

Notice of Intent

for

4 Brandt Lane

(Parcel IDs: 38-026-0003A & 00044)

Worcester, MA 01604



DATE:

October 30, 2024

ADDRESSED TO:

Worcester Conservation Commission
455 Main Street
Worcester, Massachusetts 01608

PREPARED BY:

Goddard Consulting, LLC
291 Main Street, Suite 8
Northborough, Massachusetts 01532

PREPARED FOR:

Brandt Lane Development LLC
c/o Jack Maroney
38 Brentwood Drive
Holden, MA 01520



Worcester Conservation Commission
455 Main Street
Worcester, MA 01608

October 30, 2024

Re: Notice of Intent (NOI)
4 Brandt Lane, Worcester, Massachusetts 01604
(Parcel IDs: 38-026-0003A & 00044)

Dear Worcester Conservation Commission,

Goddard Consulting, LLC (Goddard) is pleased to submit this Notice of Intent (NOI) on behalf of the applicant, Brandt Lane Development LLC, c/o Jack Maroney, for the property known as 4 Brandt Lane (Parcel IDs: 38-026-0003A & 00044). This NOI is for the construction of five residential apartment buildings, associated roadways, access and parking, and a stormwater management system. One reconstructed intermittent stream crossing, extensive wetland creation, and the daylighting and rerouting of an intermittent stream system on-site are also proposed under the scope of this NOI. The work is proposed within Bank resource areas and within the 100-foot Buffer Zone to Bank and Bordering Vegetated Wetlands (BVW).

The applicant is seeking an Order of Conditions that would allow for the construction of the proposed buildings, associated infrastructure, and site amenities. This NOI application is a filing under the MA Wetlands Protection Act (the WPA), all applicable state regulations, and the City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations (the Ordinance). The following documents are provided for your review and approval.

- WPA Form 3 – Notice of Intent
- Copy of Filing Fee Checks
- Abutter Information
 - Affidavit of Service
 - Notification to Abutters
 - Certified Abutters List
- USGS of the Project Locus, Goddard Consulting, LLC, 06/25/2024
- Orthophoto of the Project Locus, Goddard Consulting, LLC, 06/25/2024
- FEMA Flood Map of the Project Locus, Goddard Consulting, LLC, 06/25/2024
- NRCS Soil Survey of the Project Locus, Goddard Consulting, LLC, 06/25/2024
- Wetland Border Report, Goddard Consulting, LLC, 1/18/2022 [should be dated 1/18/2023]
- Order of Resource Area Delineation (DEP File # 349-1365), 07/06/2023
- Determination of Applicability, 11/06/2023
- Regulatory Compliance Narrative, Goddard Consulting, LLC
- Wildlife Habitat Evaluation, Goddard Consulting, LLC, 10/30/2024
- Wetland Impact Key Sheet, Thompson-Liston Associates, Inc., 10/21/2024



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4 Brandt Lane, Worcester, Massachusetts
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- Exhibits (4) Showing Wetland Impact Areas, Thompson-Liston Associates, Inc., 10/29/2024
- Stormwater Calculations Report, Thompson-Liston Associates, Inc., 10/30/2024
- Existing Conditions Plan of Land at #4 Brandt Lane, Tauper Land Survey, Inc., 05/31/2023
- Wetland Construction Plan (2 sheets), Thompson-Liston Associates, Inc., 10/31/2024
- “Grafton Wood” Plans To Accompany Notice Of Intent, 4 Brandt Lane, Thompson-Liston Associates, Inc., 10/21/2024

If you have any questions, please feel free to contact Goddard Consulting, LLC at (508) 393-3784.

Sincerely,
Goddard Consulting, LLC

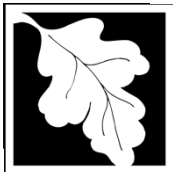
Mitch Maslanka

Mitch Maslanka
Wetland Scientist

Sophie Shapiro

Sophie Shapiro
Wetland Scientist

Cc: MassDEP – Central Regional Office, 8 New Bond Street, Worcester, MA 01606
Brandt Lane Development, LLC, c/o Jack Maroney, 38 Brentwood Drive, Holden, MA 01520



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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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):

<u>4 Brandt Lane</u>	<u>Worcester</u>	<u>01604</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
<u>38-026</u>	<u>42.2437882</u>	<u>-71.7564073</u>
f. Assessors Map/Plat Number	d. Latitude	e. Longitude
	<u>0003A & 00044</u>	
	g. Parcel /Lot Number	

2. Applicant:

<u>Jack</u>	<u>Maroney</u>	
a. First Name	b. Last Name	
<u>Brandt Lane Development LLC</u>		
c. Organization		
<u>38 Brentwood Drive</u>		
d. Street Address		
<u>Holden</u>	<u>MA</u>	<u>01520</u>
e. City/Town	f. State	g. Zip Code
<u>508-826-6182</u>	<u>jack.maroneyjr@gmail.com</u>	
h. Phone Number	i. Fax Number	j. Email Address

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

<u></u>	<u></u>	
a. First Name	b. Last Name	
<u></u>		
c. Organization		
<u></u>		
d. Street Address		
<u></u>	<u></u>	<u></u>
e. City/Town	f. State	g. Zip Code
<u></u>	<u></u>	<u></u>
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

<u>Mitch</u>	<u>Maslanka</u>	
a. First Name	b. Last Name	
<u>Goddard Consulting, LLC</u>		
c. Company		
<u>291 Main Street, Suite 8</u>		
d. Street Address		
<u>Northborough</u>	<u>MA</u>	<u>01532</u>
e. City/Town	f. State	g. Zip Code
<u>(508) 393-3784</u>	<u>mitch@goddardconsultingllc.com</u>	
h. Phone Number	i. Fax Number	j. Email address

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

<u>\$5,650 + \$3,275 (Ordinance) = \$8,925</u>	<u>\$2,812.50</u>	<u>\$2,837.50 + \$3,275 (Ordinance) = \$6,112.50</u>
a. Total Fee Paid	b. State Fee	c. City/Town Fee Paid



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A. General Information (continued)

6. General Project Description:

Proposed construction of five apartment buildings, associated amenities, roadways, parking, and stormwater management. This project proposes impacts to Bank resource areas, Bank replacement, Bank restoration, an upgraded stream crossing, and stream daylighting.

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)

2. Limited Project Type

If the proposed activity is eligible to be treated as an Ecological Restoration Limited Project (310 CMR 10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Worcester	
a. County	b. Certificate # (if registered land)
68959	58
c. Book	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.



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

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

Resource Area	Size of Proposed Alteration	Proposed Replacement (if any)
a. <input checked="" type="checkbox"/> Bank	1,019 1. linear feet	2,695 2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input type="checkbox"/> Land Under Waterbodies and Waterways	1. square feet 3. cubic yards dredged	2. square feet

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

2. Width of Riverfront Area (check one):

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

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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



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

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

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

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

	2. cubic yards dredged	
c. <input type="checkbox"/> Barrier Beach	Indicate size under Coastal Beaches and/or Coastal Dunes below	
d. <input type="checkbox"/> Coastal Beaches	_____	_____
	1. square feet	2. cubic yards beach nourishment
e. <input type="checkbox"/> Coastal Dunes	_____	_____
	1. square feet	2. cubic yards dune nourishment
	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	

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

	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	
4. <input type="checkbox"/> 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. <input checked="" type="checkbox"/> Project Involves Stream Crossings		
	0	1
	_____	_____
	a. number of new stream crossings	b. number of replacement stream crossings



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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

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

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

August 2021
b. Date of map

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

c. Submit Supplemental Information for Endangered Species Review*

- 1. Percentage/acreage of property to be altered:
 - (a) within wetland Resource Area _____ percentage/acreage
 - (b) outside Resource Area _____ percentage/acreage

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

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

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

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

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



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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)

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.

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



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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.
 - “Grafton Woods” Plans To Accompany Notice Of Intent, 4 Brandt Lane
 - a. Plan Title
 - Thompson-Liston Associates, Inc. Patrick J. Healy
 - b. Prepared By c. Signed and Stamped by
 - 10/21/2024 varies
 - d. Final Revision Date e. Scale
 - Stormwater Calculations Report; Thompson-Liston Associates, Inc. 10/30/2024
 - 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:

256	10/30/2024
2. Municipal Check Number	3. Check date
123	8/15/2024
4. State Check Number	5. Check date
State: Brandt Lane Development LLC	Municipal: Goddard Consulting LLC
6. Payor name on check: First Name	7. Payor name on check: Last Name



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F. Signatures and Submittal Requirements

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

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

<p><small>Signed by:</small>  <small>DocuSigned by:</small></p>	<p>10/29/2024</p>
<p>1. Signature of Applicant (Brandt Lane Development LLC c/o Jack Maroney)</p>	<p>2. Date</p>
<p>3. Signature of Property Owner (if different)</p> <p><small>DocuSigned by:</small>  <small>DocuSigned by:</small></p>	<p>4. Date 10/29/2024</p>
<p>5. Signature of Representative (Mitch Maslanka – Goddard Consulting, LLC)</p>	<p>6. Date</p>

For Conservation Commission:

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

For MassDEP:

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

Other:

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

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



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NOI Wetland Fee Transmittal Form

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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.



A. Applicant Information

1. Location of Project:

4 Brandt Lane Worcester
a. Street Address b. City/Town
123 \$2,812.50
c. Check number d. Fee amount

2. Applicant Mailing Address:

Jack Maroney
a. First Name b. Last Name
Brandt Lane Development LLC
c. Organization
38 Brentwood Drive
d. Mailing Address
Holden MA 01520
e. City/Town f. State g. Zip Code
508-826-6182
h. Phone Number i. Fax Number h. Email Address

3. Property Owner (if different):

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 h. Email Address

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

B. Fees

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

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

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

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

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

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

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



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B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
3b.) each building (for development) including site	4	\$1,050	\$4,200
4a.) Each crossing for development	1	\$1,450	\$1,450
C.2.) each building (for development) and site (Ordinance)	5	\$500	\$2,500
D.1) each crossing for subdivision or commercial road (Ordinance)	1	\$750	\$750
7.2.1 Advertising Fee (Ordinance)	1	\$25	\$25
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
Step 5/Total Project Fee:			\$5,650 + \$3,275 <u>(Ordinance) = \$8,925</u>
Step 6/Fee Payments:			
Total Project Fee:			\$5,650 + \$3,275 <u>(Ordinance) = \$8,925</u> a. Total Fee from Step 5
State share of filing Fee:			<u>\$2,812.50</u> b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:			\$2,837.50 + \$3,275 <u>(Ordinance) =</u> <u>\$6,112.50</u> c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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

AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act
And the City of Worcester Wetlands Protection Ordinance

I, Mitch Maslanka, hereby certify under the pains and penalties of perjury that on 11/4/2024 I gave notification to abutters in Compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dating April 8, 1994 in connection with the following matter:

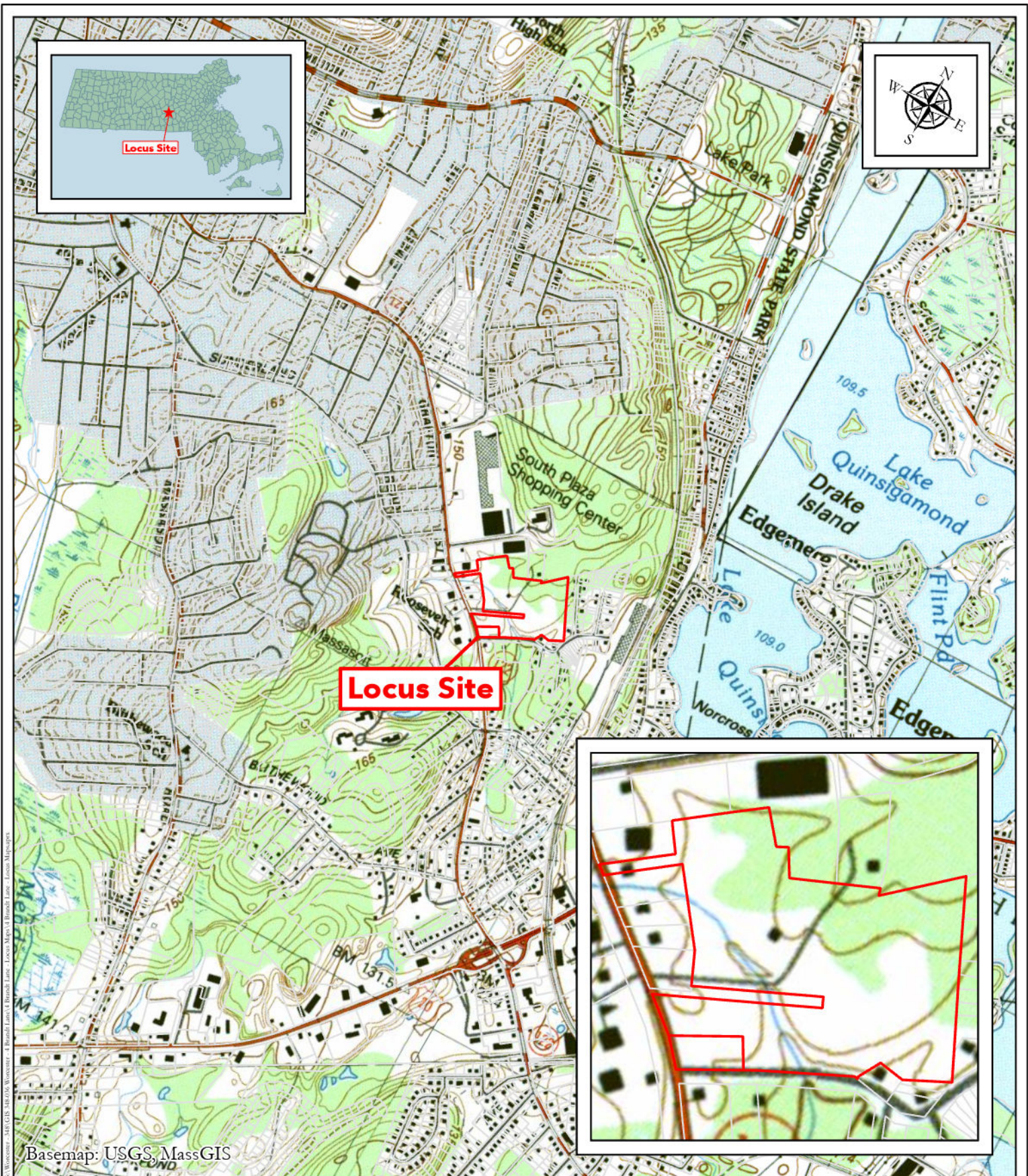
A Notice of Intent was filed under the Massachusetts Wetlands Protection Act and the City of Worcester Wetlands Protection Ordinance by Brandt Lane Development LLC with the Worcester Conservation Commission on 10/30/2024 for property located at 4 Brandt Lane (MBL: 38-026-0003A & 00044) in Worcester, MA for the construction of five apartment buildings, associated amenities, roadways, parking, and stormwater management. This project proposes impacts to bank resource areas, bank replacement, bank restoration, an upgraded stream crossing, and stream daylighting.

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

Mitch Maslanka

(Name)

10/30/2024
(Date)



Basemap: USGS, MassGIS



USGS of the Project Locus

0 1,000 2,000 Feet 1" = 2,000'

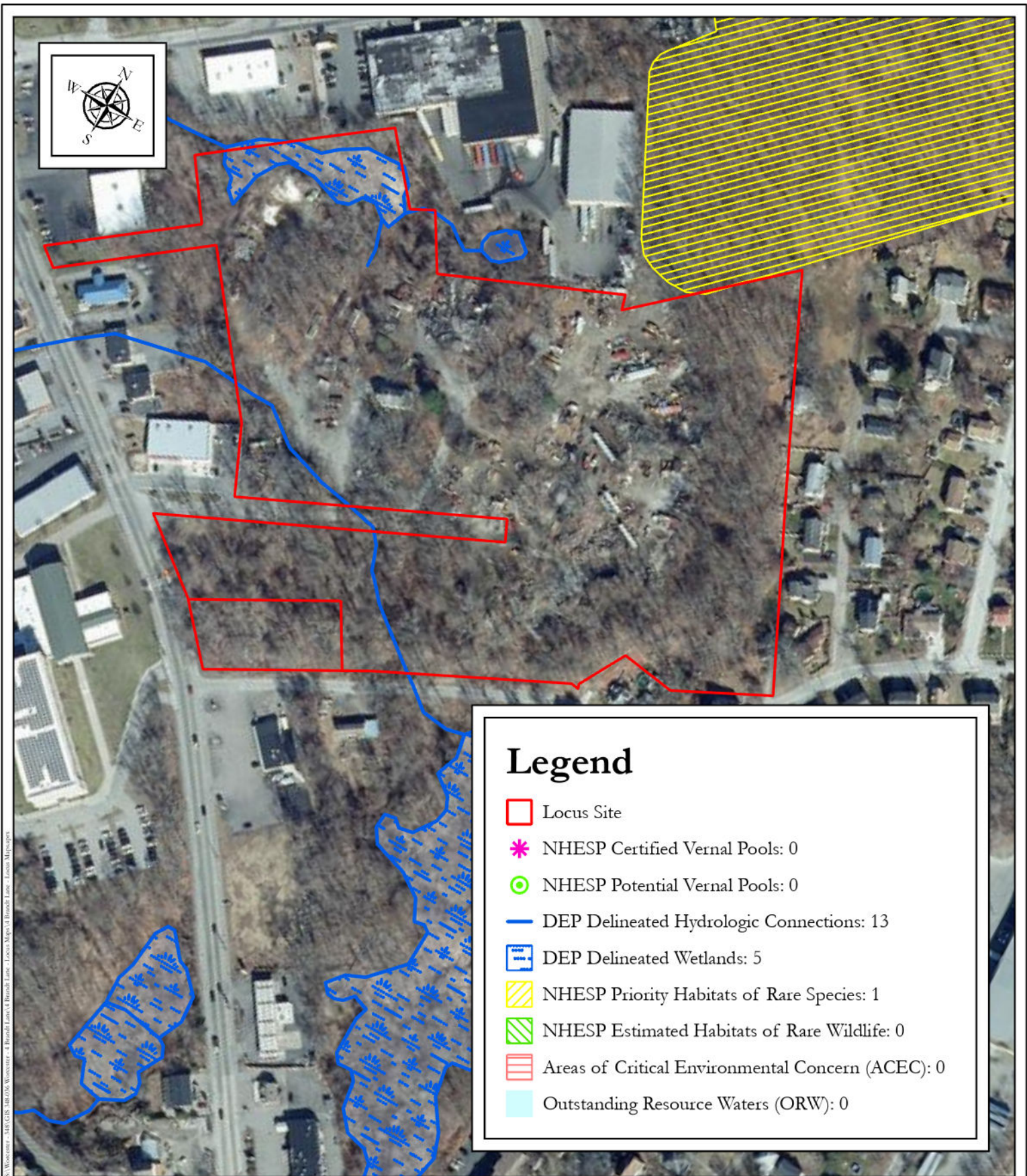
71.7556504°W, 42.245217°N

Date: 08/22/2024

4 Brandt Lane
Worcester, MA 01604

MBL: 38-26-3A & 44

Figure 1



Legend

- Locus Site
- ✱ NHESP Certified Vernal Pools: 0
- ⊙ NHESP Potential Vernal Pools: 0
- DEP Delineated Hydrologic Connections: 13
- DEP Delineated Wetlands: 5
- NHESP Priority Habitats of Rare Species: 1
- NHESP Estimated Habitats of Rare Wildlife: 0
- Areas of Critical Environmental Concern (ACEC): 0
- Outstanding Resource Waters (ORW): 0

S:\Worcester - 448\GIS\Map\06_Worcester - 4 Brandt Lane\4 Brandt Lane - Locus Map\4 Brandt Lane - Locus Map.aprx



Orthophoto of the Project Locus



71.7546643°W, 42.2445994°N

Date: 08/22/2024

4 Brandt Lane
Worcester, MA 01604

MBL: 38-26-3A & 44

Figure 2



Legend

- Locus Site

FEMA National Flood Hazard Layer

- 1% Annual Chance Flood Hazard: 0
- Regulatory Floodway: 0
- Area of Undetermined Flood Hazard: 0
- 0.2% Annual Chance Flood Hazard: 0
- Area with Reduced Risk Due to Levee: 0
- Area Not Included: 0

S:\Worcester - 48FGIS - 38-26-3A & 44 - 08-22-2024 - 4 Brandt Lane - Locus Map - Locus Map.mxd



**FEMA Flood Map
of the Project Locus**

0 150 300
 Feet 1" = 300'

71.7546643°W, 42.2445994°N

Date: 08/22/2024

4 Brandt Lane
Worcester, MA 01604

MBL: 38-26-3A & 44

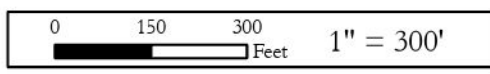
Figure 3



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NRCS Soil Survey
of the Project Locus



71.7556504°W, 42.245217°N

Date: 08/22/2024

4 Brandt Lane
Worcester, MA 01604

MBL: 38-26-3A & 44

Figure 4

**NOTICE OF INTENT
REGULATORY COMPLIANCE NARRATIVE**

1.0 Introduction

This Notice of Intent (NOI) application is being filed under the Massachusetts Wetlands Protection Act (M.G.L. c. 131, sec. 40) and Regulations (310 CMR 10.00 et. al) (the WPA), and the City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations (the Ordinance). The applicant, Brandt Lane Development LLC, c/o Jack Maroney, is seeking an Order of Conditions for the proposed construction of five residential apartment buildings, associated access and parking, and a stormwater management system. One reconstructed intermittent stream crossing and the daylighting and rerouting of an intermittent stream on-site are also proposed under the scope of this NOI. The work is proposed partially within Bank resource areas and within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW) and Bank.

2.0 Site History & Existing Conditions

The project locus is located at 4 Brandt Lane in Worcester, Massachusetts (Parcel IDs: 38-026-0003A & 00044). The project locus is characterized by one existing single-family house, paved access roads and storage areas, and several junk stockpiles throughout the site containing fill, scrap metal, car parts, trailers, and other discarded items. The site had been utilized by numerous contractors as a contractor yard for their equipment, supplies, and waste until the current owner purchased the site in 2023. The edges of the parcel consist of forested areas, and the center of the parcel consists of patches of forest as well as previous clearing and debris. Please see the descriptions below for additional details regarding the wetland resource areas on-site.



Figure 1. 2021 Aerial Image of the Project Locus.

2.1 Resource Areas On-Site & Order of Resource Area Delineation (ORAD)

The Resource Areas were first delineated by Goddard Consulting, LLC in October, 2022 during an initial on-site field inspection. Then, a site survey was conducted by Tauper Land Survey, Inc. to collect wetland delineation, topography, existing structures, and some features of the project locus to create an Existing Conditions Plan of Land (provided as an attachment). The project locus' BVW resource areas were confirmed through the issuance of an Order of Resource Area Delineation

(ORAD) by the Worcester Conservation Commission on 07/06/2023 under DEP File #349-1365. Bank resource area boundaries were not confirmed in the ORAD; the approved plan shows wetland boundaries for both BVW and Bank but does not specify between the two. The ORAD permit and plan is included with the filing of this NOI.

As approved in the ORAD (DEP File #349-1365), extensive resource areas are located on the lot. At the northwest corner of the project locus, an intermittent stream flows onto the project locus and splits into two separate stream channels. The streams flow south and eventually merge further downgradient on-site. Bordering Vegetated Wetlands (BVW) are adjacent to portions of each streams' Banks. A pond is located off-site, adjacent to the northern property boundary. A BVW is located at the southeastern corner of the locus. Please see Figure 2 and the descriptions below for details.

Dominant vegetation found within the wetland areas on-site include red maple, eastern cottonwood, silky dogwood, elderberry, phragmites, nightshade, poison ivy, and cinnamon fern. Dominant vegetation found within the upland areas on-site include red maple, tree of heaven, eastern cottonwood, Norway maple, red oak, white oak, black cherry, white ash, witch hazel, honeysuckle, multiflora rose, Japanese knotweed, goldenrod, dewberry, raspberry, pokeweed oriental bittersweet, grape, and poison ivy.

According to the Mass GIS data layers for NHESP, the project locus abuts Priority Habitats of Rare Species, however, the project locus is not located within Estimated and/or Priority Habitat of Rare Wildlife. Please see the attached Wildlife Habitat Evaluation and Orthophoto of the Project Locus map for additional details regarding wildlife habitat values on-site. The project locus is not located in an Area of Critical Environmental Concern (ACEC), Outstanding Resource Water (ORW), or a regulated FEMA flood zone.



Figure 2. ORAD As-Built Plans of BVW and Intermittent Streams On-Site.

2.2 Determination of Applicability

On November 6, 2023, the Worcester Conservation Commission issued a Determination of Applicability (DOA) to approve exploratory geotechnical testing, removal of solid waste and scrap metal, including all buildings, trailers and parts of vehicles, as well as tree cutting that is necessary to conduct the work (stumps not to be removed). The Applicant has proceeded with significant removal efforts, however, due to the spread and abundance of the solid waste, removal efforts continue today.

3.0 Proposed Project

The applicant proposes extensive restoration and redevelopment on this previously disturbed site. The scope of the project proposed under this NOI consists of the construction of five residential apartment buildings, associated access and parking, and a stormwater management system. One reconstructed intermittent stream crossing and the daylighting and rerouting of an intermittent stream on-site are also proposed under the scope of this NOI. The work is proposed partially within Bank resource areas and within the 100-foot Buffer Zone to Bordering Vegetated Wetlands (BVW) and Bank.

3.1 Apartment Buildings

The applicant proposes the construction of five four-story apartment buildings. One building is partially located within Bank resource areas and the 100-foot Buffer Zone to BVW and Bank, and another is partially located within the 100-foot Buffer Zone to BVW and Bank. The buildings associated parking, access roads, and stormwater features are located within the Buffer Zone to BVW and Bank.

Building #1 is the southeasternmost of the five proposed apartment buildings. The access roadway, parking, and stormwater management is proposed within the 100-foot Buffer Zone to BVW and Bank.

Building #2 is the easternmost of the five proposed apartment buildings. The parking associated with Building #2 consists of a parking deck located north of the building. The proposed building and parking deck is located entirely outside of jurisdictional areas.

Building #3 is the northeasternmost of the five proposed apartment buildings. Portions of the parking area are located within the 100-foot Buffer Zone to BVW and the offsite pondlike resource area.

Building #4 is the northwesternmost of the five proposed apartment buildings and is within Impact Area 1. The roadway associated with the building is within Impact Area 7. Building #4 requires filling the Bank resource area within Impact Area 1 and results in the need to redirect stream flow into a proposed stream channel around the proposed building and parking areas.

Building #5 is the southwesternmost of the five proposed apartment buildings. The building is located entirely outside of jurisdictional areas, however, the access roadway, parking, and amenities are located within the 100 Buffer Zone to BVW and Bank.

3.2 Stormwater Management System

Please refer to the Stormwater Calculations Report and the site plans for details on the proposed stormwater management design.

3.3 Existing Stream Crossing Replacement & Associated Bank Impacts

The applicant proposes the redevelopment of one existing stream crossing on Brandt Lane to improve existing conditions and allow adequate access to the apartment buildings. The widening of the road will require Bank impacts to occur on the north and south side of the roadway. The crossing will replace the existing four (4) round corrugated pipes (RCPs) with a new 3-sided box culvert to meet stream crossing standards.

3.4 Bank Impacts & Replacement for Proposed Apartment Building (Involves Stream Daylighting)

As mitigation for the fill associated with the construction of Building #4, the applicant proposes the replication of Bank resource areas via an intermittent stream rerouting and daylighting effort. The existing stream to be filled (Impact Area 7 & 1) exhibits ditch-like characteristics including straight, linear Banks made largely of man-made fill and debris. The stream hydrology flows out of the larger wetland system into an 18" RCP at wetland flags B25 & C31. Flow discharges out of the RCP into a distinct linear stream configuration starting at B24 & C30 and continuing down to flags B18 & C21 where flow enters another 18" RCP. The stream then flows through the +/-140' long, underground RCP. The flow discharges out of a 36" RCP into an armored plunge pool at wetland flags B17 & C20.

The proposed project shall reroute the water currently entering Impact Area 7, Impact Area 1, and the 140' long RCP, through a newly constructed stream channel providing additional functions and values. Building #4 is then proposed to be constructed atop these locations. The new stream channel and its Banks shall be greater in length than the existing ditch, implement natural stream characteristics including meanders and vegetation, and consist of suitable soils for Bank functions rather than the existing man-made fill and debris. Additionally, the applicant proposes creating new BVW associated with the rerouted stream to provide additional function and value to the area. Please see the attached site plans and construction sequencing plan for additional details on linear footage of Bank impact, Bank replication, and wetland creation.

3.5 Restoration of Degraded Bank Resource Areas

The proposed new stream channel is proposed to flow around the proposed development, in near proximity to existing BVW and Bank resource areas along the western property line. The proposed stream will merge with another stream channel on site, between flags C69 & D13. Between C69 - C72 and D13 - D11, portions of the Banks consist of pavement. At D11 & C72, the stream has entirely paved stream bottom and Banks. This was determined to be a suitable area to merge the streams due to the stream Banks' existing degraded nature. Merging the two streams will require impacts to the downgradient stream channel, from C69 to C82 and D13 to D1, in order to allow for the Banks to have a suitable water carrying capacity. Due to the site's degraded condition, the buffer zone adjacent to the paved stream is predominately paved as well. The dual purpose of merging the streams and restoring the existing paved stream and buffer zone will result in a major improvement over existing conditions.

4.0 Proposed Impact Areas

There are several sections of Bank on-site that will be impacted as part of this project totaling approximately 1,019 linear feet. An existing stream crossing (Brandt Ln) will be redeveloped as part of the project to allow adequate access. Another portion of stream will be re-routed. Portions of the existing stream that are proposed to be impacted are not in a natural state and have been heavily altered or impacted in the past.

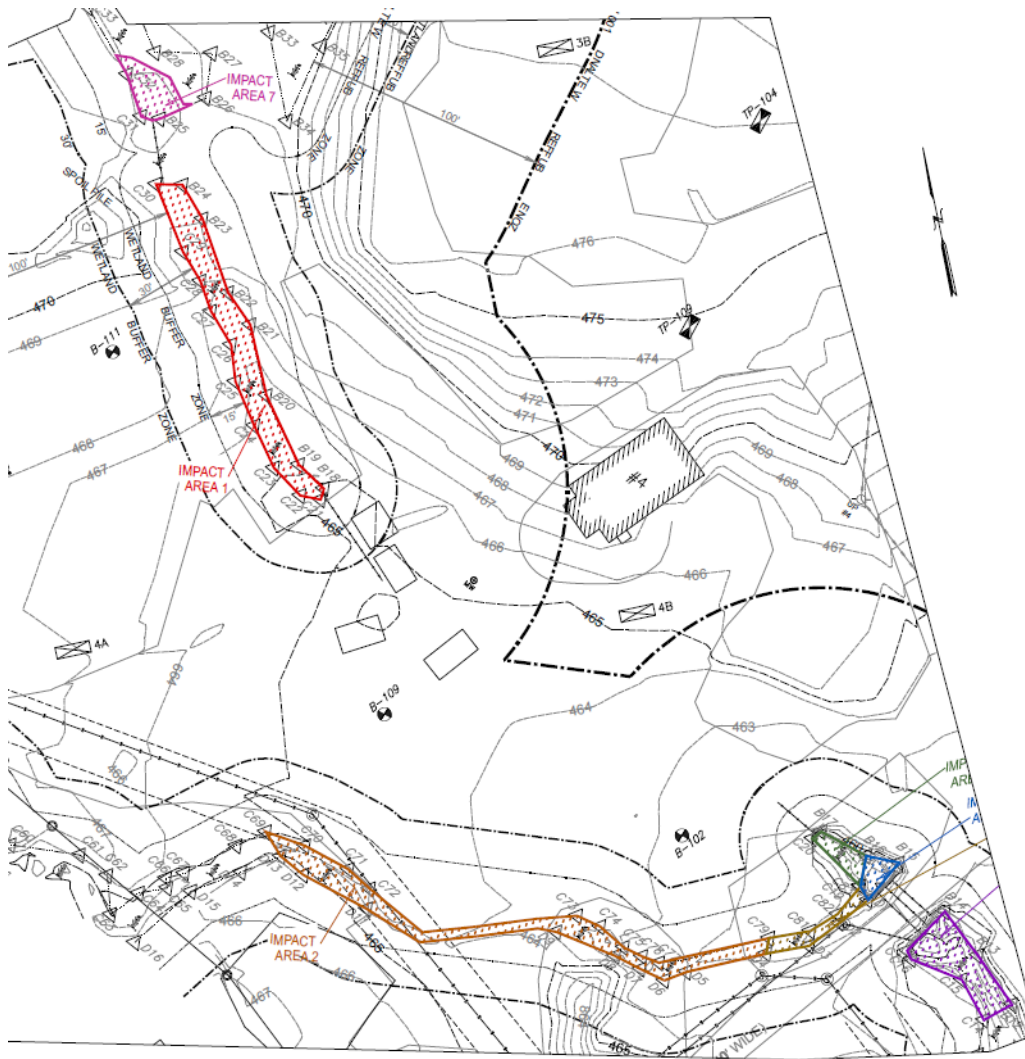


Figure 3. A view of the resource impact areas

4.1 Impact Area 1 & 7 (Proposed Building #4)

Impact area 1 (290.5 LF of impact) is a linear ditch-like intermittent stream which Banks are largely made up of man-made fill and debris. This section of stream is approximately 3-6 feet wide and flows out of the larger wetland system in the northern portion of the site before entering a long underground culvert under the central portion of the site and exits the culvert just before the Brandt Lane crossing. The stream contains a substantial presence of branches and sticks as well as iron-oxidizing bacteria. Area 7 (31.8 LF of impact) is located just north of Impact Area 1 and feeds Area 1. The banks of both areas are dominated by invasives such as Japanese knotweed, garlic mustard, and Asiatic bittersweet. Other vegetation includes Virginia creeper, poison ivy, jewelweed, and American elm.

The proposed project shall fill the ditch, reroute the water currently entering the ditch and the culvert through a newly constructed stream channel providing additional functions and values; and construct the parking lot of Building #4 over the existing ditch area. The new stream

channel and its Banks will be greater in length than the existing ditch, mimic natural characteristics including meanders and vegetation, and consist of suitable soils for Bank functions rather than the existing man-made fill and debris.

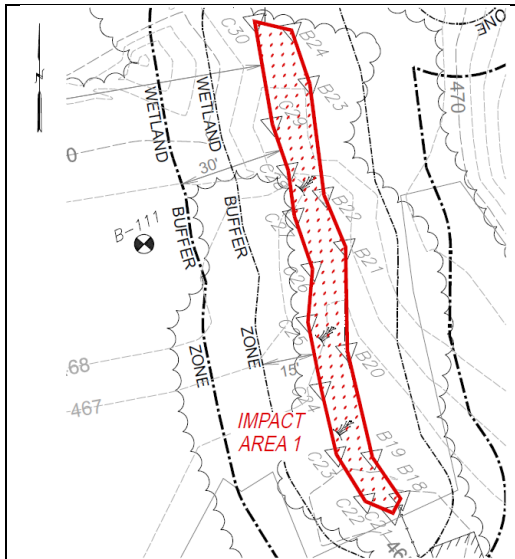


Figure 4. Impact Area 1 is shown as a red outlined area



Photo 1. Existing conditions within Impact Area 1

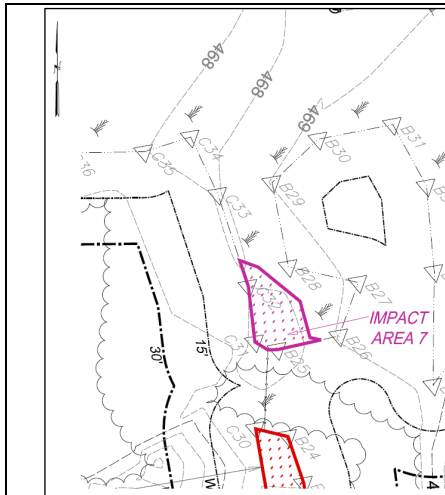


Figure 5. Impact Area 7 is shown as a purple outlined area

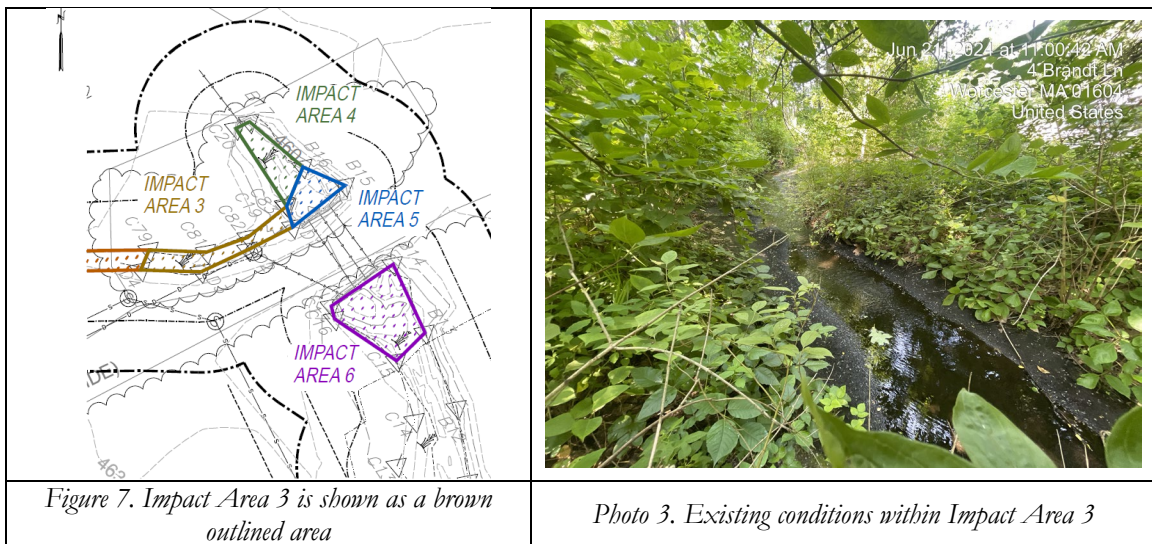
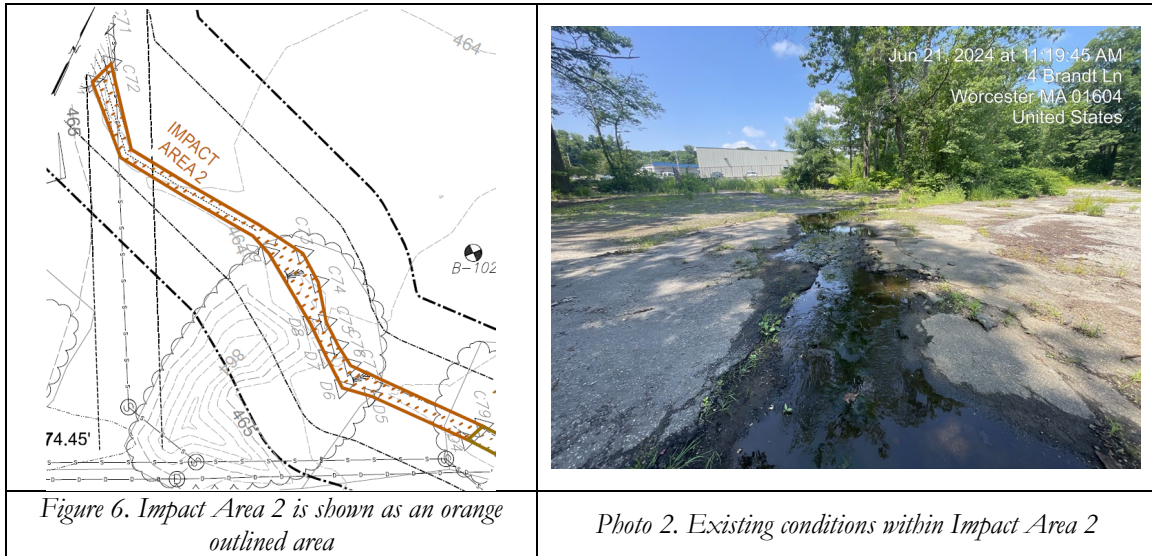


Photo 6. Existing conditions within Impact Area 7

4.2 Impact Areas 2 & 3 (Proposed Bank Restoration)

Impact area 2 (442.2 LF of impact) & 3 (93.6 LF of impact) are in the southwestern portion of the site. This section of stream flows over asphalt and is approximately 0.5-3 inches deep and average of 18-36 inches wide. Area 3 appears to be more of a defined paved swale is slightly narrower than most of Area 2. Vegetation surrounding this area of stream is either non-existent or largely dominated by invasives. The limited vegetation in this area mostly consists of knotweed, mugwort, poison ivy, jewelweed, and multiflora rose. These areas lack any in-stream features such as boulders or woody debris that would be beneficial to wildlife.

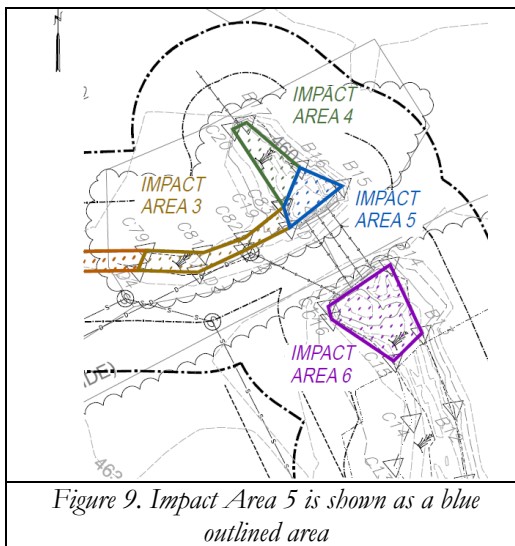
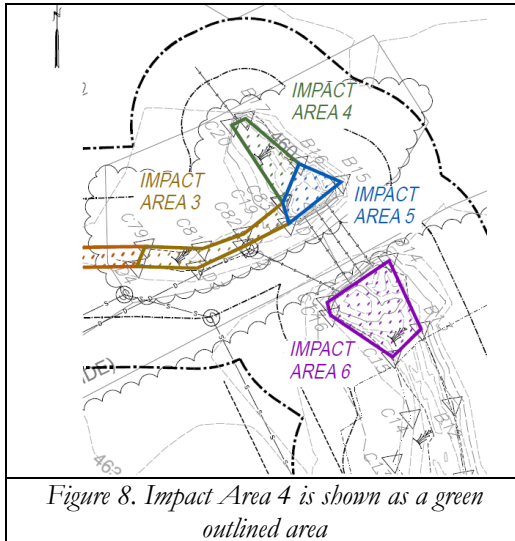
The current state of this section of stream significantly impacts the connectivity of the existing natural stream habitats upstream and downstream. By removing these areas and recreating a more natural stream, the connectivity will improve and offer greater habitat value to the surrounding landscape.

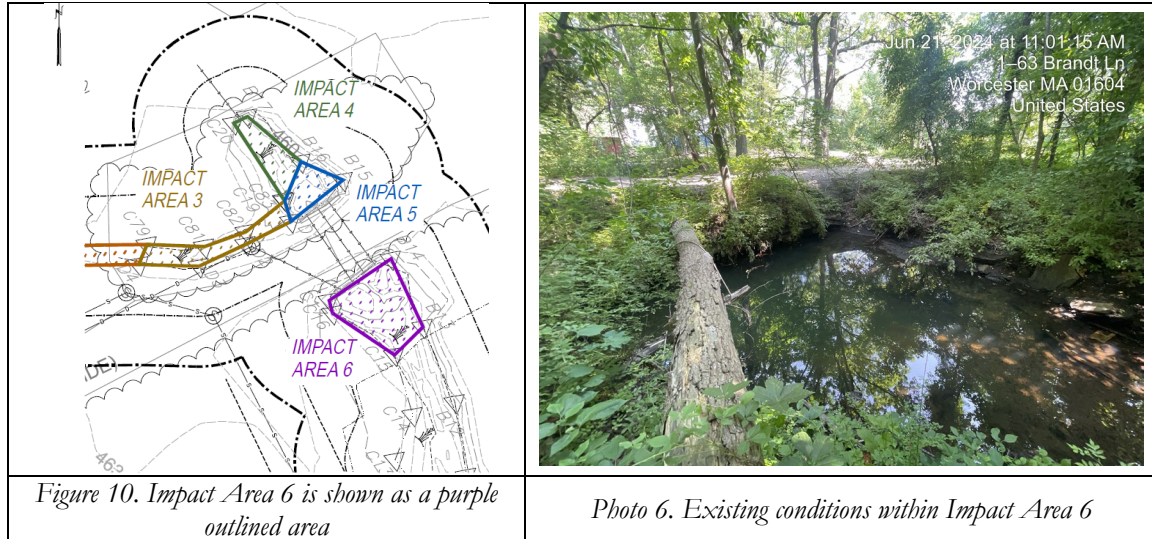


4.4 Impact Areas 4, 5, & 6 (Stream Crossing Improvements)

These impact areas are where the two streams converge and flow through existing culverts under Brandt Lane. Area 4 (48.7 LF of impact) is the location where the outlet to the stream from Impact Area 1 flows out and converges with water from the other stream (Areas 2 & 3) in a pool area (Area 5, 20 LF of impact) before entering three round concrete pipes that go under Brandt Lane. This area also contains iron-oxidizing bacteria and a more natural stream bottom. The banks in this area contain many boulders that appear to have been placed there to stabilize the banks. Adjacent areas also appear to have some fill. Vegetation is similar to

other areas, dominated by knotweed, poison ivy, bittersweet, and red oak. On the downstream side (outlet) of the stream (Area 6, 92 LF of impact), the stream contains another pool feature that is wider and deeper than any other portion of the stream. The stream quickly narrows again as it continues south and eventually off-site.





5.0 Proposed Mitigation

As mitigation, 2,695 linear feet (LF) of Bank replication is proposed in total. Additionally, 10,004 square feet of BVW is proposed to be constructed adjacent to the replicated & restored stream channels. The proposed mitigation will introduce new native species not currently found on-site. The addition of existing and new species on site will enhance the area and provide more wetland values and functions to the site than currently exist. These areas can be further enhanced for wildlife by providing a variety of woody debris and boulders as habitat features both within and adjacent to the new stream channel. Plunge pools within the meandering stream area also proposed. The replicated stream will fully contain a natural bottom and the stream crossing at Brandt Lane meets stream crossing standards, which also will contain a natural bottom and room for some wildlife passage.

6.0 Regulatory Compliance

The applicant proposes work within resource areas protected by the WPA and the Ordinance. The project has been designed to minimize and mitigate Bank and Buffer Zone impacts to the greatest extent practicable. Please find explanations regarding how the project meets the performance standards for each jurisdictional area.

6.1 Bank – Under the WPA & The Ordinance

The WPA defines Bank as “the portion of the land surface which normally abuts and confines a water body. It occurs between a water body and a vegetated bordering wetland and adjacent flood plain, or, in the absence of these, it occurs between a water body and an upland. A Bank may be partially or totally vegetated, or it may be comprised of exposed soil, gravel or stone.”

The WPA defines streams as, “a body of running water, including brooks and creeks, which moves in a definite channel in the ground due to a hydraulic gradient, and which flows within, into or out of an Area Subject to Protection under M.G.L. c. 131 § 40. Such a body of running water which does not flow throughout the year (i.e., which is intermittent) is a stream except for that portion upgradient of all bogs, swamps, wet meadows and marshes.”

The Ordinance states that “The general performance standards for Banks, Land Under Water Bodies, Bordering Land Subject to Flooding and Isolated Land Subject to Flooding shall be as stated in 310 CMR 10.00” (§4.1).

§10.54	Table 2. Inland Banks Performance Standards: Impact Areas 1 & 7	
	Performance Standard	Compliance
10.54 (4)	<p><i>(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:</i></p> <ol style="list-style-type: none"> <i>1. the physical stability of the Bank;</i> <i>2. the water carrying capacity of the existing channel within the Bank;</i> <i>3. ground water and surface water quality;</i> <i>4. the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;</i> <i>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.</i> <i>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</i> 	<ol style="list-style-type: none"> 1. The physical stability of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will be constructed with the appropriate structural stability on its slopes and the dozens of woody plants and native herbaceous plants covering the Banks shall provide additional anchoring of the slopes. 2. The carrying capacity of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will have an increased carrying capacity. This increased carrying capacity will enhance the stream’s ability to protect the “Flood Control” and “Storm Damage Prevention” interests protected by the WPA. 3. The ground water and surface water quality of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. A significant portion of the existing Banks consist of man-made debris and fill, which are degraded and/or impervious, and therefore not significant to the protection of ground

	<p><i>evaluation in accordance with the procedures contained in 310 CMR 10.60.</i></p>	<p>water and surface water quality. The new stream Bank will be entirely pervious and planted with native trees, shrubs and seed mix, therefore the relocated stream will have greatly improved groundwater and surface water quality.</p> <p>4. The capacity of the existing Bank to provide breeding habitat, escape cover and food for fisheries will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The existing stream is intermittent and not designated as a cold-water fishery, therefore the altered area is not likely to provide any breeding habitat for fisheries. The new stream has been designed to include meanders, pools, large rocks, boulders, and large woody debris that could provide escape cover or food for fisheries.</p> <p>5. The capacity of the existing Bank to provide important wildlife habitat functions will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. An Appendix B, Detailed Wildlife Habitat Evaluation was performed on 06/21/2024. Please see documentation attached. The evaluation concluded that, due to the lack of existing important or uncommon wildlife habitats, and the robust stream restoration plan, there will be no adverse effects to wildlife habitat from the project and the project will be a great improvement over existing wildlife habitat conditions.</p> <p>6. This standard is not applicable to the proposed work.</p>
	<p><i>(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</i></p>	<p>This standard is not applicable to the proposed work.</p>

	<p>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:</p> <ol style="list-style-type: none"> 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. 	
	<p>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</p>	<p>The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.</p>

§10.54	<p align="center">Table 3. Inland Banks Performance Standards: <i>Impact Area 2</i></p>	
	Performance Standard	Compliance
10.54 (4)	<p>(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:</p> <ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. The physical stability of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will be constructed with the appropriate structural stability on its slopes and the dozens of woody plants and native herbaceous plants covering the Banks shall provide additional anchoring of the slopes. 2. The carrying capacity of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will have

	<p><i>on wildlife habitat, as determined by procedures contained in 310 CMR 10.60.</i></p> <p><i>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.</i></p>	<p>an increased carrying capacity. This increased carrying capacity will enhance the stream's ability to protect the "Flood Control" and "Storm Damage Prevention" interests protected by the WPA.</p> <p>3. The ground water and surface water quality of the existing Bank will be "impaired" only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The majority of the Bank resource area in this stretch of the intermittent stream consists of an impervious paved swale, and a significant portion of the remaining Banks consist of man-made debris and fill, which are degraded and/or impervious, and therefore not significant to the protection of ground water and surface water quality. The new stream Bank will be entirely pervious and planted with native trees, shrubs and seed mix, therefore the relocated stream will have greatly improved groundwater and surface water quality.</p> <p>4. The capacity of the existing Bank to provide breeding habitat, escape cover and food for fisheries will be "impaired" only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The existing stream is intermittent and not designated as a cold-water fishery, therefore the altered area is not likely to provide any breeding habitat for fisheries. The new stream has been designed to include meanders, pools, large rocks, boulders, and large woody debris that could provide escape cover or food for fisheries.</p> <p>5. The capacity of the existing Bank to provide important wildlife habitat functions will be "impaired" only temporarily, during the time between when the original stream channel is removed, and the new stream is</p>
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		constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. An Appendix B, Detailed Wildlife Habitat Evaluation was performed on 06/21/2024. Please see documentation attached. The evaluation concluded that, due to the lack of existing important or uncommon wildlife habitats, and the robust stream restoration plan, there will be no adverse effects to wildlife habitat from the project and the project will be a great improvement over existing wildlife habitat conditions. 6. This standard is not applicable to the proposed work.
	<i>(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:</i> 1. <i>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;</i> 2. <i>The applicant demonstrates that there is no reasonable method of protecting, renovating or rebuilding the facility in question other than the one proposed.</i>	This standard is not applicable to the proposed work.
	<i>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</i>	The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.

Table 4. Inland Banks Performance Standards:		
<i>Impact Area 3</i>		
	Performance Standard	Compliance
§10.54		
10.54 (4)	<i>(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:</i>	1. The physical stability of the existing Bank will be “impaired” only temporarily, during the time between when the original stream

<p>1. <i>the physical stability of the Bank;</i></p> <p>2. <i>the water carrying capacity of the existing channel within the Bank;</i></p> <p>3. <i>ground water and surface water quality;</i></p> <p>4. <i>the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;</i></p> <p>5. <i>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.</i></p> <p>6. <i>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.</i></p>	<p>channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will be constructed with the appropriate structural stability on its slopes and the dozens of woody plants and native herbaceous plants covering the Banks shall provide additional anchoring of the slopes.</p> <p>2. The carrying capacity of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will have an increased carrying capacity. This increased carrying capacity will enhance the stream’s ability to protect the “Flood Control” and “Storm Damage Prevention” interests protected by the WPA.</p> <p>3. The ground water and surface water quality of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The majority of the Bank resource area in this stretch of the intermittent stream consists of an impervious paved swale, and a significant portion of the remaining Banks consist of man-made debris and fill, which are degraded and/or impervious, and therefore not significant to the protection of ground water and surface water quality. The new stream Bank will be entirely pervious and planted with native trees, shrubs and seed mix, therefore the relocated stream will have greatly improved groundwater and surface water quality.</p>
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		<p>4. The capacity of the existing Bank to provide breeding habitat, escape cover and food for fisheries will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The existing stream is intermittent and not designated as a cold-water fishery, therefore the altered area is not likely to provide any breeding habitat for fisheries. The new stream has been designed to include meanders, pools, large rocks, boulders, and large woody debris that could provide escape cover or food for fisheries.</p> <p>5. The capacity of the existing Bank to provide important wildlife habitat functions will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. An Appendix B, Detailed Wildlife Habitat Evaluation was performed on 06/21/2024. Please see documentation attached. The evaluation concluded that, due to the lack of existing important or uncommon wildlife habitats, and the robust stream restoration plan, there will be no adverse effects to wildlife habitat from the project and the project will be a great improvement over existing wildlife habitat conditions.</p> <p>6. This standard is not applicable to the proposed work.</p>
	<p><i>(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:</i></p>	<p>This standard is not applicable to the proposed work.</p>

	<p>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;</p> <p>2. The applicant demonstrates that there is no reasonable method of protecting, renovating or rebuilding the facility in question other than the one proposed.</p>	
	<p>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</p>	<p>The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.</p>

§10.54	<p align="center">Table 5. Inland Banks Performance Standards: <i>Impact Area 4</i></p>	
	Performance Standard	Compliance
10.54 (4)	<p>(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:</p> <ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1. The physical stability of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will be constructed with the appropriate structural stability on its slopes and the dozens of woody plants and native herbaceous plants covering the Banks shall provide additional anchoring of the slopes. 2. The carrying capacity of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The proposed conditions will provide more linear feet of Bank. This new Bank will have an increased carrying capacity. This increased carrying capacity will enhance the stream’s ability to protect the “Flood Control” and “Storm Damage Prevention” interests protected by the WPA.

	<p><i>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.</i></p>	<p>3. The ground water and surface water quality of the existing Bank will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. A significant portion of the existing Banks consist of man-made debris and fill, which are degraded and/or impervious, and therefore not significant to the protection of ground water and surface water quality. The new stream Bank will be entirely pervious and planted with native trees, shrubs and seed mix, therefore the relocated stream will have greatly improved groundwater and surface water quality.</p> <p>4. The capacity of the existing Bank to provide breeding habitat, escape cover and food for fisheries will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. The existing stream is intermittent and not designated as a cold-water fishery, therefore the altered area is not likely to provide any breeding habitat for fisheries. The new stream has been designed to include meanders, pools, large rocks, boulders, and large woody debris that could provide escape cover or food for fisheries.</p> <p>5. The capacity of the existing Bank to provide important wildlife habitat functions will be “impaired” only temporarily, during the time between when the original stream channel is removed, and the new stream is constructed. The existing channel shall not be rerouted before completing construction of the new stream channel. An Appendix B, Detailed Wildlife Habitat Evaluation was performed on 06/21/2024. Please see documentation attached. The evaluation concluded that, due to the lack of existing important or uncommon wildlife habitats,</p>
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		and the robust stream restoration plan, there will be no adverse effects to wildlife habitat from the project and the project will be a great improvement over existing wildlife habitat conditions. 6. This standard is not applicable to the proposed work.
	<i>(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:</i> 1. <i>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;</i> 2. <i>The applicant demonstrates that there is no reasonable method of protecting, renovating or rebuilding the facility in question other than the one proposed.</i>	This standard is not applicable to the proposed work.
	<i>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</i>	The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.

Table 6. Inland Banks Performance Standards: Impact Area 5		
§10.54	Performance Standard	Compliance
10.54 (4)	<i>(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:</i> 1. <i>the physical stability of the Bank;</i> 2. <i>the water carrying capacity of the existing channel within the Bank;</i> 3. <i>ground water and surface water quality;</i> 4. <i>the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;</i> 5. <i>the capacity of the Bank to provide important wildlife habitat functions. A project or projects on a</i>	In accordance with 10.54 (4)(a)6, the proposed stream crossing redevelopment shall comply with Massachusetts Stream Crossing Standards, and therefore are presumed to meet the performance standard. Please see Table 8 below for the proposed crossings' compliance with Massachusetts Stream Crossing Standards.

	<p><i>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.</i></p> <p><i>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.</i></p>	
	<p><i>(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:</i></p> <p><i>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;</i></p>	<p>This standard is not applicable to the proposed work.</p>

	<p>2. <i>The applicant demonstrates that there is no reasonable method of protecting, renovating or rebuilding the facility in question other than the one proposed.</i></p>	
	<p><i>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</i></p>	<p>The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.</p>

§10.54	<p align="center">Table 7. Inland Banks Performance Standards: Impact Area 6</p>	
	Performance Standard	Compliance
10.54 (4)	<p><i>(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:</i></p> <ol style="list-style-type: none"> <i>1. the physical stability of the Bank;</i> <i>2. the water carrying capacity of the existing channel within the Bank;</i> <i>3. ground water and surface water quality;</i> <i>4. the capacity of the Bank to provide breeding habitat, escape cover and food for fisheries;</i> <i>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.</i> <i>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</i> 	<p>In accordance with 10.54 (4)(a)6, the proposed stream crossings shall comply with Massachusetts Stream Crossing Standards, and therefore are presumed to meet the performance standard. Please see Table 8 below for the proposed crossings' compliance with Massachusetts Stream Crossing Standards.</p>

	<p><i>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.</i></p>	
	<p><i>(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:</i></p> <ol style="list-style-type: none"> <i>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;</i> <i>2. The applicant demonstrates that there is no reasonable method of protecting, renovating or rebuilding the facility in question other than the one proposed.</i> 	<p>This standard is not applicable to the proposed work.</p>
	<p><i>(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 specified habitat sites of Rare Species, as identified by procedures established under 310 CMR 10.59.</i></p>	<p>The project is not proposed within mapped Rare Species habitats. Please see the attached Wildlife Habitat Evaluation for additional details.</p>

6.2 Stream Crossings – Under the Massachusetts Stream Crossing Standards

The Stream Crossing Standards specify General and Optimal Standards for river and stream crossings. According to the Stream Crossing Standards, “Replacement culverts should meet the design guidelines for either general standards or optimal standards unless: doing so would result in significant stream instability that can’t otherwise be mitigated; meeting the standards would create a flooding hazard that can’t otherwise be mitigated; site constraints make it impossible to meet the standards.” The proposed work will comply with the General Standards.

Table 8. General Design Standards for Stream Crossing Redevelopment:

Impact Areas 5 & 6

Redeveloped Crossing General Standard	Compliance
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Massachusetts River and Stream Crossing Standards	<p><i>1. Spans (bridges, 3-sided box culverts, open-bottom culverts or arches) that preserve the natural stream channel are strongly preferred.</i></p>	<p>The replacement culvert will be a 3-sided box culvert.</p>
	<p><i>2. If a culvert, then it should be embedded:</i> - a minimum of 2 feet for all culverts, - a minimum of 2 feet and at least 25 percent for round pipe culverts - When embedment material includes elements > 15 inches in diameter, embedment depths should be at least twice the D84 (particle width larger than 84 % of particles) of the embedment material</p>	<p>The footings for the 3-sided box culvert will be embedded at least 2 feet into the firm bearing soil for stability.</p>
	<p><i>3. Spans channel width (a minimum of 1.2 times the bankfull width)</i></p>	<p>The proposed culvert will span the channel width. The proposed culvert width is 12 feet, which is 1.2 times the Bankfull width of the channel (10 feet). Bankfull width was determined to be 10 feet wide based on measurements of channel downstream of the culvert. Bankfull width is difficult to determine due to the human-altered nature off the upgradient and downgradient channels. A conservative 10 foot wide Bankfull width was chosen to ensure adequate water carrying capacity will be provided during large rain events.</p>
	<p><i>4. Natural bottom substrate within the structure</i></p>	<p>Natural stream bottom substrate will be created on site or imported. Substrate will be comprised of variably sized stone and gravel. In general, the substrate should be comprised of 20% 2' stones, 30% 1-2' stones, 30% 6"-1' stones and 20% 1"-6" stones. Some constructed streams contain some percentage of topsoil (sometimes ~10%), however, Goddard is recommending to not use topsoil within the mixture to avoid erosion of fine sediments during stream flows. It is anticipated that the stones will naturally fill with finer sediments over time.</p>
	<p><i>5. Designed with appropriate bed forms and streambed characteristics so that water depths and velocities are comparable to those found in the natural channel at a variety of flows</i></p>	<p>The downgradient streambed elevation within the proposed culvert will be equivalent to the existing stream bed elevation located within just outside of the proposed culvert downgradient streambed elevation of +/- 455.3.</p>

	6. <i>Openness > 0.82 feet (0.25 meters)</i>	The proposed culvert height is 4-feet, width is 12-feet, and length is 56-feet. This amounts to an openness ratio of 0.857 ((4 x 12)/56=0.857 feet), which exceeds the required 0.82.
	7. <i>Banks should be present on each side of the stream matching the horizontal profile of the existing stream and banks</i>	The proposed culvert has been designed with a grade that will match the horizontal profile of the existing downgradient stream and banks. Banks will connect to the embankment slope to allow for safe wildlife passage.

6.3 100-foot Buffer Zone – Under the WPA

The WPA defines Buffer Zone as “100-ft area horizontally (on a true lateral) landward of approved delineation of applicable wetland resource areas.” The WPA further states that any activities undertaken within 100 feet of an area specified in 310 CMR 10.02(1)(a) (e.g., Bank, Bordering Vegetated Wetland) will be conducted per 310 CMR 10.02(2)(b), “in a manner so as to reduce the potential for any adverse impacts to the resource area during construction, and with post-construction measures implemented to stabilize any disturbed areas.”

The WPA Regulations [310 CMR 10.02(2)(b)] do not contain performance standards for Buffer Zone Alteration. All reasonable efforts to avoid, minimize and mitigate adverse impacts on the Buffer Zone have been considered. Due to the degraded state of a majority of the existing Buffer Zone, work in general will result in an improvement over existing conditions.

6.4 100-foot Buffer Zone – Under the Ordinance

Per the City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations (the Ordinance) Section 2, “any terms not defined in the Regulations or in the Ordinance, the definitions used in the Massachusetts Wetland Protection Act (MGL, Ch. 131, Sec. 40) and its accompanying regulations shall apply.” Whereas “Buffer Zone” is not defined in the Ordinance, Buffer Zone shall be defined as the “100-ft area horizontally (on a true lateral) landward of approved delineation of applicable wetland resource areas” and any activities undertaken within 100 feet of an area specified in 310 CMR 10.02(1)(a) (e.g., Bank, Bordering Vegetated Wetland) must be conducted per 310 CMR 10.02(2)(b), “in a manner so as to reduce the potential for any adverse impacts to the resource area during construction, and with post-construction measures implemented to stabilize any disturbed areas.”

§4.2.4	Table 9. Local Buffer Zone Performance Standards:	
	Performance Standard	Compliance
City of Worcester Wetlands Protection Ordinance	<i>A. Structures and Improvements to Land - Except as may be allowed, no permanent or temporary foundation, building, road, sidewalk, bridge, sign, billboard or other permanent or temporary structure shall be placed within 30 feet of any resource area, unless,</i>	In accordance with 4.2.4 C., the proposed activity shall comply with 4.2.4 C-E, and therefore are presumed to meet the performance standard.

<p>1. <i>It is a component of a qualified limited project under the state Wetlands Protection Act and the regulations promulgated pursuant thereto; or</i></p> <p>2. <i>It is a component of any storm water, flood control, water conservation, erosion control or soil conservation project otherwise approved.</i></p>	
<p><i>B. Construction Activities - Except as may be allowed below, no grading, filling, excavation, removal of vegetation or other construction activity (hereinafter, collectively the work) shall be allowed within fifteen feet (15') of any resource area, unless,</i></p> <p>1. <i>The Work is required to provide access to a resource area where a discretionary taking has been allowed under section 4.1 of these regulations; or</i></p> <p>2. <i>The Work is a component of any of the activities cited in (1) or (2) of subsection (A), above.</i></p>	<p>In accordance with 4.2.4 C., the proposed activity shall comply with 4.2.4 C-E, and therefore are presumed to meet the performance standard.</p>
<p><i>C. Discretionary Allowances - The structures, Improvements and Work otherwise prohibited under subsections (A) and (B), above, may be allowed by the Conservation Commission if the applicant demonstrates and the Commission finds:</i></p> <p>1. <i>Alternatives to the applicant's proposal have been considered, and no reasonable alternative is available; and</i></p> <p>2. <i>The project scope and design minimize work in close proximity to any resource area; and</i></p> <p>3. <i>The particular site conditions (including, but not limited to slope, soil type and City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations - 17 - hydrology) will allow prevention of wetlands damage from such work; and</i></p> <p>4. <i>The work will not lead to further encroachments on the resource area after completion of the project; and</i></p> <p>5(A) <i>the structure, improvement or activity is a component of any project to provide public access to and within the resource area after completion of the project; or</i></p> <p>(B) <i>the permitted activity will not materially impair significant conservation interests and is consistent with the interests and purpose of the wetlands protection ordinance.</i></p>	<p>The Applicant seeks the Commission's Discretionary Allowance to allow for work to occur within the 15 and 30 foot Buffer Zones to Bank and BVW resource areas. A significant portion of the 15 and 30 foot Buffer Zone is in a degraded state, i.e., the land surface consists of human-made fill or is paved with asphalt. As such, the Commission's discretionary allowance to permit improvements to the Buffer Zone's condition would result in an improvement to the overall condition of the 15 and 30 foot Buffer Zone's throughout the site. The following response to 4.2.4 C will demonstrate that the Commission may have the opportunity to allow for the discretionary allowance for alterations to the 15 and 30 foot Buffer Zones.</p> <p>1. Several alternatives to the applicant's proposal have been considered. As currently proposed, the project has the opportunity to improve the condition of the 15 and 30 foot Buffer Zones. Work within the 15 foot Buffer Zone includes:</p> <ul style="list-style-type: none"> • Work associated with the proposed stream crossing replacement work. • Work associated with widening Brandt Lane.

		<ul style="list-style-type: none"> • Work associated with improving the management of existing stormwater drain discharges. • Work associated with reutilizing existing degraded areas for proposed development. Stormwater management is proposed to improve the water quality of the runoff generated by the reutilized degraded areas. • Work associated with improving the management of existing stormwater drain discharges. • Work associated with the removal of degraded 15' & 30' Buffer Zones and replacing these areas with extensive wetland resource areas (particularly Bank and BVW) and naturalizing 15' & 30' Buffer Zones where development is not proposed. <p>2. Work within the 15' & 30' Buffer Zones is proposed to improve existing degraded conditions or reutilize the degraded areas for the proposed development. If removal of degraded 15' & 30' Buffer zone was not proposed, these Buffer Zones would remain in a degraded state.</p> <p>3. The condition of the 15' & 30' Buffer Zones that are proposed to be altered are degraded, consisting of asphalt or man-made human fill containing waste and scrap metal. The proposed alterations to these areas will improve the condition of the Buffer Zones.</p> <p>4. Due to work occurring in close proximity to resource areas, extensive protective measures will be utilized during construction to prevent impacts to the adjacent resource areas. Erosion and sediment control measures as well as temporary stormwater management features are proposed during construction.</p> <p>5. Whereas the proposed project will not provide public access to and within the resource area, the proposed work shall</p>
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	<p><i>D. Burden of Proof - The applicant shall have the burden of proof that the work proposed in its notice of intent and for which approval is sought under subsection (C), above, satisfies all of the necessary findings set forth therein. Failure to provide adequate evidence shall be sufficient grounds for the Commission to deny or condition the applicant's proposal.</i></p>	<p>Please see the above explanations regarding how local performance standards for Buffer Zone shall be met.</p>
	<p><i>E. Waiver - Notwithstanding anything to the contrary in subsection (C), above, the Commission, upon request thereof, and after a public hearing on such request, may waive any of the provisions of this Section 4.2.4 upon making the following findings:</i></p> <ol style="list-style-type: none"> <i>1. There are no reasonable conditions or alternatives that would otherwise allow the project to proceed in compliance with these regulations; and</i> <i>2. A waiver is necessary to accommodate the project, which will provide a significant general public benefit and will not materially impair significant wetlands interests.</i> 	<p>Please see the above explanations regarding how local performance standards for Buffer Zone shall be met with the requested Discretionary Allowance.</p>

7.0 Conclusion

In summary, Goddard Consulting believes that the proposed project presents a significant improvement over existing conditions. The proposed project has been designed to correct site complications and create a healthier, higher-functioning wetland system on-site. The proposed buildings and infrastructure have been designed with sensitivity to the resource areas and Buffer Zones on-site and meets all performance standards under the Massachusetts Wetlands Protection Act and the City of Worcester Wetlands Protection Ordinance and Wetlands Protection Regulations. Therefore, Goddard Consulting respectfully requests that the Worcester Conservation Commission issue an Order of Conditions approving the project.

If you have any questions, please feel free to contact Goddard Consulting, LLC at (508) 393-3784.

Sincerely,
Goddard Consulting, LLC



Mitch Maslanka
Wetland Scientist



Sophie Shapiro
Wetland Scientist