New
England Environmental Design, LLC

DIVISION OF PLANNING \& REGULATORY SERVICES
CITY HALL ROOM 404
455 MAIN STREET
WORCESTER, MA 01608

ENCLOSED PLEASE FIND THE NOTICE OF INTENT FOR:
PAUL M. LUKASON \& JENNIFER L. SKORINKO, TRUSTEES
LUKASON FAMILY 2019 IREEVOCABLE TRUST
5 DAWSON ROAD
WORCESTER, MA 01602

PROJECT LOCATION: 5 DAWSON ROAD
WORCESTER, MA 01602
JOB\# 19137-23
BELOW IS A LIST OF ALL PLANS \& OTHER MATERIALS SUBMITTED PAUL M. LUKASON \& JENNIFER L. SKORINKO, TRUSTEES OF THE LUKASON FAMILY 2019 IREEVOCABLE TRUST/5 DAWSON ROAD NOTICE OF INTENT:

- REPAIR SUBSURFACE SEWAGE DISPOSAL SYSTEM
- NOTICE OF INTENT FEE TRANSMITTAL FORM
- COPY OF CHECKS FOR STATE AND TOWN FEE PAYMENT
- AFFIDAVIT OF SERVICE
- COPY OF NOTIFICATION TO ABUTTERS
- CERTIFIED LIST OF ABUTTERS
- SITE EVALUATION \& WETLAND RESOURCE AREA ASSESSMENT
- USGS MAP
- MA GIS LOCUS MAP

If you have any questions or need any further information, please feel free to contact me at (508) 829-7222.

Sincerely,


Julian P. Votruba
New England Environmental Design, LLC

## RECEIVED

Massachusetts Department of Environmental Protection eDEP Transaction Copy

Here is the file you requested for your records.
To retain a copy of this file you must save and/or print.

Username: NEEDLLC1
Transaction ID: 1713233
Document: WPA Form 3-NOI
Size of File: 273.18 K
Status of Transaction: In Process
Date and Time Created: 5/1/2024:12:49:27 PM

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to "Download a Copy" from the Current Submittals page.

Provided by MassDEP:
MassDEP File \#:
eDEP Transaction \#:1713233
City/Town:WORCESTER

## A.General Information

1. Project Location:

| a. Street Address | 5 DAWSON RD |  |  |
| :--- | :--- | :--- | :--- |
| b. City/Town | WORCESTER | c. Zip Code | 01602 |
| d. Latitude | 42.29071 N | e. Longitude | 71.86075 W |
| f. Map/Plat \# | MAP 54 BLOCK 001 | g.Parcel/Lot \# | LOT 00053 |

2. Applicant:
$\sqrt{\nabla}$ Individual $\Gamma$ Organization

| a. First Name | PAUL M. \& JEN |  | b.La | LUKASON \& SKORINKO |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| c. Organization | LUKASON FAMILY 2019 IRREVOCABLE TRUST |  |  |  |  |
| d. Mailing Address | 5 DAWSON RD |  |  |  |  |
| e. City/Town | WORCESTER | f. State | MA | g. Zip Code |  |
| h. Phone Number |  | i. Fax |  | j. Email |  |

## 3.Property Owner:

$\Gamma$ more than one owner

4.Representative:

| a. First Name | JULIAN P. | b. Last Name |  |  |  |
| :--- | :--- | :--- | :--- | :--- | :--- |
| c. Organization | NEW ENGLAND ENVIRONMENTAL DESIGN, LLC |  |  |  |  |
| d. Mailing Address | P.O. BOX 376 |  |  |  |  |
| e. City/Town | RUTLAND | f. State | MA | g. Zip Code | 01543 |
| h.Phone Number | $508-829-7222$ | i.Fax |  | j.Email | NEEDLLCaHOTMAIL.COM |

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

| a.Total Fee Paid | 110.00 | b.State Fee Paid | 42.50 | c.City/Town Fee Paid | 67.50 |
| :--- | :--- | :--- | :--- | :--- | :--- |

6.General Project Description:

SEPTIC SYSTEM REPAIR
7a.Project Type:
1.7 Single Family Home
2. $\Gamma$ Residential Subdivision
3. 5 Limited Project Driveway Crossing
4. $\Gamma$ Commercial/Industrial
5.5 Dock/Pier
6. $\Gamma$ Utilities
7. ${ }^{-}$Coastal Engineering Structure
8. F Agriculture (eg., cranberries, forestry)
9.1 Transportation
10. $\Gamma$ Other

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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

1. $\Gamma$ Yes $\bar{V}$ No
2. Limited Project
8.Property recorded at the Registry of Deeds for:
a.County:
b.Certificate:
c.Book:
64617
WORCESTER
d.Page:

259

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City/Town:WORCESTER

## B. Buffer Zone \& Resource Area Impacts (temporary \& permanent) 1.Buffer Zone \& Resource Area Impacts (temporary \& permanent): <br> $i^{\nabla}$ This is a Buffer Zone only project - 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)

| Resource Area | Size of Proposed Alteration Propren | ed Replacement (if any) |
| :---: | :---: | :---: |
| a. $\Gamma$ Bank |  |  |
| b. $\Gamma^{-}$Bordering Vegetated Wetland | 1. linear feet | 2. linear feet |
| c. 5 Land under Waterbodies and Waterways | 1. square feet | 2. square feet |
|  | 1. Square feet | 2. square feet |
| 3. cubic yards dredged |  |  |
| e. $\Gamma$ Isolated Land Subject to Flooding | 1. square feet | 2. square feet |
|  | 3. cubic feet of flood storage lost | 4. cubic feet replaced |
|  | 1. square feet |  |
| f. $\Gamma^{-}$Riverfront Area | 2. cubic feet of flood storage lost | 3. cubic feet replaced |
|  | 1. Name of Waterway (if any) |  |
| 2. Width of Riverfront Area (check one) | $\ulcorner 25 \mathrm{ft}$. - Designated Densely De <br> $\Gamma 100 \mathrm{ft}$. - New agricultural proje <br> $\ulcorner 200 \mathrm{ft}$ - All other projects | ped Areas only only |

3. Total area of Riverfront Area on the site of the proposed project
square feet
4. Proposed Alteration of the Riverfront Area:
$\begin{array}{ll}\text { a. total square feet } \quad \text { b. square feet within } 100 \mathrm{ft} . & \begin{array}{l}\text { c. square feet between } 100 \mathrm{ft} \\ \text { and } 200 \mathrm{ft} .\end{array}\end{array}$
5. Has an alternatives analysis been done and is it attached to this NOI?

Massachusetts Department of Environmental
Protection
Bureau of Resource Protection - Wetlands
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6. Was the lot where the activity is proposed created prior to August 1.1996 ?
3.Coastal Resource Areas: (See 310 CMR 10.25-10.35)


Massachusetts Department of Environmental Protection<br>Bureau of Resource Protection－Wetlands<br>WPA Form 3 －Notice of Intent

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a．number of new stream crossings
b．number of replacement stream crossings
C．Other Applicable Standards and Requirements
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 of Endangered Species program （NHESP）？
a．$\quad$ Yes $\nabla$ No
If yes，include proof of mailing or hand delivery of NOI to：
Natural Heritage and Endangered Species
Program
Division of Fisheries and Wildlife
1 Rabbit Hill Road
Westborough，MA 01581
b．Date of map：8／2017
If yes，the project is also subject to Massachusetts Endangered Species Act（MESA）review（ 321 CMR 10．18）．．．．
c．Submit Supplemental Information for Endangered Species Review＊（Check boxes as they apply）
1．$\Gamma$ 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
3．$\Gamma$ Project plans for entire project site，including wetland resource areas and areas outside of wetland jurisdiction，showing existing and proposed conditions，existing and proposed tree／vegetation clearing line，and clearly demarcated limits of work＊＊
a．$\Gamma$ Project description（including description of impacts outside of wetland resource area \＆buffer zone）
b．$\Gamma$ Photographs representative of the site
c．「 MESA filing fee（fee information available at：http：／／www．mass．gov／eea／agencies／dfg／dfw／natural－heritage／regulatory－ review／mass－endangered－species－act－mesa／mesa－fee－schedule．html ）
Make check payable to＂Natural Heritage \＆Endangered Species Fund＂and mail to NHESP at above address
Projects altering 10 or more acres of land，also submit：
d．$\Gamma$ Vegetation cover type map of site
e．「 Project plans showing Priority \＆Estimated Habitat boundaries
d．OR Check One of the following
1．$\Gamma$ Project is exempt from MESA review．Attach applicant letter indicating which MESA exemption applies．（See 321
CMR 10．14，http：／／www．mass．gov／eea／agencies／dfg／dfw／laws－regulations／cmr／321－cmr－1000－massachusetts－endangered－ species－act．html\＃10．14；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．$\Gamma$ Separate MESA review ongoing．
a．NHESP Tracking Number
b．Date submitted to NHESP
3．$\Gamma$ Separate MESA review completed．
Include copy of NHESP＂no Take＂determination or valid Conservation \＆Management Permit with approved plan．

* Some projects not in Estimated Habitat may be located in Priority Habitat, and require NHESP review...

2. For coastal projects only, is any portion of the proposed project located below the mean high waterline or in a fish run?
a. $\bar{F}$ Not applicable - project is in inland resource area only
b. $\quad$ Yes $\Gamma$ No

If yes, include proof of mailing or hand delivery of NOI to either:
South Shore - Cohasset to Rhode Island, and the Cape \& Islands:
North Shore - Hull to New Hampshire:
Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 S. Rodney French Blvd
New Bedford, MA 02744
Division of Marine Fisheries -
North Shore Office
Attr: Environmental Reviewer
30 Emerson Avenue
Gloucester. MA 01930
If yes, it 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.
3. Is any portion of the proposed project within an Area of Critical Environmental Concern (ACEC)?
a. $\Gamma$ Yes $\quad \nabla \mathrm{No}$

If yes, provide name of ACEC (see instructions to WPA Form 3 or DEP Website for ACEC locations). Note: electronic filers click on Website.

## b. ACEC Name

4. 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. $\quad$ Y Yes $\nabla$ No
5. Is any portion of the site subject to a Wetlands Restriction Order under the Inland Wetiands Restriction Act (M.G.L.c. 131, \& 40A) or the Coastal Wetlands Restriction Act (M.G.L.c. 130, § 105)?
a. 「 Yes $\bar{V}$ No
6. Is this project subject to provisions of the MassDEP Stormwater Management Standards?
a. $\Gamma$ Yes, Attach a copy of the Stormwater Report as required by the Stormwater Management Standards per 310 CMR $10.05(6)(\mathrm{k})$-(q) and check if:
7. Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook
$\Gamma$ Vol.2. Chapter 3)
8. 

$\stackrel{\text { A portion of the site constitutes redevelopment }}{ }$
3. Proprietary BMPs are included in the Stormwater Management System
$\Gamma$
b. $\sqrt{\mathrm{V}} \mathrm{No}$, Explain why the project is exempt:

1. Single Family Home
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

Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands
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Provided by MassDEP: MassDEP File \#:
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$\Gamma$ housing project) with no discharge to Critical Areas.

## D. Additional Information

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 by regular mail delivery.

1. USGS or other map of the area (along with a narrative description, if necessary) containing sufficient information for the

IV 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
$\Gamma$ [BVW] replication area or other mitigating measure) relative to the boundaries of each affected resource area.
3. Identify the method for BVW and other resource area boundary delineations (MassDEP BVW Field Data Form(s).
$\Gamma$ 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.

V

| a. Plan Title: | b. Plan Prepared By: | c. Plan Signed/Stamped By: | c. Revised Final Date: e. Scale: |  |
| :--- | :--- | :--- | :--- | :--- |
| REPAIR |  |  |  |  |
| SUBSURFACE | NEW ENGLAND |  |  |  |
| SEWAGE | ENVIRONMENTAL | ZACHARYT. MANN, | $4 / 9 / 2024$ | $1^{\prime \prime}=20^{\prime}$ |
| DISPOSABLE | DESIGN, LLC | SANITARIAN |  |  |
| SYSTEM |  |  |  |  |

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

V
9. Attach Stormwater Report, if needed.

Massachusetts Department of Environmental
Protection
Bureau of Resource Protection - Wetlands
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Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## E. Fees

1. 

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

Applicants must submit the following information (in addition to pages 1 and 2 of the NOI Wetland Fee Transmittal Form) to confirm fee payment:
2. Municipal Check Number
12212
4. State Check Number
NEW ENGLAND ENVIRONMENTAL DESIGN LLC
6. Payer name on check: First Name
5/1/2024
$\left.\begin{array}{l}\text { 3.1/2024 } \\ \text { 5. Check date } \\ \text { 7. Payer name on check: Last Name }\end{array}\right]$.

## 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, $310 \mathrm{CMR} 10.05(5)(\mathrm{a})$.

I further certify under penalties of perjury that all abutters were notified of this application, pursuant to the requirements of M.G.L. c. $131, \S 40$ 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.

PALL M. LUKASON \& JENNIFER L. SKORINKO

1. Signature of Applicant
PALL M. LLKASON \& JENNIFER L. SKORINKO
2. Signature of Property Owner(if different)
JULIAN P. VOTRUBA
3. Signature of Representative (if any)

5/1/2024

## 2. Date

5/1/2024
4. Date

5/1/2024
6. Date

## For Conservation Commission:

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

## For MassDEP:

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

Other:
If the applicant has checked the "yes" box in Section C, Items 1-3, above, refer to that section and the Instructions for additional submittal
requirements 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.

## A. Applicant Information

## 1. Applicant:


2.Property Owner:(if different)
a. First Name
c. Organization
d. Mailing Address
e. City/Town
h. Phone Number

PAUL M. \& JENNIFER L.
b. Last Name

LUKASON FAMILY 2019 IRREVOCABLE TRUST 5 DAWSON RD WORCESTER
f. State MA i. Fax
g. Zip Code
j.Email

## 3. Project Location:

a. Street Address

5 DAWSON RD
b. City/Town

WORCESTER
Are you exempted from Fee? $\Gamma$
Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies are only exempt if the fee is less than $\$ 100$

## B. Fees

| Activity Type | Activity <br> Number | Activity Fee | RF Multiplier | Sub Total |
| :--- | :---: | :---: | :---: | :---: |
| E.) WORK ON SEPTIC SYSTEM SEPARATE FROM | 1 | 110.00 | 110.00 |  |

City/Town share of filling fee State share of filing fee Total Project Fee
$\$ 67.50 \quad \$ 42.50 \quad \$ 110.00$

Massachusetts Department of Environmental Protection Bureau of Resource Protection - Wetlands WPA Form 3 - Notice of Wetland FeeTransmittal Form

Provided by MassDEP:
MassDEP File \#:
eDEP Transaction \#:1713233
City/Town:WORCESTER
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

## A. Applicant Information

## 1. Applicant:


2.Property Owner:(if different)


Are you exempted from Fee? 「
Note: Fee will be exempted if you are one of the following:

- City/Town/County/District
- Municipal Housing Authority
- Indian Tribe Housing Authority
- MBTA

State agencies arc only exempt if the fee is less than $\$ 100$
B. Fees

| Activity Type | Activity <br> Number | Activity Fee | RF Multiplier | Sub Total |
| :--- | :---: | :---: | :---: | :---: |
| E.) WORK ON SEPTIC SYSTEM SEPARATE FROM | 1 | 110.00 |  |  |
| HOUSE | 1 |  | 110.00 |  |

City/Town share of filling fee State share of filing fee Total Project Fee $\$ 67.50 \quad \$ 42.50 \quad \$ 110.00$

## AFFIDAVIT OF SERVICE

Under the Massachusetts Wetlands Protection Act
(To be submitted to the Massachusetts Department of Environmental Protection, the Conservation Commission, when filing a Notice of Intent)

I, Julian P. Votruba, hereby certify under the pains and penalties of perjury that on May 1, 2024 I gave notification to abutters in compliance with the second paragraph of the Massachusetts General Laws Chapter 131, Section 40, and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent filed under the Massachusetts Wetlands Protection Act by Paul M. Lukason \& Jennifer L. Skorinko, Trustees of the Lukason Family 2019 Irrevocable Trust with the City of Worcester Conservation Commission for 5 Dawson Road, located in the City of Worcester.

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


Julian P. Votruba
New England Environmental Design, LLC

5/1/2024
Date

# Site Evaluation \& Wetland Resource Area Assessment 



Prepared for Paul M. Lukason and Jennifer L. Skorinko, Trustees of the Lukason Family 2019 Irrevocable Trust of 5 Dawson Road Worcester, MA. 01602

Located at 5 Dawson Road Worcester, MA. 01602

Job\#: 19137-23
April 12, 2024
Introduction ..... 1.
General Site Description ..... 1.
Wetland Delineation Methodology \& Personnel ..... 1-2.
Wetland Resource Area Description \& Findings ..... 2.
Riverfront Area (RFA) ..... 2-3.
Buffer Zone ..... 3-4.
FEMA Floodplain Designation ..... 4.
NHESP Estimated \& Priority Habitat ..... 4.
Water Supply Protection Area ..... 4.
Outstanding Resource Water (ORW) ..... 4.
References ..... 5.
Appendix ..... 6.U.S.G.S. Topographic MapFEMA Firmette Map

## Site Evaluation and Wetland Resource Area Assessment

## 5 Dawson Road <br> Worcester MA 01602

## Introduction

A site evaluation was conducted at the abovementioned property as a necessary step toward the upgrade/repair of an existing home's failed septic system. Wetland resource areas which are protected under the Massachusetts Wetlands Protection Act (WPA) (M.G.L. c. 131, § 40), the State's effective Regulations ( 310 CMR 10.00), and the City of Worcester Wetland Protection Ordinance and Wetlands Protection Regulations were identified and characterized. The following narrative gives a general description of the site, wetland delineation methodology and wetland resource descriptions.

## General Site Description

The subject property is a residential lot located on the westerly side of Dawson Road in Worcester, MA. Tatnuck Brook, referred hereon interchangeably as either a river or brook, flows southerly through and splits the lot, leaving about 0.27 acres of land which an existing house sits on East of the brook, a portion of this area being under an existing easement for water purposes. The existing single-family home sits on the lot toward the front right side, about 40 ft off the edge of street to the center of the house, although it is just over 24 ft from the front lot line.

Topography in the front yard slopes mildly away from the house and down to the left side yard which continues to slope gradually to an existing drainage gully draining on/out the left side line and into Tatnuck Brook. The East side bank of Tatnuck Brook has been historically altered and exists as a short, steep rip-rap stone slope up to the edge of the backyard. The entire front, side and back yard area consists of lawn grass and some mulching/ornamentals around the home.

Naturally occurring soils in the subject area have been mapped out under the Canton and Merrimac series which consist of deep, well drained soils generally with loamy materials over sandy and coarse materials. The U.S. Department of Agriculture's (USDA) Natural Resources Conservation Service's (NRCS) Web Soil Survey identifies the following soils nearby: Canton fine sandy loam (421B) and Merrimac fine sandy loam (254B), both extremely stony. The Canton series may contain Swansea soil types as a potential minor component but is very rare ( $<2 \%$ ).

## Wetland Delineation Methodology \& Personnel

Site evaluation and wetland resource area assessment were performed by Zachary T. Mann, wetland scientist for New England Environmental Design. Mr. Mann graduated from Unity College in 2015 with a degree in Biology and with personal interest in plant identification, wetland ecology and conservation.

By the Regulations, specifically 310 CMR 10.55(2)(c), "the boundary of Bordering Vegetated Wetlands is the line within which $50 \%$ or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist." The methodology used to delineate BVW is further described in the "Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands" produced by the Massachusetts Department of Environmental Protection, dated September 2022.

The Handbook states that sites which are undisturbed, whose dominant plant community consists solely of wetland indicator species, or where the wetland boundary is clear and abrupt, may use vegetation alone for delineating. Disturbed sites require a multifaceted approach, using a combination of vegetation and hydric soil indicators. The subject property is in an area of moderate development or disturbance so, as stated in the Handbook, due to the potential of past disturbance, both vegetation and hydric soil indicators were considered while determining the presence or absence of wetland resource boundaries. Visual survey for surficial wetland hydrology indicators were also conducted.

The Act states that Riverfront Area is the area of land between a river's mean annual high-water line measured horizontally outward from the river and a parallel line located 200 feet away, except that the parallel line is located " 25 feet away in Boston, Brockton... and Worcester." Mean annual high-water line of a river is the line that is apparent from visible marking or changes in the character of soils or vegetation due to the prolonged presence of water and that distinguishes between predominantly aquatic and predominantly terrestrial land. Bankfull field indicators include but are not limited to: changes in slope, changes in vegetation, stain lines, top of pointbars, changes in bank materials, or bank undercuts [310 CMR 10.58(2)(a)(2)].

Flagging was used to denote mean annual high-water line of Tatnuck Brook's East side. The flags are labeled TB-1 through to TB-8.

## Wetland Resource Area - Description and Findings

Wetland resources found on site consists of a river, or brook, Tatnuck Brook, and has no associated bordering vegetated wetlands. The back yard ends at a short, steep drop-off - the slope is distinct and abrupt; there is no area of transition or bordering vegetated wetlands at the edge of brook. There were no wetland indicator species and no indicators of surficial wetland hydrology. With the absence of a wetland vegetation community, absence of surficial wetland hydrology indicators and the presence a distinct, abrupt slope to the edge of Tatnuck Brook, it was determined that soil sampling be not necessary in the yard. However, Tatnuck Brook, being a river and a wetland resource area, does have an associated wetland resource area buffer zone and Riverfront Area.

## Riverfront Area

Tatnuck Brook is a river and has an associated Riverfront Area (310 CMR 10.58). Being the City of Worcester, the Riverfront Area extends 25 feet horizontally from the mean annual high-water line. Work proposed within the Riverfront Area requires additional General Performance Standards [310 CMR 10.58(4)]. Work proposed outside of this Riverfront Area is not subject to
additional General Performance Standards under the Act. With proper implementation of erosion and sediment control barriers, and following the General Performance Standards of Activities Within the Buffer Zone, there should be no impact to the Riverfront Area when working in the Buffer Zone while remaining outside the Riverfront Area.

## Buffer Zone - Activities Within

There is Buffer Zone associated with Tatnuck Brook. Defined in WPA's 310 CMR 10.04 as being the area of land extending 100 feet horizontally outward from the boundary of any area specified in 310 CMR 10.02(1)(a). The WPA states that any bank bordering on any creek, river or stream is subject to protection under M.G.L. c. 131, § 40.

Excerpt from the City of Worcester's Wetland Regulations, 3.2.3 General Performance Standards on Erosion and Sediment Control:

Where 3.2.2 is not overcome, the project shall meet the following performance standards. Any proposed alteration shall not expose or cause soil to be exposed so that uncontrolled erosion occurs. Evidence of this condition may include the formation of gullys, the cutting back of existing banks by stormwater flow or the presence of visible sediment in the runoff. Erosion shall be mitigated by a combination of the following means as appropriate to the specific site:
a. Limit erosion by minimizing the amount of exposed ground and the length of time it is exposed.
b. Reduce the steepness and length of slopes on the site.
c. Divert flows away from disturbed areas during construction.
d. Protect exposed surfaces through vegetative or other stabilizing cover.
e. Decrease the velocity of runoff through check dams, slope breaks, berms, and improved (i.e. vegetation, rip-rap) drainage surfaces.
f. Trap sediment in basins and behind barriers (i.e. staked hay bales and fencing). The barriers are to be keyed into the ground to prevent sediment from passing under them.
g. Maintain and adjust erosion and sediment control measures continuously during construction.

Excerpt from the City of Worcester's Wetland Regulations, 4.2.4 General Performance Standards on Activities Within the Buffer Zone:
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 allow within fifteen feet (15') of any resource area...
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:
1.) Alternatives to the applicant's proposal have been considered, and no reasonable alternative is available; and
2.) The project scope and design minimize work in close proximity to any resource; and
3.) The particular site conditions (including but not limited to slope, soil type and hydrology) will allow prevention of wetlands damage from such work; and
4.) The work will not lead to further encroachment on the resource area after completion of the project; and
5.) (A) 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
(B) The permitted activity will not materially impair significant conservation interests and is consistent with the interests and purposes of the wetlands protection ordinance.

## FEMA Floodplain Designation

Based on the Federal Emergency Management Agency Flood Insurance Rate Map for the City of Worcester, MA (Map No. 25027C0611E, effective 7/4/2011), the site does contain special flood hazard area with base flood elevations (BFE). The light blue shading denotes the approximate area of special flood hazard, and the elevation labels along the brook denote the BFE. The subject property, 5 Dawson Road, lies by BFE 628 ft.

## NHESP Estimated \& Priority Habitat

The Massachusetts Natural Heritage and Endangered Species Program Habitat Map shows there to be no mapped estimated habitats of rare wildlife or priority habitats of rare species.

## Water Supply Protection Area

According to the Massachusetts Geographic Information System's online MassMapper tool, the site is not located within a Zone II recharge area to a groundwater aquifer. It is also not located within an Interim Wellhead Protection Area (IWPA).

## Outstanding Resource Water (ORW)

MA Surface Water Standards (314 CMR 4.06) identifies those waters of Massachusetts which are ORW's. Tatnuck Brook is not an ORW and is not a tributary to an ORW. MA GIS's online MassMapper tool also shows the site as being located outside the boundaries of the closest contributing watershed to an ORW.

## References

Federal Emergency Management Agency, FEMA Map Service Center. Available online at the following link: www.fema.gov. Accessed [4/12/2024].

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

MassGIS (Bureau of Geographic Information), Commonwealth of Massachusetts EOTSS. Available online at the following
link: https://maps.massgis.digital.mass.gov/MassMapper/MassMapper.html. Accessed [4/12/2024].

Soil Survey Staff, Natural Resources Conservation Service, United States Department of Agriculture. Web Soil Survey. Available online at the following link: http://websoilsurvey.sc.egov.usda.gov/. Accessed [4/12/2024].

## Appendix

## U.S.G.S. Topographic Map

FEMA Firmette Map


## National Flood Hazard Layer FIRMette



## Legend

SEe FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT
\(\left.$$
\begin{array}{l|l|l|}\hline \text { SPECIAL FLOOD } \\
\text { HAZARD AREAS } & & \begin{array}{l}\text { Without Base Flood Elevation (BFE) } \\
\text { Zone A } V \text {, , 999 }\end{array}
$$ <br>

With BFE or Depth Zone AE, AO, AH, VE, AR\end{array}\right]\)| Regulatory Floodway |
| :--- |

B- 20.2 Cross Sections with 1\% Annual Chance
17.5 Water Surface Elevation

Limit of Study
—_ Jurisdiction Bounda
--- --- Coastal Transect Baseline
OTHER FEATURES $\qquad$ Profile Baseline
$\qquad$

MAP PANELS

## $\therefore$ Digital Data Available <br> No Digital Data Available Unmapped

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

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/12/2024 at 2:16 PM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

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




