Water Supply Watershed
- Retired Public Water Supply
- Scenic/Protected River
- Wildlife Refuge

FEMA National Flood Hazard Layer Polygons

- 1% Annual Chance Flood Hazard
- Regulatory Floodway
- Area of Undetermined Flood Hazard
- 0.2% Annual Chance Flood Hazard
- Area with Reduced Risk Due to Levee
- Area Not Included

CLEMENT FARM
DISC GOLF COURSE
HAVERHILL, MA

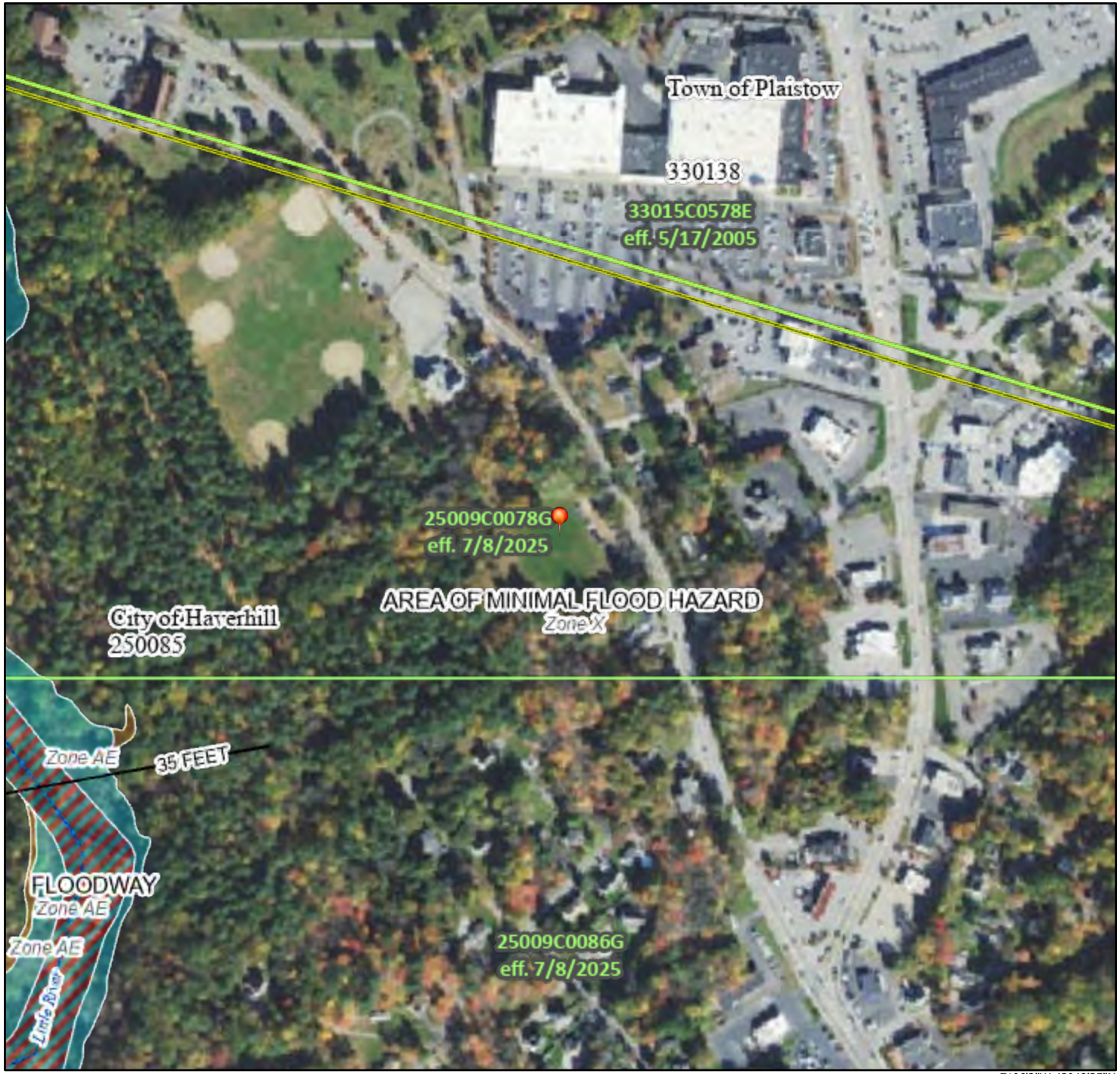
Printed Apr 14, 2026

Figure 5 – FEMA FIRMette

National Flood Hazard Layer FIRMette

FEMA

71°6'40"W 42°49'2"N



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

1:6,000

71°6'2"W 42°48'35"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

SPECIAL FLOOD HAZARD AREAS
- Without Base Flood Elevation (BFE) *Zone A, V, A99*
- With BFE or Depth *Zone AE, AO, AH, VE, AR*
- Regulatory Floodway

OTHER AREAS OF FLOOD HAZARD
- 0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
- Future Conditions 1% Annual Chance Flood Hazard *Zone X*
- Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
- Area with Flood Risk due to Levee *Zone D*

OTHER AREAS
- NO SCREEN Area of Minimal Flood Hazard *Zone X*
- Effective LOMRs
- Area of Undetermined Flood Hazard *Zone D*

GENERAL STRUCTURES
- Channel, Culvert, or Storm Sewer
- Levee, Dike, or Floodwall

OTHER FEATURES
- 20.2 Cross Sections with 1% Annual Chance
- 17.5 Water Surface Elevation
- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study
- Jurisdiction Boundary
- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS
- Digital Data Available
- No Digital Data Available
- Unmapped

N

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

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

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/14/2026 at 7:26 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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

Appendix A – Bordering Vegetated Wetland Determination Forms

Wetland Delineation Summary

A wetland delineation was conducted by a Certified Wetland Scientist on March 30, 2026 to identify and flag the boundary of existing wetland resource areas within and directly adjacent to the project limits. Wetland resource area boundaries were identified and delineated in accordance with methods developed by the Massachusetts Department of Environmental Protection (MassDEP) *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetland Protection Act* (1995), as well as definitions set forth in the Massachusetts Wetland Protection Act under 310 CMR 10.00.

Jurisdictional wetland resource areas identified within and adjacent to the project limits are included below.

Bordering Vegetated Wetlands (BVW) were identified and flagged in two locations proximate to the project limits. The WF# A and WF# B Series BVW is located approximately 150 feet west from Main Street roadway at the southern portion of project limits and adjacent to the 1270 Main Street property. The BVW is flagged as WF# A-1 to WF# A-22 and WF# B-1 to WF# B-3. Wetland Hydrology Indicators observed on site include water stained leaves, woody plants with adventitious roots, inundation, and geographic position in which the wetland was located within a depression. Vegetation within the BVW includes red maple (Acer rubrum), white pine (Pinus strobus), highbush blueberry (Vaccinium corymbosum), sweet-pepper bush (Clethra alnifolia), cinnamon fern (Osmundastrum cinnamomeum), and sensitive fern (Onoclea sensibilis).

The second BVW is located at the northern portion of the project limits adjacent to Main Street roadway and approximately 100 feet south of the American Legion Post #4 building. The BVW is flagged as WF# C-1 to WF# C-11. Wetland Hydrology Indicators observed on site include water-stained leaves, free water in soil test hole, saturated soil, woody plants with adventitious roots, and inundation. Vegetation within the BVW includes red maple (Acer rubrum), American elm (Ulmus americana), white ash (Fraxinus americana), Morrow's honesuckle (Lonicera morrowii), and black birch (Betula lenta).

Bank to Intermittent Stream was identified and flagged as BK# A, BK# B, and BK# C Series. The intermittent stream is a tributary to Little River, a perennial stream located west of the project limits. The intermittent stream flows from flagged wetland Series WF# A and WF# B to the northwest, and from wetland Series WF# C to the southwest where it eventually meets its confluence with Little River. This stream was determined to be intermittent as it does not appear on the latest USGS Topographic Maps, it has a drainage area less than one square mile (0.05 miles), and has a 99% Flow Duration less than 0.01 cfs (0.000164 cfs) according to StreamStats.

The City of Haverhill Conservation Commission generally maintains the same jurisdictional wetland resource area definitions as the Act and establishes a 25-foot No Build-No Disturbance Zone and 50-foot No Build Zone per the City of Haverhill Wetland Protection Ordinance (the Ordinance).

The Ordinance defines the 25-foot No Build-No Disturbance Zone as:

"An area set aside from development to allow for a buffer area between wetlands and buildings, zero to 25 feet from the flagged wetlands on the site where no disturbance or building is allowed…"

The Ordinance defines the 50-foot No Build Zone as:

"Twenty-five to 50 feet from the flagged wetlands on the site where no building is allowed."

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Clement Farm Disc Golf City/Town: Haverhill Sampling Date: 03/30/26

Applicant/Owner: Town of Haverhill Sampling Point or Zone: Wet-1

Investigator(s): Jason C. Bolduc Latitude / Longitude: -71.10497, 42.81169

Soil Map Unit Name: Pipestone 38A NWI or DEP Classification: BVW

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.:

WF#C Series delineated with pink flagging tape.

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [✔]	No [ ]	Depth (inches) 1.00
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
[✔] Water-stained leaves	[ ] Hydrological records	[✔] Direct observation of inundation
[ ] Evidence of aquatic fauna	[✔] Free water in a soil test hole	[ ] Drainage patterns
[ ] Iron deposits	[✔] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[ ] Thin muck surfaces	[ ] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[✔] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[ ] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

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.

Tree Stratum Plot size 30' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. Red Maple	Acer rubrum	FAC	80.0	Yes	Yes
2. American Elm	Ulmus americana	FACW	20.0	Yes	Yes
3.					
4.					
5.					
6.					
7.					
8.					
9.					

100.0 = Total Cover

Shrub/Sapling Stratum Plot size 15' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. American Elm	Ulmus americana	FACW	50.0	Yes	Yes
2. Red Maple	Acer rubrum	FAC	10.0	No	Yes
3. White Ash	Fraxinus americana	FACU	30.0	Yes	No
4. Morrow's honeysuckle	Lonicera morrowii	FACU	30.0	Yes	No
5. Black Birch	Betula lenta	FACU	10.0	No	No
6.					
7.					
8.					
9.					

130.0 = Total Cover

Herb Stratum Plot size 5' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. White ash	Fraxinus americana	FACU	5.0	Yes	No
2.					
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

5.0 = Total Cover

VEGETATION – continued.

Woody Vine Stratum	Plot size 30' Radius - none observed				
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
			0.0 = 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?
	6	3		Yes ☑ No ☐
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ 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 %

Sampling Point Wet-1

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
5	10YR 2/1						mucky peat	
14	10YR 2/1						mucky sand	

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

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☑ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

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

Remarks:

Hydric Soils criterion met? **Yes** ☑ **No** ☐

BORDERING VEGETATED WETLAND DETERMINATION FORM

Project/Site: Clement Farm Disc Golf City/Town: Haverhill Sampling Date: 03/30/26

Applicant/Owner: Town of Haverhill Sampling Point or Zone: Wet-2

Investigator(s): Jason C. Bolduc Latitude / Longitude: -71.10442, 42.81191

Soil Map Unit Name: Pipestone 38A NWI or DEP Classification: BVW

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.:

WF#A and WF#B Series delineated with pink flagging tape

HYDROLOGY

Field Observations:			
Surface Water Present?	Yes [✔]	No [ ]	Depth (inches) 8.00
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
[✔] Water-stained leaves	[ ] Hydrological records	[✔] Direct observation of inundation
[ ] Evidence of aquatic fauna	[ ] Free water in a soil test hole	[ ] Drainage patterns
[ ] Iron deposits	[ ] Saturated soil	[ ] Drift lines
[ ] Algal mats or crusts	[ ] Water marks	[ ] Scoured areas
[ ] Oxidized rhizospheres/pore linings	[ ] Moss trim lines	[ ] Sediment deposits
[ ] Thin muck surfaces	[ ] Presence of reduced iron	[ ] Surface soil cracks
[ ] Plants with air-filled tissue (aerenchyma)	[✔] Woody plants with adventitious roots	[ ] Sparsely vegetated concave surface
[ ] Plants with polymorphic leaves	[ ] Trees with shallow root systems	[ ] Microtopographic relief
[ ] Plants with floating leaves	[ ] Woody plants with enlarged lenticels	[✔] Geographic position (depression, toe of slope, fringing lowland
[ ] Hydrogen sulfide odor		

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.

Form Revised July 2023

VEGETATION – Use both common and scientific names of plants.

Tree Stratum Plot size 30' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. Red Maple	Acer rubrum	FAC	70.0	Yes	Yes
2. White Pine	Pinus strobus	UPL	30.0	Yes	No
3.					
4.					
5.					
6.					
7.					
8.					
9.					

100.0 = Total Cover

Shrub/Sapling Stratum Plot size 15' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. Highbush Blueberry	Vaccinium corymbosum	FACW	40.0	Yes	Yes
2. Sweet-pepper bush	Clethra alnifolia	FAC	30.0	Yes	Yes
3.					
4.					
5.					
6.					
7.					
8.					
9.					

70.0 = Total Cover

Herb Stratum Plot size 5' Radius

Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1. Cinnamon fern	Osmundastrum cinnamomeum	FACW	60.0	Yes	Yes
2. Sensative fern	Onoclea sensibilis	FACW	40.0	Yes	Yes
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					

100.0 = Total Cover

VEGETATION – continued.

Woody Vine Stratum	Plot size 30' Radius - none observed				
Common name	Scientific name	Indicator Status	Absolute % Cover	Dominant? (yes/no)	Wetland Indictor? (yes/no)
1.					
2.					
3.					
4.					
			0.0 = 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?
	6	6		Yes ☑ No ☐
Prevalence Index:		Total % Cover (all strata)	Multiply by:	Result
	OBL species		X 1	= 0.00
	FACW species		X 2	= 0.00
	FAC species		X 3	= 0.00
	FACU species		X 4	= 0.00
	UPL species		X 5	= 0.00
	Column Totals	(A) 0		(B) 0
Prevalence Index		B/A = 0.00		Is the Prevalence Index ≤ 3.0? Yes ☐ 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 %

Sampling Point Wet-2

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators)

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type[1]	Location[2]		
6	10YR 2/1						mucky peat	
12	10YR 2/1						mucky sand	

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

Hydric Soil Indicators (Check all that apply)		**Indicators for Problematic Hydric Soils**
☐ Histosol (A1)	☐ Polyvalue Below Surface (S8)	☐ 2 cm Muck (A10)
☑ Histic Epipedon (A2)	☐ Thin Dark Surface (S9)	☐ 5 cm Mucky Peat or Peat (S3)
☐ Black Histic (A3)	☐ Loamy Gleyed Matrix (F2)	☐ Iron-Manganese Masses (F12)
☐ Hydrogen Sulfide (A4)	☐ Depleted Matrix (F3)	☐ Mesic Spodic (A17)
☐ Stratified Layers (A5)	☐ Redox Dark Surface (F6)	☐ Red Parent Material (F21)
☐ Depleted Below Dark Surface (A11)	☐ Depleted Dark Surface (F7)	☐ Very Shallow Dark Surface (F22)
☐ Thick Dark Surface (A12)	☐ Redox Depressions (F8)	
☐ Sandy Mucky Mineral (S1)		
☐ Sandy Gleyed Matrix (S4)		
☐ Sandy Redox (S5)		☐ Other (Include Explanation in Remarks)
☐ Stripped Matrix (S6)		
☐ Dark Surface (S7)		

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

Remarks:

Hydric Soils criterion met? **Yes** ☑ **No** ☐

Appendix B – Site Photographs

Photo 1: View of the dirt parking area facing south with Main Street on the left side of the image.

Photo 2: View of the paver patio and existing picnic tables at the first tee of the disc golf course.

Photo 3: View of the lawn field with the parking area in the background.

Photo 4: View of the existing timber footbridge spanning the intermittent stream facing southwest with the orange disc basket in the background. Pink flagging delineates the intermittent stream bank boundaries.

Photo 5: View of the footbridge facing northeast with the parking area in the background. The footbridge measures 10-feet long and 3-feet wide.

Photo 6: View of the WF#A and WF#B Series wetland resource area facing northwest. This section of the wetland has been maintained as mowed lawn historically.

Photo 7: View of the WF#A and WF#B Series wetland resource area facing southeast.

Photo 8: View of the WF#A and WF#B Series wetland resource within the treeline, south of the project limits.

Attachment A – Stormwater Checklist and Report

GPI

Engineering | Design | Planning | Construction Management

STORMWATER CHECKLIST AND REPORT

Clement Farm Disc Golf Course

Haverhill, Massachusetts

April 2026

Prepared By:
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Submitted To:
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Conservation Commission
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Prepared For:
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Clement Farm Disc Golf Course

Haverhill, MA

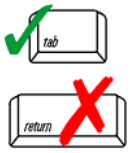
Stormwater Checklist

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

A. Introduction

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



A Stormwater Report must be submitted with the Notice of Intent permit application to document compliance with the Stormwater Management Standards. The following checklist is NOT a substitute for the Stormwater Report (which should provide more substantive and detailed information) but is offered here as a tool to help the applicant organize their Stormwater Management documentation for their Report and for the reviewer to assess this information in a consistent format. As noted in the Checklist, the Stormwater Report must contain the engineering computations and supporting information set forth in Volume 3 of the Massachusetts Stormwater Handbook. The Stormwater Report must be prepared and certified by a Registered Professional Engineer (RPE) licensed in the Commonwealth.

The Stormwater Report must include:

- The Stormwater Checklist completed and stamped by a Registered Professional Engineer (see page 2) that certifies that the Stormwater Report contains all required submittals.[1] This Checklist is to be used as the cover for the completed Stormwater Report.
- Applicant/Project Name
- Project Address
- Name of Firm and Registered Professional Engineer that prepared the Report
- Long-Term Pollution Prevention Plan required by Standards 4-6
- Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan required by Standard 8[2]
- Operation and Maintenance Plan required by Standard 9

In addition to all plans and supporting information, the Stormwater Report must include a brief narrative describing stormwater management practices, including environmentally sensitive site design and LID techniques, along with a diagram depicting runoff through the proposed BMP treatment train. Plans are required to show existing and proposed conditions, identify all wetland resource areas, NRCS soil types, critical areas, Land Uses with Higher Potential Pollutant Loads (LUHPPL), and any areas on the site where infiltration rate is greater than 2.4 inches per hour. The Plans shall identify the drainage areas for both existing and proposed conditions at a scale that enables verification of supporting calculations.

As noted in the Checklist, the Stormwater Management Report shall document compliance with each of the Stormwater Management Standards as provided in the Massachusetts Stormwater Handbook. The soils evaluation and calculations shall be done using the methodologies set forth in Volume 3 of the Massachusetts Stormwater Handbook.

To ensure that the Stormwater Report is complete, applicants are required to fill in the Stormwater Report Checklist by checking the box to indicate that the specified information has been included in the Stormwater Report. If any of the information specified in the checklist has not been submitted, the applicant must provide an explanation. The completed Stormwater Report Checklist and Certification must be submitted with the Stormwater Report.

---

[1] The Stormwater Report may also include the Illicit Discharge Compliance Statement required by Standard 10. If not included in the Stormwater Report, the Illicit Discharge Compliance Statement must be submitted prior to the discharge of stormwater runoff to the post-construction best management practices.

[2] For some complex projects, it may not be possible to include the Construction Period Erosion and Sedimentation Control Plan in the Stormwater Report. In that event, the issuing authority has the discretion to issue an Order of Conditions that approves the project and includes a condition requiring the proponent to submit the Construction Period Erosion and Sedimentation Control Plan before commencing any land disturbance activity on the site.

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands Program

Checklist for Stormwater Report

B. Stormwater Checklist and Certification

The following checklist is intended to serve as a guide for applicants as to the elements that ordinarily need to be addressed in a complete Stormwater Report. The checklist is also intended to provide conservation commissions and other reviewing authorities with a summary of the components necessary for a comprehensive Stormwater Report that addresses the ten Stormwater Standards.

Note: Because stormwater requirements vary from project to project, it is possible that a complete Stormwater Report may not include information on some of the subjects specified in the Checklist. If it is determined that a specific item does not apply to the project under review, please note that the item is not applicable (N.A.) and provide the reasons for that determination.

A complete checklist must include the Certification set forth below signed by the Registered Professional Engineer who prepared the Stormwater Report.

Registered Professional Engineer's Certification

I have reviewed the Stormwater Report, including the soil evaluation, computations, Long-term Pollution Prevention Plan, the Construction Period Erosion and Sedimentation Control Plan (if included), the Long-term Post-Construction Operation and Maintenance Plan, the Illicit Discharge Compliance Statement (if included) and the plans showing the stormwater management system, and have determined that they have been prepared in accordance with the requirements of the Stormwater Management Standards as further elaborated by the Massachusetts Stormwater Handbook. I have also determined that the information presented in the Stormwater Checklist is accurate and that the information presented in the Stormwater Report accurately reflects conditions at the site as of the date of this permit application.

Registered Professional Engineer Block and Signature

TO BE STAMPED UPON FINAL DESIGN

Signature and Date

Checklist

Project Type: Is the application for new development, redevelopment, or a mix of new and redevelopment?

☒ New development

☐ Redevelopment

☐ Mix of New Development and Redevelopment

Checklist for Stormwater Report

Checklist (continued)

LID Measures: Stormwater Standards require LID measures to be considered. Document what environmentally sensitive design and LID Techniques were considered during the planning and design of the project:

- ☐ No disturbance to any Wetland Resource Areas
- ☐ Site Design Practices (e.g. clustered development, reduced frontage setbacks)
- ☐ Reduced Impervious Area (Redevelopment Only)
- ☐ Minimizing disturbance to existing trees and shrubs
- ☐ LID Site Design Credit Requested:
  - ☐ Credit 1
  - ☐ Credit 2
  - ☐ Credit 3
- ☒ Use of “country drainage” versus curb and gutter conveyance and pipe
- ☐ Bioretention Cells (includes Rain Gardens)
- ☐ Constructed Stormwater Wetlands (includes Gravel Wetlands designs)
- ☐ Treebox Filter
- ☐ Water Quality Swale
- ☐ Grass Channel
- ☐ Green Roof
- ☐ Other (describe): _____

Standard 1: No New Untreated Discharges

- ☒ No new untreated discharges
- ☐ Outlets have been designed so there is no erosion or scour to wetlands and waters of the Commonwealth
- ☐ Supporting calculations specified in Volume 3 of the Massachusetts Stormwater Handbook included.

Checklist for Stormwater Report

Checklist (continued)

Standard 2: Peak Rate Attenuation

☐ Standard 2 waiver requested because the project is located in land subject to coastal storm flowage and stormwater discharge is to a wetland subject to coastal flooding.

☐ Evaluation provided to determine whether off-site flooding increases during the 100-year 24-hour storm.

☒ Calculations provided to show that post-development peak discharge rates do not exceed pre-development rates for the 2-year and 10-year 24-hour storms. If evaluation shows that off-site flooding increases during the 100-year 24-hour storm, calculations are also provided to show that post-development peak discharge rates do not exceed pre-development rates for the 100-year 24-hour storm.

Standard 3: Recharge

☒ Soil Analysis provided.

☒ Required Recharge Volume calculation provided.

☐ Required Recharge volume reduced through use of the LID site Design Credits.

☐ Sizing the infiltration, BMPs is based on the following method: Check the method used.

☐ Static ☐ Simple Dynamic ☐ Dynamic Field[1]

☐ Runoff from all impervious areas at the site discharging to the infiltration BMP.

☐ Runoff from all impervious areas at the site is *not* discharging to the infiltration BMP and calculations are provided showing that the drainage area contributing runoff to the infiltration BMPs is sufficient to generate the required recharge volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume.

☐ Recharge BMPs have been sized to infiltrate the Required Recharge Volume *only* to the maximum extent practicable for the following reason:

☐ Site is comprised solely of C and D soils and/or bedrock at the land surface

☐ M.G.L. c. 21E sites pursuant to 310 CMR 40.0000

☐ Solid Waste Landfill pursuant to 310 CMR 19.000

☐ Project is otherwise subject to Stormwater Management Standards only to the maximum extent practicable.

☐ Calculations showing that the infiltration BMPs will drain in 72 hours are provided.

☐ Property includes a M.G.L. c. 21E site or a solid waste landfill and a mounding analysis is included.

[1] 80% TSS removal is required prior to discharge to infiltration BMP if Dynamic Field method is used.

Checklist for Stormwater Report

Checklist (continued)

Standard 3: Recharge (continued)

☐ The infiltration BMP is used to attenuate peak flows during storms greater than or equal to the 10-year 24-hour storm and separation to seasonal high groundwater is less than 4 feet and a mounding analysis is provided.

☐ Documentation is provided showing that infiltration BMPs do not adversely impact nearby wetland resource areas.

Standard 4: Water Quality

The Long-Term Pollution Prevention Plan typically includes the following:

- Good housekeeping practices;
- Provisions for storing materials and waste products inside or under cover;
- Vehicle washing controls;
- Requirements for routine inspections and maintenance of stormwater BMPs;
- Spill prevention and response plans;
- Provisions for maintenance of lawns, gardens, and other landscaped areas;
- Requirements for storage and use of fertilizers, herbicides, and pesticides;
- Pet waste management provisions;
- Provisions for operation and management of septic systems;
- Provisions for solid waste management;
- Snow disposal and plowing plans relative to Wetland Resource Areas;
- Winter Road Salt and/or Sand Use and Storage restrictions;
- Street sweeping schedules;
- Provisions for prevention of illicit discharges to the stormwater management system;
- Documentation that Stormwater BMPs are designed to provide for shutdown and containment in the event of a spill or discharges to or near critical areas or from LUHPPL;
- Training for staff or personnel involved with implementing Long-Term Pollution Prevention Plan;
- List of Emergency contacts for implementing Long-Term Pollution Prevention Plan.

☒ A Long-Term Pollution Prevention Plan is attached to Stormwater Report and is included as an attachment to the Wetlands Notice of Intent.

☐ Treatment BMPs subject to the 44% TSS removal pretreatment requirement and the one inch rule for calculating the water quality volume are included, and discharge:

- ☐ is within the Zone II or Interim Wellhead Protection Area
- ☐ is near or to other critical areas
- ☐ is within soils with a rapid infiltration rate (greater than 2.4 inches per hour)
- ☐ involves runoff from land uses with higher potential pollutant loads.

☐ The Required Water Quality Volume is reduced through use of the LID site Design Credits.

☐ Calculations documenting that the treatment train meets the 80% TSS removal requirement and, if applicable, the 44% TSS removal pretreatment requirement, are provided.

Checklist for Stormwater Report

Checklist (continued)

Standard 4: Water Quality (continued)

☐ The BMP is sized (and calculations provided) based on:

- ☐ The ½" or 1" Water Quality Volume or
- ☐ The equivalent flow rate associated with the Water Quality Volume and documentation is provided showing that the BMP treats the required water quality volume.

☐ The applicant proposes to use proprietary BMPs, and documentation supporting use of proprietary BMP and proposed TSS removal rate is provided. This documentation may be in the form of the propriety BMP checklist found in Volume 2, Chapter 4 of the Massachusetts Stormwater Handbook and submitting copies of the TARP Report, STEP Report, and/or other third party studies verifying performance of the proprietary BMPs.

☐ A TMDL exists that indicates a need to reduce pollutants other than TSS and documentation showing that the BMPs selected are consistent with the TMDL is provided.

Standard 5: Land Uses With Higher Potential Pollutant Loads (LUHPPLs)

☐ The NPDES Multi-Sector General Permit covers the land use and the Stormwater Pollution Prevention Plan (SWPPP) has been included with the Stormwater Report.

☐ The NPDES Multi-Sector General Permit covers the land use and the SWPPP will be submitted ***prior to*** the discharge of stormwater to the post-construction stormwater BMPs.

☐ The NPDES Multi-Sector General Permit does ***not*** cover the land use.

☐ LUHPPLs are located at the site and industry specific source control and pollution prevention measures have been proposed to reduce or eliminate the exposure of LUHPPLs to rain, snow, snow melt and runoff, and been included in the long term Pollution Prevention Plan.

☐ All exposure has been eliminated.

☐ All exposure has ***not*** been eliminated and all BMPs selected are on MassDEP LUHPPL list.

☐ The LUHPPL has the potential to generate runoff with moderate to higher concentrations of oil and grease (e.g. all parking lots with >1000 vehicle trips per day) and the treatment train includes an oil grit separator, a filtering bioretention area, a sand filter or equivalent.

Standard 6: Critical Areas

☐ The discharge is near or to a critical area and the treatment train includes only BMPs that MassDEP has approved for stormwater discharges to or near that particular class of critical area.

☐ Critical areas and BMPs are identified in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 7: Redevelopments and Other Projects Subject to the Standards only to the maximum extent practicable

☐ The project is subject to the Stormwater Management Standards only to the maximum Extent Practicable as a:

- ☐ Limited Project
- ☐ Small Residential Projects: 5-9 single family houses or 5-9 units in a multi-family development provided there is no discharge that may potentially affect a critical area.
- ☐ Small Residential Projects: 2-4 single family houses or 2-4 units in a multi-family development with a discharge to a critical area
- ☐ Marina and/or boatyard provided the hull painting, service and maintenance areas are protected from exposure to rain, snow, snow melt and runoff
- ☐ Bike Path and/or Foot Path
- ☐ Redevelopment Project
- ☐ Redevelopment portion of mix of new and redevelopment.

☐ Certain standards are not fully met (Standard No. 1, 8, 9, and 10 must always be fully met) and an explanation of why these standards are not met is contained in the Stormwater Report.

☐ The project involves redevelopment and a description of all measures that have been taken to improve existing conditions is provided in the Stormwater Report. The redevelopment checklist found in Volume 2 Chapter 3 of the Massachusetts Stormwater Handbook may be used to document that the proposed stormwater management system (a) complies with Standards 2, 3 and the pretreatment and structural BMP requirements of Standards 4-6 to the maximum extent practicable and (b) improves existing conditions.

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control

A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan must include the following information:

- Narrative;
- Construction Period Operation and Maintenance Plan;
- Names of Persons or Entity Responsible for Plan Compliance;
- Construction Period Pollution Prevention Measures;
- Erosion and Sedimentation Control Plan Drawings;
- Detail drawings and specifications for erosion control BMPs, including sizing calculations;
- Vegetation Planning;
- Site Development Plan;
- Construction Sequencing Plan;
- Sequencing of Erosion and Sedimentation Controls;
- Operation and Maintenance of Erosion and Sedimentation Controls;
- Inspection Schedule;
- Maintenance Schedule;
- Inspection and Maintenance Log Form.

☐ A Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan containing the information set forth above has been included in the Stormwater Report.

Checklist for Stormwater Report

Checklist (continued)

Standard 8: Construction Period Pollution Prevention and Erosion and Sedimentation Control (continued)

☐ The project is highly complex and information is included in the Stormwater Report that explains why it is not possible to submit the Construction Period Pollution Prevention and Erosion and Sedimentation Control Plan with the application. A Construction Period Pollution Prevention and Erosion and Sedimentation Control has ***not*** been included in the Stormwater Report but will be submitted ***before*** land disturbance begins.

☐ The project is ***not*** covered by a NPDES Construction General Permit.

☐ The project is covered by a NPDES Construction General Permit and a copy of the SWPPP is in the Stormwater Report.

☒ The project is covered by a NPDES Construction General Permit but no SWPPP been submitted. The SWPPP will be submitted BEFORE land disturbance begins.

Standard 9: Operation and Maintenance Plan

☒ The Post Construction Operation and Maintenance Plan is included in the Stormwater Report and includes the following information:

- ☒ Name of the stormwater management system owners;
- ☒ Party responsible for operation and maintenance;
- ☒ Schedule for implementation of routine and non-routine maintenance tasks;
- ☐ Plan showing the location of all stormwater BMPs maintenance access areas;
- ☐ Description and delineation of public safety features;
- ☐ Estimated operation and maintenance budget; and
- ☐ Operation and Maintenance Log Form.

☐ The responsible party is ***not*** the owner of the parcel where the BMP is located and the Stormwater Report includes the following submissions:

- ☐ A copy of the legal instrument (deed, homeowner's association, utility trust or other legal entity) that establishes the terms of and legal responsibility for the operation and maintenance of the project site stormwater BMPs;
- ☐ A plan and easement deed that allows site access for the legal entity to operate and maintain BMP functions.

Standard 10: Prohibition of Illicit Discharges

☐ The Long-Term Pollution Prevention Plan includes measures to prevent illicit discharges;

☒ An Illicit Discharge Compliance Statement is attached;

☐ NO Illicit Discharge Compliance Statement is attached but will be submitted ***prior to*** the discharge of any stormwater to post-construction BMPs.

Stormwater Report Narrative

Stormwater Narrative

On behalf of the City of Haverhill, Greenman-Pedersen, Inc., (GPI) proposes improvements to accessibility, safety, and amenities at Clement Farm in the City of Haverhill, Massachusetts (the project).

This project is being funded by the Parkland Acquisitions and Renovations for Communities (PARC) Grant Program, established to assist cities and towns in acquiring and developing land for park and outdoor recreation purposes.

Clement Farm Conservation Area is a 53-acre public open space located at 1314 Main Street in the northern part of Haverhill, MA. The property includes approximately 40 acres of upland forest, an open field near Route 121, five ball fields, and a paved car parking lot adjacent to the American Legion Post #4 building. It also houses the Clement Farm Disc Golf Course, which is a volunteer-built and maintained course. The disc golf was once forestry skidder trails created as part of a Forest Cutting Plan implemented by the City in 2013.

In its existing condition, a “Seasonal Parking” sign is located at the entrance of the Clement Farm disc golf course, but is obscured by overgrown vegetation. Along Main Street, the entrance to the park is located approximately 140 linear feet north of the 1270 Main Street property.

The parking area is made up of dirt and lawn and does not provide marked or designated parking spaces. Picnic tables, a paver patio, and a disc golf map are located directly north of the parking area along the roadway and separated by a stone wall. There are no walkways or toilet facilities located at this location within the project limits. The field is maintained lawn and does not provide food sources or habitat for pollinators. The field is surrounded by woodlands and wetlands. A footbridge over a small intermittent stream is provided at the woodland edge to the west and used by both hikers and disc golfers.

The project proposes to enhance recreational opportunities for visitors of Clement Farm in addition to creating environmentally conscious elements that improve the overall aesthetic and ecological function to the park.

Proposed improvements include formalizing the existing unpaved parking area through construction of a new gravel parking lot that can accommodate up to 47 vehicles. Of the 47 parking spaces, two will be designated Americans with Disabilities Act (ADA) / Architectural Access Borad (AAB) accessible and will be built on cement concrete pads. A grass area is proposed for overflow parking to accommodate up to 14 vehicles. All areas previously degraded by the existing parking that are no longer utilized will be seeded with a native grass mix.

Other improvements include regrading and resurfacing existing walking paths through the installation of stone dust. The project does not propose to construct paths with asphalt or concrete surfaces.

The project also proposes installing a new park entry sign, four new interpretive signs, and six new picnic tables. Of the six new picnic tables, one will be ADA/AAB accessible with a concrete pad. A new accessible disc golf basket and practice area will be installed adjacent to the parking area as well as a new compostable toilet facility.

Vegetation management, including removal of dead trees and tree trimming / pruning, will be conducted along the Main Street Right of Way to remove overgrowth. Six trees on the park property and along the Main Street ROW are proposed to be removed. Eight trees are proposed to be planted along the parking area to provide aesthetic value and shade.

The project also proposes to create a pollinator habitat meadow along the walking path in open areas of existing mowed field. This will transform a lawn with no ecological value to a thriving ecosystem for pollinating insects and mammals. A pollinator habitat will provide a food source to the local wildlife and improve the visual aesthetic of the park.

A portion of the stone walls on either side of the existing driveway entrance and exit will be removed to facilitate the two new driveway entrances and exits. The project proposes to construct a new section of stone wall that separates both driveways. The new park entry sign will be installed in front of the new stone wall.

The Project proposes two stormwater control measures (SCMs). There will be a vegetated swale north of the footbridge and adjacent to the stone dust path. There will also be an infiltration trench with a level spreader to the south of the footbridge and adjacent to the stone dust path. Runoff will be directed to these SCMs through sheet flow. No closed drainage infrastructure is proposed as part of this project.

Finally, the project proposes to replace the existing 10-foot by 3-foot timber footbridge that spans the intermittent stream at the project's southwestern most limit. The replacement 12-foot by 6-foot footbridge will meet the Massachusetts Stream Crossing Standards to the maximum extent practicable.

Land uses adjacent to the project limits include wetlands / waterways located directly adjacent to the project limits associated with two Bordering Vegetated Wetlands and an unnamed intermittent stream located to the north and west, commercial land uses such as the Stateline Plaza which includes a grocery, retail, pet store and pharmacy as well as other commercial businesses are located to the east, and residential properties located to the south.

A summary of the project's compliance with the Massachusetts Stormwater Standards is provided below.

***Standard 1:* No new stormwater conveyances (e.g. outfalls) may discharge untreated stormwater directly to or cause erosion in wetlands or waters of the Commonwealth.**

The project does not propose to construct any new outfalls or conveyances that will discharge stormwater directly to or cause erosion in wetlands or waters of the Commonwealth. Runoff from the parking area and paths will be directed to vegetated swales or infiltration trenches that are intended to promote infiltration. The project meets **Standard 1**.

***Standard 2:* Stormwater management systems shall be designed so that post-development peak discharge rates do not exceed pre-development peak discharge rates. This Standard may be waived for discharges to land subject to coastal storm flowage as defined in 310 CMR 10.04.**

The construction of the gravel parking lot will result in an increase in peak discharge rate between the pre-development (existing) and post-development (proposed) conditions. The peak discharge rates were calculated from a HydroCAD model using NOAA Atlas 14 rainfall data (see Appendix

A for HydroCAD model)**. Table 1** shows peak discharge rates for the existing and proposed conditions in different storm scenarios. It also compares the net change between the proposed peak discharge rates and existing post discharge rates. A vegetated swale and an infiltration trench are proposed adjacent to the stone dust walking path. These stormwater control measures (SCMs) are intended to reduce proposed peak discharge rates so that they do not exceed existing peak discharge rates. The project will meet **Standard 2**.

Table 1. Existing Peak Discharge Rates Versus Proposed Peak Discharge Rates (not including the implementation of SCMs)

	Existing			Proposed			Net Change		
Sub-catchment	2-year	10-year	100-year	2-year	10-year	100-year	2-year	10-year	100-year
1	0.76 cfs	2.74 cfs	6.70 cfs	2.56 cfs	5.31 cfs	9.86 cfs	1.80 cfs	2.57 cfs	3.16 cfs

***Standard 3:* Loss of annual recharge to groundwater shall be eliminated or minimized through the use of infiltration measures including environmentally sensitive site design, low impact development techniques, stormwater best management practices, and good operation and maintenance. At a minimum, the annual recharge from the post-development site shall approximate the annual recharge from pre-development conditions based on soil type. This Standard is met when the stormwater management system is designed to infiltrate the required recharge volume as determined in accordance with the Massachusetts Stormwater Handbook.**

There is an increase in impervious surface in the proposed condition. The required recharge volume to match pre-development conditions is 988 cubic feet and outlined in **Table 2** below (see Appendix B for full calculation). The infiltration trench and vegetated swale adjacent to the stone dust path will allow runoff to infiltrate into the ground and will meet the required recharge volume. The Project will meet **Standard 3**.

Table 2. Required Recharge Volume

	HSG A	HSG B	HSG C	HSG D	TOTAL
Existing Impervious Area (sf)	4,108	0	2,679	0	6,787
Proposed Impervious Area (sf)	22,598	0	5,686	0	28,284
New Impervious Area (sf)	18,490	0	3,007	0	21,497
Target Depth, F (in)	0.60	0.35	0.25	0.10	-
Required Recharge Volume, Rev (cf)	925	0	63	0	988

Standard 4: ***Stormwater management systems shall be designed to remove 80% of the average annual post-construction load of Total Suspended Solids (TSS). This Standard is met when:***

- ***a) Suitable practices for source control and pollution prevention are identified in a long-term pollution prevention plan, and thereafter are implemented and maintained;***
- ***b) Structural stormwater best management practices are sized to capture the required water quality volume determined in accordance with the Massachusetts Stormwater Handbook; and***
- ***c) Pretreatment is provided in accordance with the Massachusetts Stormwater Handbook.***

The project proposes an increase in impervious surface. The required water quality volume is 1,791 cf (see Appendix B for full calculation). There are two proposed SCMs, a vegetated swale and infiltration trench, that will treat the required water quality volume. The Project will meet **Standard 4**.

Standard 5: ***For land uses with higher potential pollutant loads, source control and pollution prevention shall be implemented in accordance with the Massachusetts Stormwater Handbook to eliminate or reduce the discharge of stormwater runoff from such land uses to the maximum extent practicable. If through source control and/or pollution prevention all land uses with higher potential pollutant loads cannot be completely protected from exposure to rain, snow, snow melt, and stormwater runoff, the proponent shall use the specific structural stormwater BMPs determined by the Department to be suitable for such uses as provided in the Massachusetts Stormwater Handbook. Stormwater discharges from land uses with higher potential pollutant loads shall also comply with the requirements of the Massachusetts Clean Waters Act, M.G.L. c. 21, §§ 26-53 and the regulations promulgated thereunder at 314 CMR 3.00, 314 CMR 4.00 and 314 CMR 5.00.***

The project is not located within land uses with higher potential pollutant loads and therefore **Standard 5** is not applicable.

Standard 6: ***Stormwater discharges within the Zone II or Interim Wellhead Protection Area of a public water supply, and stormwater discharges near or to any other critical area, require the use of the specific source control and pollution prevention measures and the specific structural stormwater best management practices determined by the Department to be suitable for managing discharges to such areas, as provided in the Massachusetts Stormwater Handbook. A discharge is near a critical area if there is a strong likelihood of a significant impact occurring to said area, taking into account site-specific factors. Stormwater discharges to Outstanding Resource Waters and Special Resource Waters shall be removed and set back from the receiving water or wetland and receive the highest and best practical method of treatment. A "storm water discharge" as defined in 314 CMR 3.04(2)(a)1 or (b) to an Outstanding Resource Water or Special Resource Water shall comply with 314 CMR 3.00 and 314 CMR 4.00. Stormwater discharges to a Zone I or Zone A are prohibited unless essential to the operation of a public water supply.***

The project is not located within any stormwater critical areas, and therefore **Standard 6** is not applicable.

Standard 7: ***A redevelopment project is required to meet the following Stormwater Management Standards only to the maximum extent practicable: Standard 2, Standard 3, and the pretreatment and structural best management practice requirements of Standards 4, 5, and 6. Existing stormwater discharges shall comply with Standard 1 only to the maximum extent practicable. A redevelopment project shall also comply with all other requirements of the Stormwater Management Standards and improve existing conditions.***

The Project is considered a new development project, and therefore **Standard 7** is not applicable.

Standard 8: ***A plan to control construction-related impacts including erosion, sedimentation and other pollutant sources during construction and land disturbance activities (construction period erosion, sedimentation, and pollution prevention plan) shall be developed and implemented.***

Erosion and sedimentation controls will be installed and maintained within 100-feet of wetland resource areas, and provide a limit of work barrier while preventing silt and sediments from migrating towards the wetland resource areas. Inspectors will assess conditions and identify problems in the field during and after construction activities.

Erosion controls shall consist of compost filter tubes. No hay bales shall be used at any time on this project. The erosion and sedimentation control measures will be constructed in accordance with the Massachusetts Erosion and Sediment Control Guidelines for Urban and Suburban Areas, March 1997 and the U.S.D.A. SCS's Erosion and Sediment Control in the Site Development, Massachusetts Conservation Guide, September – 1983. Best management practices for erosion and sedimentation control will be adhered to for all phases of construction to minimize potential impacts to wetland resource areas and wildlife habitat. The project meets **Standard 8**.

Standard 9: ***A long-term operation and maintenance plan shall be developed and implemented to ensure that stormwater management systems function as designed.***

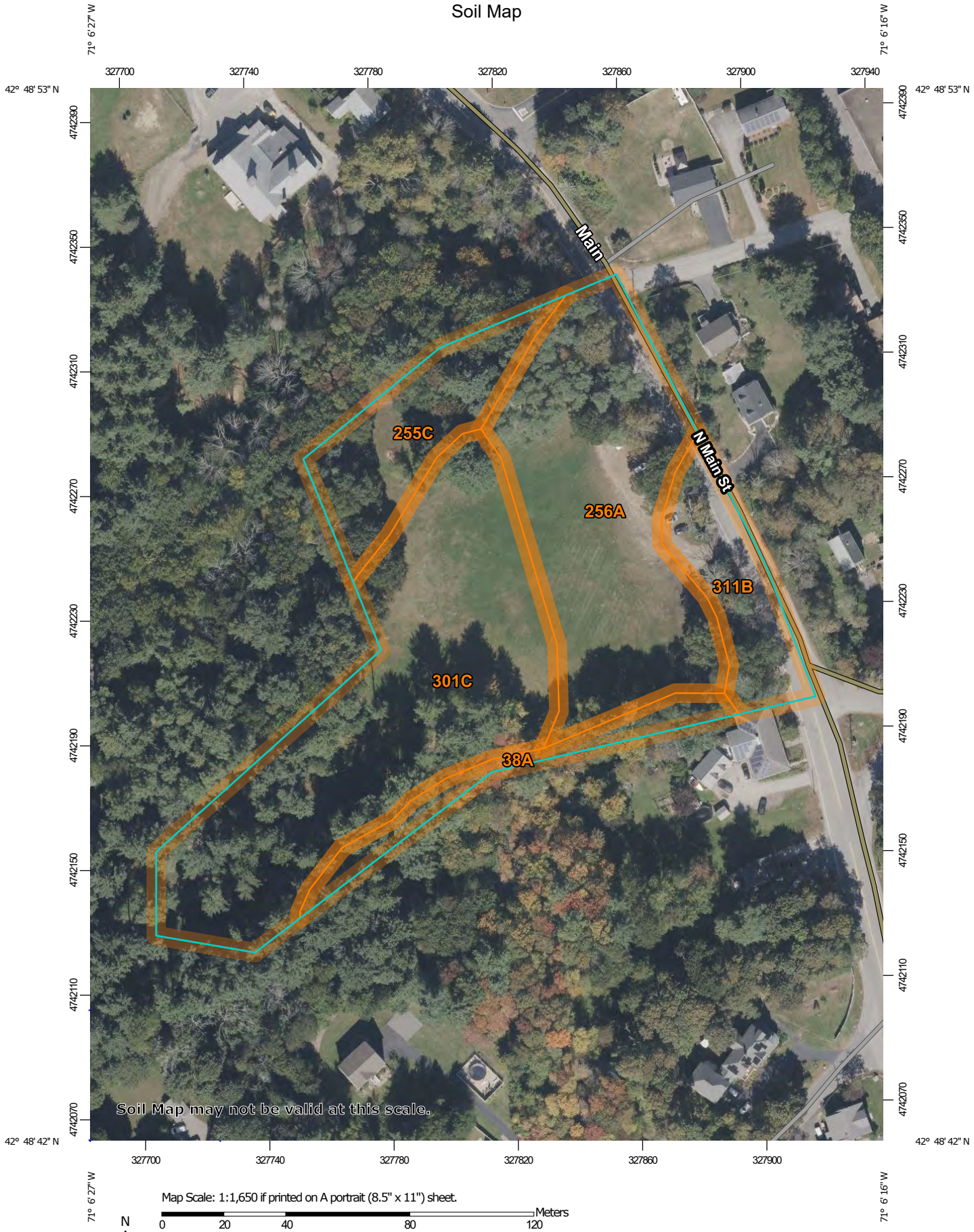
An Operation and Maintenance Plan and the Long Term Pollution Prevention Plan were developed to manage and maintain the SCMS proposed on site. See Appendix C for plan. The project meets **Standard 9**.

Standard 10: ***All illicit discharges to the stormwater management system are prohibited.***

The project area does not have any known illicit connections and does not have a stormwater management system in place. Any illicit connections to the stormwater management system found in the project limit of work during construction will be removed and/or resolved in accordance with The City of Haverhill's MS4 Permit. An Illicit Discharge Statement is provided in Appendix D. The project meets **Standard 10**.

Figure 1 – NRCS Soil Map

Custom Soil Resource Report
Soil Map



Map Scale: 1:1,650 if printed on A portrait (8.5" x 11") sheet.

N

Meters
0 20 40 80 120

Feet
0 50 100 200 300

Map projection: Web Mercator Corner coordinates: WGS84 Edge tics: UTM Zone 19N WGS84

MAP LEGEND

Area of Interest (AOI)
- Area of Interest (AOI)

Soils
- Soil Map Unit Polygons
- Soil Map Unit Lines
- Soil Map Unit Points

Special Point Features
- Blowout
- Borrow Pit
- Clay Spot
- Closed Depression
- Gravel Pit
- Gravelly Spot
- Landfill
- Lava Flow
- Marsh or swamp
- Mine or Quarry
- Miscellaneous Water
- Perennial Water
- Rock Outcrop
- Saline Spot
- Sandy Spot
- Severely Eroded Spot
- Sinkhole
- Slide or Slip
- Sodic Spot
- Spoil Area
- Stony Spot
- Very Stony Spot
- Wet Spot
- Other
- Special Line Features

Water Features
- Streams and Canals

Transportation
- Rails
- Interstate Highways
- US Routes
- Major Roads
- Local Roads

Background
- Aerial Photography

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Essex County, Massachusetts, Northern Part
Survey Area Data: Version 21, Sep 5, 2025

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Mar 1, 2023—Sep 1, 2023

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
38A	Pipestone loamy sand, 0 to 3 percent slopes	0.3	5.3%
255C	Windsor loamy sand, 8 to 15 percent slopes	0.6	11.7%
256A	Deerfield loamy fine sand, 0 to 3 percent slopes	1.7	31.9%
301C	Montauk fine sandy loam, 8 to 15 percent slopes, very stony	2.2	42.1%
311B	Woodbridge fine sandy loam, 0 to 8 percent slopes, very stony	0.5	9.0%
Totals for Area of Interest		**5.3**	**100.0%**

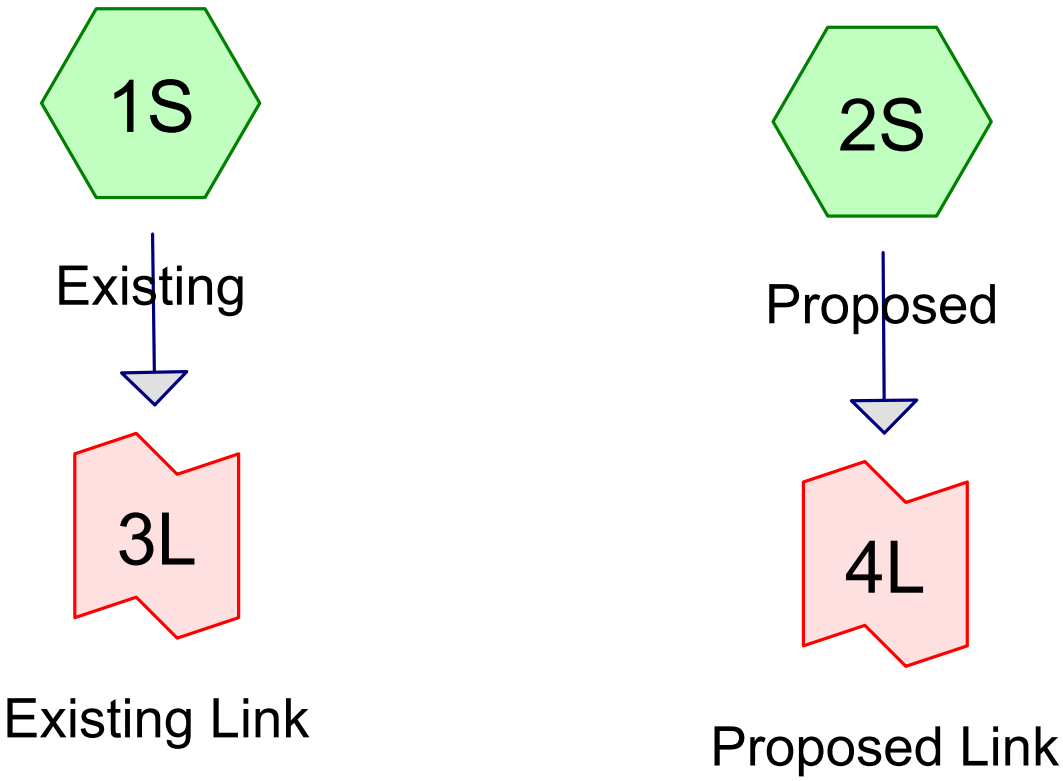
Map Unit Descriptions

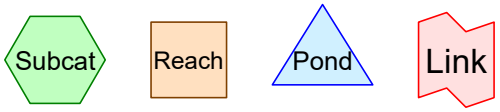
The map units delineated on the detailed soil maps in a soil survey represent the soils or miscellaneous areas in the survey area. The map unit descriptions, along with the maps, can be used to determine the composition and properties of a unit.

A map unit delineation on a soil map represents an area dominated by one or more major kinds of soil or miscellaneous areas. A map unit is identified and named according to the taxonomic classification of the dominant soils. Within a taxonomic class there are precisely defined limits for the properties of the soils. On the landscape, however, the soils are natural phenomena, and they have the characteristic variability of all natural phenomena. Thus, the range of some observed properties may extend beyond the limits defined for a taxonomic class. Areas of soils of a single taxonomic class rarely, if ever, can be mapped without including areas of other taxonomic classes. Consequently, every map unit is made up of the soils or miscellaneous areas for which it is named and some minor components that belong to taxonomic classes other than those of the major soils.

Most minor soils have properties similar to those of the dominant soil or soils in the map unit, and thus they do not affect use and management. These are called noncontrasting, or similar, components. They may or may not be mentioned in a particular map unit description. Other minor components, however, have properties and behavioral characteristics divergent enough to affect use or to require different management. These are called contrasting, or dissimilar, components. They generally are in small areas and could not be mapped separately because of the scale used. Some small areas of strongly contrasting soils or miscellaneous areas are identified by a special symbol on the maps. If included in the database for a given area, the contrasting minor components are identified in the map unit descriptions along with some characteristics of each. A few areas of minor components may not have been observed, and consequently they are not mentioned in the descriptions, especially where the pattern was so complex that it

Appendix A – HydroCAD Model





Routing Diagram for Clement Farm Disc Golf Model
Prepared by Greenman-Pedersen, Inc, Printed 4/29/2026

Project Notes

Rainfall events imported from "NRCS2-Rain.txt" for 441 MA Haverhill Essex Co
Rainfall events imported from "NRCS2-Rain.txt" for 441 MA Haverhill Essex Co

Rainfall Events Listing (selected events)

Event#	Event Name	Storm Type	Curve	Mode	Duration (hours)	B/B	Depth (inches)	AMC
1	2-Year	NOAA10 24-hr	D	Default	24.00	1	3.24	2
2	10-Year	NOAA10 24-hr	D	Default	24.00	1	5.12	2
3	100-Year	NOAA10 24-hr	D	Default	24.00	1	8.11	2

Area Listing (selected nodes)

Area (acres)	CN	Description (subcatchment-numbers)
1.110	49	50-75% Grass cover, Fair, HSG A (1S, 2S)
0.448	79	50-75% Grass cover, Fair, HSG C (1S, 2S)
0.018	77	Fallow, bare soil, HSG A (1S)
0.130	96	Gravel surface, HSG A (2S)
0.064	96	Gravel surface, HSG C (2S)
0.483	98	Paved parking, HSG A (1S, 2S)
0.128	98	Paved parking, HSG C (1S, 2S)
0.010	98	Water Surface, HSG C (1S, 2S)
0.140	76	Woods/grass comb., Fair, HSG C (1S)
2.531	**72**	**TOTAL AREA**

Soil Listing (selected nodes)

Area (acres)	Soil Group	Subcatchment Numbers
1.741	HSG A	1S, 2S
0.000	HSG B	
0.790	HSG C	1S, 2S
0.000	HSG D	
0.000	Other	
2.531		**TOTAL AREA**

Ground Covers (selected nodes)

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
1.110	0.000	0.448	0.000	0.000	1.559	50-75% Grass cover, Fair	1S, 2S
0.018	0.000	0.000	0.000	0.000	0.018	Fallow, bare soil	1S
0.130	0.000	0.064	0.000	0.000	0.194	Gravel surface	2S
0.483	0.000	0.128	0.000	0.000	0.611	Paved parking	1S, 2S
0.000	0.000	0.010	0.000	0.000	0.010	Water Surface	1S, 2S
0.000	0.000	0.140	0.000	0.000	0.140	Woods/grass comb., Fair	1S
1.741	**0.000**	**0.790**	**0.000**	**0.000**	**2.531**	**TOTAL AREA**	

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=55,127 sf 12.70% Impervious Runoff Depth>0.45"
Tc=0.0 min CN=63 Runoff=0.76 cfs 0.047 af

Subcatchment2S: Proposed Runoff Area=55,126 sf 36.37% Impervious Runoff Depth>1.27"
Tc=0.0 min CN=80 Runoff=2.56 cfs 0.134 af

Link 3L: Existing Link Inflow=0.76 cfs 0.047 af
Primary=0.76 cfs 0.047 af

Link 4L: Proposed Link Inflow=2.56 cfs 0.134 af
Primary=2.56 cfs 0.134 af

Total Runoff Area = 2.531 ac Runoff Volume = 0.181 af Average Runoff Depth = 0.86"
75.47% Pervious = 1.910 ac 24.53% Impervious = 0.621 ac

Summary for Subcatchment 1S: Existing

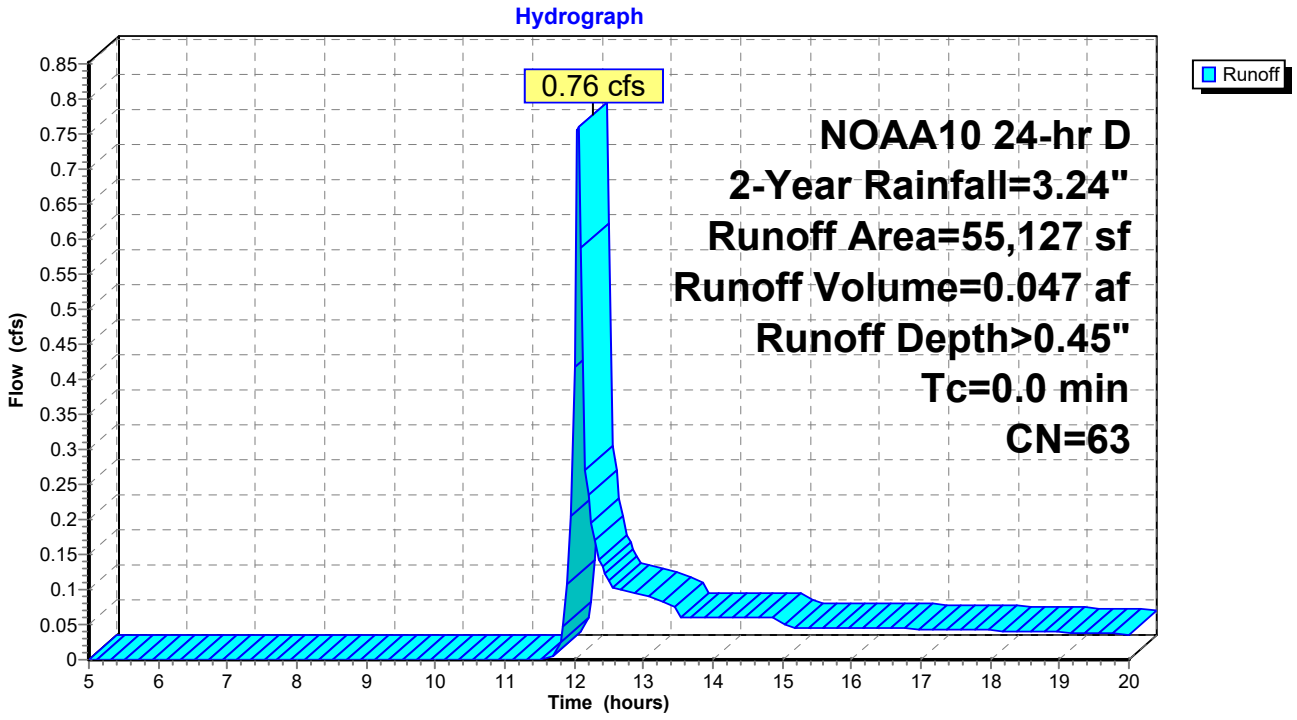
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 0.76 cfs @ 12.06 hrs, Volume= 0.047 af, Depth> 0.45"
Routed to Link 3L : Existing Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 2-Year Rainfall=3.24"

Area (sf)	CN	Description
33,048	49	50-75% Grass cover, Fair, HSG A
8,224	79	50-75% Grass cover, Fair, HSG C
4,108	98	Paved parking, HSG A
2,679	98	Paved parking, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
763	77	Fallow, bare soil, HSG A
0	91	Fallow, bare soil, HSG C
0	43	Woods/grass comb., Fair, HSG A
6,093	76	Woods/grass comb., Fair, HSG C
55,127	63	Weighted Average
48,128		87.30% Pervious Area
6,999		12.70% Impervious Area

Subcatchment 1S: Existing



Summary for Subcatchment 2S: Proposed

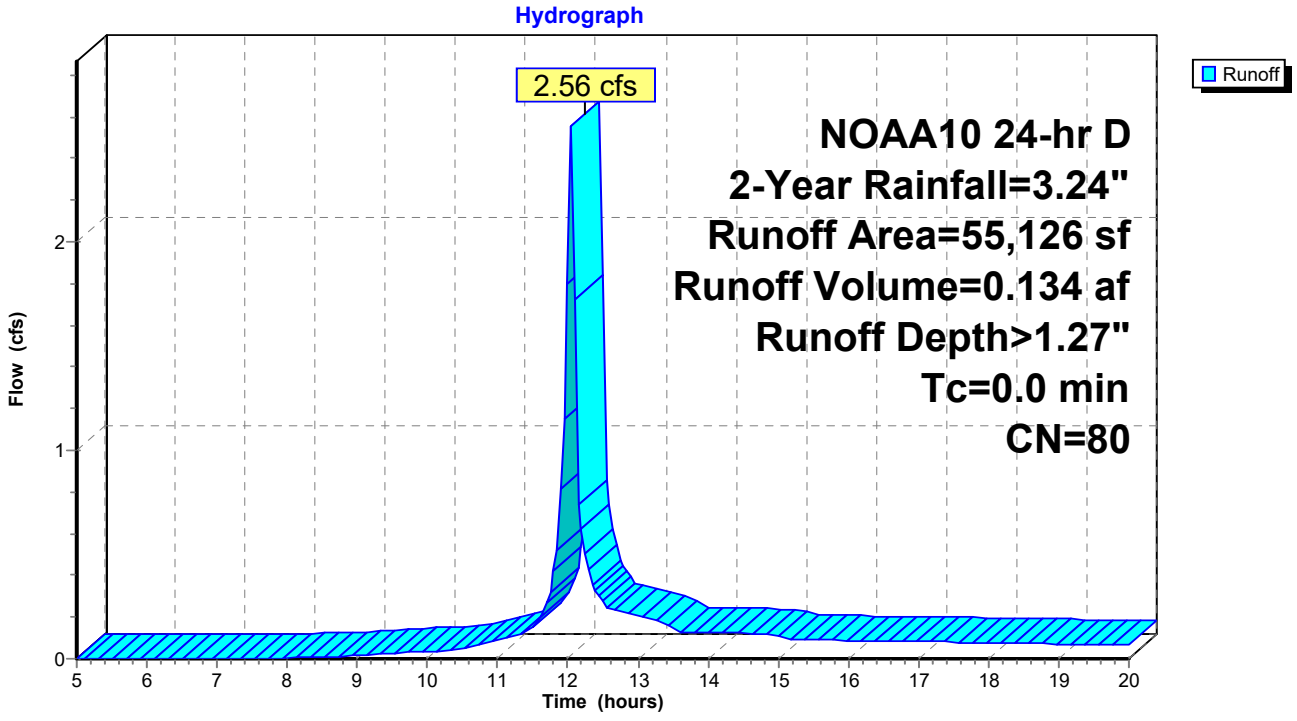
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 2.56 cfs @ 12.05 hrs, Volume= 0.134 af, Depth> 1.27"
Routed to Link 4L : Proposed Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 2-Year Rainfall=3.24"

Area (sf)	CN	Description
15,320	49	50-75% Grass cover, Fair, HSG A
11,310	79	50-75% Grass cover, Fair, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
16,919	98	Paved parking, HSG A
2,916	98	Paved parking, HSG C
5,679	96	Gravel surface, HSG A
2,770	96	Gravel surface, HSG C
55,126	80	Weighted Average
35,079		63.63% Pervious Area
20,047		36.37% Impervious Area

Subcatchment 2S: Proposed

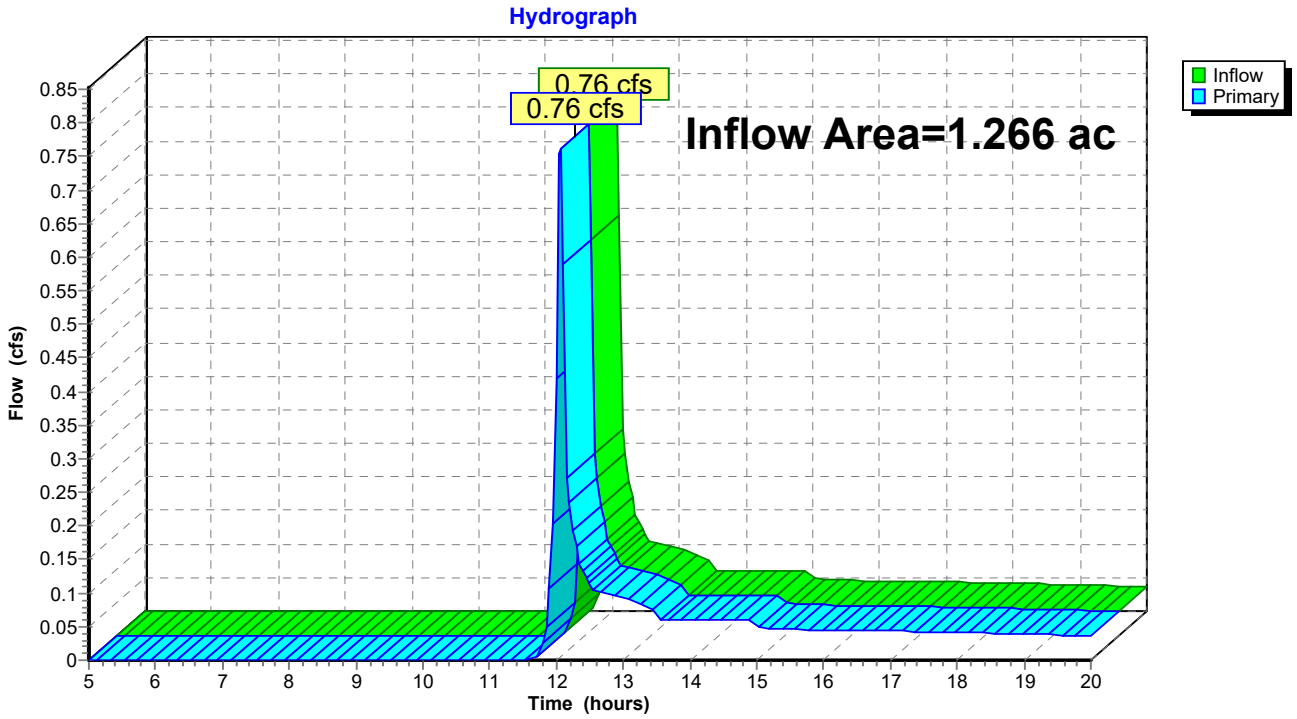


Summary for Link 3L: Existing Link

Inflow Area = 1.266 ac, 12.70% Impervious, Inflow Depth > 0.45" for 2-Year event
Inflow = 0.76 cfs @ 12.06 hrs, Volume= 0.047 af
Primary = 0.76 cfs @ 12.06 hrs, Volume= 0.047 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 3L: Existing Link

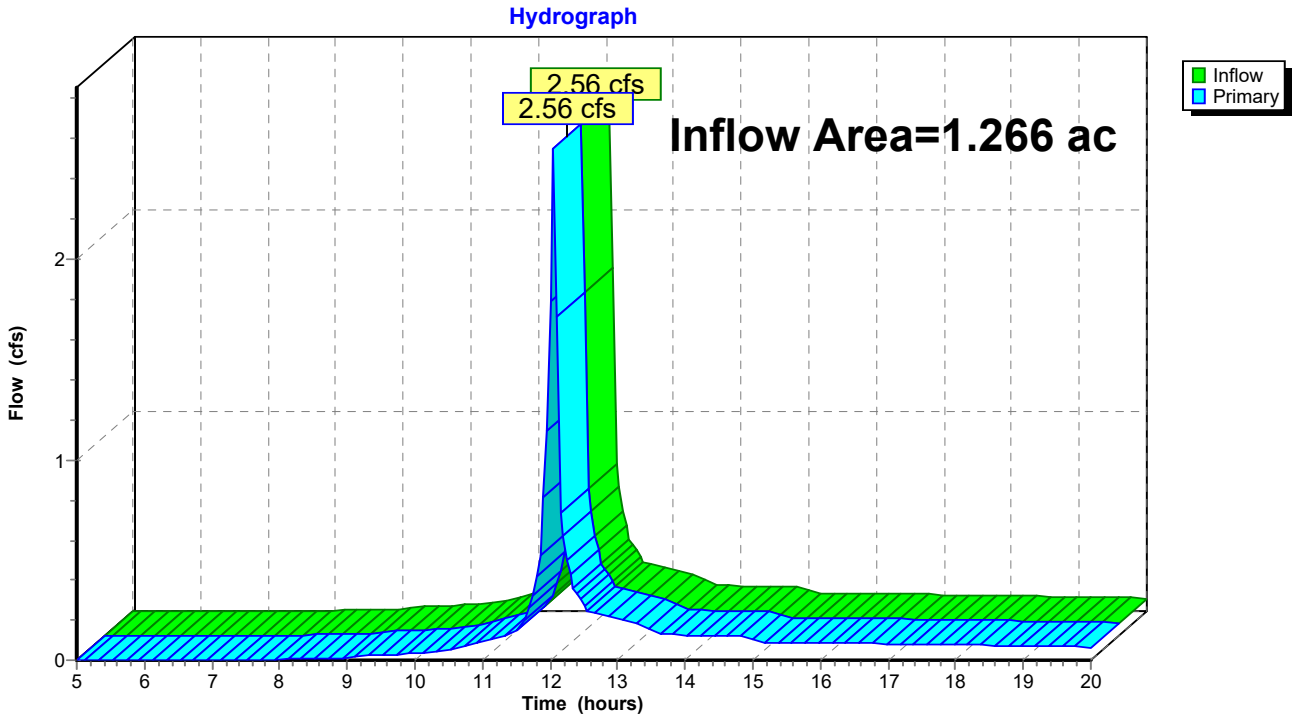


Summary for Link 4L: Proposed Link

Inflow Area = 1.266 ac, 36.37% Impervious, Inflow Depth > 1.27" for 2-Year event
Inflow = 2.56 cfs @ 12.05 hrs, Volume= 0.134 af
Primary = 2.56 cfs @ 12.05 hrs, Volume= 0.134 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 4L: Proposed Link



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=55,127 sf 12.70% Impervious Runoff Depth>1.38"
Tc=0.0 min CN=63 Runoff=2.74 cfs 0.145 af

Subcatchment2S: Proposed Runoff Area=55,126 sf 36.37% Impervious Runoff Depth>2.71"
Tc=0.0 min CN=80 Runoff=5.31 cfs 0.286 af

Link 3L: Existing Link Inflow=2.74 cfs 0.145 af
Primary=2.74 cfs 0.145 af

Link 4L: Proposed Link Inflow=5.31 cfs 0.286 af
Primary=5.31 cfs 0.286 af

Total Runoff Area = 2.531 ac Runoff Volume = 0.431 af Average Runoff Depth = 2.04"
75.47% Pervious = 1.910 ac 24.53% Impervious = 0.621 ac

Summary for Subcatchment 1S: Existing

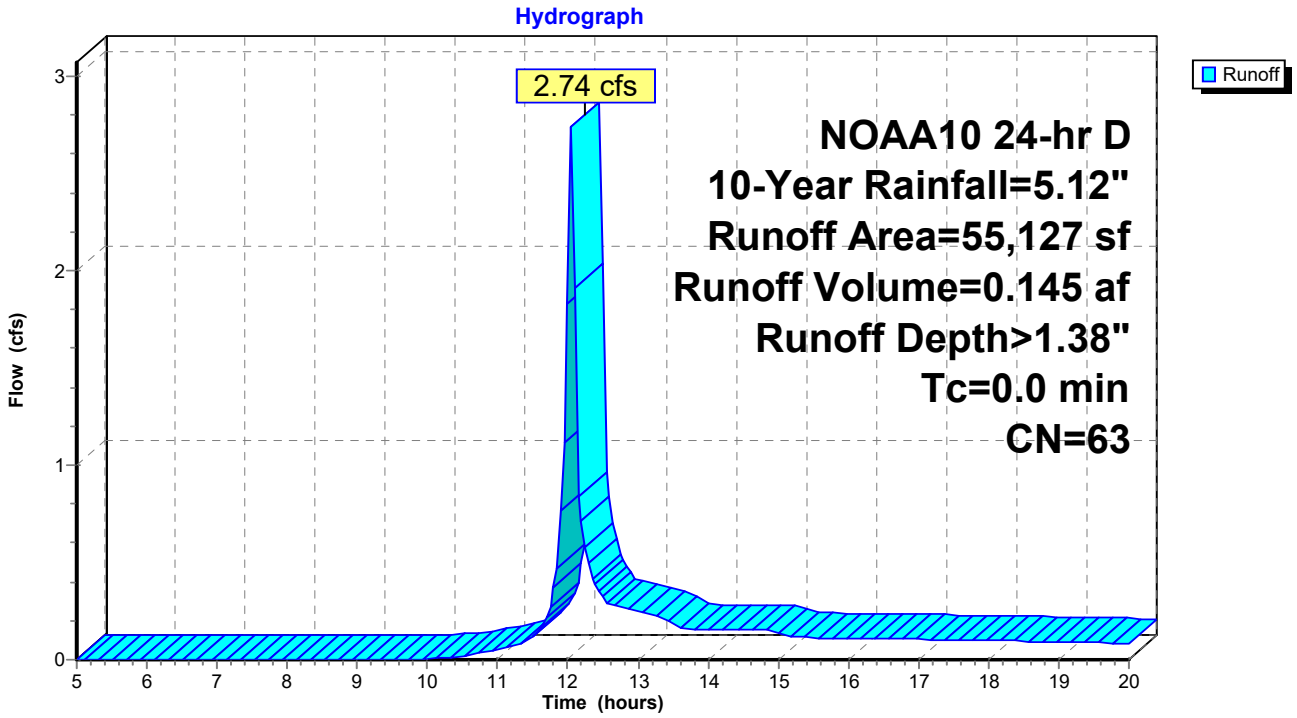
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 2.74 cfs @ 12.05 hrs, Volume= 0.145 af, Depth> 1.38"
Routed to Link 3L : Existing Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 10-Year Rainfall=5.12"

Area (sf)	CN	Description
33,048	49	50-75% Grass cover, Fair, HSG A
8,224	79	50-75% Grass cover, Fair, HSG C
4,108	98	Paved parking, HSG A
2,679	98	Paved parking, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
763	77	Fallow, bare soil, HSG A
0	91	Fallow, bare soil, HSG C
0	43	Woods/grass comb., Fair, HSG A
6,093	76	Woods/grass comb., Fair, HSG C
55,127	63	Weighted Average
48,128		87.30% Pervious Area
6,999		12.70% Impervious Area

Subcatchment 1S: Existing



Summary for Subcatchment 2S: Proposed

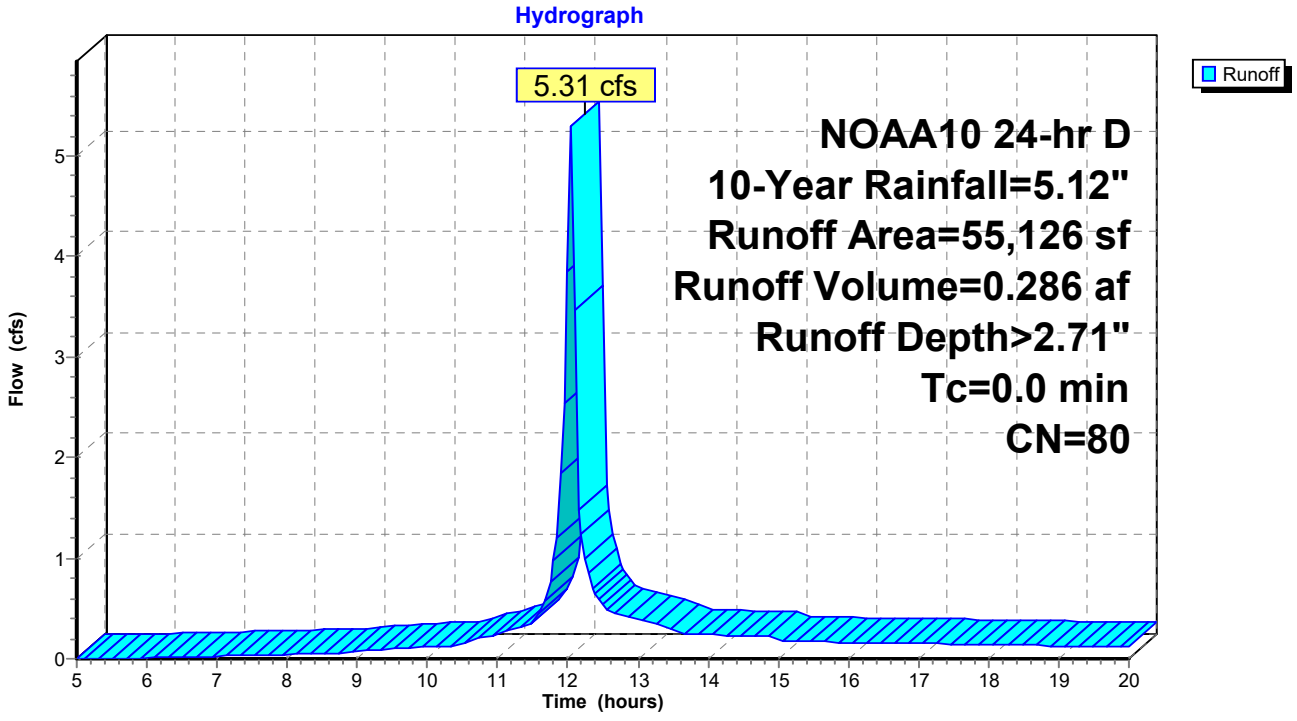
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 5.31 cfs @ 12.05 hrs, Volume= 0.286 af, Depth> 2.71"
Routed to Link 4L : Proposed Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 10-Year Rainfall=5.12"

Area (sf)	CN	Description
15,320	49	50-75% Grass cover, Fair, HSG A
11,310	79	50-75% Grass cover, Fair, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
16,919	98	Paved parking, HSG A
2,916	98	Paved parking, HSG C
5,679	96	Gravel surface, HSG A
2,770	96	Gravel surface, HSG C
55,126	80	Weighted Average
35,079		63.63% Pervious Area
20,047		36.37% Impervious Area

Subcatchment 2S: Proposed

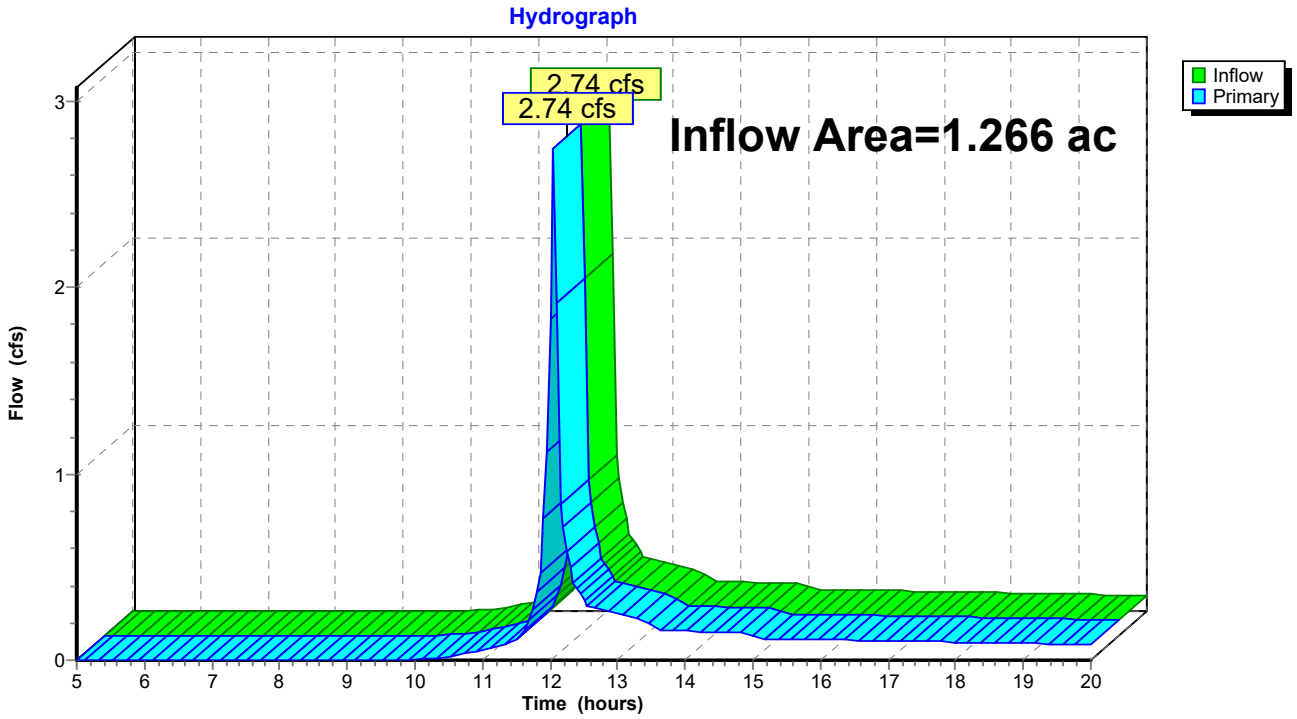


Summary for Link 3L: Existing Link

Inflow Area = 1.266 ac, 12.70% Impervious, Inflow Depth > 1.38" for 10-Year event
Inflow = 2.74 cfs @ 12.05 hrs, Volume= 0.145 af
Primary = 2.74 cfs @ 12.05 hrs, Volume= 0.145 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 3L: Existing Link

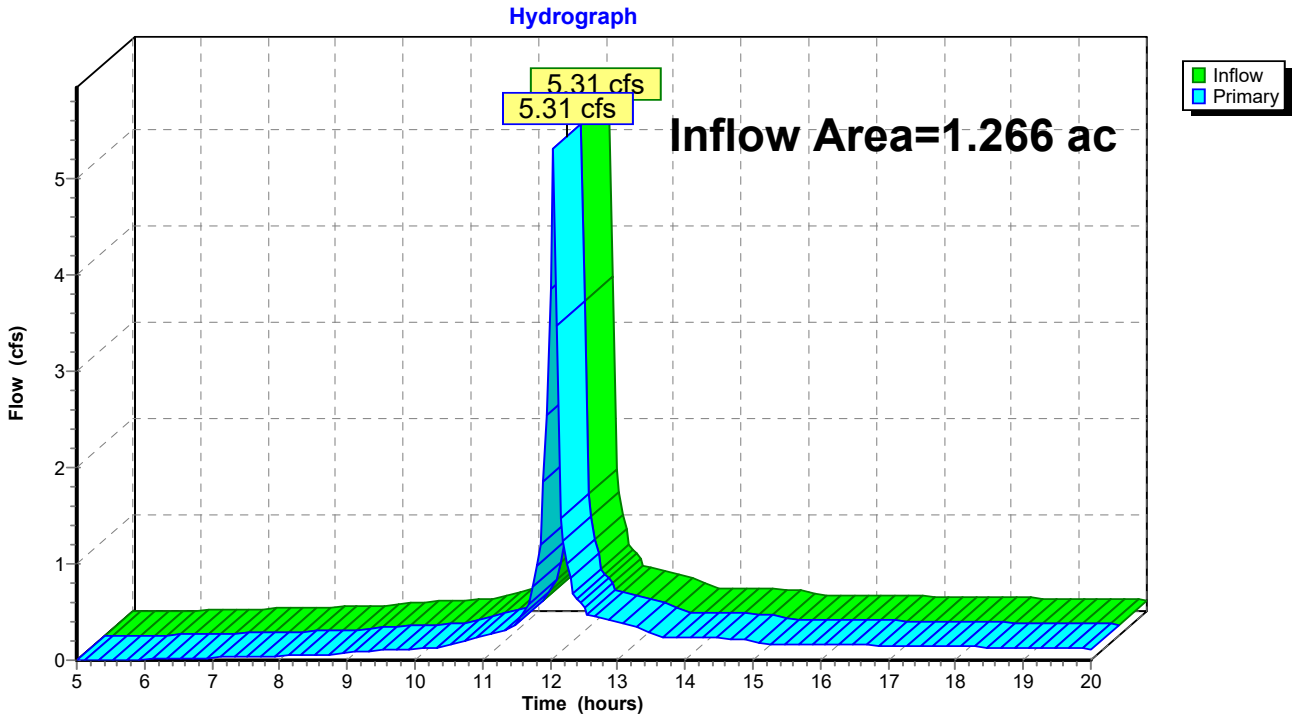


Summary for Link 4L: Proposed Link

Inflow Area = 1.266 ac, 36.37% Impervious, Inflow Depth > 2.71" for 10-Year event
Inflow = 5.31 cfs @ 12.05 hrs, Volume= 0.286 af
Primary = 5.31 cfs @ 12.05 hrs, Volume= 0.286 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 4L: Proposed Link



Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment1S: Existing Runoff Area=55,127 sf 12.70% Impervious Runoff Depth>3.34"
Tc=0.0 min CN=63 Runoff=6.70 cfs 0.353 af

Subcatchment2S: Proposed Runoff Area=55,126 sf 36.37% Impervious Runoff Depth>5.22"
Tc=0.0 min CN=80 Runoff=9.86 cfs 0.550 af

Link 3L: Existing Link Inflow=6.70 cfs 0.353 af
Primary=6.70 cfs 0.353 af

Link 4L: Proposed Link Inflow=9.86 cfs 0.550 af
Primary=9.86 cfs 0.550 af

Total Runoff Area = 2.531 ac Runoff Volume = 0.903 af Average Runoff Depth = 4.28"
75.47% Pervious = 1.910 ac 24.53% Impervious = 0.621 ac

Summary for Subcatchment 1S: Existing

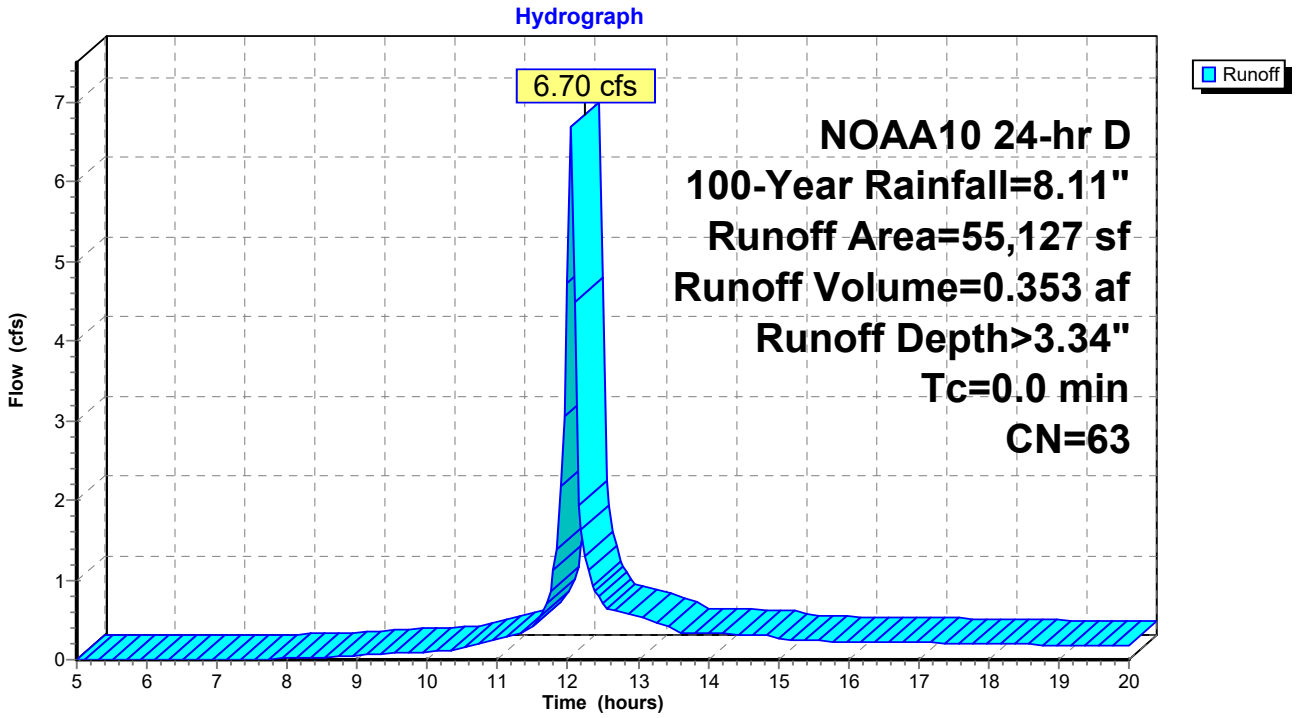
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 6.70 cfs @ 12.05 hrs, Volume= 0.353 af, Depth> 3.34"
Routed to Link 3L : Existing Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 100-Year Rainfall=8.11"

Area (sf)	CN	Description
33,048	49	50-75% Grass cover, Fair, HSG A
8,224	79	50-75% Grass cover, Fair, HSG C
4,108	98	Paved parking, HSG A
2,679	98	Paved parking, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
763	77	Fallow, bare soil, HSG A
0	91	Fallow, bare soil, HSG C
0	43	Woods/grass comb., Fair, HSG A
6,093	76	Woods/grass comb., Fair, HSG C
55,127	63	Weighted Average
48,128		87.30% Pervious Area
6,999		12.70% Impervious Area

Subcatchment 1S: Existing



Summary for Subcatchment 2S: Proposed

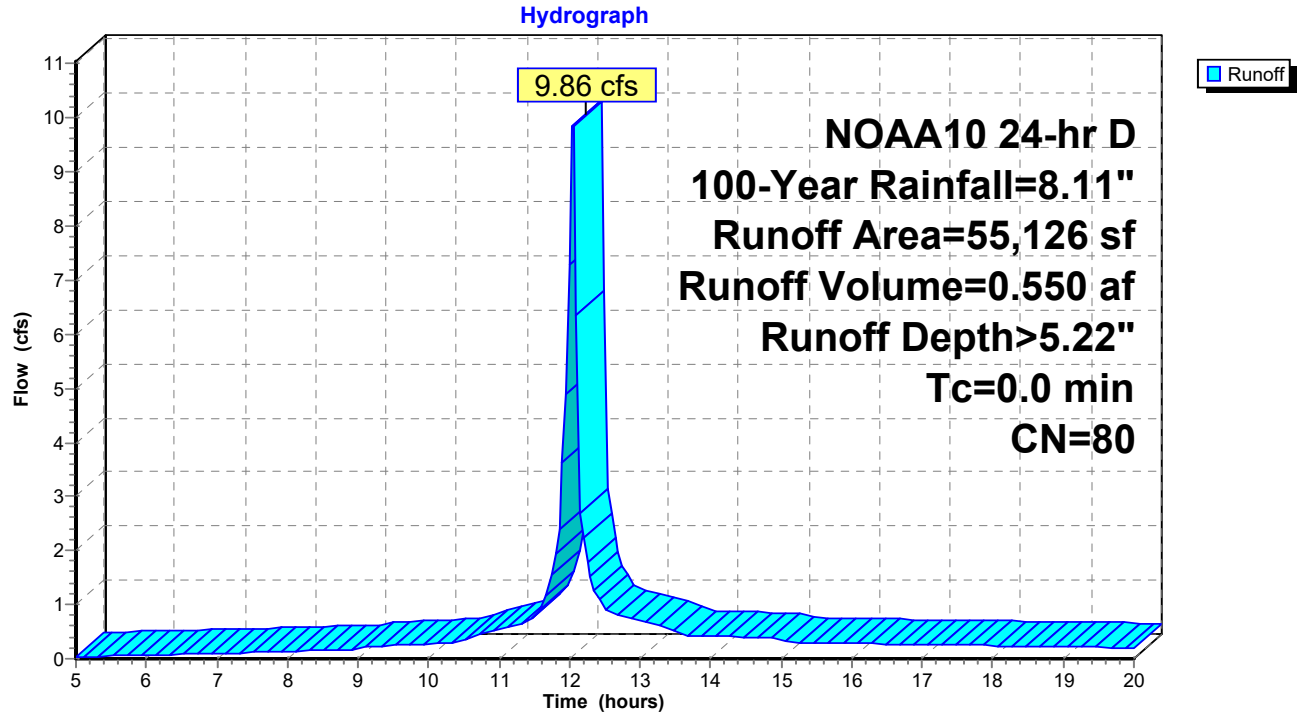
[46] Hint: Tc=0 (Instant runoff peak depends on dt)

Runoff = 9.86 cfs @ 12.05 hrs, Volume= 0.550 af, Depth> 5.22"
Routed to Link 4L : Proposed Link

Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
NOAA10 24-hr D 100-Year Rainfall=8.11"

Area (sf)	CN	Description
15,320	49	50-75% Grass cover, Fair, HSG A
11,310	79	50-75% Grass cover, Fair, HSG C
0	98	Water Surface, HSG A
212	98	Water Surface, HSG C
16,919	98	Paved parking, HSG A
2,916	98	Paved parking, HSG C
5,679	96	Gravel surface, HSG A
2,770	96	Gravel surface, HSG C
55,126	80	Weighted Average
35,079		63.63% Pervious Area
20,047		36.37% Impervious Area

Subcatchment 2S: Proposed

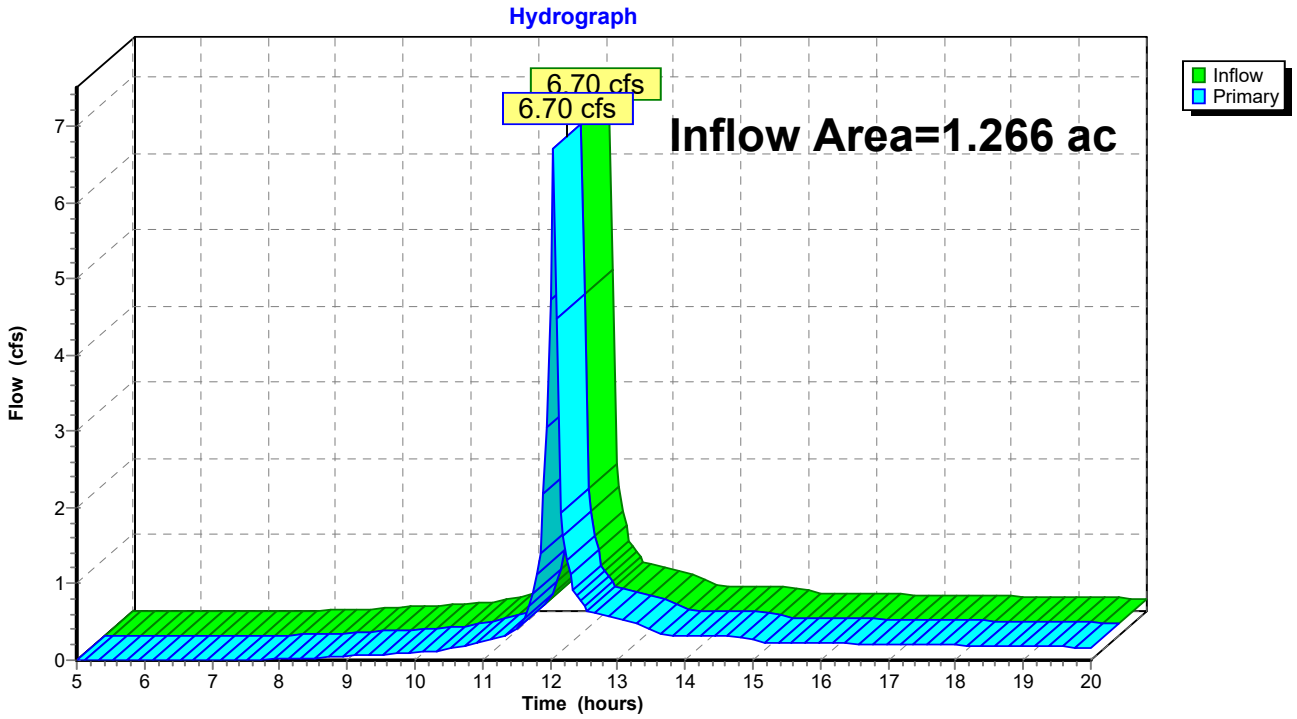


Summary for Link 3L: Existing Link

Inflow Area = 1.266 ac, 12.70% Impervious, Inflow Depth > 3.34" for 100-Year event
Inflow = 6.70 cfs @ 12.05 hrs, Volume= 0.353 af
Primary = 6.70 cfs @ 12.05 hrs, Volume= 0.353 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 3L: Existing Link

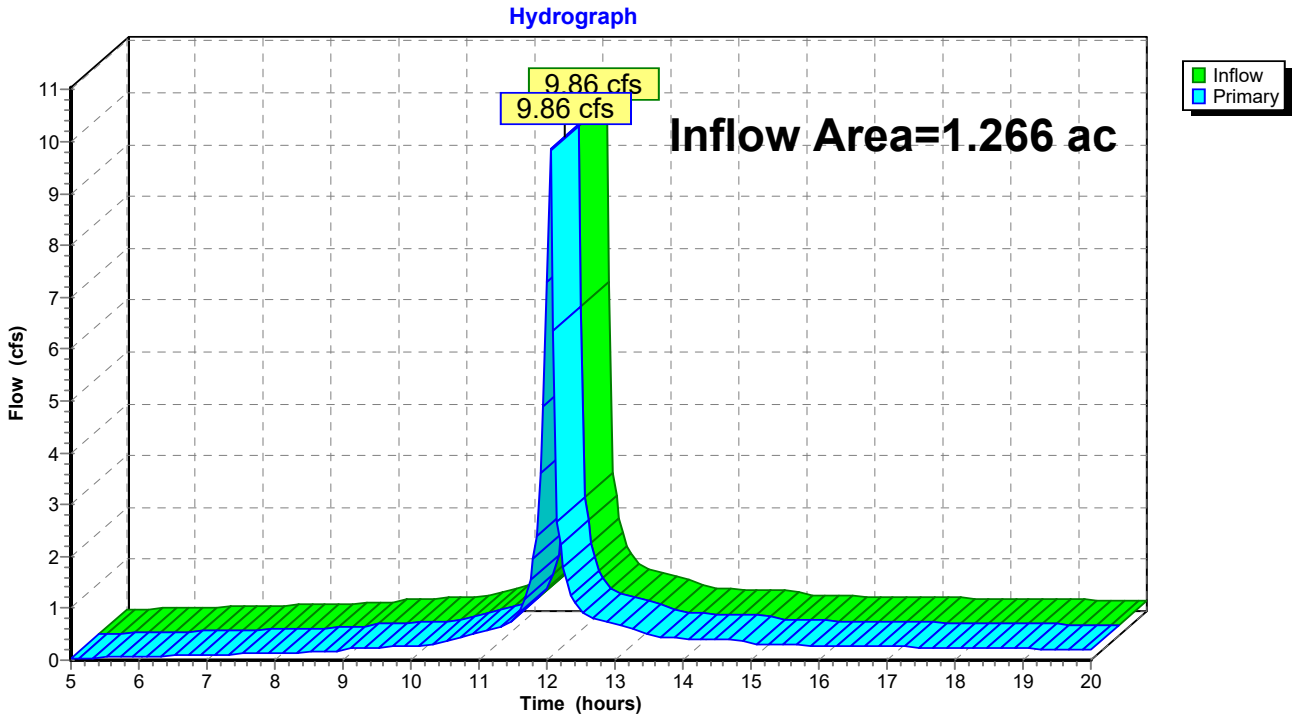


Summary for Link 4L: Proposed Link

Inflow Area = 1.266 ac, 36.37% Impervious, Inflow Depth > 5.22" for 100-Year event
Inflow = 9.86 cfs @ 12.05 hrs, Volume= 0.550 af
Primary = 9.86 cfs @ 12.05 hrs, Volume= 0.550 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link 4L: Proposed Link



Appendix B – Supporting Calculation Sheet

SUPPORTING CALCULATION SHEET

Required Recharge Volume

Existing Impervious Area in HSG A = 4,108 sf
Existing Impervious Area in HSG C = 2,679
Proposed Impervious Area in HSG A = 22,598 sf
Proposed Impervious Area in HSG C = 5,686 sf
Target Depth (HSG A) = 0.60 inches
Target Depth (HSG C) = 0.25 inches

$$Net\ Increase\ in\ Impervious\ Area\ (HSG\ A) = 22{,}598\ sf - 4{,}108\ sf = 18{,}490\ sf$$

$$Net\ Increase\ in\ Impervious\ Area\ (HSG\ C) = 5{,}686\ sf - 2{,}679\ sf = 3{,}007\ sf$$

$$Required\ Recharge\ Volume = Target\ Depth * Net\ Increase\ In\ Impervious\ Surface$$

$$Required\ Recharge\ Volume = \left(0.60\ in * \frac{1ft}{12\ in} *\ 18{,}490\ sf\right) + \left(0.25\ in * \frac{1ft}{12\ in} *\ 3{,}007\ sf\right) = \mathbf{988\ cf}$$

Required Recharge Volume

Net Increase in Impervious Surface = 13,048 sf
Water Quality Volume Depth = 1 inch

$$Required\ Water\ Quality\ Volume = 1\ in * \frac{1\ ft}{12\ in} * 21{,}497\ sf = \mathbf{1{,}791\ cf}$$

Appendix C – Operation & Maintenance and Long Term Pollution Prevention Plan

Clement Farm Disc Golf Course Haverhill, MA

Operation and Maintenance Plan (O&M)
and
Long Term Pollution Prevention Plan (LTPPP)

This Stormwater Management System Operation and Maintenance Plan provides for the inspection and maintenance of structural Best Management Practices (BMPs) and for measures to prevent pollution associated with Clement Farm Disc Golf Course Project in the municipality of Haverhill.

This document has been prepared in accordance with the requirements of the Stormwater Regulations included in the Massachusetts Wetlands Protection Act Regulations (310 CMR 10).

Responsible Parties:

Clement Farm Golf Disc Course
Long-term maintenance of the Clement Farm Disc Golf Course will be the responsibility of the City of Haverhill, through its Recreation Department:

Haverhill Recreation Department
4 Summer Street
Haverhill, MA 01830
(978) 374-2300

Maintenance Measures

The stormwater management system covered by this Operation and Maintenance Plan consists of the following components:

- Grass Swale
- Infiltration Trench

Maintenance of these components will be conducted in accordance with the MassDEP Stormwater Handbook and standard maintenance practices, as noted in the attached Operation and Maintenance table summarizing the pertinent inspection and maintenance activities.

If inspection indicates the need for major repairs of structural surfaces, the inspector should contact the City of Haverhill Recreation Department to initiate procedures to effect repairs in accordance with MassDEP Stormwater Handbook and standard practices.

Practices for Long Term Pollution Prevention

Long term pollution prevention and maintenance activities will be conducted consistent with the requirements outlined in the MassDEP Stormwater Handbook. The MassDEP Stormwater Handbook is available at the following website:

https://www.mass.gov/guides/massachusetts-stormwater-handbook-and-stormwater-standards

For the facilities covered by this Operation and Maintenance Plan, long term pollution prevention includes the following measures:

Litter Pick-up
The City of Haverhill Recreations Department will conduct litter pick-up from the stormwater management facilities in conjunction with routine park maintenance activities.

Routine Inspection and Maintenance of Stormwater BMPs
The City of Haverhill Recreations Department will conduct inspection and maintenance of the stormwater management practices in accordance with the guidelines contained herein.

Spill Prevention and Response
The City of Haverhill will implement response procedures for releases of significant materials such as fuels, oils, or chemical materials onto the ground or other areas that could reasonably be expected to discharge to surface or groundwater.

- Reportable quantities will immediately be reported to the applicable Federal, State, and local agencies as required by law. The MassDEP office should also be notified.
- Applicable containment and cleanup procedures will be performed immediately. Impacted material collected during the response must be removed promptly and disposed of in accordance with Federal, State, and local requirements. A licensed emergency response contractor may be required to assist in cleanup of releases depending on the amount of the release and the ability of the responsible party to perform the required response.
- Reportable quantities of chemical, fuels, or oils are established under the Clean Water Act and enforced through DEP.

Maintenance of Landscaped Areas
Routine mowing should be conducted according to standard Town practices.

The City of Haverhill Recreation Departments shall minimize use of fertilizers, herbicides, and pesticides for the maintenance of facilities covered by this plan. Any use of fertilizers, herbicides, or pesticides within or adjacent to jurisdictional wetland resource areas may require review by the Haverhill Conservation Commission or MassDEP Northeast Regional Office.

Prohibition of Illicit Discharges

The DEP Stormwater Management Standards prohibit illicit discharges to the storm water management system. Illicit discharges are discharges that do not entirely consist of stormwater, except for certain specified non-stormwater discharges.

Discharges from the following activities are not considered illicit discharges:

firefighting
water line flushing
landscape irrigation
uncontaminated groundwater
potable water sources
water used to clean residential buildings without detergents
foundation drains
footing drains
individual resident car washing
flows from riparian habitats and wetlands
dechlorinated water from swimming pools
water used for street washing
air conditioning condensation

There are no known or proposed illicit connections associated with this project. If a potential illicit discharge to the facilities covered by this plan is detected (e.g., dry weather flows at any pipe outlet, evidence of contamination of surface water discharge by non-stormwater sources), MassDEP shall be notified and the City of Haverhill will work to resolve the discharge in accordance with the City of Haverhill Illicit Discharge Detection and Elimination Manual.

Appendix: Best Management Practices: Operation & Maintenance Measures

Best Management Practice	Sweep	Mow	Inspect	Clean	Repair	Notes
Grass Swale	NA	NA	4 Times Annually (after snow melt)	• As Needed Based on Inspection (ANI) • Litter and debris clogging or restricting flow in swale	ANI	
Infiltration Trench	NA	NA	4 Times Annually (after snow melt)	• As Needed Based on Inspection (ANI) • Litter and debris clogging inlet or restricting flow in trench	ANI	

Appendix D – Illicit Discharge Statement

ILLICIT DISCHARGE STATEMENT

Clement Farm Disc Golf Course

Haverhill, Massachusetts

Standard 10 of the Massachusetts Stormwater Regulations prohibits illicit discharges to stormwater management systems. The stormwater management system is the system for conveying, treating, and infiltrating stormwater on site including stormwater best management practices and any pipes intended to transport stormwater to the ground water, a surface water, or municipal separate storm sewer system.

Illicit discharges to the stormwater management system are discharges that are not entirely comprised of stormwater. Notwithstanding the foregoing, an illicit discharge does not include discharges from the following activities or facilities: firefighting, water line flushing, landscape irrigation, uncontaminated ground water, potable water sources, foundation drains, air conditioning condensation, footing drains, individual resident car washing, flows from riparian habitats and wetlands, dechlorinated water from swimming pools, water used for street washing and water used to clean residential buildings without detergents.

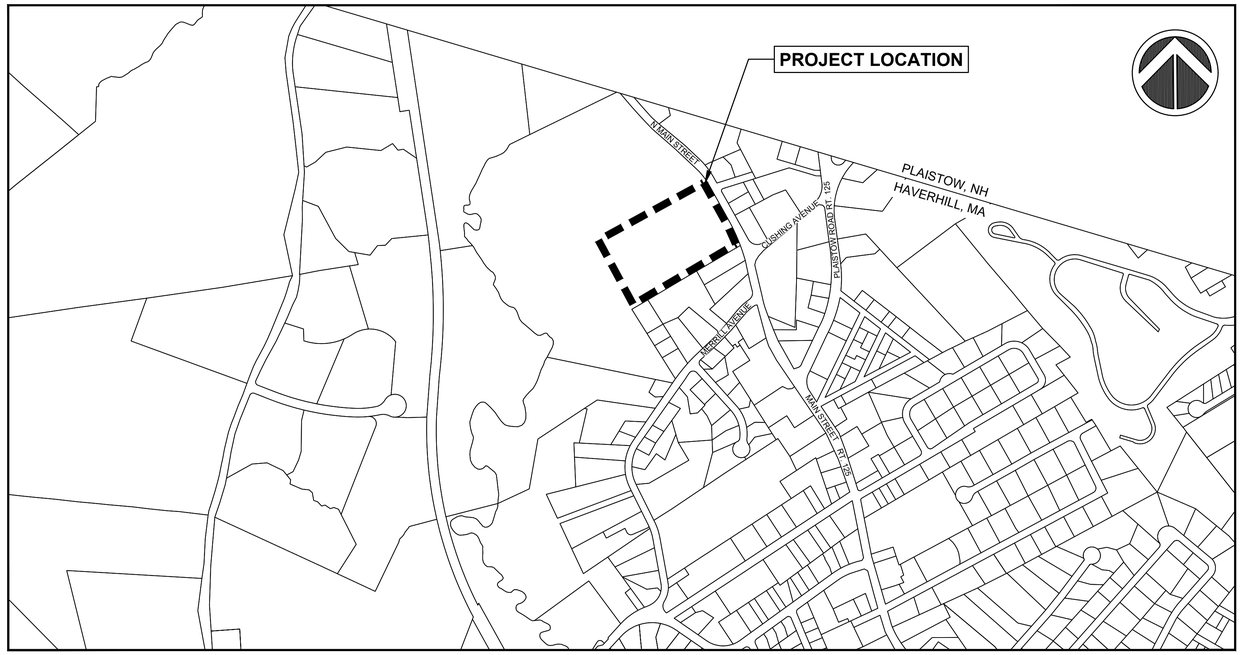
I, Alexa Marquis (print name), verify that to the best of my knowledge there are no illicit discharges located within the project limits of the proposed infrastructure improvements within the project limits of the Clement Farm Disc Golf Course project in Haverhill, Massachusetts.

Signature

4/30/2026

Date

Attachment B – Notice of Intent Plans



LOCUS PLAN
SCALE: 1" = 500'

INDEX

SHEET NO.	DESCRIPTION
1	TITLE SHEET AND INDEX
2	CONSTRUCTION PLAN

Clement Farm
Disc Golf Course
Haverhill, Massachusetts

PROJECT PARTIALLY FUNDED BY THE PARKLAND ACQUISITIONS AND RENOVATIONS FOR COMMUNITIES (PARC) GRANT PROGRAM

NOTICE OF INTENT PLANS

PRELIMINARY
4-30-26

GPI
Engineering
Design
Planning
Construction Inspection
978.570.2999 GPINET.COM
Greenman-Pedersen, Inc.
181 Ballardvale Street, Suite 202
Wilmington, MA 01887

SEAL:

OWNER:
CITY OF HAVERHILL
4 Summer Street
Haverhill, MA 01830

OWNERS PROJECT MANAGER:

DESIGN TEAM:
Greenman-Pedersen, Inc.
Landscape Architecture
Civil Engineering
Environmental Permitting

PROJECT:
CLEMENT FARM DISC GOLF COURSE
1314 N. Main Street
Haverhill, MA 01830

REVISIONS		
NO.	REVISION	DATE

NEX 2600113.00

DRAWN/DESIGN BY	CHECKED BY
CS/JF	JF

TITLE SHEET AND INDEX

SCALE: AS NOTED

APRIL 30, 2026

1 OF 2

2600113_CLEMENT FARM DISC GOLF COURSE_CS (NOI).DWG 4/29/2026

PARCEL ID
654-608-2

EXISTING:
2,018,540 Sq.Ft.
46.34 Ac.±
(AREA TO TOP OF BANK)

PROPOSED:
1,928,084 Sq.Ft.
44.26 Ac.±
(AREA TO TOP OF BANK)

N MAIN STREET - ROUTE 121
(PUBLIC - VARIABLE WIDTH)

PROP. PICNIC TABLES (TYP.)
PROP. POLLINATOR MEADOW HABITAT
TEE NO. 1
PROP. 5.00' STONE DUST FOOTPATH (TYP.)
GRADING LIMIT (APPROX.) (TYP.)
PROP. POLLINATOR MEADOW HABITAT
PROP. COMPOSTING TOILET
PROP. LOAM & SEED
PROP. TREE (TYP.)
100-FOOT BUFFER ZONE
PROP. POLLINATOR MEADOW HABITAT
PROP. INTERPRETIVE SIGNAGE (TYP.)
PROP. LOAM & SEED
PROP. SEDIMENT CONTROL BARRIER (TYP.)
PROP. POLLINATOR MEADOW HABITAT
50-FOOT NO BUILD ZONE
25-FOOT NO BUILD NO DISTURBANCE ZONE
12 SPACES @ 9.00'=108.00'
PROP. GRAVEL BORROW
12 SPACES @ 9.00'=108.00'
PROP. GRASS OVERFLOW PARKING (14 SPACES)
PROP. LOAM & SEED
PROP. STONE WALL
PROP. PARK ENTRY SIGN
REM. TREE (TYP.)
12 SPACES @ 9.00'=108.00'
5 SPACES @ 9.00'=45.00'
9.00'
6 SPACES @ 9.00'=54.00'
PROP. LOAM & SEED
PORTION OF EXISTING STONE WALL TO BE REMOVED
PORTION OF EXISTING STONE WALL TO BE REMOVED
BANK IMPACT TEMP. = 56 LF
PROP. GRASS SWALE
PROP. LOAM & SEED
PROP. LEVEL SPREADER
PROP. 6'x12' TIMBER FOOTBRIDGE
PROP. 1'x8' FLUSH GRANITE EDGING
PROP. LEVEL SPREADER
PROP. INFILTRATION TRENCH
PROP. 5.00' STONE DUST FOOTPATH (TYP.)
BASKET NO. 1
PROP. GRASS SWALE
PROP. ACCESSIBLE PICNIC TABLE ON CEM. CONC. PAD
PROP. HC PARKING ON CEM. CONC. PAD
PROP. LOAM & SEED
PROP. 5.00' STONE DUST FOOTPATH (TYP.)
PROP. ACCESSIBLE BASKET
WETLANDS WERE DELINEATED BY JASON C. BOLDUC ON MARCH, 30, 2026 AND FIELD LOCATED BY THIS OFFICE
RESIDENTIAL - MEDIUM DENSITY (RM)
RESIDENTIAL - RURAL SPECIAL (RS)

PRELIMINARY
4-30-26

GPI Engineering Design Planning Construction Inspection
978.570.2999 GPINET.COM
Greenman-Pedersen, Inc.
181 Ballardvale Street, Suite 202
Wilmington, MA 01887

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Haverhill, MA 01830

REVISIONS		
NO.	REVISION	DATE

NEX 2600113.00

DRAWN/DESIGN BY	CHECKED BY
CS/JF	JF

CONSTRUCTION PLAN

SCALE: 1" = 20'

APRIL 30, 2026