

LETTER OF TRANSMITTAL

**TO: Rebecca Gendreau,
Conservation Agent
Town of Sturbridge
301 Main Street
Sturbridge, MA 01566
508-347-2506**

PROJ. NO: 287-2585-M DATE: 9/11/23
PROJECT: Notice of Intent
**LOCATION: 94 Hall Road
Parcel ID: 315-02631-094**

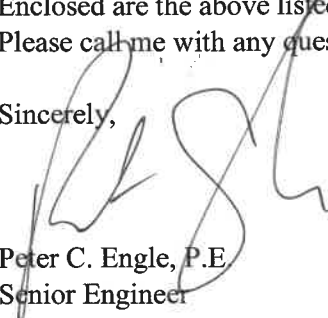
SENT BY WAY OF THE FOLLOWING: Hand Delivery

COPIES	DATE	ITEM DESCRIPTION
		NOTICE OF INTENT APPLICATION
2		Cover Letter
2		Notice of Intent Application Checklist
2		Notice of Intent WPA Form 3 and Wetland Fee Transmittal Form
2		Wetlands Report by EcoTec dated 5/19/23
2		Wetlands Permitting Summary by EcoTec dated 9/5/23
2		Maps: USGS, NHESP, FEMA, Assessors
2		Certified Abutters List (200 ft.)
2		Notification to Abutters
2		Proof of Taxes Paid Form
2		Local Bylaw Filing Fee Form
2		Stormwater Report dated 8/28/23
2		"Culvert Modification Plan" 94 Hall Road, Sturbridge, MA date 8/24/23 prepared by McClure Engineering, Inc. (Size 24x36)
2		Check for \$750.00 for Local Bylaw Fee
2		Check for \$262.50 for Town NOI Fee

REMARKS:

Dear Rebecca,
Enclosed are the above listed documents pertaining to the Notice of Intent for 94 Hall Road, Sturbridge, MA.
Please call me with any questions or comments at (508) 248-2005.

Sincerely,



Peter C. Engle, P.E.
Senior Engineer

cc: MassDEP, Wetlands Permitting Office, 8 New Bond Street, Worcester, MA 01606

Wetlands Protection Act Notice of Intent

**Culvert Modification
Sturbridge DHC, LLC
94 Hall Road
Sturbridge, MA 01566**

Prepared For:

Jessie Albert
Dawn Homes Management
20 Corporate Woods Blvd, 5th Floor
Albany, NY 12211

September 11, 2023

McCLURE
ENGINEERING, INC

119 Worcester Rd., Charlton, Massachusetts 01507 - 508.248.2005

September 11, 2023

Rebecca Gendreau, Conservation Agent
Town of Sturbridge
301 Main Street
Sturbridge, MA 01566

**RE: Notice of Intent (NOI) Application – Jessie Albert
94 Hall Road, Sturbridge, MA; Parcel ID: 315-02631-094**

Dear Commission Members:

On behalf of the project Applicant, Jessie Albert, McClure Engineering, Inc. (McClure) is submitting this cover letter in regard to the Notice of Intent for the proposed Culvert Modification Plan at 94 Hall Road, Sturbridge, MA (Site).

The Subject Site is referenced as Assessor's Parcel I.D. 315-02631-094 and consists of approximately 2 acres. The property lies on the southern side of Hall Road and is approximately 200' from the Hall Road and Route 20 intersection. The site is developed site housing a multifamily apartment building and is part of a larger apartment complex development known as Sturbridge Meadows.

The property is more particularly described in Deed Book 44691, Page 90 and Plan Book 603, Plan 66 as recorded with the Worcester District Registry of Deeds. There is no on-site FEMA Flood Hazard areas per Flood Insurance Rate Map (FIRM) Worcester County Massachusetts (All Jurisdictions), Map Number 25027C0927F, effective Date 6/1/23.

The site was constructed in approximately 1984. At the time of construction, an intermittent stream flowing from southeast to northwest was diverted through an underground 24" corrugated metal pipe culvert which was installed under the apartment building. Catch basins were also installed in-line on this culvert as part of the site's stormwater drainage system. The boundary of resource area was evaluated and delineated by Scott Morrison of EcoTec Inc. in April 2023 per the regulations of 310 CMR 10.55(2)(c). The existing culvert is in a state of degradation and may eventually become a structural liability.

The proposed work involves the relocation of a stream culvert from under an existing building and the abandonment of the existing culvert. The stream/ culvert will be routed around the north side of the existing apartment building. Because the routing of the culvert around the building will increase the length of the culvert, therefore reducing the slope of the culvert, the diameter of the culvert is proposed to be increased to 30" from 24" in order to be able to maintain the hydraulic capacity of the culvert. Two in-line catch basins in the proposed limit of work will be moved off-line. The new catch basins will be installed with sumps for increased water quality over existing conditions. One of the catch basins, which is within an asphalt parking area, will also be equipped with a hood for additional water quality treatment of potential hydrocarbons/ petroleum products and other floating debris. The existing culvert will be capped and filled with controlled density fill/ flowable fill following the installation of the new culvert. The installation of the new culvert and associated structures is proposed to be completed prior to abandonment of the existing culvert to minimize or eliminate the need for temporary stream diversion during construction. The resource areas are proposed to be protected during construction with sedimentation control barriers consisting of silt fence, straw wattles, mulch tubes/ compost socks, and catch basin silt sacks. All disturbed areas are proposed to be stabilized as soon as possible with bonded fiber matrix hydroseed following the application of suitable top soil. No change of ground cover, drainage patterns, or addition of impervious area is proposed.

The project meets the resource area performance standards of 310 CMR 10.00 via the following:

10.54 Bank: The existing culvert under the building which is proposed to be relocated carries an intermittent stream, and therefore would qualify as having bank. The existing culvert to be relocated is approximately 146' long and therefore would have 292' of bank. The proposed culvert is approximately 296' long and therefore would have 592' of bank. As the existing culvert which acts as the bank of the intermittent stream is an existing non-natural stream channel, it can be assumed the bank which is proposed to be modified is not significant to fisheries or wildlife. In-line catch basins are proposed to be brought off-line with sumps (and a hood) for increased water quality treatment. Per the WPA, the culvert is likely to be significant to flood control and storm damage prevention as the bank is an artificial impervious surface, and thus a hydraulic analysis of the culvert has been done to ensure flow capacities are maintained. The proposed work will not impair the physical stability of the bank, will maintain the water carrying capacity of the channel, will provide for an increase of water quality, and will not further reduce the capacity of the bank to provide important wildlife habitat functions.

10.55 Bordering Vegetated Wetlands: The proposed work will not alter or impact BVW. The BVW will be protected during construction sediment and erosion control best management practices. All disturbed areas will be stabilized with suitable top soil and bonded fiber matrix hydroseed.

10.56 Land Under Water: The existing culvert under the building which is proposed to be relocated carries an intermittent stream, and therefore would qualify as land under water. The land under water is made up of artificial material and would therefore likely not be significant to fisheries or wildlife habitat. The existing 24" diameter culvert is 146' long, and therefore would have 292 s.f. of land under water. The proposed 30" diameter culvert would be 296' long and therefore would have 740 s.f. of land under water. In-line catch basins are proposed to be brought off-line with sumps (and a hood) for increased water quality treatment. Per the WPA, the culvert is likely to be significant to flood control and storm damage prevention as the bank is an artificial impervious surface, and thus a hydraulic analysis of the culvert has been done to ensure flow capacities are maintained. The proposed work will maintain the water carrying capacity of the channel, will provide for an increase of water quality, and will not further reduce the capacity of said land to provide important wildlife habitat functions.

10.57 Land Subject to Flooding: There is no land subject to flooding located on the property, therefore the proposed work will not alter or impact any land subject to flooding.

10.58 Riverfront Area: There is no riverfront area located on the property, therefore the proposed work will not alter or impact any riverfront area.

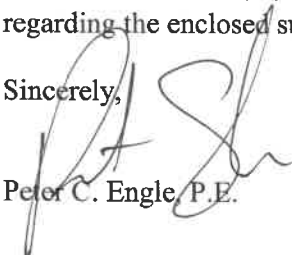
10.59 Habitats of Rare Wildlife: There is no habitat of rare wildlife or species located on the property, according to the most recent NHESP atlas, therefore the proposed work will not alter or impact any habitats of rare wildlife or species.

The following documents are enclosed for your review in support of this project:

- Notice of Intent Package
- "Notice of Intent Plan" 94 Hall Road, Sturbridge, MA, prepared by McClure Engineering, dated 8/24/23.

The proposed plans have been prepared and designed in order to comply with the performance standards set forth in Massachusetts Wetland Protection Act and the Town of Sturbridge Wetland Bylaws. If you have any questions regarding the enclosed subject matter, please contact me at (508) 248-2005.

Sincerely,



Peter C. Engle, P.E.



**Town of Sturbridge
Conservation Commission
Notice of Intent Application Coversheet/Checklist**

Date	9/11/23
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in all white cells completely

Parcel	315-02631-094 94 Hall Road	Applicant name	Ms. Jesse Albert, Owner Sturbridge DHC, LLC
Address		Address	20 Corporate Woods Blvd, 5 th Floor Albany, NY 12211
Assessors		Email	jalbert@dawnhomes.com
Map/Plat		Phone	518-465-4500
Book & Page	44691 / 0090		
Owner name	Ms. Jesse Albert, Owner Sturbridge DHC, LLC	Representative	Peter Engle, PE McClure Engineering, Inc.
Address	20 Corporate Woods Blvd, 5 th Floor Albany, NY 12211	Address	119 Worcester Road, Charlton, MA 01507
Email	jalbert@dawnhomes.com	Email	pengle@mcclureengineers.com
Phone	518-465-4500	Phone	508-248-2005

FI

Wetland type	Bank	sf/cf affected	292'	Relevant Perf. Standards	10. 54 _____
Wetland type	LUW	sf/cf affected	292 SF	Relevant Perf. Standards	10. 56 _____
Wetland type		sf/cf affected		Relevant Perf. Standards	10. _____

Components of a Complete NOI Application

State Form: NOI Form 3	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Engineered Plan	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Proof of Mailing to DEP - Email	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Narrative	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Proof that all relevant perf. standards are met	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
TOPO Map identifying locus with scale	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
FIRM Map identifying locus with scale	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Natural Heritage Map with WH, PH, & VP data	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No Included? <input type="checkbox"/>
Delineation lines (backup material)	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Tax Form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Fees	
★ Fee Transmittal form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Filing Fee Worksheet	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Town portion of state filing fee	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Sturbridge local filing fee <u>\$750</u>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
Abutter Information	
★ Certified abutters list (within 200')	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Abutter notification form	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
★ Affidavit & proof -- bring to hearing	<i>Present them at the hearing</i>
Other Attachments, e.g.	
Confirmation of submission to NHESP	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Planting Plan	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Floodplain analysis	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
Stormwater analysis	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Not Applicable

Components of a Complete NOI Application

WPA FORM 3



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sturbridge

City/Town

Important:

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



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

A. General Information

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

94 Hall Road Sturbridge 01566
a. Street Address b. City/Town c. Zip Code
Latitude and Longitude: 42.11610 -72.06345
d. Latitude e. Longitude
315-02631-094
f. Assessors Map/Plat Number g. Parcel /Lot Number

2. Applicant:

Jessie Albert
a. First Name b. Last Name
Sturbridge DHC, LLC
c. Organization
20 Corporate Woods Blvd, 5th Floor
d. Street Address
Albany NY 12211
e. City/Town f. State g. Zip Code
518-465-4500 518-465-4545 jalbert@dawnhomes.com
h. Phone Number i. Fax Number j. Email Address

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

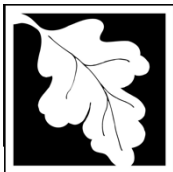
a. First Name b. Last Name
c. Organization
d. Street Address
e. City/Town f. State g. Zip Code
h. Phone Number i. Fax Number j. Email address

4. Representative (if any):

Peter Engle, PE
a. First Name b. Last Name
McClure Engineering, Inc.
c. Company
119 Worcester Road
d. Street Address
Charlton MA 01507
e. City/Town f. State g. Zip Code
508-248-2005 508-248-4887 pengle@mcclureengineers.com
h. Phone Number i. Fax Number j. Email address

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

\$500 237.50 262.50
a. Total Fee Paid b. State Fee Paid c. City/Town Fee Paid



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

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

Provided by MassDEP:
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A. General Information (continued)

6. General Project Description:

Culvert Modification / Intermittent Stream Relocation

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 CMR10.24(8), 310 CMR 10.53(4)), complete and attach Appendix A: Ecological Restoration Limited Project Checklist and Signed Certification.

8. Property recorded at the Registry of Deeds for:

Worcester

a. County

44691

c. Book

b. Certificate # (if registered land)

0090

d. Page Number

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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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	292 1. linear feet	614 2. linear feet
b. <input type="checkbox"/> Bordering Vegetated Wetland	1. square feet	2. square feet
c. <input checked="" type="checkbox"/> Land Under Waterbodies and Waterways	292 1. square feet 3. cubic yards dredged	755 2. square feet

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

2. Width of Riverfront Area (check one):

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

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

4. Proposed alteration of the Riverfront Area:

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

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

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

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

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



Massachusetts Department of Environmental Protection
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Provided by MassDEP:

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Sturbridge

City/Town

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

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

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

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

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

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

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

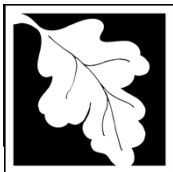
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	

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

_____ a. square feet of BVW _____ b. square feet of Salt Marsh

5. Project Involves Stream Crossings

_____ a. number of new stream crossings _____ b. number of replacement stream crossings



Massachusetts Department of Environmental Protection
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WPA Form 3 – Notice of Intent

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C. Other Applicable Standards and Requirements

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

Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

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

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

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

August 1, 2021

b. Date of map

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

- c. Submit Supplemental Information for Endangered Species Review*

1. Percentage/acreage of property to be altered:

(a) within wetland Resource Area _____
percentage/acreage

(b) outside Resource Area _____
percentage/acreage

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

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

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

(b) Photographs representative of the site

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

- (c) MESA filing fee (fee information available at <https://www.mass.gov/how-to/how-to-file-for-a-mesa-project-review>).

Make check payable to “Commonwealth of Massachusetts - NHESP” and **mail to NHESP** at above address

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

- (d) Vegetation cover type map of site

- (e) Project plans showing Priority & Estimated Habitat boundaries

- (f) OR Check One of the Following

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

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

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

3. For coastal projects only, is any portion of the proposed project located below the mean high water line or in a fish run?

- a. Not applicable – project is in inland resource area only b. Yes No

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

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

North Shore - Hull to New Hampshire border:

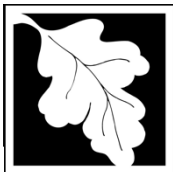
Division of Marine Fisheries -
Southeast Marine Fisheries Station
Attn: Environmental Reviewer
836 South Rodney French Blvd.
New Bedford, MA 02744
Email: dmf.envreview-south@mass.gov

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

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

Provided by MassDEP:
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Sturbridge
City/Town

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

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

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

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

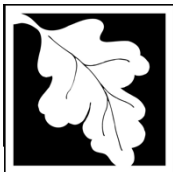
D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

WPA Form 3 – Notice of Intent

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

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

D. Additional Information (cont'd)

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

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

Culvert Modification Plan

a. Plan Title

McClure Eng.

Peter Engle, PE

b. Prepared By

c. Signed and Stamped by

8.24.23

1"=20'

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

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

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

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

8. Attach NOI Wetland Fee Transmittal Form

9. Attach Stormwater Report, if needed.

E. Fees

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

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

<u>10890</u>	<u>9/15/23</u>
2. Municipal Check Number	3. Check date
<u>10885</u>	<u>9/15/23</u>
4. State Check Number	5. Check date
<u>McClure Engineering, Inc.</u>	
6. Payor name on check: First Name	7. Payor name on check: Last Name



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sturbridge
City/Town

F. Signatures and Submittal Requirements

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

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

1. Signature of Applicant	9/13/23
3. Signature of Property Owner (if different)	4. Date
5. Signature of Representative (if any)	9/18/23
	6. Date

For Conservation Commission:

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

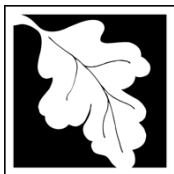
For MassDEP:

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

Other:

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

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



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

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



A. Applicant Information

1. Location of Project:

94 Hall Road Sturbridge
a. Street Address b. City/Town

c. Check number d. Fee amount

2. Applicant Mailing Address:

Jessie Albert
a. First Name b. Last Name

Sturbrige DHC, LLC
c. Organization

20 Corporate Woods Blvd, 5th Floor
d. Mailing Address

Albany NY 12211
e. City/Town f. State g. Zip Code

518-465-4500 518-465-4545 jalbert@dawnhomes.com
h. Phone Number i. Fax Number j. Email Address

3. Property Owner (if different):

a. First Name b. Last Name

c. Organization

d. Mailing Address

e. City/Town f. State g. Zip Code

h. Phone Number i. Fax Number j. Email Address

B. Fees

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

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

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

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

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

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

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

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



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

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
Category 2, j.	1	\$500	\$500
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____

Step 5/Total Project Fee: _____

Step 6/Fee Payments:

Total Project Fee:	\$500
State share of filing Fee:	\$237.50
City/Town share of filing Fee:	\$262.50
	a. Total Fee from Step 5
	b. 1/2 Total Fee less \$12.50
	c. 1/2 Total Fee plus \$12.50

C. Submittal Requirements

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

Department of Environmental Protection
 Box 4062
 Boston, MA 02211

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

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

WETLAND EVALUATION REPORT
&
WETLAND PERMITTING SUMMARY

EcoTec, Inc.
ENVIRONMENTAL CONSULTING SERVICES
102 Grove Street
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

May 19, 2023

Peter Engle, PE
McClure Engineering
119 Worcester Road
Charlton, MA 01507

RE: Wetland Resource Evaluation, 80-98 Hall Road, Sturbridge, Massachusetts

Dear Mr. Engle:

On April 21, 2023, EcoTec, Inc. inspected the above-referenced property for the presence of wetland resources as defined by: (1) the Massachusetts Wetlands Protection Act (M.G.L. Ch. 131, § 40; the “Act”) and its implementing regulations (310 CMR 10.00 *et seq.*; the “Regulations”); (2) the U.S. Clean Water Act (i.e., Section 404 and 401 wetlands); and (3) the Town of Sturbridge Wetlands Protection Bylaw and regulations. Scott M. Morrison, PWS conducted the inspection.

The subject site consists of a 2±-acre parcel located to the southeast of Hall Road in Sturbridge. The portion of the site inspected were areas proximate to an existing culvert that crosses the site. The upland portions of the site consist of existing residential dwellings, lawn, landscaping, and forest in the southern portion of the site. Plant species observed include northern red oak (*Quercus rubra*), white oak (*Quercus alba*), eastern white pine (*Pinus strobus*), black cherry (*Prunus serotina*), red maple (*Acer rubrum*), and sugar maple (*Acer saccharum*) trees and/or saplings; poison ivy (*Toxicodendron radicans*), and Virginia creeper (*Parthenocissus quinquefolia*) climbing woody vines; American witch-hazel (*Hamamelis virginiana*) shrubs; and lowbush blueberry (*Vaccinium angustifolium*), wild sarsaparilla (*Aralia nudicaulis*), tree clubmoss (*Lycopodium obscurum*), trailing clubmoss (*Lycopodium complanatum*), bracken fern (*Pteridium aquilinum*), hayscented fern (*Dennstaedtia punctilobula*), teaberry (*Gaultheria procumbens*), partridge-berry (*Mitchella repens*), and wild-lily-of-the-valley (*Maianthemum canadense*) ground cover. The wetland resources observed on the site are described below.

Methodology

The site was inspected, and areas suspected to qualify as wetland resources were identified. The boundary of Bordering Vegetated Wetlands or, in the absence of Bordering Vegetated Wetlands, Bank was delineated in the field in accordance with the definitions set forth in the regulations at 310 CMR 10.55(2)(c) and 310 CMR 10.54(2). Section 10.55(2)(c) states that “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.” Section 10.54(2)(c) states that “The upper boundary of Bank is the first observable break in the slope or the mean annual flood level, whichever is lower.” The methodology used to delineate Bordering Vegetated Wetlands is further described in the *Massachusetts Handbook for Delineation of Bordering Vegetated Wetlands*, Second Edition, produced by the Massachusetts Department of Environmental Protection, dated September 2022. As recommended by the Department, the plant taxonomy used in this letter is based on the *National List of Plant Species that Occur in Wetlands: Massachusetts* (Fish and Wildlife Service, U.S. Department of the Interior, 1988). Federal wetlands were presumed to have boundaries conterminous with the delineated Bordering Vegetated Wetlands. The table below provides the Flag Numbers, Flag Type, and Wetland Types and Locations for the delineated wetland resources.

Flag Numbers	Flag Type	Wetland Types and Locations
Start A1 to A8 Stop	Blue Flags	Boundary of Bank located in the eastern portion of the site that is associated with an intermittent stream.

Findings

Wetland A (i.e., flags A1 to A8) consists of the edge of a defined channel of an intermittent stream located in the southern portion of the site that is associated with a mapped intermittent stream. The stream is piped from a concrete inlet structure across the site and discharging off site to the north of Hall Road. No adjacent Bordering Vegetated Wetland (BVW) was observed or delineated. Accordingly, the intermittent stream would be regulated as Bank under the Act and Bylaw. A 100-foot Buffer Zone extends horizontally outward from the edge of Bank under the Act and Bylaw.

Bordering Land Subject to Flooding is an area that floods due to a rise in floodwaters from a bordering waterway or water body. Where flood studies have been completed, the boundary of Bordering Land Subject to Flooding is based upon flood profile data prepared by the National Flood Insurance Program. Section 10.57(2)(a)3. states that “The boundary of Bordering Land Subject to Flooding is the estimated maximum lateral extent of flood water which will theoretically result from the statistical 100-year frequency storm.” Based upon a review of the Flood Insurance Rate Map, Worcester County, Massachusetts, Map Number 25027C0931E, Effective Date July 4, 2011, the site is mapped as Other Areas: Zone X, which is defined as areas located outside of the 0.2% annual chance flood (i.e., outside of 500-year floodplain). The project engineer should evaluate the most recent National Flood Insurance Program flood profile data to determine if Bordering Land Subject to Flooding occurs on the site. Bordering Land Subject to Flooding would occur in areas where the 100-year flood elevation is located outside of or upgradient of the delineated Bank boundary. Bordering Land Subject to Flooding does not have a Buffer Zone under the Act.

80-98 Hall Road, Sturbridge

May 19, 2023

Page 3.

The Massachusetts Rivers Protection Act amended the Act to establish an additional wetland resource area: Riverfront Area. Based upon a review of the current USGS Map (i.e., Southbridge Quadrangle, dated 1982, attached) and observations made during the site inspection, a stream that is shown as intermittent on the USGS Map is located in the central portions of the site. The watershed area for this stream at the site was determined to be 0.11 square miles, which is less than 0.5 square miles (see attached watershed calculations). As such, the stream would be designated intermittent under the Massachusetts Wetlands Protection Act regulations. Furthermore, based upon a review of the current USGS Map and observations made during the site inspection, there are no other mapped or unmapped streams located within 200 feet of the site. Accordingly, Riverfront Area would not occur on the site. Riverfront Area does not have a Buffer Zone under the Act.

The Regulations require that no project may be permitted that will have any adverse effect on specified habitat sites of rare vertebrate or invertebrate species, as identified by procedures set forth at 310 CMR 10.59. Based upon a review of the *Massachusetts Natural Heritage Atlas*, 15th edition, Priority Habitats and Estimated Habitats from the NHESP Interactive Viewer, valid from August 1, 2021, and Certified Vernal Pools from MassGIS, there are no Estimated Habitats [for use with the Act and Regulations (310 CMR 10.00 *et seq.*)], Priority Habitats [for use with Massachusetts Endangered Species Act (M.G.L. Ch. 131A; "MESA") and MESA Regulations (321 CMR 10.00 *et seq.*)], or Certified Vernal Pools on or in the immediate vicinity of the site. A copy of this map is attached.

The reader should be aware that the regulatory authority for determining wetland jurisdiction rests with local, state, and federal authorities. A brief description of my experience and qualifications is attached. If you have any questions, please feel free to contact me at any time.

Cordially,
ECOTEC, INC.



Scott M. Morrison, PWS
Senior Environmental Scientist

Attachments (5, 5 pages)

17/E/SturbridgeHall89

EcoTec, Inc.

ENVIRONMENTAL CONSULTING SERVICES

102 Grove Street

Worcester, MA 01605-2629

508-752-9666 – Fax: 508-752-9494

Scott M. Morrison, PWS, CERP, RPSS, SE **Senior Environmental Scientist**

Scott Morrison is a Senior Environmental Scientist with EcoTec, Inc. Since joining EcoTec in 2000, Mr. Morrison's project experience include wetland resource evaluation, delineation, and permitting at the local, state, and federal levels; wildlife habitat evaluation; pond and stream evaluation; vernal pool evaluation, monitoring, and certification; wetland replacement, replication, and restoration area design, construction, and monitoring; soil evaluations to determine infiltration rates and seasonal high groundwater elevations for detention basin construction; environmental sampling and analysis tasks, including soil and groundwater sample collection and handling; and expert testimony preparation. He has conducted rare species habitat assessments for the eastern box turtle, wood turtle, Blanding's turtle, spotted turtle, and marbled salamander. He has participated in rare species studies for rare species including the marbled salamander, piping plover, eastern box turtle, and northern diamondback terrapin and developed mitigation strategies for the marbled salamander, spotted turtle, eastern box turtle and wood turtle. He has participated in visual preconstruction sweeps for the wood turtle and both preconstruction and research projects for the eastern box turtle. He has served as a consultant to municipalities, conservation commissions, engineering and survey firms. He has completed numerous wetland related projects including environmental impact assessments for proposed development, erosion control and environmental monitoring for subdivisions, commercial developments, golf courses and landfills. He has prepared Massachusetts Environmental Policy Act (MEPA) documentation, including Environmental Notification Forms (ENFs), Notice of Project Changes (NPCs), and Draft and Final Environmental Impact Reports (EIRs) including Green House Gas Assessments for various projects including subdivisions, commercial buildings, and dredging projects. Prior to joining EcoTec, Inc. Mr. Morrison worked for the Massachusetts Department of Environmental Management (currently the Department of Conservation and Recreation) where he was involved with the monitoring and protection of endangered species and rare old growth forest. He was an active member of the Spencer Conservation Commission from 1998 to 2000 where he provided oversight of proposed wetland replication projects and review of projects submitted for wetland permitting. His educational background includes courses in forestry, ecology, chemistry, soils, and natural resource policy. His prior research experience includes research on forest succession and field research on nesting piping plovers, an endangered coastal shore bird.

Education:

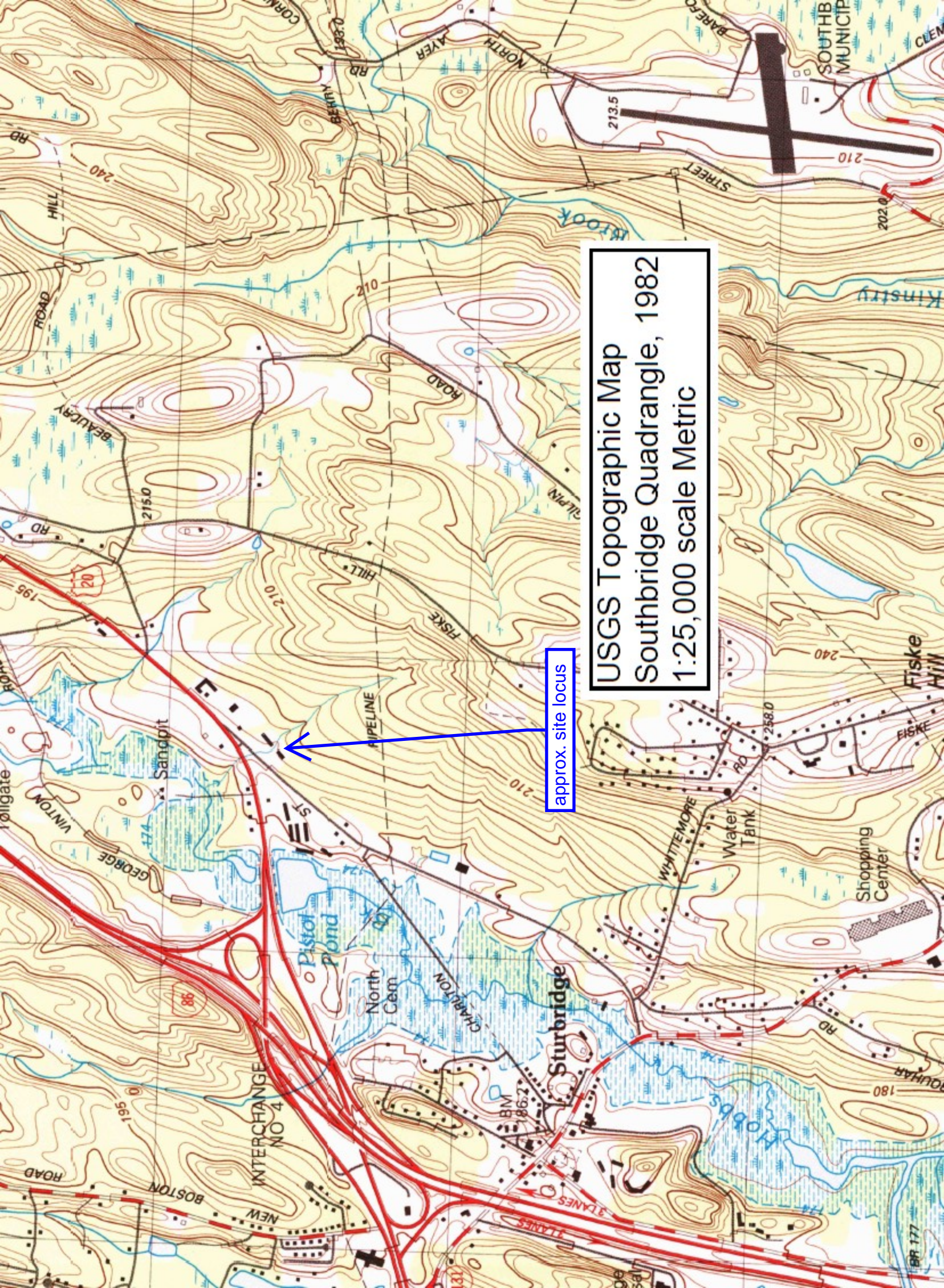
Graduate Soil Science Certificate Program
University of Massachusetts at Amherst, 2006
Bachelor of Science: Natural Resource Studies
University of Massachusetts at Amherst, 1998
Associate of Science: Business Administration
Quinsigamond Community College, 1996

Professional Affiliations:

Registered Professional Soil Scientist, Society of Soil Scientists of
Southern New England (SSSSNE)
Massachusetts Association of Conservation Commissioners
Association of Massachusetts Wetland Scientists
Society of Wetland Scientists
Society for Ecological Restoration-

Certifications:

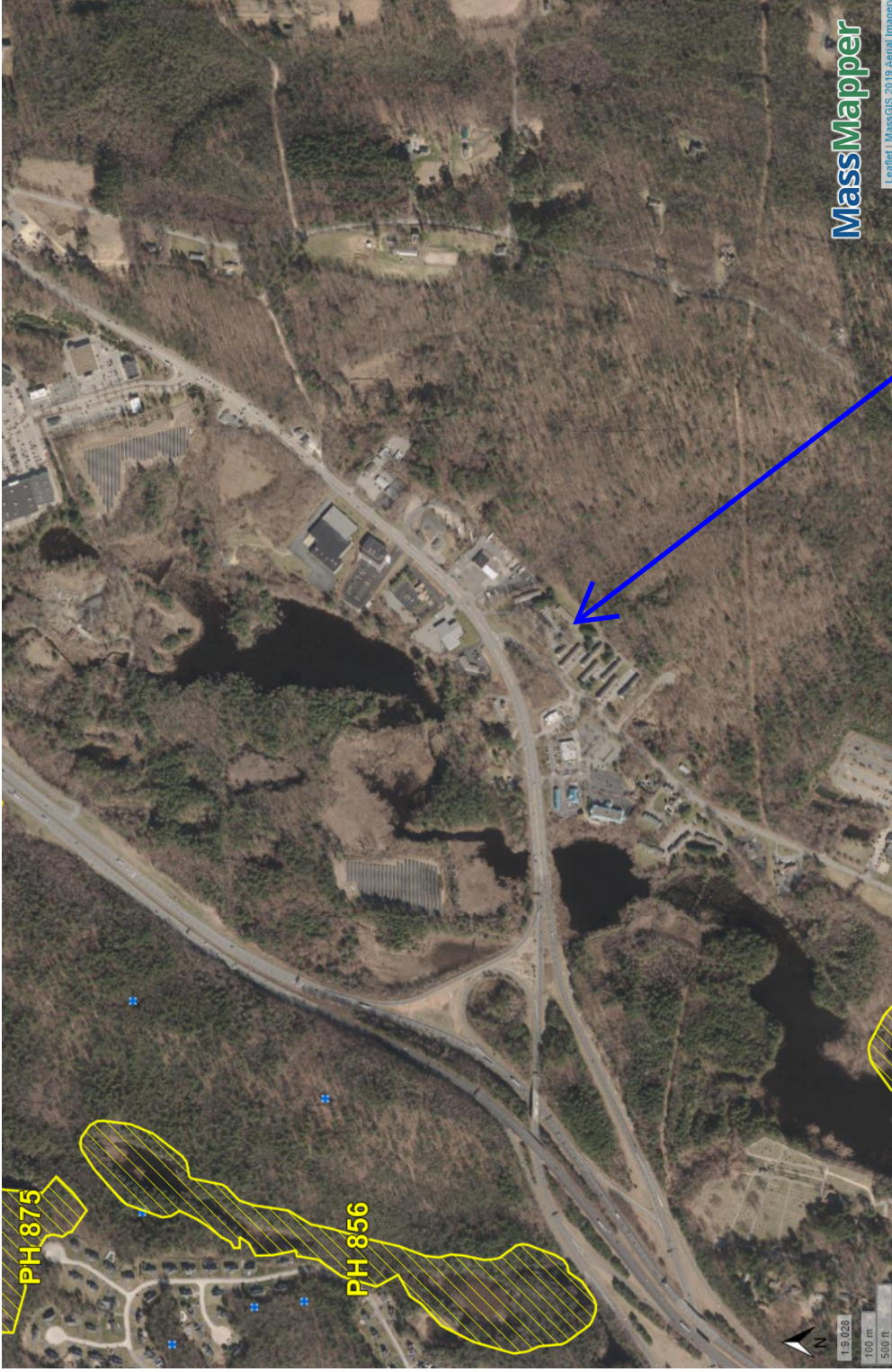
Society of Wetlands Scientists Professional Wetland Scientist,
Certification Number 2583
Massachusetts Department of Environmental Protection Soil Evaluator,
Certification Number SE 13766
Society for Ecological Restoration-Certified Ecological Restoration Practitioner
Certification Number 0648
OSHA Health and Safety Training, 40-Hour, 29 CFR 1910.120
University of Massachusetts Extension, Invasive Species Management



USGS Topographic Map
Southbridge Quadrangle, 1982
1:25,000 scale Metric

approx. site locus

80-98 Hall Rd., Sturbridge, NHESP



- NHESP Priority Habitats of Rare Species
- NHESP Estimated Habitats of Rare Wildlife
- NHESP Certified Vernal Pools

Natural Heritage Atlas
Online Data Viewer,
15th edition, valid
August 1, 2021
created: 4/14/2023
80-98 Hall Rd.,
Sturbridge

approx. site locus

National Flood Hazard Layer FIRMette

72°46'W 42°7'14"N



Legend

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

SPECIAL FLOOD HAZARD AREAS

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

0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*

Future Conditions 1% Annual Chance Flood Hazard *Zone X*
 Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
 Area with Flood Risk due to Levee *Zone D*

OTHER AREAS OF FLOOD HAZARD

NO SCREEN *Zone X*
 Area of Minimal Flood Hazard *Zone X*
 Effective LOMR *Zone D*
 Area of Undetermined Flood Hazard *Zone D*

OTHER AREAS

GENERAL STRUCTURES

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

Cross Sections with 1% Annual Chance Water Surface Elevation

- Coastal Transect
- Base Flood Elevation Line (BFE)
- Limit of Study

OTHER FEATURES

- Coastal Transect Baseline
- Profile Baseline
- Hydrographic Feature

MAP PANELS

- Digital Data Available
- 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 **4/14/2023 at 12:49 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.

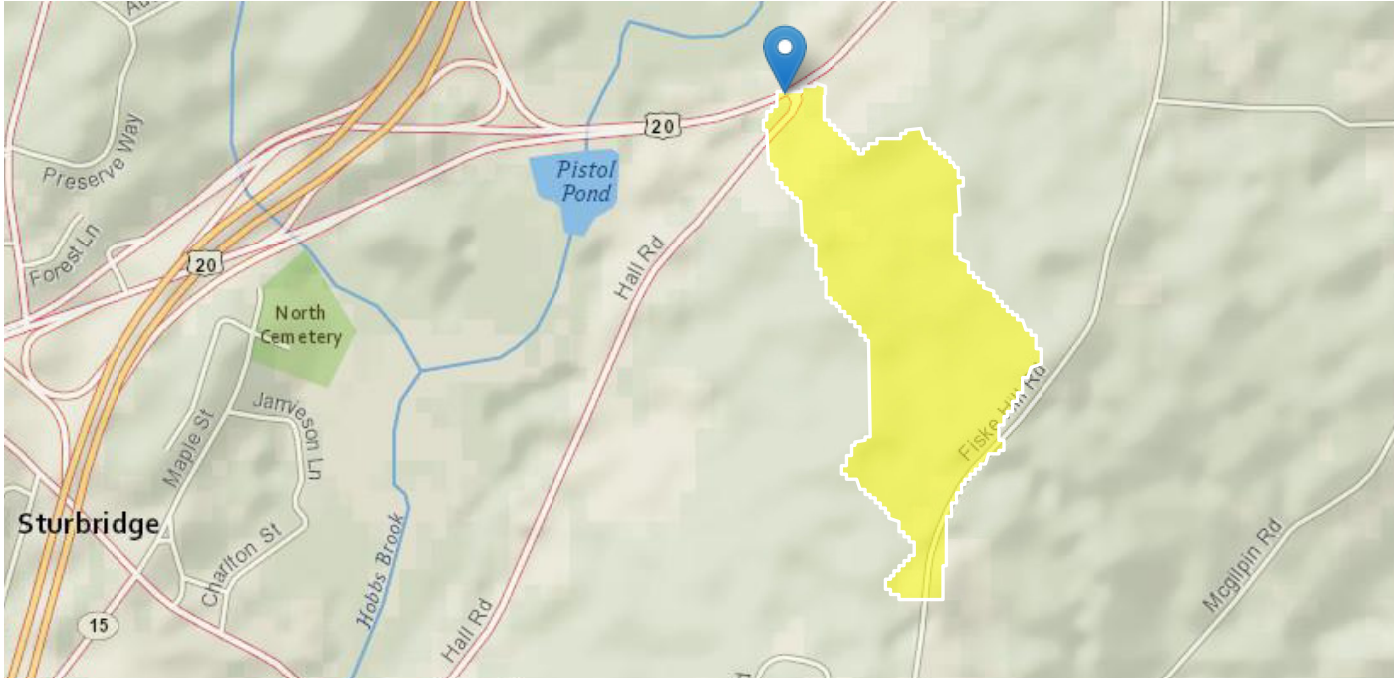


72°32'9"W 42°6'47"N

Basemap: USGS National Map; Orthoimagery: Data refreshed October, 2020

StreamStats Report

Region ID: MA
Workspace ID: MA20230414164846083000
Clicked Point (Latitude, Longitude): 42.11734, -72.06443
Time: 2023-04-14 12:49:59 -0400



[+ Collapse All](#)

Basin Characteristics

Parameter Code	Parameter Description	Value	Unit
DRNAREA	Area that drains to a point on a stream	0.11	square miles
FOREST	Percentage of area covered by forest	84.31	percent
MAREGION	Region of Massachusetts 0 for Eastern 1 for Western	0	dimensionless
PCTSNDGRV	Percentage of land surface underlain by sand and gravel deposits	0	percent

Probability Statistics

Probability Statistics Parameters [Perennial Flow Probability]

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
DRNAREA	Drainage Area	0.11	square miles	0.01	1.99

Parameter Code	Parameter Name	Value	Units	Min Limit	Max Limit
PCTSDNDRV	Percent Underlain By Sand And Gravel	0	percent	0	100
FOREST	Percent Forest	84.31	percent	0	100
MAREGION	Massachusetts Region	0	dimensionless	0	1

Probability Statistics Flow Report [Perennial Flow Probability]

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

Statistic	Value	Unit	PC
Probability Stream Flowing Perennially	0.208	dim	71

Probability Statistics Citations

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

USGS Data Disclaimer: Unless otherwise stated, all data, metadata and related materials are considered to satisfy the quality standards relative to the purpose for which the data were collected. Although these data and associated metadata have been reviewed for accuracy and completeness and approved for release by the U.S. Geological Survey (USGS), no warranty expressed or implied is made regarding the display or utility of the data for other purposes, nor on all computer systems, nor shall the act of distribution constitute any such warranty.

USGS Software Disclaimer: This software has been approved for release by the U.S. Geological Survey (USGS). Although the software has been subjected to rigorous review, the USGS reserves the right to update the software as needed pursuant to further analysis and review. No warranty, expressed or implied, is made by the USGS or the U.S. Government as to the functionality of the software and related material nor shall the fact of release constitute any such warranty. Furthermore, the software is released on condition that neither the USGS nor the U.S. Government shall be held liable for any damages resulting from its authorized or unauthorized use.

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Application Version: 4.14.0

StreamStats Services Version: 1.2.22

NSS Services Version: 2.2.1

EcoTec, Inc.
ENVIRONMENTAL CONSULTING SERVICES
102 Grove Street
Worcester, MA 01605-2629
508-752-9666 – Fax: 508-752-9494

WETLAND PERMITTING SUMMARY:
Existing Conditions, Alternatives, Impacts, and Mitigation

Culvert Replacement
Hall Road
Sturbridge, Massachusetts

Prepared For:

McClure Engineering
119 Worcester Road
Charlton, MA 01507

Prepared By:



Scott M. Morrison, PWS
Sr. Environmental Scientist

September 5, 2023

TABLE OF CONTENTS

I. Introduction

II. Project Description

III. Alternatives Analysis

- Project Layout Alternatives:
 - No Build
 - Bridge or Oversize Box Culvert Alternative
 - Preferred Alternative

IV. Culvert Replacement regulatory requirements

V. Wetland Impacts

- Existing Conditions
- Impact Evaluation
- Mitigation Summary

I. INTRODUCTION

This report summarizes wetland permitting data relative to the proposed culvert replacement project on Hall Road in Sturbridge. Below are descriptions of existing wetlands, project alternatives, proposed wetland impacts, and mitigation measures.

II. PROJECT DESCRIPTION:

The proposed project consists of replacing an existing failing culvert at the site. This culvert passes under an existing residential building and access driveway and parking lots. The existing culvert consists of a 24-inch corrugated pipe. The proposed project will include replacement with a 30-inch ADS culvert. No Bordering vegetated Wetland (BVW) is proposed to be altered by the proposed project.

III. ALTERNATIVES ANALYSIS:

This alternatives analysis has been prepared in accordance with the requirements under the Wetlands Protection Act Regulations.

Project Alternatives:

No Build:

The No-build Alternative assumes that the proposed culvert replacement does not occur. This alternative fails to address the deteriorating culvert and the safety concerns due to the failing culvert. As such, the no build alternative has been dismissed.

Bridge or Oversized Box Culvert Alternative:

A bridge and oversized box culvert alternative was evaluated to replace the existing culvert. To fully meet the Massachusetts stream crossing standards, the project would require approximately 328-square feet of openness. This would require the installation of approximately 400-feet of a roughly 10-foot by 33-foot box culvert, which given the site conditions, would be difficult if not impossible to install. Furthermore, this would require a culvert that makes a minimum of four (4) turns, which would prevent lighting of the culvert, which would likely prevent or hinder its use by wildlife. The cost for such a culvert would be cost prohibitive. Therefore, due to the significant additional costs, which in itself prevent the project from moving forward, and limited benefit, this alternative has been dismissed.

Preferred Alternative:

The preferred alternative consists of replacing and relocating the culvert with a slightly larger culvert and realigning the culvert to keep it from passing under the existing residential building. Once the new culvert is installed the old culvert beneath the building will be filled with flowable fill to ensure long-term stabilization. This alternative has been designed to minimize the impacts to resource areas, and existing buildings,

access, parking lots, and infrastructure. This alternative results in limited additional disturbance, replaces the culvert, and is the most cost effective. As such, this alternative has been chosen as the preferred alternative.

IV Culvert Replacement Regulatory Assessment:

The regulations require *“that the impacts of the crossing have been avoided where possible, and when not possible have been minimized and that mitigation measures have been provided to contribute to the protection of the interests identified in M.G.L. c. 131, § 40. An applicant will be presumed to have made this showing if the project is designed as follows:*

(a) If the project includes replacement of an existing non-tidal crossing, the applicant demonstrates to the satisfaction of the Issuing Authority that the crossing complies with the Massachusetts Stream Crossing Standards to the maximum extent practicable.

...At a minimum, in evaluating the potential to comply with the standards to the maximum extent practicable the applicant shall consider site constraints in meeting the standard, undesirable effects of risk in meeting the standard and the environmental benefit of meeting the standard compared to the cost by evaluating the following:

- The potential for downstream flooding;*
- Upstream and downstream habitat (in-stream habitat, wetlands);*
- Potential for erosion and head-cutting;*
- Stream stability;*
- Habitat fragmentation caused by the crossing;*
- The amount of stream mileage made accessible by the improvements;*
- Storm flow conveyance;*
- Engineering design constraints specific to the crossing;*
- Hydrologic constraints specific to the crossing;*
- Impacts to wetlands that would occur by improving the crossing;*
- Potential to affect property and infrastructure; and*
- Cost of replacement.”*

These items have been evaluated and given the site constraints, replacing and reconfiguring the culvert location are possible. This maintains the flow conveyance and hydrology. As indicated above, the cost to fully comply with the Massachusetts Stream Crossing Standards, would be cost prohibitive and given the site constraints may not be possible.

V. WETLAND IMPACTS:

Wetland Resource areas on the site were delineated by EcoTec on April 21, 2023, and described in the Wetland Resource Evaluation report dated May 19, 2023. The natural wetland resource areas on the site consist of Bank and Bordering vegetated Wetland (BVW) located upgradient of the existing culvert. These wetlands drain into a concrete structure and through a 24-inch culvert across the site.

The proposed project consists of the replacement of the existing 24-inch culvert with a 30-inch culvert. No natural Bank or Bordering Vegetated Wetland (BVW) is proposed to be impacted by the proposed project. The proposed project is proposed to be completed while the stream is dry and not flowing. If dewatering is necessary to allow the culvert work to be completed in the dry. This will be achieved by installing pumps or other measures to dewater the area. The details of the dewatering will be provided by the contractor. The details will be provided to the Commission for review prior to initiation of the work.

The proposed wetland impacts are not located within and Area of Critical Environmental Concern (ACEC) or within Estimated or Priority Habitats mapped by the Natural Heritage and Endangered Species Program (NHESP).

Wetland Impact Evaluation:

The wetland area proposed to be altered at this location consists of 151 square feet of Land Under Waterways and 32 linear feet of Bank located at the inlet and outlet of the corrugated metal culvert. This is required for installation of the culvert and stabilization upon completion of the work.

Bank regulations [310 CMR 10.54(4)(a)] require that work in Bank must not impair the following:

1. Physical stability of the Bank;
2. Water carrying capacity with a defined channel;
3. Ground and surface water quality;
4. Capacity of said land to provide breeding habitat, escape cover, and food for fisheries;
5. Important wildlife habitat functions (however projects that alter less than 10% or 50 linear feet of this Resource Area, whichever is less, found to be significant to wildlife habitat are deemed to have no adverse impact on wildlife habitat functions.

The Town of Sturbridge Wetlands Protection Bylaw contains the same performance standards as noted above.

Table 1, below summarizes the conformance of the proposed replacement crossing to the Bank performance standards.

**Table 1:
Bank Performance Standards**

Performance Standard	Met by Proposed Project?
Physical stability	Yes; The culvert will be replaced in kind
Carrying capacity	Yes; The culvert will maintain the carrying capacity
Water quality	Yes; Water quality will not be affected
Breeding habitat, escape cover, and food for fisheries	Yes; Intermittent stream with no fisheries habitat.
Important wildlife habitat functions	Yes; Habitat will be maintained by the replacement of the culvert.

Wetland Impact Mitigation Summary:

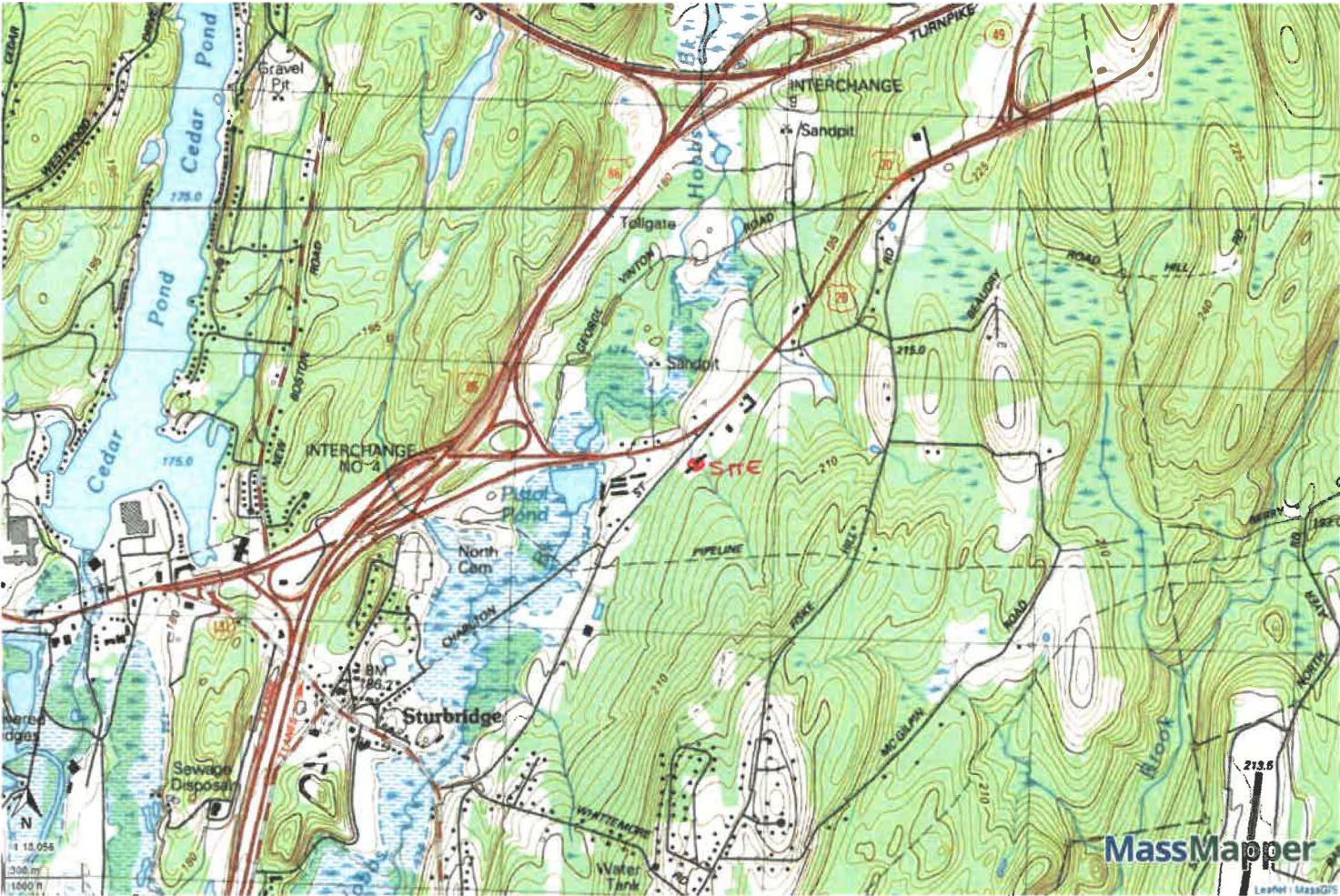
The proposed project has been designed to avoid wetland impacts and replace the existing failing culvert. The culvert currently runs under an existing building and create a hazardous condition. By replacing the culvert, it will ensure that flows are maintained, and the project has been designed to fully comply with the performance standards of the Wetlands Protection Act and Town of Sturbridge Wetlands Protection Bylaw.

CULVERT INSTALLATION CONSTRUCTION SEQUENCE & BANK RESTORATION PROTOCOL

1. Prior to the start of earth-moving activities, an erosion control barrier of properly installed siltation fence (i.e., the bottom few inches of the siltation fence installed in a narrow, trench and the trench filled with soil around the siltation fence) and sediment control tube will be installed at the limits of the proposed work. The work areas will then be cleared and grubbed as necessary.
2. The installations should be performed during the low flow season and when no rain is forecasted within 3 to 5 days.
3. Water diversion shall be provided, as needed, via sandbag dams and bypass pumping (details provided by contractor).
4. Dewatering of the below grade excavation, if required, shall be discharged into a controlled upland area or temporary excavated sediment basin. If necessary, silt bags or flocculent materials may be utilized to remove suspended sediments. At no time shall turbid discharges be allowed to enter the wetland or stream.
5. Installation of the culvert can occur.
6. Flow can be restored and allowed to flow through the culvert. Monitoring shall be conducted to ensure that no erosion of the created channel substrate or Banks occurs. If necessary, minor adjustments can be made in the field to ensure stabilization of the channel is achieved.
7. The final stabilization completed.

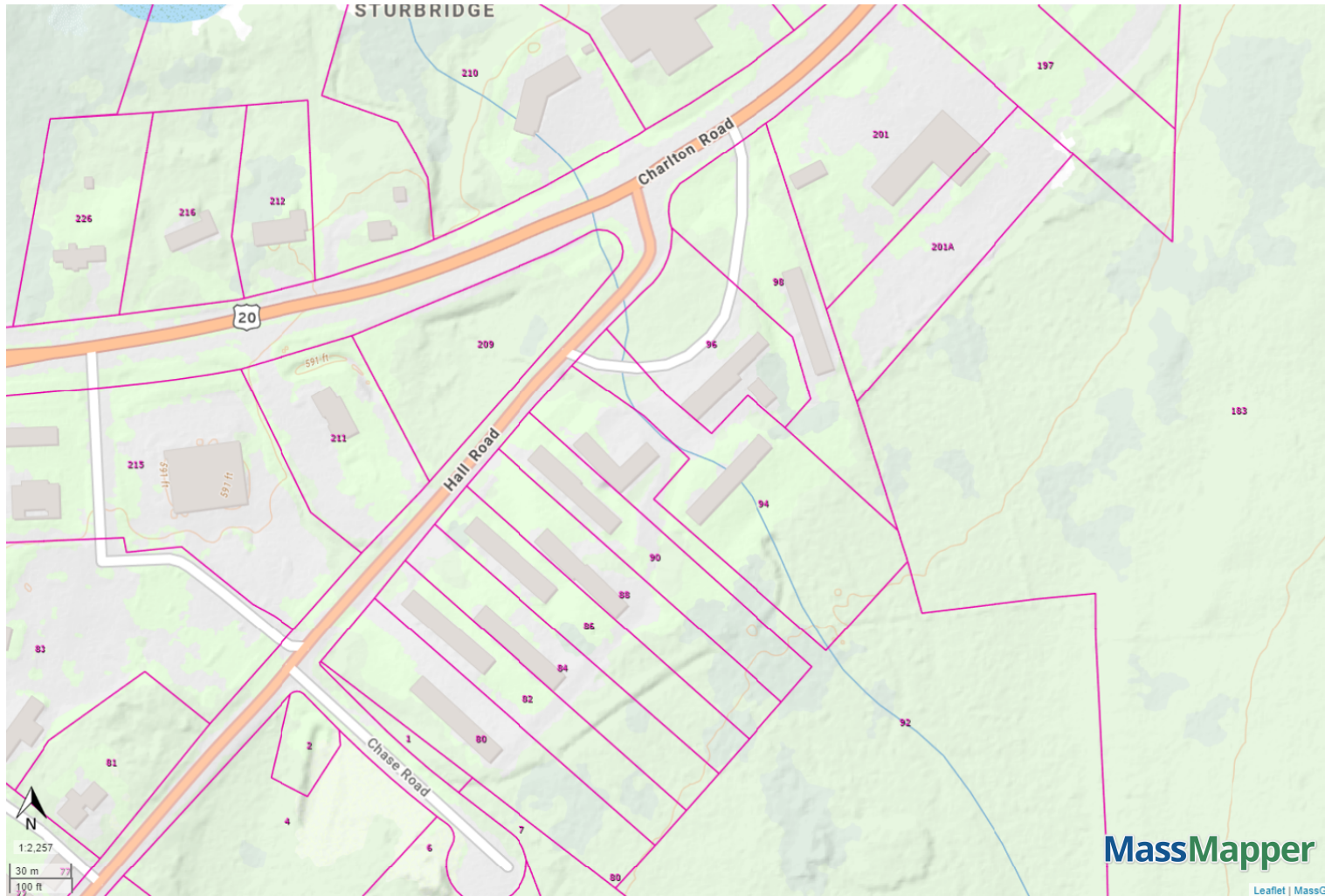
MAPS AND PLANS

94 Hall Road, Sturbridge, MA



USGS Topographic Maps
Property Tax Parcels

94 Hall Road, Sturbridge, MA



Areas of Critical Environmental Concern
ACECs



NHESP Certified Vernal Pools



NHESP Estimated Habitats of Rare
Wildlife



NHESP Priority Habitats of Rare Species

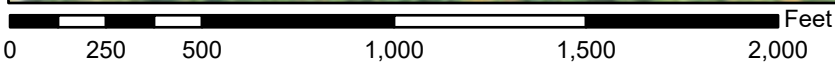


Property Tax Parcels

National Flood Hazard Layer FIRMMette



72°4'8"W 42°7'12"N



1:6,000

72°3'30"W 42°6'45"N

Basemap Imagery Source: USGS National Map 2023

Legend

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

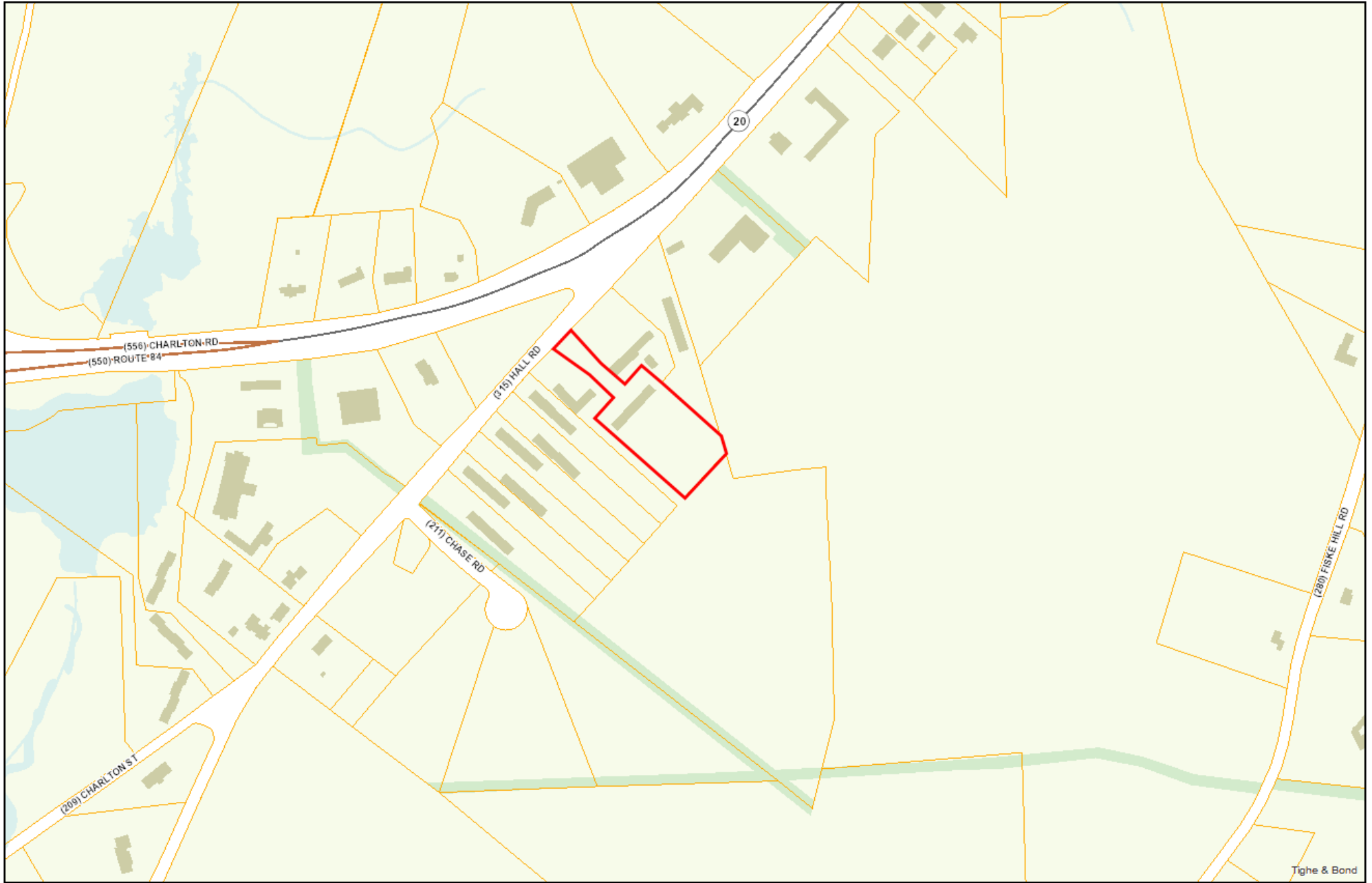
SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		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

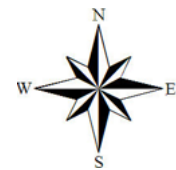
The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **9/6/2023 at 11:07 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded 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.



The information depicted on this map is for planning purposes only. It is not adequate for legal boundary definition, regulatory interpretation, or parcel-level analyses.

9/6/2023 10:47:11 AM
Scale: 1"=400'
Scale is approximate



**CERTIFIED ABUTTERS LIST AND
DRAFT ABUTTER NOTIFICATION**

**NOTIFICATION TO ABUTTERS UNDER THE
MASSACHUSETTS WETLANDS PROTECTION ACT**

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

- A. The name of the Applicant is **Jessie Albert**.
- B. The Applicant has filed a **Notice of Intent (NOI)** with the **Sturbridge Conservation Commission**, seeking review and approval under the Wetlands Protection Act (MGL c. 31 s. 40) for:
- C. The address of the lot where the activity is proposed **94 Hall Road, Sturbridge, MA**. (Parcel 315-02631-094).
- D. Copies of the **NOI** may be examined at the **Sturbridge Town Hall at the Conservation Commission Office** during regular business hours. For more information call (508) 347-2506.
- E. Copies of the **NOI** may be obtained from the Applicant's representative by written request. Applicant's representative: **McClure Engineering, Inc. (508) 248-2005** between the hours of 9:00 a.m. – 4:00 p.m., Monday through Friday.
- F. **PUBLIC HEARING:** Information regarding the date, time and place of the public hearing may be obtained by calling the **Conservation Commission office at (508) 347-2506** or the Town Clerk's office for any posted meetings.
- G. Person sending this notification (applicant, representative or other)
Applicant's Representative:
McClure Engineering, Inc.
119 Worcester Road
Charlton, MA 01507
(508) 248-2005

NOTE: Notice of the public hearing, including date, time and place, will be published at least five (5) days in advance in the Worcester Telegram & Gazette or other local newspaper.

NOTE: Notice of the public hearing, including date, time and place will be posted in the Town Hall not less than forty-eight hours in advance.

NOTE: You may also contact the Central Regional Office of the Department of Environmental Protection for more information about this application or the Wetlands Protection Act by calling (508) 792-7650.

PROOF OF TAXES PAID



Town of Sturbridge

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation_____

Please verify outstanding tax/fee status for the following property owner:

Property Owner: Sturbridge DHC, LLC_____

Property Location: 94 Hall Road_____

- The license/permit may be released.
 The license/permit may not be released.

for *Regina Soche*
Finance Director

9/12/23
Date

LOCAL BYLAW FILING FEE FORM

STURBRIDGE WETLANDS PROTECTION BY-LAW AND REGULATIONS

WETLANDS FILING FEE CALCULATION WORKSHEET

Application Type	Qty	Town Filing Fee	TOTAL
Notice of Intent (NOI):			
Residential – Single Family:			
Accessory (Deck, Shed, Pool Septic)	_____	\$150	_____
Shoreline Work	_____	\$150	_____
New Construction	_____	\$300	_____
Residential – Other:			
Subdivision/Multi-Unit	<u> 1 </u>	\$750	<u> \$750 </u>
Commercial/Industrial:			
New	_____	\$1500	_____
Redevelopment	_____	\$1000	_____
Limited Project (as defined in SWB & WPA)	_____	Equal to full WPA fee	_____
Alterations – located within Riverfront Area	_____	Additional 50% of Fee	_____
Application filed after Enforcement Order		Double the Municipal fee	_____
Request for Amended Order of Conditions	_____	50% of initial fee	_____
Request for Determination of Applicability (RDA):			
No Wetland Boundary Confirmation			
Residential:	_____	\$100	_____
No Wetland Boundary Confirmation			
All Other:	_____	\$200	_____
For Wetland Boundary Confirmation			
File ANRAD or NOI			
Abbreviated Notice of Resource Area De lineation (ANRAD):			
Residential – Single Family:			
	_____	\$100	_____
All Other:			
Base Review	_____	\$300	_____
Resource Area Boundary			

Certificate of Compliance (COC):			
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Residential:

Single Family	_____	\$50	_____
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Subdivision or Multi-Unit	_____	\$150	_____
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Commercial or Industrial:	_____	\$150	_____
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If Order of Conditions has Expired	_____	Add an additional \$150	_____
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OOO Extension Request	_____	\$50	_____
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Emergency Certification (NOI may be required to be filed following issuance of Emergency Cert)	_____	\$50	_____
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Local Bylaw Fee (includes Town Filing Fee)		\$ <u>750.00</u>
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State Filing Fee (from DEP Wetland Transmittal Form)		\$ <u>262.50</u>
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<u>Total Payable to "Town of STURBRIDGE"</u>		\$ <u>1,012.50</u>
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*Additional Consultant Fee may be required for reasons which may include:

- Significant amount of wetland impact;
- Extensive resource areas on a site;
- Lack of information supplied;
- Incomplete plans, reports, forms submitted;
- Supplemental information submitted.