



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

Date 6/26/2023

in all white cells completely

<b>Parcel</b>		<b>Applicant name</b>	<span style="border: 1px solid black; padding: 2px;">(Same as owner)</span>
Address	<span style="border: 1px solid black; padding: 2px;">9 Cedar Pond Road</span>	Address	<span style="border: 1px solid black; padding: 2px;"></span>
Assessors	<span style="border: 1px solid black; padding: 2px;"></span>	Email	<span style="border: 1px solid black; padding: 2px;"></span>
Map/Plat	<span style="border: 1px solid black; padding: 2px;">200-02418-009</span>	Phone	<span style="border: 1px solid black; padding: 2px;"></span>
Book & Page	<span style="border: 1px solid black; padding: 2px;">53095 - 309</span>		
<b>Owner name</b>	<span style="border: 1px solid black; padding: 2px;">Doreen Grout</span>	<b>Representative</b>	<span style="border: 1px solid black; padding: 2px;">EBT Environmental Consultants, Inc.</span>
Address	<span style="border: 1px solid black; padding: 2px;">9 Cedar Pond Road, Sturbridge, MA 01518</span>	Address	<span style="border: 1px solid black; padding: 2px;">601 Main Street, North Oxford, MA 01537</span>
Email	<span style="border: 1px solid black; padding: 2px;">grout2@cox.net</span>	Email	<span style="border: 1px solid black; padding: 2px;">glenn.krevosky@charter.net</span>
Phone	<span style="border: 1px solid black; padding: 2px;">(860) 965-3414</span>	Phone	<span style="border: 1px solid black; padding: 2px;">(508) 769-3659</span>

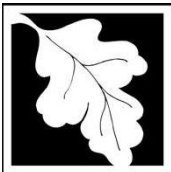
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<b>Wetland type</b>		<b>sf/cf affected</b>		<b>Relevant Perf. Standards</b>	<b>10.</b> <span style="border: 1px solid black; padding: 2px;"></span>
Wetland type		sf/cf affected		Relevant Perf. Standards	<b>10.</b> <span style="border: 1px solid black; padding: 2px;"></span>
Wetland type		sf/cf affected		Relevant Perf. Standards	<b>10.</b> <span style="border: 1px solid black; padding: 2px;"></span>

Components of a Complete NOI Application

<b>State Form: NOI Form 3</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Engineered Plan</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Proof of Mailing to DEP</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Narrative</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Proof that all relevant perf. standards are met</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>TOPO Map identifying locus with scale</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>FIRM Map identifying locus with scale</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Natural Heritage Map with WH, PH, &amp; VP data</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Delineation lines (backup material)</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No
<b>Tax Form</b>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Fees</b>	
★ 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 <span style="border: 1px solid black; padding: 2px;">\$300.00</span>	Included? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
<b>Abutter Information</b>	
★ 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>
<b>Other Attachments, e.g.</b>	See attached D.4. Additional Information
<b>Confirmation of submission to NHESP</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<b>Planting Plan</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<b>Floodplain analysis</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable
<b>Stormwater analysis</b>	Included? <input type="checkbox"/> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Not Applicable

Components of a Complete NOI Application



**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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MassDEP File Number

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Document Transaction Number

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Sturbridge

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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):

<u>9 Cedar Pond Road</u>	<u>Sturbridge</u>	<u>01518</u>
a. Street Address	b. City/Town	c. Zip Code
Latitude and Longitude:		
	<u>42.118331</u>	<u>-72.091647</u>
	d. Latitude	e. Longitude
<u>Parcel ID: 200-02418-009</u>	<u>g. Parcel /Lot Number</u>	
f. Assessors Map/Plat Number		

2. Applicant:

<u>Doreen</u>	<u>Grout</u>	
a. First Name	b. Last Name	
<u>c. Organization</u>		
<u>9 Cedar Pond Road</u>		
d. Street Address		
<u>Sturbridge</u>	<u>MA</u>	<u>01518</u>
e. City/Town	f. State	g. Zip Code
<u>(860) 965-3414</u>	<u>grout2@cox.net</u>	
h. Phone Number	i. Fax Number	j. Email Address

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

(Same as above)

a. First Name b. Last Name

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c. Organization

---

d. Street Address

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

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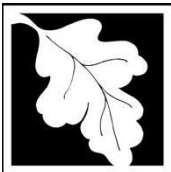
h. Phone Number i. Fax Number j. Email address

4. Representative (if any):

<u>Glenn</u>	<u>Krevosky</u>	
a. First Name	b. Last Name	
<u>EBT Environmental Consultants, Inc.</u>		
c. Company		
<u>601 Main Street</u>		
d. Street Address		
<u>North Oxford</u>	<u>MA</u>	<u>01537</u>
e. City/Town	f. State	g. Zip Code
<u>(508) 769-3659</u>	<u>glenn.krevosky@charter.net</u>	
h. Phone Number	i. Fax Number	j. Email address

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

<u>\$110.00 (+\$300.00 bylaw)</u>	<u>\$42.50</u>	<u>\$67.50 (+\$300.00 bylaw)</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

# WPA Form 3 – Notice of Intent

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

Provided by MassDEP:

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Sturbridge  
City/Town

## A. General Information (continued)

6. General Project Description:

See attached A.6. General Project Description

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

53095

c. Book

b. Certificate # (if registered land)

309

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.

#### **A.6. General Project Description (for Wetland Protection Act)**

**Site: 9 Cedar Pond Road, Sturbridge**

**Applicant: Doreen Grout**

The applicant proposes to relocate an existing shed and install a C-100HD Cultec unit within the 100-foot buffer zone. The Cultec unit will provide infiltration for a new garage outside of the buffer zone.

The 100-year flood plain is on the southeast side of the house, our work is proposed on the northwest side of the house, no work is proposed in the 100-year flood plain.

Glenn Krevosky of EBT Environmental Consultants, Inc. reviewed the site and found the shoreline retaining wall was the edge of the resource area (see attached Exhibit 11A).

The erosion control measures of staked 9" straw wattles, shown on the site plan, shall be placed prior to site work. These measures shall be maintained in good working order throughout the project until all exposed soils are final graded, loamed, seeded and stabilized with well-established soil stabilizing vegetation.

**GENERAL PROJECT DESCRIPTION FOR WORK SUBJECT TO STURBRIDGE  
WETLAND BYLAW**

**Site: 9 Cedar Pond Road, Sturbridge**

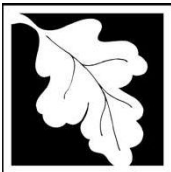
**Applicant: Doreen Grout**

The applicant proposes to construct a 26' by 26' garage within the 200-foot bylaw buffer zone. The applicant also proposes to relocate an existing shed and install a C-100HD Cultec unit within the 100-foot buffer zone. The Cultec unit will provide infiltration for the new garage (see attached Exhibit 10A for the drainage analysis). The volume of material being removed to construct the garage is 51.6 cubic yards. All soil material will be immediately removed from the site – there will be no stockpiling of material on site.

The 100-year flood plain is on the southeast side of the house, our work is proposed on the northwest side of the house, no work is proposed in the 100-year flood plain.

Glenn Krevosky of EBT Environmental Consultants, Inc. reviewed the site and found the shoreline retaining wall was the edge of the resource area (see attached Exhibit 11A).

The erosion control measures of staked 9" straw wattles, shown on the site plan, shall be placed prior to site work. These measures shall be maintained in good working order throughout the project until all exposed soils are final graded, loamed, seeded and stabilized with well-established soil stabilizing vegetation.



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City/Town

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

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

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

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

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:

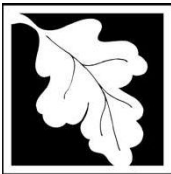
a. total square feet \_\_\_\_\_ b. square feet within 100 ft. \_\_\_\_\_ c. square feet between 100 ft. and 200 ft. \_\_\_\_\_

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.



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MassDEP File Number

Document Transaction Number

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



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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](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**

Current  
MassMapper \_\_\_\_\_

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

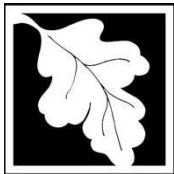
2.  Project plans for entire project site, including wetland resource areas and areas outside of wetlands jurisdiction, showing existing and proposed conditions, existing and proposed tree/vegetation clearing line, and clearly demarcated limits of work \*\*
  - (a)  Project description (including description 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  
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 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

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---

MassDEP File Number

---

Document Transaction Number

---

Sturbridge

---

City/Town

**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:

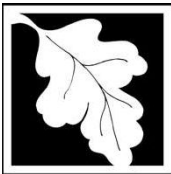
Division of Marine Fisheries -  
 Southeast Marine Fisheries Station  
 Attn: Environmental Reviewer  
 836 South Rodney French Blvd.  
 New Bedford, MA 02744  
 Email: [dmf.envreview-south@mass.gov](mailto:dmf.envreview-south@mass.gov)

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

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

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

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



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

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

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

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

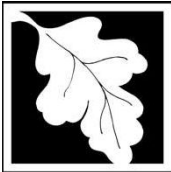
**D. Additional Information**

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

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

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

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



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## 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.

Proposed Garage and Site Modification Plan

a. Plan Title

Existing Grade Inc.

Edwin H. Gless Jr.

b. Prepared By

c. Signed and Stamped by

6/3/2023

1"=10'

d. Final Revision Date

e. Scale

See attached D.4. Additional Information

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:

2005 (2006 bylaw)

6/10/2023

2. Municipal Check Number

3. Check date

2004

6/10/2023

4. State Check Number

5. Check date

Doreen & Kenneth

Grout

6. Payor name on check: First Name

7. Payor name on check: Last Name

#### **D.4. Additional Information**

**Project Location:** 9 Cedar Pond Road, Sturbridge

**Applicant:** Doreen Grout

- 1A. Proposed Garage and Site Modification Plan: prepared for Doreen Grout by Existing Grade Inc., dated 6/3/2023
- 2A. Southbridge USGS Quad, dated 2021
- 3A. Sturbridge GIS Map, dated 6/26/2023
- 4A. Fee Transmittal Form, Local Fee Sheet & Check Copies
- 5A. Town of Sturbridge Abutters' List, dated 6/13/2023
- 6A. Abutters Notification, dated xx/xx/xx
- 7A. Affidavit of Service, dated xx/xx/xx
- 8A. Tax Signoff, dated 6/12/2023
- 9A. MassMapper with Layers, dated 6/26/2023
- 10A. National Grid Email, dated 4/17/2023
- 11A. Drainage Analysis, dated 6/3/2023
- 12A. Photo Exhibit, dated 6/21/2023



# 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

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.

Doreen Brout  
1. Signature of Applicant

6/10/23  
2. Date

3. Signature of Property Owner (if different)

Glenn E. Kewsky  
5. Signature of Representative (if any)

4. Date

6/26/2023

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.

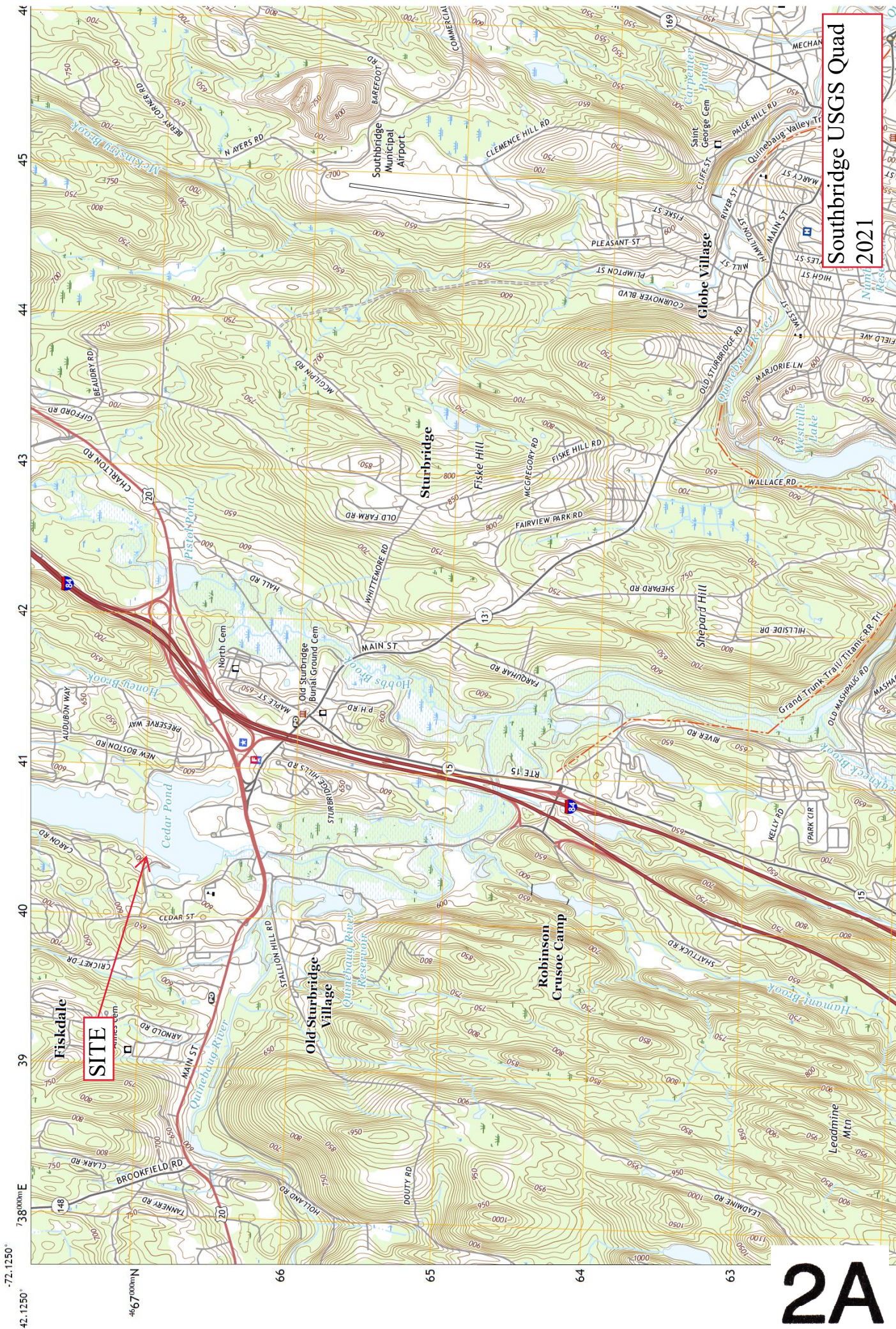
### For MassDEP:

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.



Southbridge USGS Quad  
2021

2A



## 9 Cedar Pond Road

6/26/2023 10:59:16 AM

Scale: 1"=175'

Scale is approximate

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.



# 3A



**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:

9 Cedar Pond Road	Sturbridge
a. Street Address	b. City/Town
2004 (2005 municipal & 2006 bylaw)	\$42.50 (\$67.50 municipal & \$300.00 bylaw)
c. Check number	d. Fee amount

2. Applicant Mailing Address:

Doreen	Grout	
a. First Name	b. Last Name	
c. Organization		
9 Cedar Pond Road		
d. Mailing Address		
Sturbridge	MA	01518
e. City/Town	f. State	g. Zip Code
(860) 965-3414	grout2@cox.net	
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

(Same as above)	
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 1.a.	1	\$110.00	\$110.00
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
_____	_____	_____	_____
<b>Step 5/Total Project Fee:</b>			\$110.00 (+\$300 bylaw)
<b>Step 6/Fee Payments:</b>			
Total Project Fee:			\$110.00 (+\$300 bylaw)
			a. Total Fee from Step 5
State share of filing Fee:			\$42.50
			b. 1/2 Total Fee <b>less</b> \$12.50
City/Town share of filing Fee:			\$67.50 (+\$300 bylaw)
			c. 1/2 Total Fee <b>plus</b> \$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.)

STURBRIDGE WETLANDS PROTECTION BY-LAW AND REGULATIONS

**WETLANDS FILING FEE CALCULATION WORKSHEET**

<b>Application Type</b>	<b>Qty</b>	<b>Town Filing Fee</b>	<b>TOTAL</b>
<b>Notice of Intent (NOI):</b>			
<b>Residential – Single Family:</b>			
Accessory (Deck, Shed, Pool Septic)	<input type="text" value="2"/>	\$150	<input type="text" value="\$300.00"/>
Shoreline Work	<input type="text"/>	\$150	<input type="text"/>
New Construction	<input type="text"/>	\$300	<input type="text"/>
<b>Residential – Other:</b>			
Subdivision/Multi-Unit	<input type="text"/>	\$750	<input type="text"/>
<b>Commercial/Industrial:</b>			
New	<input type="text"/>	\$1500	<input type="text"/>
Redevelopment	<input type="text"/>	\$1000	<input type="text"/>
Limited Project (as defined in SWB & WPA)	<input type="text"/>	Equal to full WPA fee	<input type="text"/>
Alterations – located within Riverfront Area	<input type="text"/>	Additional 50% of Fee	<input type="text"/>
Application filed after Enforcement Order		Double the Municipal fee	<input type="text"/>
Request for Amended Order of Conditions	<input type="text"/>	50% of initial fee	<input type="text"/>
<b>Request for Determination of Applicability (RDA):</b>			
No Wetland Boundary Confirmation Residential:	<input type="text"/>	\$100	<input type="text"/>
No Wetland Boundary Confirmation All Other:	<input type="text"/>	\$200	<input type="text"/>
For Wetland Boundary Confirmation File ANRAD or NOI			
<b>Abbreviated Notice of Resource Area Delineation (ANRAD):</b>			
Residential – Single Family:	<input type="text"/>	\$100	<input type="text"/>
All Other:			
Base Review	<input type="text"/>	\$300	<input type="text"/>
Resource Area Boundary			

**Certificate of Compliance (COC):**

**Residential:**

Single Family  \$50

Subdivision or Multi-Unit  \$150

**Commercial or Industrial:**  \$150

**If Order of Conditions has Expired**  Add an additional \$150

**OOO Extension Request**  \$50

**Emergency Certification**  \$50   
(NOI may be required to be filed following issuance of Emergency Cert)

**Local Bylaw Fee (includes Town Filing Fee)** \$

**State Filing Fee (from DEP Wetland Transmittal Form)** \$

**Total Payable to "Town of STURBRIDGE"** \$

\*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.

Parcel ID	Owner	Owner Address	Owner City	State	Zip	Property Address
200-02428-005	DARRIN DAVID B	5 CEDAR POND ROAD	STURBRIDGE	MA	01566	5 CEDAR POND ROAD
200-02428-003	FREELAND JULIETTE R TRUSTEE	3 CEDAR POND ROAD	STURBRIDGE	MA	01566	3 CEDAR POND ROAD
200-02418-007	GRENIER WAYNE	332 COOPER ROAD	NORTHBRIDGE	MA	01534	7 CEDAR POND ROAD
103-02418-041	GROUT DOREEN	383 ELM STREET	ENFIELD	CT	06082	41 ABRAMS DRIVE
202-02417-070	INHABITANTS OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	70 CEDAR STREET
103-02418-043	JULIANO BRIAN R	107 HAMPDEN ROAD	SOMERS	CT	06071	43 ABRAMS DRIVE
568-02418-045	SENECA LANE REALTY TRUST	P.O. BOX 1104	STURBRIDGE	MA	01566	45 SENECA LANE
202-02416-060	TOWN OF STURBRIDGE	308 MAIN STREET	STURBRIDGE	MA	01566	60 CEDAR STREET
	BOARD OF ASSESSORS					
Above persons listed are record owners as they appear on the most recent applicable tax list.						
Assessors are not responsible for errors or omissions. RE: M.G.L. - Chapter 40A, Section 11						
Abutters List -	Conservation Commission - 200'					
RE: 9 CEDAR POND ROAD						
Certified Copy						
Assessor:	<i>Chas P. Murphy</i>					
Date:	<i>6-12-2023</i>					

**AFFIDAVIT OF SERVICE**

**UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT  
AND TOWN OF STURBRIDGE WETLAND PROTECTION BYLAW**

**(To be submitted to the Massachusetts Department of Environmental Protection & the Conservation Commission when filing a Notice of Intent)**

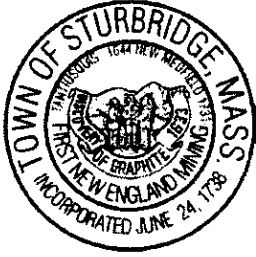
I, Glenn E. Krevosky, hereby certify under the pains and penalties of perjury that on **July 1, 2023**, I gave notification to abutters within 200 feet of the proposed project in compliance with the second paragraph of the Massachusetts General Laws, Chapter 131, Section 40 and the DEP Guide to Abutter Notification, dated April 8, 1994, in connection with the following matter:

A Notice of Intent (NOI) application filed under the Massachusetts Wetlands Protection Act and The Town of Sturbridge Wetland Protection Bylaw by EBT Environmental Consultants, Inc., 601 Main Street, North Oxford, MA 01537, with the Sturbridge Conservation Commission on **July 1, 2023** for a property located at, 9 Cedar Pond Road, Sturbridge.

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

\_\_\_\_\_  
Signature

**7-1-2023**  
\_\_\_\_\_  
Date



# Town of Sturbridge

Barbara A. Barry, Finance Director

Department/Board/Committee: Conservation Commission

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

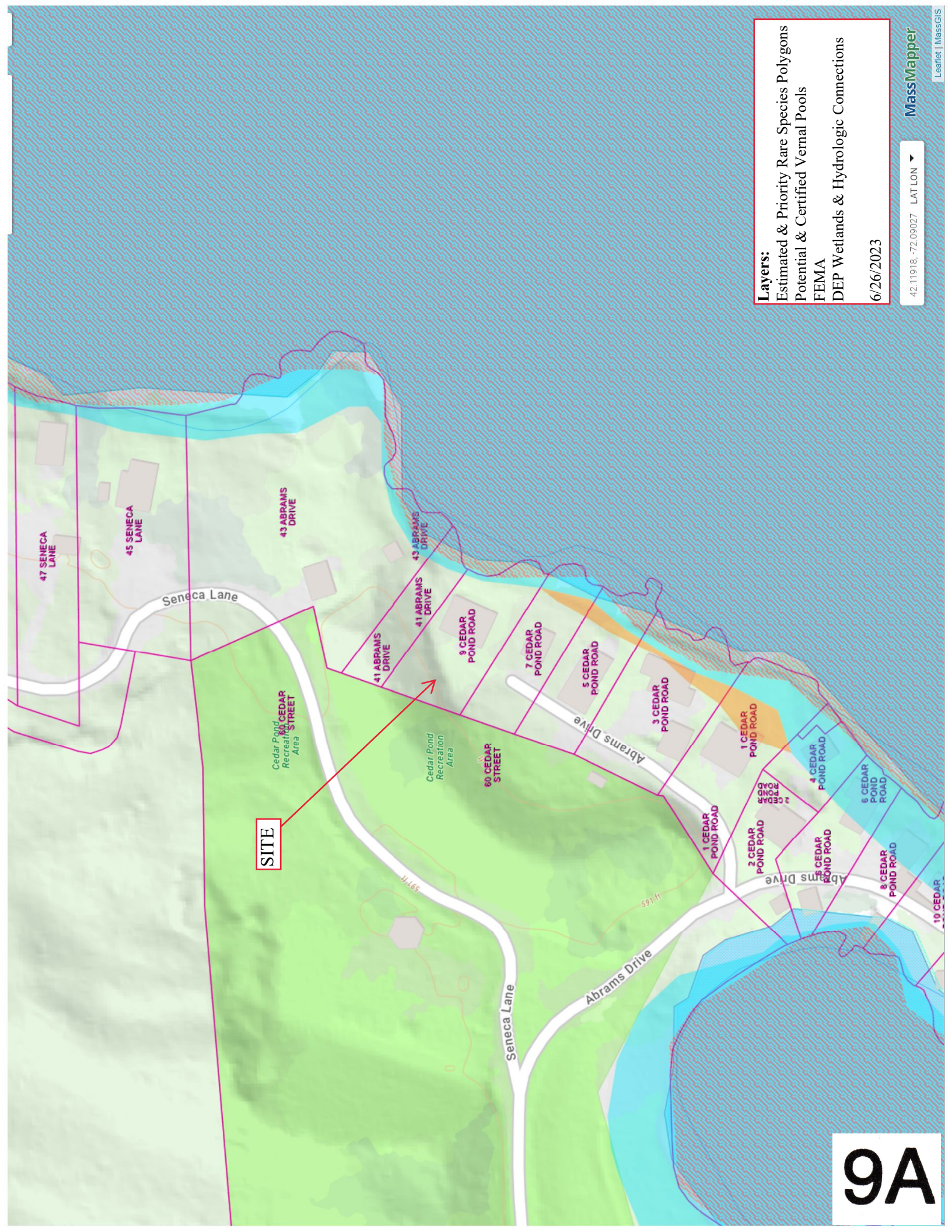
Property Owner: Doreen Grout

Property Location: 9 Cedar Pond Road

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

For Wendy MacGregor  
Finance Director

6/12/2023  
Date



**Layers:**  
 Estimated & Priority Rare Species Polygons  
 Potential & Certified Vernal Pools  
 FEMA  
 DEP Wetlands & Hydrologic Connections  
 6/26/2023

42.11918, -72.09027 LAT LON

**SITE**

**9A**

**From:** Dody Grout <grout2@cox.net>  
**Sent:** Friday, June 2, 2023 5:48 PM  
**To:** glenn.krevosky@charter.net  
**Subject:** Fwd: WR30753643 Cancelation

Sent from my iPad

Begin forwarded message:

**From:** Josh Cottone <bccustomhome@yahoo.com>  
**Date:** June 2, 2023 at 10:58:48 AM EDT  
**To:** Dody Grout <grout2@cox.net>  
**Subject:** Fwd: **WR30753643 Cancelation**

Josh Cottone

Begin forwarded message:

**From:** Info@jdleblancelectric.com  
**Date:** April 17, 2023 at 4:47:02 PM EDT  
**To:** Bccustomhome@yahoo.com  
**Subject:** Fwd: **WR30753643 Cancelation**

Sent from my iPhone

Begin forwarded message:

**From:** "Tapley, Mark" <Mark.Tapley@nationalgrid.com>  
**Date:** April 17, 2023 at 4:04:28 PM EDT  
**To:** "Fox, Paula A." <Paula.Fox@nationalgrid.com>  
**Cc:** Info@jdleblancelectric.com  
**Subject:** **WR30753643 Cancelation**

Paula,

After meeting the customer and the builder in the field on this my recommendation to them is to keep the roof of the garage a minimum of 12.5' away from our Secondary lines. That we would prefer them not to build under our lines but we can not stop them as long as they meet the standards in our blue book. I have attached it below for quick reference. I also informed them that they should reach out to Verizon to determine the distances that they require from their conductor as they



are the lowest cable on the poles. At this point in time there is no work for National Grid to do on this job and this job can be canceled.

**Table 4.2.4.1-1: Overhead Service Line Clearance Requirements**

Clearance Requirement	Effectively Grounded Neutral, Grounded Guys and Ungrounded Guys Exposed to 0 to 300V	0 to 750V Multiplex Supply Cables
	(ft)	(ft)
Vertical clearance above roads, streets, alleys, parking lots, driveways and other areas subject to truck traffic.	17.0	17.5
Spaces and ways subject to pedestrians or restricted traffic only.	11.0	13.5
Vertical or diagonal clearances over or under roofs or projections not readily accessible to pedestrians. See Note 6 for further detail.	4.5	5.0
Horizontal clearance from porches, decks, fire escapes, or other similarly attached structures.	4.5	5.0
Vertical or diagonal clearances over or under roofs, balconies, decks, or similar structures readily accessible to pedestrians.	12.0	12.5
Maximum vertical height above ground to service drop drip loop from finished grade.	25.0	25.0
Any direction from eavestrough or downspout.	0.5	0.5
Clearance in any direction to unguarded windows and doors.	3.0	3.0
Vertical above window top and around <u>non-opening</u> windows (with no sag adders).	1.0	1.0

**Notes to Table 4.2.4.1-1:**

1. Vertical clearance values for conductors are for 100 ft spans at 60°F (15°C) final unloaded sag and phase-to-ground voltages. No allowance is made for sag for vertical clearances at a building or structure's point of attachment. Consult the Company for clearances required for longer spans.
2. Vertical clearance above roadways subject to truck traffic may have higher requirements based on the highway authority having jurisdiction.
3. A roof, balcony, or area is considered readily accessible to pedestrians if it can be casually accessed through a doorway, ramp, window, stairway, or permanently mounted ladder by a person on foot who neither exerts extraordinary physical effort nor employs tools or devices to gain entry. A permanently mounted ladder is not considered a means of access if its bottom rung is 8 ft or more from the ground or other permanently installed accessible surface.
4. Where the height of a residential building does not permit its service drop(s) to meet these values or where clearances are compromised, please consult the Company.
5. Consult the Company if work may be expected in the future near lines or between the building and lines. The clearance shall be increased to ensure 10 ft minimum clear space for electrically

For the latest authorized version, please refer to the Company's website at <https://www.nationalgridus.com/ProNet/Technical-Resources/Electric-Specifications>

Thank you,

**Mark Tapley**

Distribution Design- Senior Designer

939 Southbridge St.  
Worcester, MA 01610  
Phone:508-320-3962

E-mail preferred contact method

**nationalgrid**

HERE WITH YOU. HERE FOR YOU.

**Specifications for Electrical Installations**

**Specifications for Electrical Installations Underground Residential Distribution**

**Specifications for Electrical Installations Underground Commercial Distribution**

Upcoming Planned out of office:

May 29<sup>th</sup> – June 5<sup>th</sup> 2023

July 3<sup>rd</sup> – July 11<sup>th</sup> 2023

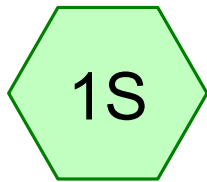
This e-mail, and any attachments are strictly confidential and intended for the addressee(s) only. The content may also contain legal, professional or other privileged information. If you are not the intended recipient, please notify the sender immediately and then delete the e-mail and any attachments. You should not disclose, copy or take any action in reliance on this transmission.

You may report the matter by contacting us via our [UK Contacts Page](#) or our [US Contacts Page](#) (accessed by clicking on the appropriate link)

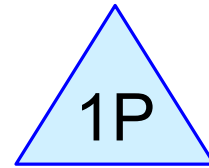
Please ensure you have adequate virus protection before you open or detach any documents from this transmission. National Grid plc and its affiliates do not accept any liability for viruses. An e-mail reply to this address may be subject to monitoring for operational reasons or lawful business practices.

For the registered information on the UK operating companies within the National Grid group please use the attached link:

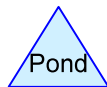
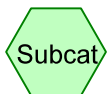
<https://www.nationalgrid.com/group/about-us/corporate-registrations>



676 SQ.FT. GARAGE  
ROOF AREA



C100-Cultec



Routing Diagram for 2086\_DRAINAGE  
Prepared by Existing Grade, Inc  
HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

**2086\_DRAINAGE**

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

Page 2

**Area Listing (all nodes)**

Area (acres)	CN	Description (subcatchment-numbers)
0.016	98	Roofs, HSG A (1S)
<b>0.016</b>	<b>98</b>	<b>TOTAL AREA</b>

**2086\_DRAINAGE**

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

Page 3

**Soil Listing (all nodes)**

Area (acres)	Soil Group	Subcatchment Numbers
0.016	HSG A	1S
0.000	HSG B	
0.000	HSG C	
0.000	HSG D	
0.000	Other	
<b>0.016</b>		<b>TOTAL AREA</b>

**2086\_DRAINAGE**

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

Page 4

**Ground Covers (all nodes)**

HSG-A (acres)	HSG-B (acres)	HSG-C (acres)	HSG-D (acres)	Other (acres)	Total (acres)	Ground Cover	Subcatchment Numbers
0.016	0.000	0.000	0.000	0.000	0.016	Roofs	1S
<b>0.016</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.000</b>	<b>0.016</b>	<b>TOTAL AREA</b>	

**2086\_DRAINAGE**

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

Time span=0.00-24.00 hrs, dt=0.05 hrs, 481 points  
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN  
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

**Subcatchment1S: 676 SQ.FT. GARAGEROOF** Runoff Area=676 sf 100.00% Impervious Runoff Depth>0.79"  
Tc=6.0 min CN=98 Runoff=0.01 cfs 0.001 af

**Pond 1P: C100-Cultec** Peak Elev=96.05' Storage=1 cf Inflow=0.01 cfs 0.001 af  
Outflow=0.01 cfs 0.001 af

**Total Runoff Area = 0.016 ac Runoff Volume = 0.001 af Average Runoff Depth = 0.79"**  
**0.00% Pervious = 0.000 ac 100.00% Impervious = 0.016 ac**

# 2086\_DRAINAGE

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

STURBRIDGE\_9 CEDAR POND ROAD GARAGE

NRCC 24-hr D 1-Inch Rainfall=1.00"

Page 6

## Summary for Subcatchment 1S: 676 SQ.FT. GARAGE ROOF AREA

Runoff = 0.01 cfs @ 12.13 hrs, Volume= 0.001 af, Depth> 0.79"

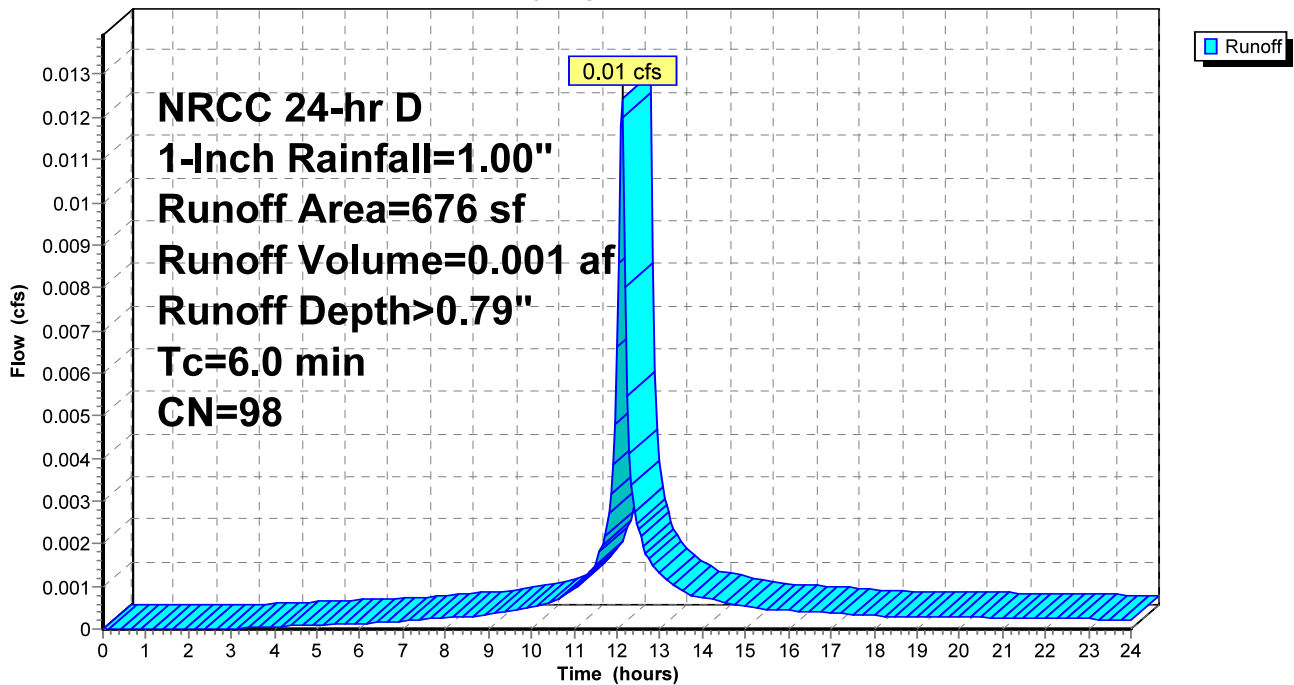
Runoff by SCS TR-20 method, UH=SCS, Weighted-CN, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs  
NRCC 24-hr D 1-Inch Rainfall=1.00"

Area (sf)	CN	Description
676	98	Roofs, HSG A
676		100.00% Impervious Area

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0					Direct Entry, MIN. TC
5.0	0				Total, Increased to minimum Tc = 6.0 min

## Subcatchment 1S: 676 SQ.FT. GARAGE ROOF AREA

Hydrograph





**2086\_DRAINAGE**

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

**Summary for Pond 1P: C100-Cultec**

Inflow Area = 0.016 ac, 100.00% Impervious, Inflow Depth > 0.79" for 1-Inch event  
 Inflow = 0.01 cfs @ 12.13 hrs, Volume= 0.001 af  
 Outflow = 0.01 cfs @ 12.20 hrs, Volume= 0.001 af, Atten= 22%, Lag= 4.3 min  
 Discarded = 0.01 cfs @ 12.20 hrs, Volume= 0.001 af

Routing by Stor-Ind method, Time Span= 0.00-24.00 hrs, dt= 0.05 hrs / 8  
 Peak Elev= 96.05' @ 12.18 hrs Surf.Area= 50 sf Storage= 1 cf

Plug-Flow detention time=(not calculated: outflow precedes inflow)  
 Center-of-Mass det. time=0.5 min ( 799.3 - 798.9 )

Volume	Invert	Avail.Storage	Storage Description
#1A	96.00'	35 cf	<b>5.00'W x 10.00'L x 2.04'H Field A</b> 102 cf Overall - 15 cf Embedded = 87 cf x 40.0% Voids
#2A	96.50'	15 cf	<b>Cultec C-100HD</b> Inside #1 Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap Row Length Adjustment= +0.50' x 1.86 sf x 1 rows
		50 cf	Total Available Storage

Storage Group A created with Chamber Wizard

Device	Routing	Invert	Outlet Devices
#1	Discarded	96.00'	<b>8.270 in/hr Exfiltration over Surface area</b> Conductivity to Groundwater Elevation = 93.00'

**Discarded OutFlow** Max=0.01 cfs @ 12.20 hrs HW=96.05' (Free Discharge)  
 ↑1=Exfiltration ( Controls 0.01 cfs)

**2086\_DRAINAGE**

Prepared by Existing Grade, Inc  
HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

**Pond 1P: C100-Cultec - Chamber Wizard Field A**

**ChamberModel= CultecC-100HD(CultecContactor®100HD)**

Effective Size= 32.1"W x 12.0"H => 1.86 sf x 7.50'L = 14.0 cf

Overall Size= 36.0"W x 12.5"H x 8.00'L with 0.50' Overlap

Row Length Adjustment= +0.50' x 1.86 sf x 1 rows

1 Chambers/Row x 7.50' Long +0.50' Row Adjustment = 8.00' Row Length +12.0" End Stone x 2 = 10.00'  
Base Length

1 Rows x 36.0" Wide + 12.0" Side Stone x 2 = 5.00' Base Width

6.0" Base + 12.5" Chamber Height + 6.0" Cover = 2.04' Field Height

1 Chambers x 14.0 cf +0.50' Row Adjustment x 1.86 sf x 1 Rows = 14.9 cf Chamber Storage

102.1 cf Field - 14.9 cf Chambers = 87.2 cf Stone x 40.0% Voids = 34.9 cf Stone Storage

Chamber Storage + Stone Storage = 49.8 cf = 0.001 af

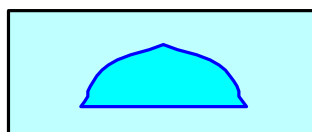
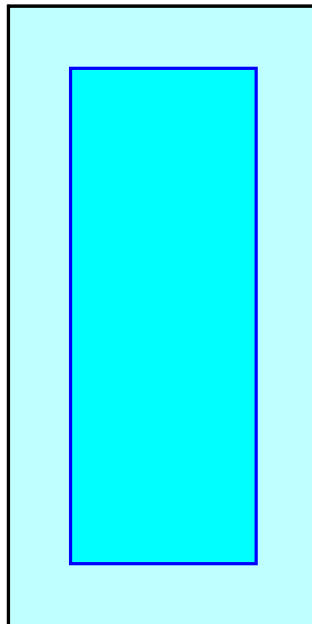
Overall Storage Efficiency = 48.8%

Overall System Size = 10.00' x 5.00' x 2.04'

1 Chambers

3.8 cy Field

3.2 cy Stone



# 2086\_DRAINAGE

Prepared by Existing Grade, Inc

HydroCAD® 10.00-22 s/n 04588 © 2018 HydroCAD Software Solutions LLC

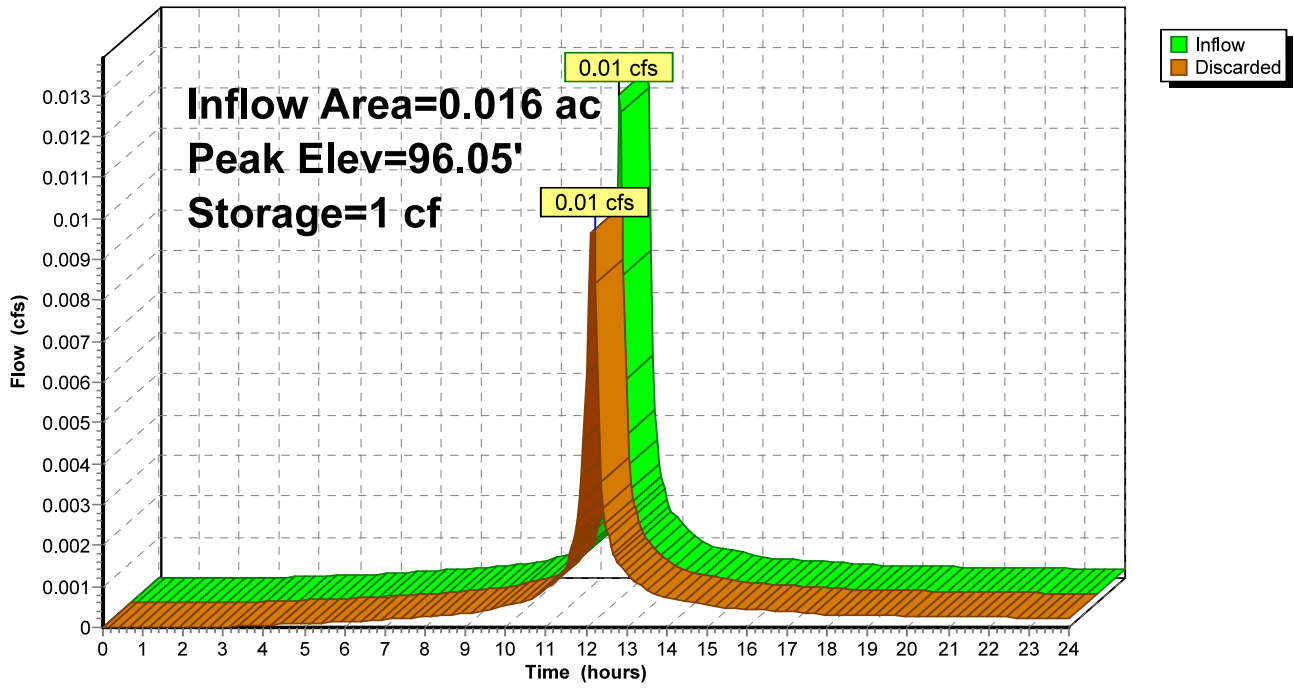
STURBRIDGE\_9 CEDAR POND ROAD GARAGE

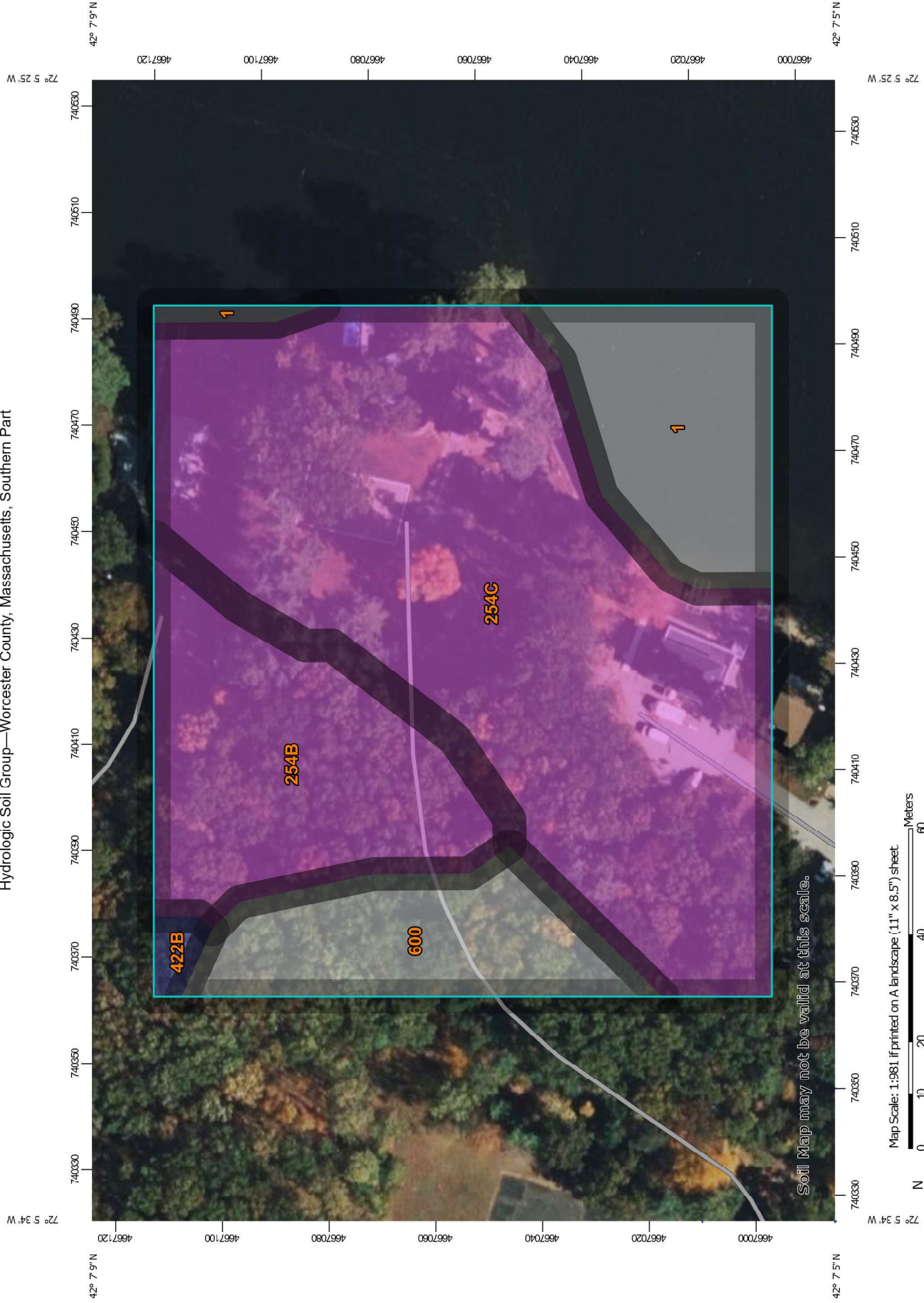
NRCC 24-hr D 1-Inch Rainfall=1.00"

Page 9

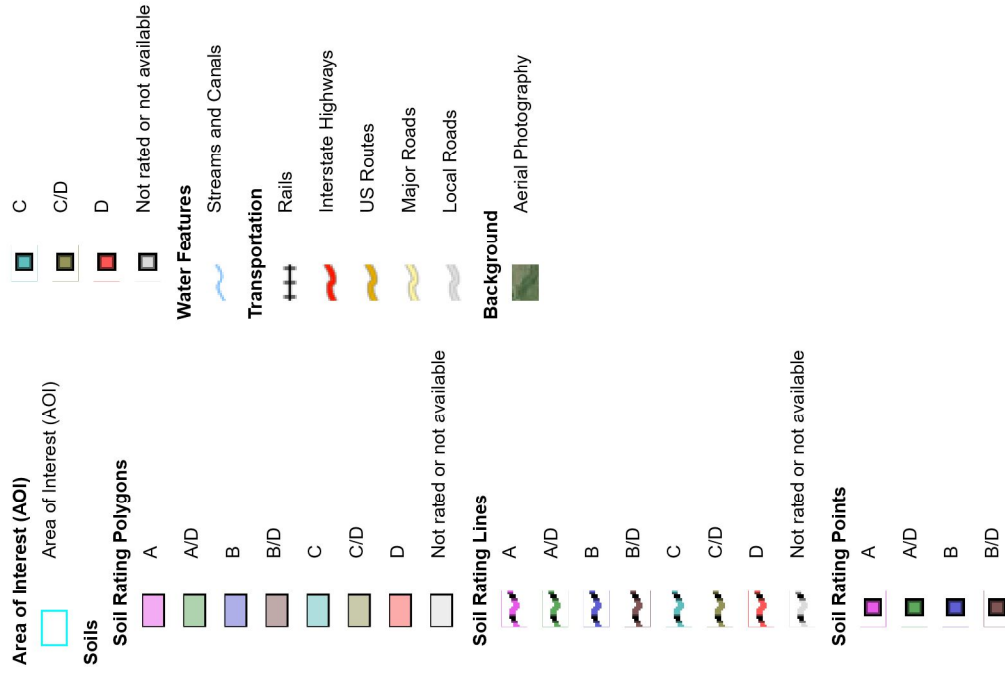
## Pond 1P: C100-Cultec

Hydrograph





## MAP LEGEND



## MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:25,000.

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

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

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

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

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

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

Soil Survey Area: Worcester County, Massachusetts, Southern Part  
 Survey Area Data: Version 15, Sep 9, 2022

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

Date(s) aerial images were photographed: Oct 15, 2020—Oct 31, 2020

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

## Hydrologic Soil Group

Map unit symbol	Map unit name	Rating	Acres in AOI	Percent of AOI
1	Water		0.5	12.4%
254B	Merrimac fine sandy loam, 3 to 8 percent slopes	A	0.7	18.9%
254C	Merrimac fine sandy loam, 8 to 15 percent slopes	A	2.1	56.9%
422B	Canton fine sandy loam, 0 to 8 percent slopes, extremely stony	B	0.0	0.8%
600	Pits, gravel		0.4	10.9%
<b>Totals for Area of Interest</b>			<b>3.7</b>	<b>100.0%</b>

## Description

Hydrologic soil groups are based on estimates of runoff potential. Soils are assigned to one of four groups according to the rate of water infiltration when the soils are not protected by vegetation, are thoroughly wet, and receive precipitation from long-duration storms.

The soils in the United States are assigned to four groups (A, B, C, and D) and three dual classes (A/D, B/D, and C/D). The groups are defined as follows:

Group A. Soils having a high infiltration rate (low runoff potential) when thoroughly wet. These consist mainly of deep, well drained to excessively drained sands or gravelly sands. These soils have a high rate of water transmission.

Group B. Soils having a moderate infiltration rate when thoroughly wet. These consist chiefly of moderately deep or deep, moderately well drained or well drained soils that have moderately fine texture to moderately coarse texture. These soils have a moderate rate of water transmission.

Group C. Soils having a slow infiltration rate when thoroughly wet. These consist chiefly of soils having a layer that impedes the downward movement of water or soils of moderately fine texture or fine texture. These soils have a slow rate of water transmission.

Group D. Soils having a very slow infiltration rate (high runoff potential) when thoroughly wet. These consist chiefly of clays that have a high shrink-swell potential, soils that have a high water table, soils that have a claypan or clay layer at or near the surface, and soils that are shallow over nearly impervious material. These soils have a very slow rate of water transmission.

If a soil is assigned to a dual hydrologic group (A/D, B/D, or C/D), the first letter is for drained areas and the second is for undrained areas. Only the soils that in their natural condition are in group D are assigned to dual classes.

## Rating Options

*Aggregation Method:* Dominant Condition

*Component Percent Cutoff:* None Specified

*Tie-break Rule:* Higher



**Photo 1 taken by EBT, Inc. on 6/21/2023 – Showing hill to be excavated for new garage and shed to be moved to the northwest side of the house.**



**Photo 2 taken by EBT, Inc. on 6/21/2023 – Showing shoreline retaining wall/edge of resource area (in background).**