

August 26, 2020

Sudbury Conservation Commission
Department of Public Works Building
275 Old Lancaster Road
Sudbury, MA 01776

Re: Notice of Intent Application (Bylaw Only)
137 Mossman Road, Sudbury, MA

1. Introduction

Goddard Consulting, LLC (GC) is pleased to submit this Notice of Intent (NOI) on behalf of Doris Smith for the proposed single-family home and septic system in a parcel known as 137 Mossman Road in Sudbury, MA (Map D08, Lot 0019). This application is filed under the Sudbury Wetlands Administration Bylaw (SWAB) only. A prior NOI was submitted for this project on December 20, 2017 under the Wetlands Protection Act (WPA) and SWAB. The Sudbury Conservation Commission issued an Order of Conditions denying the project under the WPA and SWAB on July 6, 2018 (DEP File #301-1229). Upon appeal of this denial by the Applicant, MassDEP issued a Superseding Order of Conditions (SOC) on November 9, 2018 approving the project under the WPA. A Bylaw-only NOI was submitted on February 26, 2019, and subsequently withdrawn on April 17, 2019. This new Bylaw-only NOI contains the same site plan from the 2019 NOI, but contains new information in the form of a Wildlife Habitat Evaluation report, plus substantial additional mitigation as described in the proposed Habitat Restoration Plan.

The applicant proposes to construct a single-family home, garage, driveway and septic system on the property. The location of the home, garage and portion of the driveway are within the 100-foot Adjacent Upland Resource Area (AURA) of an offsite bordering vegetated wetland (BVW). The septic system leaching field is located outside of the 100-foot buffer zone and no activity is proposed within the 100-foot AURA of a Certified Vernal Pool located within the western portions of the property.

2. Existing Conditions

The eastern portions of the property (adjacent to Mossman Road and the location of the proposed project) consist of a fairly thinly vegetated deciduous forest dominated by black birch. To the west of the project area the habitat consists of a mature, undeveloped white pine forest followed by a forested/shrub swamp Bordering Vegetated Wetland (BVW), a portion of which contains a Certified Vernal Pool (CVP #1433). According to Mass GIS Data Layers for NHESP, the site is not located within an Estimated Habitat of Rare Wildlife /

Priority Habitat of Rare Species. FEMA 100-year floodplain (Zone A or AE) is not mapped within the property.

The existing wetland resources were delineated within the property in April of 2017, and slightly adjusted during a site inspection with the Conservation Agent in Spring 2018. The wetland border was flagged using the criteria in the most recent edition of the MA Wetlands Protection Act (WPA) and Regulations (310 CMR 10.00 et al.) and Sudbury Wetlands Administration Bylaw. Hydric soil indicators, vegetational changes, hydrological indicators, and topography were all considered for delineation purposes. Delineated wetland resource areas include BVW and Vernal Pool. BVW was delineated with blue flags labeled #WF 1R through WF 10 from north to south. The maximum observed flooding limit of the Vernal Pool was delineated (and adjusted during inspection by the Conservation Agent) in Spring of 2018. The Vernal Pool boundary coincides with BVW flags WF2 to 5, then the boundary veers westward following pink flags labeled VP R1-R4.

3. Proposed Conditions

The applicant proposes to clear only the necessary upland vegetation for the construction of a single-family home, garage, driveway and septic system. The house, garage, part of the driveway and proposed grading will be within the 100-foot buffer zone/AURA to the BVW, while the septic system is located outside of the jurisdictional area (Figure 1). The project will alter only 7,570 sf +/- of the total onsite AURA (which is 25,030 sf +/-). Therefore 17,460 sf +/- of the onsite AURA will remain undisturbed (70%).

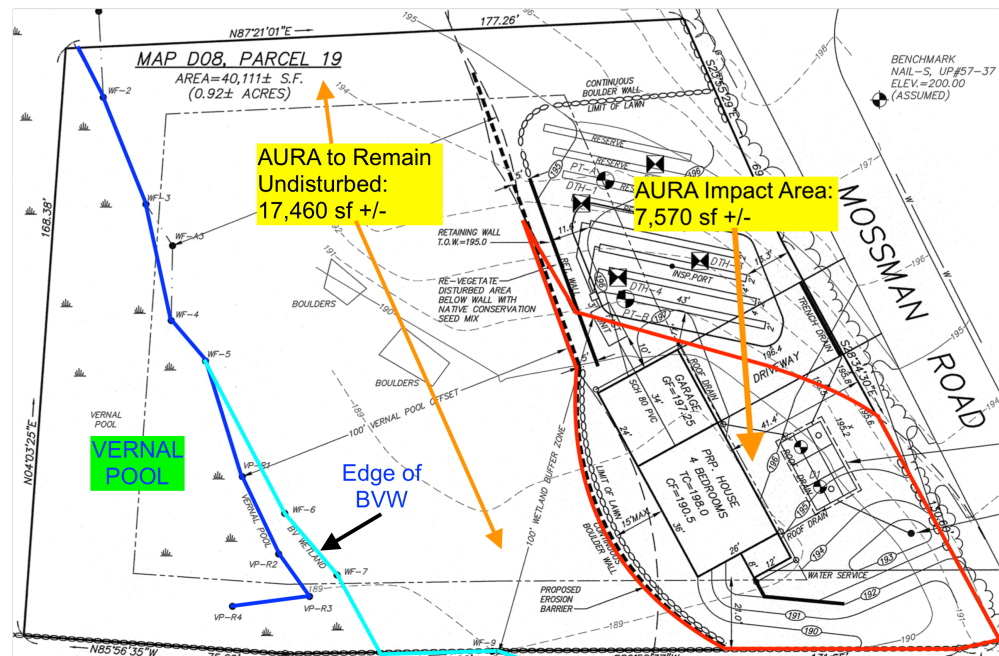


Figure 1 – Detailed view of portions of AURA to be developed and to remain undisturbed.

The proposed Limit of Work (LOW) has been minimized to the greatest extent practicable in order to minimize the number of trees to be cut and avoid impacts to important wildlife habitat features. Only 13 trees (5" dbh or greater) are proposed to be removed within the AURA, while 68 trees will remain in the undisturbed portions of the AURA between the limit of work and the wetland/vernal pool edge. This tree removal would be only 16% of the trees within the onsite AURA.

In order to prevent runoff from entering the BVW and vernal pool during construction, an erosion control barrier will be installed along the western side of the work area. Two retaining walls will be constructed in order to accommodate necessary post-construction grades.

The following enhancements have been added to the plan since the Commission denied the plan dated 5/29/2018 in their denial OOC issued on July 6, 2018 (DEP File #301-1229):

1) MassDEP requested a roof drain drywell system be added. **Reflected on plan dated 9/5/18.**

2) MassDEP subsequently requested that drywell system test hole locations be added. **Reflected on plan dated 10/10/18. This plan was approved under the SOC.**

3) Since the receipt of the SOC, the plan has been further revised with numerous design features that will further protect the resource areas and contribute to the interests of the SWAB. The additional design features include:

- a) Added a continuous boulder wall to permanently demarcate the limit of disturbance and prevent future incursion into the AURA by future homeowners. This boulder wall extends from the southern property line northward to the retaining wall, then from the northern end of the retaining wall wrapping around the septic reserve area and up to Mossman Road. Note that this northern portion of the boulder wall is outside of the AURA and therefore represents an equivalent to "offsite mitigation."
- b) Greatly expanded the capacity of the drywell system to accommodate additional runoff from driveway and area drain (described below).
- c) Added a trench drain at the beginning off the driveway adjacent to Mossman Road. This will collect rainwater and send it to the drywell.
- d) Added an area drain and regraded the area to the south of the drywell. This will further reduce the possibility of any surface runoff flowing towards the BVW to the south.

- e) The space to the west of the retaining wall (0-5 feet from the 100' vernal pool offset) will be seeded with a native conservation mix to promote regrowth of native species.
- f) The proposed septic system has been upgraded to include a FAST unit for denitrification. This is also an equivalent to "offsite mitigation."
- g) Existing boulder piles located west of the limit of work were surveyed and added to the plan. These are important wildlife habitat features that provide sheltering habitat for small mammals and amphibians.
- h) A "Habitat Restoration Plan" will be implemented for restoration within the undisturbed portions of the AURA. This plan includes removal of non-native groundcover, non-native invasive shrubs and replanting native shade-tolerant shrubs and ferns to enhance the wildlife habitat functions of the onsite AURA.

4. No Significant Adverse Impact on Wildlife Habitat

Section 7.3 of the Bylaw Regulations states that *"no project may have a significant adverse project/site-specific impact or an adverse cumulative impact on wildlife habitat for more than two growing seasons."*

See the separate report titled "Wildlife Habitat Evaluation," dated August 24, 2020 for a full discussion of Wildlife Habitat. The evaluation provides evidence that the project does not have a significant adverse effect on the "wildlife habitat" wetlands interest and value protected by the Bylaw, and that the proposed mitigation will provide an improvement in wildlife habitat over the existing conditions by increasing the quantity of native shrubs, ferns and large woody debris that provide foraging and sheltering to the local wildlife.

5. Submitted Materials

Two hard copies of the NOI application are enclosed, and the titles of all the documents enclosed are as follows:

- Form 3 with Wetland Fee Transmittal Form and Copy of Check
- Abutter's list and Map
- Notification to Abutters, Affidavit of Service
- *Orthophoto View of Site*. Goddard Consulting, LLC. 10/18/16
- *USGS Site Locus*. Goddard Consulting, LLC. 10/18/16
- *Superseding Order of Conditions (SOC) for DEP File #301-1229*, Issued by MassDEP 11/9/18
- *Proposed Sewage Disposal System*. Sullivan, Connors and Associates. Revised 2/14/19
- *Wildlife Habitat Evaluation*, Goddard Consulting, LLC, 8/24/20
- *Habitat Restoration Plan*, Goddard Consulting, LLC, 8/21/20

Please feel free to contact me if you have any questions.

Very truly yours,

A handwritten signature in black ink, appearing to read "Daniel Wells". The signature is fluid and cursive, with the first name "Daniel" written in a larger, more prominent script than the last name "Wells".

Dan Wells
Senior Wetland Scientist and Wildlife Biologist

cc: Doris Smith, 401 Peakham Road, Sudbury MA, 01776



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury
 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):

137 Mossman Road

a. Street Address

Sudbury

b. City/Town

01776

c. Zip Code

Latitude and Longitude:

42.413174

d. Latitude

-71.423731

e. Longitude

D08

f. Assessors Map/Plat Number

19

g. Parcel /Lot Number

2. Applicant:

Doris

a. First Name

Smith

b. Last Name

c. Organization

401 Peakham Road

d. Street Address

Sudbury

e. City/Town

MA

f. State

01776

g. Zip Code

(978) 443-5702

h. Phone Number

i. Fax Number

dorosmith@verizon.net

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):

Dan

a. First Name

Wells

b. Last Name

Goddard Consulting, LLC

c. Company

291 Main Street, Suite 8

d. Street Address

Northborough

e. City/Town

MA

f. State

01532

g. Zip Code

(508) 393-3784

h. Phone Number

i. Fax Number

dan@goddardconsultingllc.com

j. Email address

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

\$250.00 (Bylaw Only)

a. Total Fee Paid

b. State Fee Paid

\$250.00 (Bylaw Only)

c. City/Town Fee Paid



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 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

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A. General Information (continued)

6. General Project Description:

Construction of a single family home and septic system.

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

- | | |
|---|---|
| 1. <input checked="" type="checkbox"/> Single Family Home | 2. <input type="checkbox"/> Residential Subdivision |
| 3. <input type="checkbox"/> Commercial/Industrial | 4. <input type="checkbox"/> Dock/Pier |
| 5. <input type="checkbox"/> Utilities | 6. <input type="checkbox"/> Coastal engineering Structure |
| 7. <input type="checkbox"/> Agriculture (e.g., cranberries, forestry) | 8. <input type="checkbox"/> Transportation |
| 9. <input type="checkbox"/> Other | |

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

1. ☐ Yes ☒ No If yes, describe which limited project applies to this project. (See 310 CMR 10.24 and 10.53 for a complete list and description of limited project types)

2. Limited Project Type

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

8. Property recorded at the Registry of Deeds for:

Middlesex South

a. County

14015

c. Book

b. Certificate # (if registered land)

378

d. Page Number

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

- ☒ 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.
- ☐ 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
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury

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) - 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
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury

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
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury
 City/Town

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

2017

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 <http://www.mass.gov/eea/agencies/dfg/dfw/natural-heritage/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
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury

City/Town

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

- (c) ☐ MESA filing fee (fee information available at http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_fee_schedule.htm). 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, http://www.mass.gov/dfwele/dfw/nhesp/regulatory_review/mesa/mesa_exemptions.htm; 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:

Division of Marine Fisheries -
 Southeast Marine Fisheries Station
 Attn: Environmental Reviewer
 1213 Purchase Street – 3rd Floor
 New Bedford, MA 02740-6694
 Email: DMF.EnvReview-South@state.ma.us

North Shore - Hull to New Hampshire border:

Division of Marine Fisheries -
 North Shore Office
 Attn: Environmental Reviewer
 30 Emerson Avenue
 Gloucester, MA 01930
 Email: DMF.EnvReview-North@state.ma.us

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.



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

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 City/Town

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

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

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

D. Additional Information

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

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

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

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



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 3 – Notice of Intent
 Sudbury Wetlands Administration Bylaw

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Sudbury

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.

Proposed Sewage Disposal System

a. Plan Title

Sullivan, Connors and Associates

Vito Colonna, P.E.

b. Prepared By

2/14/2019

c. Signed and Stamped by

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:

1189

2. Municipal Check Number

8/12/2020

3. Check date

4. State Check Number

Doris

6. Payor name on check: First Name

5. Check date

Smith

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:

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F. Signatures and Submittal Requirements

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

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

Doris Smith

1. Signature of Applicant

8/12/20

2. Date

3. Signature of Property Owner (if different)

[Signature]

5. Signature of Representative (if any)

4. Date

8/18/20

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
Sudbury Wetlands Administration Bylaw

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:

137 Mossman Road

a. Street Address

1189

c. Check number

Sudbury

b. City/Town

\$ 250.00

d. Fee amount

2. Applicant Mailing Address:

Doris

a. First Name

Smith

b. Last Name

c. Organization

401 Peakham Road

d. Mailing Address

Sudbury

e. City/Town

MA

f. State

01776

g. Zip Code

(978) 443-5702

h. Phone Number

i. Fax Number

dorosmith@verizon.net

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
Sudbury Wetlands Administration Bylaw

B. Fees (continued)

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2a New Single Family House	1	\$250	\$250
Step 5/Total Project Fee:			\$250

Step 6/Fee Payments:

Total Project Fee:	\$250
	a. Total Fee from Step 5
State share of filing Fee:	N/A
	b. 1/2 Total Fee less \$12.50
City/Town share of filing Fee:	\$250
	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.)

P 183

Abutters Listprint this list

Date: July 02, 2020

Subject Property Address: MOSSMAN RD Sudbury, MA

Subject Property ID: D08-0019

Search Distance: 100 Feet

Prop ID: D08-0112

Prop Location: 130 MOSSMAN RD Sudbury, MA

Owner: SULLIVAN BRIAN P & KATHERINE

Co-Owner:

Mailing Address:

130 MOSSMAN RD
SUDBURY, MA 01776

Prop ID: D08-0113

Prop Location: 5 LEDGE RD Sudbury, MA

Owner: JOHNSON CHRISTOPHER D &

Co-Owner: HEATHER L

Mailing Address:

5 LEDGE RD
SUDBURY, MA 01776

Prop ID: D08-0138

Prop Location: 6 LEDGE RD Sudbury, MA

Owner: MASIELLO JOSEPH N KATHERINE

Co-Owner:

Mailing Address:

6 LEDGE ROAD
SUDBURY, MA 01776

P. 283

Prop ID: D08-0304
Prop Location: 4 SILVER HILL RD Sudbury, MA
Owner: PACE DAVID A & ANNE E
Co-Owner:
Mailing Address:
4 SILVER HILL RD
SUDBURY, MA 01776

Prop ID: D08-0305
Prop Location: 16 SILVER HILL RD Sudbury, MA
Owner: GANZ JEFFREY D & ELIZABETH M
Co-Owner:
Mailing Address:
16 SILVER HILL RD
SUDBURY, MA 01776

Prop ID: D08-0306
Prop Location: 20 SILVER HILL RD Sudbury, MA
Owner: MCCORMICK SEAN S & ANNE K
Co-Owner:
Mailing Address:
20 SILVER HILL RD
SUDBURY, MA 01776

Prop ID: D08-0401
Prop Location: 147 MOSSMAN RD Sudbury, MA
Owner: DUTTER NICHOLAS LEE &
Co-Owner: DUTTER JOCELYN R
Mailing Address:
147 MOSSMAN RD
SUDBURY, MA 01776

P 383

Prop ID: D08-0402

Prop Location: 151 MOSSMAN RD Sudbury, MA

Owner: CHIGAS NICHOLAS

Co-Owner:

Mailing Address:

151 MOSSMAN RD

SUDBURY, MA 01776

Cynthia Gery
Director of assessors
Town of Sudbury
7/2/2020

Notification to Abutters Under the
Town of Sudbury Wetlands Administration Bylaw

In accordance with the Town of Sudbury Wetlands Administration Bylaw you are hereby notified of the following:

The Applicant: Doris Smith

Address: 401 Peakham Road, Sudbury, MA 01776 Phone: 978-443-5702

Has filed a Notice of Intent with the **Sudbury Conservation Commission** seeking permission to remove, fill, dredge, or alter an Area Subject to Protection under the Sudbury Wetlands Administration Bylaw.

Applicant's Representative: Dan Wells, Goddard Consulting LLC

Address: 291 Main Street, Suite 8, Northborough, MA 01532 Phone: (508) 393-3784

The address of the property where the activity is proposed: 137 Mossman Road, Sudbury, MA.

Town Atlas Plat/Map: D08 Parcel/Lot: 19

Project description: Construction of a single-family residence and septic system.

Copies of the Notice of Intent may be examined at the **Conservation Office, Department of Public Works Building, 275 Old Lancaster Road, Sudbury** between the hours of **9:00am to 2:00pm Monday through Wednesday, 10:00am to 4:00pm on Thursdays, and 9:00am to 2:00pm on Fridays.** For more information, please call the Conservation office at **(978) 440-5471** or email at concom@sudbury.ma.us.

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

NOTE: Notice of the public hearing, including the date, time, and place, will be posted in the Dept. of Public Works Building not less than forty-eight (48) hours in advance.

AFFIDAVIT OF SERVICE

Under the Town of Sudbury Wetlands Administration Bylaw

I, Dan Wells hereby certify under the pains and penalties of perjury that on August 27, 2020 I gave notification to abutters in Compliance with the second paragraph of Massachusetts General Law Chapter 131, Section 40, and the DEP Guide to Abutter Notification dating April 8, 1994 in connection with the following matter:

A Notice of Intent was filed under the Sudbury Wetlands Administration Bylaw by Doris Smith with the Sudbury Conservation Commission on August 27, 2020 for a property located at 137 Mossman Road in Sudbury, MA.

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



(Name)

August 27, 2020

(Date)



Orthophoto View of Site

137 Mossman Road - Sudbury, MA

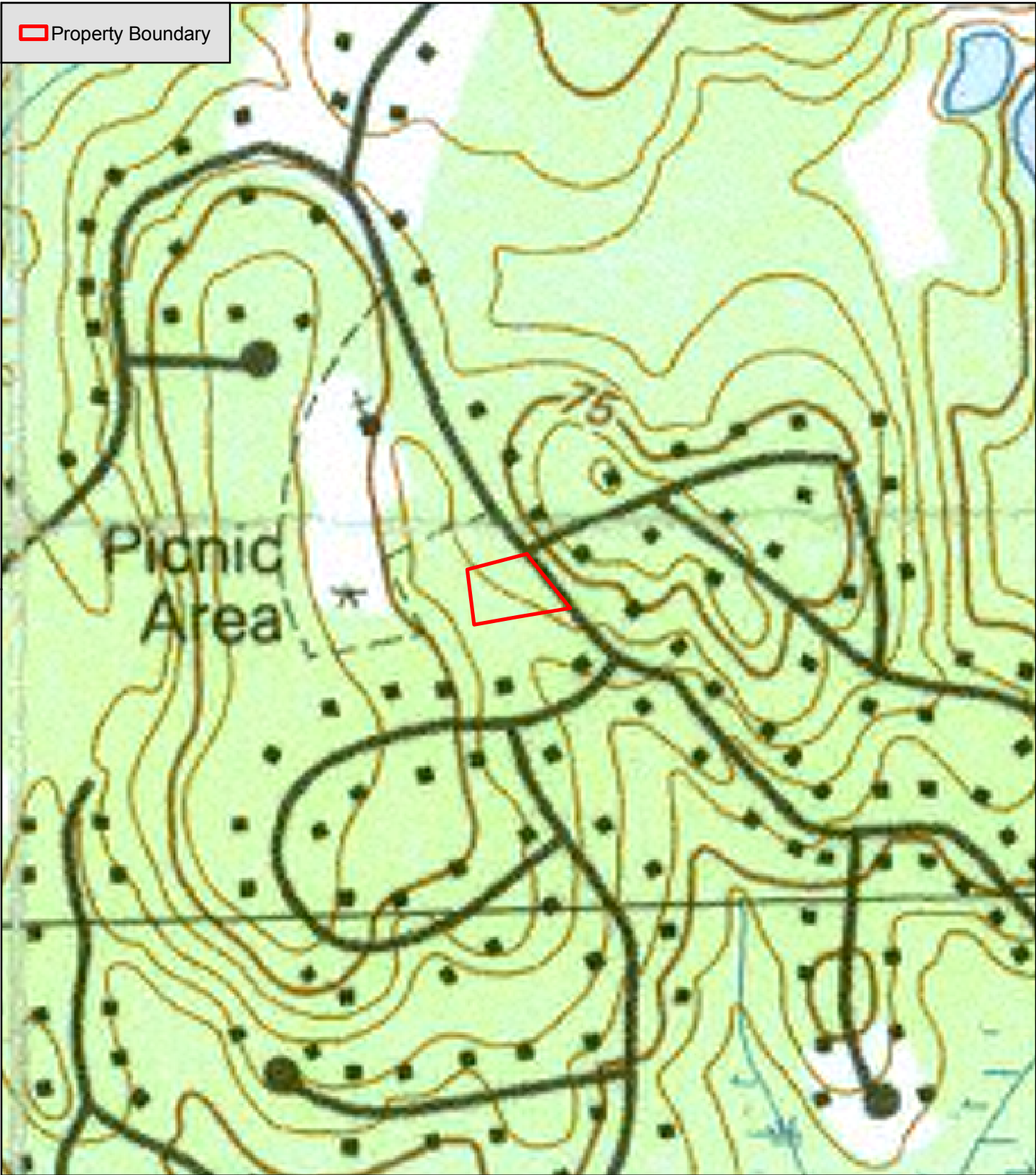


0 25 50 100 Feet

1 inch = 100 feet
Date: 10/18/2016

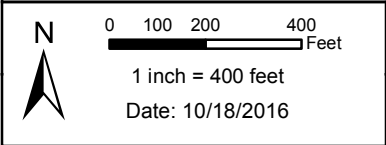
GIS Data Source: "Office of Geographic Information
(MassGIS), Commonwealth of Massachusetts Information
Technology Division"

GODDARD CONSULTING
Strategic Wetland Permitting LLC



USGS Site Locus

137 Mossman Road - Sudbury, MA



GIS Data Source: "Office of Geographic Information (MassGIS), Commonwealth of Massachusetts Information Technology Division"





Commonwealth of Massachusetts
Executive Office of Energy & Environmental Affairs

Department of Environmental Protection

Northeast Regional Office • 205B Lowell Street, Wilmington MA 01887 • 978-694-3200

Charles D. Baker
Governor

Karyn E. Polito
Lieutenant Governor

Matthew A. Beaton
Secretary

Martin Suuberg
Commissioner

November 9, 2018

Doris Smith
401 Peakham Road
Sudbury, MA 01776

Re: WETLANDS/SUDBURY
DEP File# 301-1229
137 Mossman Road
**SUPERSEDING ORDER OF
CONDITIONS**

Dear Ms. Smith:

The Northeast Regional Office of the Department of Environmental Protection, Wetlands Program (MassDEP) has completed its review of the file referenced above in preparation for issuance of a Superseding Order of Conditions. Pursuant to the provisions of Massachusetts General Laws, Chapter 131, Section 40, MassDEP is issuing the enclosed Superseding Order of Conditions (SOC) allowing the project based upon: 1) information and plans submitted; 2) information gathered during previous site inspections; and 3) conditions MassDEP has deemed necessary to protect the statutory interests identified in the Wetlands Protection Act ("the Act").

The proposed project is for the construction of a single-family house with an attached garage, Title 5 septic system, retaining wall and dry well on a 0.92 acre lot.

Based upon a review of the project site and information contained in the file, the MassDEP has determined that the project site contains the following Area Subject to Protection under the Act: Bordering Vegetated Wetlands (BVW). Said Area is presumed to be significant to the protection of one or more of the statutory interests of the Act as noted in the attached Superseding Order of Conditions. A certified vernal pool is located within the BVW. A portion of the project is within the 100 foot Buffer Zone associated with BVW.

On July 6, 2018, the Sudbury Conservation Commission (SCC) issued an Order of Conditions (OOC) denying the project because it determined that the proposed work could not be conditioned to meet the performance standards for BVW, specifically the storm damage protection, flood control, prevention of pollution and protection of wildlife habitat. You filed an appeal on July 18, 2018 based on your belief that the proposed project is protective of these interests.

This information is available in alternate format. Contact Michelle Waters-Ekanem, Director of Diversity/Civil Rights at 617-292-5751.

TTY# MassRelay Service 1-800-439-2370

MassDEP Website: www.mass.gov/dep

Printed on Recycled Paper

MassDEP held a site visit on August 21, 2018 attended by your consultant and members of the SCC. The lot slopes gradually to the southwest from Mossman Road transitioning from a mature pine forest to a forested shrub BVW with a portion of the vernal pool located in BVW on the property. The area of the lot where the project is proposed appears to have been disturbed in the past. The house, garage, septic system and drywell will be located in the southerly portion of the lot at a minimum of 100 feet from the vernal pool. The on-site BVW is at least 70 feet from the project erosion controls and the associated buffer zone will remain undisturbed. The grading on the southern end of the project site will be approximately 20 feet from an off-site BVW that is more than 100 feet from the vernal pool.

At the site visit, MassDEP requested and the applicant agreed to provide infiltration of rooftop runoff based on the SCC's concern about runoff from the project affecting the down-gradient property. A revised plan was received by MassDEP on September 5, 2018 showing a subsurface infiltration system with a capacity of 200 cubic feet and sized to infiltrate one inch of roof runoff (155 cubic feet). Soil test pits were also requested by MassDEP and results show that soil is permeable and the estimated seasonal high groundwater elevation will provide at least a 2 foot separation from the bottom of the infiltration system.

Based on the record, information provided by the applicant, information gathered at the site visit and consideration of all issues raised through the appeal, it is MassDEP's opinion that the proposed project meets the performance standards for BVW and is protective of the interests of the Act.

It is MassDEP's position that the enclosed Superseding Order of Conditions approving the project as proposed serves to protect the statutory interests identified in the Wetlands Protection Act, M.G.L. Chapter 131, Section 40. However, MassDEP reserves the right, should there be further proceedings in this case, to raise additional issues and present further evidence as may be appropriate. Should you or any concerned party dispute these findings, your attention is directed to the language at the end of the enclosed Superseding Order specifying the rights and procedures for appeal.

Should there be any questions in this matter, please contact Gary Bogue at (978) 694-3372 or gary.bogue@state.ma.us.

Sincerely,



Rachel Freed
Deputy Regional Director
Bureau of Water Resources
NERO

cc: Goddard Consulting, LLC, 291 Main Street, Suite 8, Northborough, MA 01532
Sudbury Conservation Commission, 275 Old Lancaster Road, Sudbury, MA 01776



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

A. General Information

1. From: Department of Environmental Protection
Issuing Authority
2. This issuance is for (check one): a. ☒ Superseding Order of Conditions
b. ☐ Amended Superseding Order of Conditions
3. To: Applicant:
- Doris Smith
a. First Name b. Last Name
- 401 Peakham Road
c. Organization
- 401 Peakham Road
d. Mailing Address Line 1
- Sudbury MA 01776
e. City/Town f. State g. Zip Code
4. Property Owner (if different from applicant):
- a. First Name b. Last Name
- c. Organization
- d. Mailing Address Line 1
- e. City/Town f. State g. Zip Code
5. Project Location:
- 137 Mossman Road Sudbury
a. Street Address b. City/Town
- D08 19
c. Assessors Map/Plat Number d. Parcel/Lot Number
- Latitude and Longitude, if known:
e. Latitude f. Latitude

A. General Information (cont'd)

6. Property recorded at the Registry of Deeds (attach additional information if more than one parcel):
- Middlesex South
a. County b. Certificate (if registered land)
- 14015 378
c. Book d. Page
7. Dates: 12/20/2017 7/6/2018
a. Date NOI Filed b. Date of Site Visit c. Date of Issuance of Local Order



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

8. Final Approved Plans and Other Documents (attach additional plans or document references):

See Special Conditions

a. Plan Title

b. Prepared By

c. Signed and Stamped By

d. Final Revision Date

e. Scale

f. Additional Plan or Document Title

g. Date

B. Findings

1. Findings pursuant to the Massachusetts Wetlands Protection Act - Following the review of the above-referenced Notice of Intent and based on the information provided in this application, the Department finds that the areas in which work is proposed is significant to the following interests of the Wetlands Protection Act. Check all that apply:

- a. ☐ Public Water Supply b. ☐ Land Containing Shellfish c. ☒ Prevention of Pollution
d. ☐ Private Water Supply e. ☐ Fisheries f. ☒ Protection of Wildlife Habitat
g. ☒ Groundwater Supply h. ☒ Storm Damage Prevention i. ☒ Flood Control

2. This Department hereby finds the project, as proposed, is (check one):

Approved subject to:

- a. ☒ the following conditions which are necessary in accordance with the performance standards set forth in the wetlands regulations. The Department orders that all work shall be performed in accordance with the Notice of Intent referenced above, the following General Conditions, and any other special conditions attached to this Order. To the extent that the following conditions modify or differ from the plans, specifications, or other proposals submitted with the Notice of Intent, these conditions shall control.

B. Findings (cont'd)

Denied because:

- b. ☐ the proposed work cannot be conditioned to meet the performance standards set forth in the wetland regulations. Therefore, work on this project may not go forward unless and until a new Notice of Intent is submitted which provides measures which are adequate to protect these interests, and a final Order of Conditions is issued. A description of the performance standards which the proposed work cannot meet is attached to this Order.



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

- c. ☐ the information submitted by the applicant is not sufficient to describe the site, the work, or the effect of the work on the interests identified in the Wetlands Protection Act. Therefore, work on this project may not go forward unless and until a revised Notice of Intent is submitted which provides sufficient information and includes measures which are adequate to protect the Act's interests, and a final Order of Conditions is issued. **A description of the specific information which is lacking and why it is necessary is attached to this Order.**

Inland Resource Area Impacts: Check all that apply below. (For Approvals Only)

3. ☐ Buffer Zone Impacts: Shortest distance between limit of project disturbance and wetland boundary (if available) 25
a. linear feet

Resource Area	Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
4. <input type="checkbox"/> Bank	a. linear feet	b. linear feet	c. linear feet	d. linear feet
5. <input type="checkbox"/> Bordering Vegetated Wetland	a. square feet	b. square feet	c. square feet	d. square feet
6. <input type="checkbox"/> Land Under Waterbodies and Waterways	a. square feet	b. square feet	c. square feet	d. square feet
	e. c/y dredged	f. c/y dredged		
7. <input type="checkbox"/> Bordering Land Subject to Flooding	a. square feet	b. square feet	c. square feet	d. square feet
Cubic Feet Flood Storage	e. cubic feet	f. cubic feet	g. cubic feet	h. cubic feet
8. <input type="checkbox"/> Isolated Land Subject to Flooding	a. square feet	b. square feet		
Cubic Feet Flood Storage	c. cubic feet	d. cubic feet	e. cubic feet	f. cubic feet
9. <input type="checkbox"/> Riverfront area	a. total sq. feet	b. total sq. feet		
Sq feet within 100 feet	c. square feet	d. square feet	e. square feet	f. square feet
Sq feet between 100-200 feet	g. square feet	h. square feet	i. square feet	j. square feet

B. Findings (cont'd)

Coastal Resource Area Impacts: Check all that apply below. (For Approvals Only)

10. ☐ Designated Port Areas - Indicate size under Land Under the Ocean, below

Proposed Alteration	Permitted Alteration	Proposed Replacement	Permitted Replacement
---------------------	----------------------	----------------------	-----------------------



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

11. ☐ Land Under the Ocean

a. square feet

b. square feet

c. c/y dredged

d. c/y dredged

12. ☐ Barrier Beaches - Indicate size under Coastal Beaches and/or Coastal Dunes below.

13. ☐ Coastal Beaches

a. square feet

b. square feet

c. c/y nourish.

d. c/y

14. ☐ Coastal Dunes

a. square feet

b. square feet

c. c/y nourish.

d. c/y

15. ☐ Coastal Banks

a. linear feet

b. linear feet

16. ☐ Rocky Intertidal Shores

a. square feet

b. square feet

17. ☐ Salt Marshes

a. square feet

b. square feet

c. square feet

d. square feet

18. ☐ Land Under Salt Ponds

a. square feet

b. square feet

c. c/y dredged

d. c/y dredged

19. ☐ Land Containing Shellfish

a. square feet

b. square feet

c. square feet

d. square feet

20. ☐ Fish Runs - Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above

a. c/y dredged

b. c/y dredged

21. ☐ Land Subject to Coastal Storm Flowage

a. square feet

b. square feet



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

C. General Conditions Under Massachusetts Wetlands Protection Act

(only applicable to approved projects)

1. Failure to comply with all conditions stated herein, and with all related statutes and other regulatory measures, shall be deemed cause to revoke or modify this Order.
2. The Order does not grant any property rights or any exclusive privileges; it does not authorize any injury to private property or invasion of private rights.
3. This Order does not relieve the permittee or any other person of the necessity of complying with all other applicable federal, state, or local statutes, ordinances, bylaws, or regulations.
4. The work authorized hereunder shall be completed within three years from the date of this Order unless either of the following apply:
 - a. the work is a maintenance dredging project as provided for in the Act; or
 - b. the time for completion has been extended to a specified date more than three years, but less than five years, from the date of issuance. If this Order is intended to be valid for more than three years, the extension date and the special circumstances warranting the extended time period are set forth as a special condition in this Order.
5. This Order may be extended by the issuing authority for one or more periods of up to three years each upon application to the issuing authority at least 30 days prior to the expiration date of the Order.
6. If this Order constitutes an Amended Superseding Order of Conditions, this Amended Superseding Order of Conditions does not extend the issuance date of the original Final Order of Conditions and the Superseding Order will expire on _____ unless extended in writing by the Department.
7. Any fill used in connection with this project shall be clean fill. Any fill shall contain no trash, refuse, rubbish, or debris, including but not limited to lumber, bricks, plaster, wire, lath, paper, cardboard, pipe, tires, ashes, refrigerators, motor vehicles, or parts of any of the foregoing.
8. This Order is not final until all administrative appeal periods from this Order have elapsed, or if such an appeal has been taken, until all proceedings before the Department have been completed.
9. No work shall be undertaken until the Order has become final and then has been recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land upon which the proposed work is to be done. In the case of the registered land, the Final Order shall also be noted on the Land Court Certificate of Title of the owner of the land upon which the proposed work is done. The recording information shall be submitted to the Department on the form at the end of this Order, which form must be stamped by the Registry of Deeds, prior to the commencement of work.
10. A sign shall be displayed at the site not less than two square feet or more than three square feet in size bearing the words,

"Massachusetts Department of Environmental Protection" [or, "MA DEP"]

"File Number 301-1229 "



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

11. Where the Department of Environmental Protection is requested to issue a Superseding Order, the Conservation Commission shall be a party to all agency proceedings and hearings before DEP.
12. Upon completion of the work described herein, the applicant shall submit a Request for Certificate of Compliance (WPA Form 8A) to the Department of Environmental Protection.
13. The work shall conform to the plans and special conditions referenced in this order.
14. Any change to the plans identified in Condition #13 above shall require the applicant to inquire of the Department in writing whether the change is significant enough to require the filing of a new Notice of Intent.
15. The Agent or members of the Conservation Commission and the Department of Environmental Protection shall have the right to enter and inspect the area subject to this Order at reasonable hours to evaluate compliance with the conditions stated in this Order, and may require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.
16. This Order of Conditions shall apply to any successor in interest or successor in control of the property subject to this Order and to any contractor or other person performing work conditioned by this Order.
17. Prior to the start of work, and if the project involves work adjacent to a Bordering Vegetated Wetland, the boundary of the wetland in the vicinity of the proposed work area shall be marked by wooden stakes or flagging. Once in place, the wetland boundary markers shall be maintained until a Certificate of Compliance has been issued by the Department.
18. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means. At no time shall sediments be deposited in a wetland or water body. During construction, the applicant or his/her designee shall inspect the erosion controls on a daily basis and shall remove accumulated sediments as needed. The applicant shall immediately control any erosion problems that occur at the site and shall also immediately notify the Department, which reserves the right to require additional erosion and/or damage prevention controls it may deem necessary. Sedimentation barriers shall serve as the limit of work unless another limit of work line has been approved by this Order.

NOTICE OF STORMWATER CONTROL AND MAINTENANCE REQUIREMENTS

19. The work associated with this Order (the "Project") is (1) ☐ is not (2) ☒ subject to the Massachusetts Stormwater Standards. If the work is subject to the Stormwater Standards, then the project is subject to the following conditions:
 - a) All work, including site preparation, land disturbance, construction and redevelopment, shall be implemented in accordance with the construction period pollution prevention and erosion and sedimentation control plan and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Construction General Permit as required by Stormwater Condition 8. Construction period erosion, sedimentation and pollution control measures and best management practices (BMPs) shall remain in place until the site is fully stabilized.



C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- b) No stormwater runoff may be discharged to the post-construction stormwater BMPs unless and until a Registered Professional Engineer provides a Certification that:
- i. all construction period BMPs have been removed or will be removed by a date certain specified in the Certification. For any construction period BMPs intended to be converted to post construction operation for stormwater attenuation, recharge, and/or treatment, the conversion is allowed by the MassDEP Stormwater Handbook BMP specifications and that the BMP has been properly cleaned or prepared for post construction operation, including removal of all construction period sediment trapped in inlet and outlet control structures;
 - ii. as-built final construction BMP plans are included, signed and stamped by a Registered Professional Engineer, certifying the site is fully stabilized;
 - iii. any illicit discharges to the stormwater management system have been removed, as per the requirements of Stormwater Standard 10;
 - iv. all post-construction stormwater BMPs are installed in accordance with the plans (including all planting plans) approved by the issuing authority, and have been inspected to ensure that they are not damaged and that they are in proper working condition;
 - v. any vegetation associated with post-construction BMPs is suitably established to withstand erosion.
- c) The landowner is responsible for BMP maintenance until the issuing authority is notified that another party has legally assumed responsibility for BMP maintenance. Prior to requesting a Certificate of Compliance, or Partial Certificate of Compliance, the responsible party (defined in General Condition 19(e)) shall execute and submit to the issuing authority an Operation and Maintenance Compliance Statement ("O&M Statement") for the Stormwater BMPs identifying the party responsible for implementing the stormwater BMPs Operation and Maintenance Plan ("O&M Plan") and certifying the following: i.) the O&M Plan is complete and will be implemented upon receipt of the Certificate of Compliance, and ii.) the future responsible parties shall be notified in writing of their ongoing legal responsibility to operate and maintain the stormwater management BMPs and implement the Stormwater Pollution Prevention Plan.
- d) Post-construction pollution prevention and source control shall be implemented in accordance with the long-term pollution prevention plan section of the approved Stormwater Report and, if applicable, the Stormwater Pollution Prevention Plan required by the National Pollution Discharge Elimination System Multi-Sector General Permit.
- e) Unless and until another party accepts responsibility, the landowner, or owner of any drainage easement, assumes responsibility for maintaining each BMP. To overcome this presumption, the landowner of the property must submit to the issuing authority a legally binding agreement of record, and acceptable to the issuing authority, evidencing that another entity has accepted responsibility for maintaining the BMP, and that the proposed responsible party shall be treated as a permittee for purposes of implementing the requirements of Conditions 19(f) through 19(k) with respect to that BMP. Any failure of the proposed responsible party to implement the requirements of Conditions 19(f) through 19(k) with respect to that BMP shall be a violation of the Order of Conditions or Certificate of Compliance. In the case of stormwater BMPs that are serving more than one lot, the legally binding agreement shall also identify the lots that will be serviced by the stormwater BMPs. A plan and easement deed that grants the responsible party access to perform the required operation and maintenance must be submitted along with the legally binding agreement.
- f) The responsible party shall operate and maintain all stormwater BMPs in accordance with the design plans, the O&M Plan, and the requirements of the Massachusetts Stormwater Handbook.
-



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

C. General Conditions Under Massachusetts Wetlands Protection Act (cont.)

- g) The responsible party shall:
1. Maintain an operation and maintenance log for the last three (3) consecutive calendar years of inspections, repairs, maintenance and/or replacement of the stormwater management system or any part thereof, and disposal (for disposal the log shall indicate the type of material and the disposal location);
 2. Make the maintenance log available to MassDEP and the Conservation Commission ("Commission") upon request; and
 3. Allow members and agents of the MassDEP and the Commission to enter and inspect the site to evaluate and ensure that the responsible party is in compliance with the requirements for each BMP established in the O&M Plan approved by the issuing authority.
- h) All sediment or other contaminants removed from stormwater BMPs shall be disposed of in accordance with all applicable federal, state, and local laws and regulations.
- i) Illicit discharges to the stormwater management system as defined in 310 CMR 10.04 are prohibited.
- j) The stormwater management system approved in the Order of Conditions shall not be changed without the prior written approval of the issuing authority.
- k) Areas designated as qualifying pervious areas for the purpose of the Low Impact Site Design Credit (as defined in the MassDEP Stormwater Handbook, Volume 3, Chapter 1, Low Impact Development Site Design Credits) shall not be altered without the prior written approval of the issuing authority.
- l) Access for maintenance, repair, and/or replacement of BMPs shall not be withheld. Any fencing constructed around stormwater BMPs shall include access gates and shall be at least six inches above grade to allow for wildlife passage.

Brief Project Description: Construction of a single-family house, garage and driveway, Title 5 system, and rooftop infiltration system.

Special Conditions (See attached sheet(s) for additional Special Conditions numbered 20 through 37.

D. Findings Under Municipal Wetlands Bylaw or Ordinance

To the extent that the Order is based on a municipal bylaw or ordinance, and not on the Massachusetts Wetlands Protection Act or regulations, the Department has no jurisdiction to supersede the local by-law order.



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

E. Issuance

This Order is valid for three years from the date of issuance, unless otherwise specified as a special condition pursuant to General Conditions 4 or 6.

Issued by: **Department of Environmental Protection:**

Signature:

Rachel Freed
Rachel Freed, Deputy Regional Director

This Order is issued to the applicant as follows:

☐ by Hand delivery on:

☒ by certified mail on:

Date

November 9, 2018
Date

F. Recording Information

This Order of Conditions must be recorded in the Registry of Deeds or the Land Court for the district in which the land is located, within the chain of title of the affected property. In the case of recorded land, the Final Order shall also be noted in the Registry's Grantor Index under the name of the owner of the land subject to the Order. In the case of registered land, this Order shall also be noted on the Land Court Certificate of Title of the owner of the land subject to the Order of Conditions. The recording information on Page 10 of this form shall be submitted to the Department.



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

Massachusetts Department of Environmental Protection – Northeast Regional Office
Issuing Authority

To: Department of Environmental Protection
Issuing Authority

Please be advised that the Order of Conditions for the Project at:

137 Mossman Road, Sudbury
Project Location

301-1229
DEP File Number

Has been recorded at the Registry of Deeds of:

County

Book

Page

For: Property Owner

and has been noted in the chain of title of the affected property in:

Book

Page

In accordance with the Order of Conditions issued on:

Date

If recorded land, the instrument number identifying this transaction is:

Instrument Number

If registered land, the document number identifying this transaction is:

Document Number

Signature of Applicant



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

G. Appeal Rights and Time Limits

The applicant, the landowner, any person aggrieved by the Superseding Order, Determination or other Reviewable Decision as defined at 310 CMR 10.04, who previously participated in the proceedings leading to this Reviewable Decision, the conservation commission, or any ten (10) residents of the city or town where the land is located if at least one resident was previously a participant in the permit proceeding, are hereby notified of their right to appeal this Reviewable Decision pursuant to M.G.L. c.30A, § 10, provided the request is made by certified mail or hand delivery to the Department, along with the appropriate filing fee and a MassDEP Fee Transmittal Form within ten (10) business days of the date of issuance of this Superseding Order or Determination, and addressed to:

Case Administrator
Office of Appeals and Dispute Resolution
Department of Environmental Protection
One Winter Street, 2nd Floor
Boston, MA 02108

A copy of the request (hereinafter also referred to as Appeal Notice) shall at the same time be sent by certified mail or hand delivery to the Conservation Commission, the applicant, the person that requested the Superseding Order or Determination, and the issuing office of the MassDEP at:

MassDEP – NERO
Wetlands Program
205B Lowell Street
Wilmington, MA 01887

In the event that a ten resident group requested the Superseding Order or Determination, the Appeal Notice shall be served on the designated representative of the ten resident group, whose name and contact information is included in this Reviewable Decision (when relevant).

Contents of Appeal Notice

An Appeal Notice shall comply with the Department's Rules for Adjudicatory Proceedings, 310 CMR 1.01(6) and 310 CMR 10.05(7)(j), and shall contain the following information:

- (a) the MassDEP Wetlands File Number, name of the applicant, landowner if different from applicant, and address of the project;
- (b) the complete name, mailing address, email address, and fax and telephone numbers of the party filing the Appeal Notice; if represented by consultant or counsel, the name, fax and telephone numbers, email address, and mailing address of the representative; if a ten residents group, the same information for the group's designated representative;
- (c) if the Appeal Notice is filed by a ten (10) resident group, then a demonstration of participation by at least one resident in the previous proceedings that led to this Reviewable Decision;
- (d) if the Appeal Notice is filed by an aggrieved person, then a demonstration of participation in the previous proceeding that led to this Reviewable Decision and sufficient written facts to demonstrate status as a person aggrieved;
- (e) the names, telephone and fax numbers, email addresses, and mailing addresses of all other interested parties, if known;



WPA Form 5 – Superseding Order of Conditions
Massachusetts Department of Environmental Protection
Bureau of Resource Protection – Wetlands Program
Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

MassDEP File #

301-1229

- (f) a clear and concise statement of the alleged errors contained in the Department's decision and how each alleged error is inconsistent with 310 CMR 10.00 and does not contribute to the protection of the interests identified in the Wetlands Protection Act, M.G.L. c.131, § 40, including reference to the statutory or regulatory provisions that the party filing the Appeal Notice alleges has been violated by the Department's Decision, and the relief sought, including any specific desired changes to the Department's decision;
- (g) a copy of the Department's Reviewable Decision that is being appealed and a copy of the underlying Conservation Commission decision if the Reviewable Decision affirms the Conservation Commission decision;
- (h) a statement that a copy of the request has been sent by certified mail or hand delivery to the applicant and the conservation commission; and
- (i) if asserting a matter that is Major and Complex, as defined at 310 CMR 10.04(1), a statement requesting that the Presiding Officer make a designation of Major and Complex, with specific reasons supporting the request.

Filing Fee and Address

A copy of the Appeal Notice along with a MassDEP Fee Transmittal Form and a valid check or money order payable to the Commonwealth of Massachusetts in the amount of one hundred dollars (\$100) must be mailed to:

Commonwealth of Massachusetts
Department of Environmental Protection
Commonwealth Master Lockbox
P.O. Box 4062
Boston, Massachusetts 02211

The request will be dismissed if the filing fee is not paid, unless the appellant is exempt or granted a waiver. The filing fee is not required if the appellant is a city or town (or municipal agency), county, district of the Commonwealth of Massachusetts, or a municipal housing authority. The Department may waive the adjudicatory hearing filing fee pursuant to 310 CMR 4.06(2) for a person who shows that paying the fee will create an undue financial hardship. A person seeking a waiver must file an affidavit setting forth the facts believed to support the claim of undue financial hardship together with the hearing request as provided above.

SUPERSEDING ORDER OF CONDITIONS
DEP File Number 301-1229
Special Conditions

20. All work shall conform with the following plans, reports and Special Conditions:

Plans entitled, "Proposed Sewage Disposal System" one sheet, dated 9/8/2017, last revised 10/10/2018, prepared by Sullivan, Connors and Associates, signed and stamped by Vito Colonna, P.E.

- 21. No work shall commence on-site until all appeal periods have elapsed and this Superseding Order of Conditions has been recorded with the Registry of Deeds and MassDEP has been formally notified via the form provided at the end of this Order.**
22. A copy of this Superseding Order shall be included in all construction contracts and shall supersede any conflicting requirements.
23. Any proposed or executed change in the plans approved under this Superseding Order shall require the applicant to file a new Notice of Intent with the Conservation Commission or to inquire of the MassDEP in writing whether the change is substantial enough to require a new filing. A copy shall be sent at the same time to the Conservation Commission.
- 24. Prior to construction, the applicant shall develop a maintenance plan for the stormwater infiltration system for use by future home owners that shall be submitted to the MassDEP for review and approval. The approved maintenance plan shall be recorded as an ongoing condition on the deed of the future homeowner. This condition shall remain in effect in perpetuity and shall be recorded as such on the Certificate of Compliance.**
25. Prior to any earth-moving activities or clearing of vegetation, filter fabric fencing shall be installed upgradient of all resource areas along the limit of activity between areas to be disturbed and all downgradient wetlands, as shown on the referenced plan. These erosion controls shall indicate the limit of disturbance. There shall be no activity beyond the erosion control barrier.
- 26. At the conclusion of construction, the limit of disturbance shall be permanently marked with stone markers or fencing approved by the conservation commission. Any activity proposed beyond this boundary must file a Notice of Intent with the conservation commission. This condition shall remain in effect in perpetuity and shall be recorded as such on the Certificate of Compliance.**
27. Prior to any construction, the applicant shall hold a preconstruction meeting at which time erosion controls will be inspected and the proposed construction sequence will be reviewed. At the time of this meeting, limit of work staking shall be in place. The applicant will notify both MassDEP and the Conservation Commission of the time and date of this meeting at least one week prior to the meeting date.
28. All sedimentation barriers shall be maintained in good repair until all disturbed areas have been fully stabilized with vegetation or other means.
29. Excess soil, rock and debris excavated or generated during the course of this project shall be removed from the site and disposed of in a legal manner. Records as to the destination of all materials, including excess fill and loam, to be removed from the site shall be kept on file and shall be provided to the MassDEP and the Commission upon request.
30. During construction, storing, servicing or cleaning of equipment, including but not limited to fueling, adding or applying lubricants or hydraulic fluids, or washing/rinsing of trucks or equipment, shall be performed outside of jurisdictional areas.
31. During work on this project there shall be no intentional discharge of pollutants or release of any oil or hazardous

material, including sediments contaminated by any such discharge or release, into any jurisdictional area. The Contractor shall take all reasonable precautions to prevent the discharge of pollutants or the release of oil or hazardous material by ignorance, negligence, accident or vandalism. Any release of oil or hazardous material that is a reportable quantity pursuant to the MCP, accidental or otherwise, including sediments, shall be reported in accordance with the MCP and to MassDEP's Wetlands Program, the MassDEP Bureau of Waste Site Cleanup (BWSC), the Sudbury Fire Department and the Conservation Commission.

32. All disturbed slopes shall be 3:1 or flatter except where appropriate rip-rap, sod, or retaining walls are planned, and all slopes not to be rip-rapped or paved shall be vegetated for stabilization (loamed and seeded).
33. In areas where dewatering becomes necessary, all discharge water shall be pumped into a sediment trap constructed in a proper upland area or through a series of filter pipes or shall be treated by other methods acceptable to the MassDEP and the Conservation Commission in order to remove all suspended sediments within the water and thereby prevent siltation of nearby water courses and vegetated wetlands. The MassDEP and the Conservation Commission shall be notified in advance as to what method will be employed on site. In no way shall silty water ever be discharged into any Resource Areas by the contractor or any other subcontractor involved in the project.
34. Tree and brush removal shall be conducted in a manner which shall minimize tree and brush cutting and prevent impacts to jurisdictional areas to the maximum extent practicable. Cut vegetation shall not be disposed of in jurisdictional areas.
35. The estimated seasonal high groundwater elevation shall be field confirmed to ensure that the two foot separation between the bottom of the infiltration system and the groundwater elevation shall be met. The field data shall be sent to the conservation commission and MassDEP prior to construction of the system.
36. The construction site shall be completely cleaned, cleared of construction equipment and debris and permanently stabilized after the completion of the work and prior to the Contractor leaving the site.
37. Upon completion of the project, the applicant shall request a Certificate of Compliance from MassDEP with a copy to the conservation commission and shall submit the following information with the request:
 - a) A written statement by a professional engineer or land surveyor registered in the Commonwealth of Massachusetts certifying compliance with the approved plans referenced above and this Superseding Order of Conditions and setting forth deviations, if any exist.
 - b) An as-built site plan prepared by a registered land surveyor or registered professional engineer showing the location of the house, driveway, stormwater infiltration system, landscaping, elevations, associated grading, limit of work line, and the limits of all wetland jurisdictional areas.

August 24, 2020

Sudbury Conservation Commission
Department of Public Works Building
275 Old Lancaster Road
Sudbury, MA 01776

***RE: Wildlife Habitat Evaluation
137 Mossman Rd., Sudbury, MA***

1. Introduction

Goddard Consulting, LLC (GC) is pleased to submit this Wildlife Habitat Evaluation (WHE) as a component of the Notice of Intent (NOI) application for 137 Mossman Road submitted on behalf of the applicant, Doris Smith. The WHE has been prepared in accordance with the Sudbury Wetlands Administration Bylaw (1998) and Bylaw Regulations. Plans reviewed for the WHE include the plan titled “*Proposed Sewage Disposal System*,” by Sullivan, Connors & Associates, dated 9/8/17, revised 2/14/19.

The resource area impacts for this project are not subject to any Wetlands Protection Act alteration thresholds that would trigger a MassDEP Appendix A or Appendix B review as described in the “Massachusetts Wildlife Habitat Protection Guidelines for Inland Wetlands” manual produced by MassDEP, aka the “DEP manual.” The project is however subject to a WHE review under the Bylaw for alteration of “Adjacent Upland Resource Area” (AURA), which is a resource area protected by the Bylaw.

2. Methods

I, Dan Wells of GC, conducted the WHE. I have visited the site on numerous occasions over the last four years, and in different times of year. The most recent site inspection took place on August 21, 2020. I have a Master’s Degree in Environmental and Forest Biology, and over 20 years of experience conducting rare species surveys and wildlife habitat evaluations in Massachusetts.

I monitored the onsite Vernal Pool for the presence of egg masses of obligate breeding amphibians and/or fairy shrimp in springs of 2017, 2018 and 2019. Wood frog egg masses (Photo 1) were observed in all three years, while one spotted salamander egg mass was observed only in 2017.



Photo 1 - Wood frog egg masses observed in CVP 1433 on 4/10/17.

Based on the three years of monitoring the vernal pool, I conclude that there is only a small local population of wood frogs and spotted salamanders that breed in CVP 1433. The pool is relatively shallow and probably does not have a long enough hydroperiod in most years to support development of larvae/tadpoles to adulthood.

I also inspected the shallow flooded portion of BVW located offsite to the immediate south in all three years plus April of 2020, and saw no evidence that a vernal pool exists in that location.

3. Regulatory Context

Under the Sudbury Wetlands Administration Bylaw “wildlife habitat” is one of the protected “wetlands values.” Under the current Bylaw Regulations, “all resource areas are presumed significant for wildlife habitat interests and values.” Further, “The near-upland areas around wetland resources often play important roles in determining and maintaining the wildlife habitat values of associated wetlands.”

The AURA resource area to be altered is located in the southeastern portion of the property, with alteration totaling 7,570 s.f. +/- . The proposed Limit of Work (LOW) has been minimized to the greatest extent practicable in order to minimize the number of trees to be cut and avoid impacts to important wildlife habitat features. Only 13 trees (5” dbh or greater) are proposed to be removed within the AURA, while 68 trees will remain in the undisturbed portions of the AURA between the limit of work and the wetland/vernal pool edge. This tree removal would be only 16% of the trees within the AURA.

MassDEP approved a plan dated 10/10/18 in its issuance of a Superseding Order of Conditions (SOC) on November 9, 2018. The current plan and this NOI application have added a substantial number of mitigation features beyond that which was approved by MassDEP. The additional design and mitigation features include:

- a) Added a continuous boulder wall to permanently demarcate the limit of disturbance and prevent future incursion into the AURA by future homeowners. This boulder wall extends from the southern property line northward to the retaining wall, then from the northern end of the retaining wall wrapping around the septic reserve area and up to Mossman Road. Note that this northern portion of the boulder wall is outside of the AURA and therefore represents an equivalent to “offsite mitigation.”
- b) Greatly expanded the capacity of the drywell system to accommodate additional runoff from driveway and area drain.
- c) Added a trench drain at the beginning off the driveway adjacent to Mossman Road. This will collect rainwater and send it to the drywell.
- d) Added an area drain and regraded the area to the south of the drywell. This will further reduce the possibility of any surface runoff flowing toward the BVW to the south.
- e) The space to the west of the retaining wall (0-5 feet from the 100’ vernal pool offset) will be seeded with a native conservation mix to promote regrowth of native species.
- f) The proposed septic system has been upgraded to include a FAST unit for denitrification. This is also an equivalent to “offsite mitigation.”
- g) Existing boulder piles located west of the limit of work were surveyed and added to the plan.
- h) A “Habitat Restoration Plan” will be implemented for restoration within the undisturbed portions of the AURA.

This WHE will provide evidence that the project does not have a significant adverse effect on the “wildlife habitat” wetlands interest and value protected by the Bylaw, and that the proposed mitigation will provide an improvement in wildlife habitat over the existing conditions by increasing the quantity of native shrubs, ferns and large woody debris that provide foraging and sheltering to the local wildlife.

4. Description of the AURA Impact Area

Figure 1 shows the locations and extent of existing onsite Bylaw Resource Areas, which includes a Vernal Pool, Bordering Vegetated Wetland (BVW) and the AURA. The total area of the AURA is 25,030 sf +/-, including 17,460 outside of the Impact Area and 7,570 sf +/-

within the Impact Area. Seventy percent of the onsite AURA will remain undisturbed.

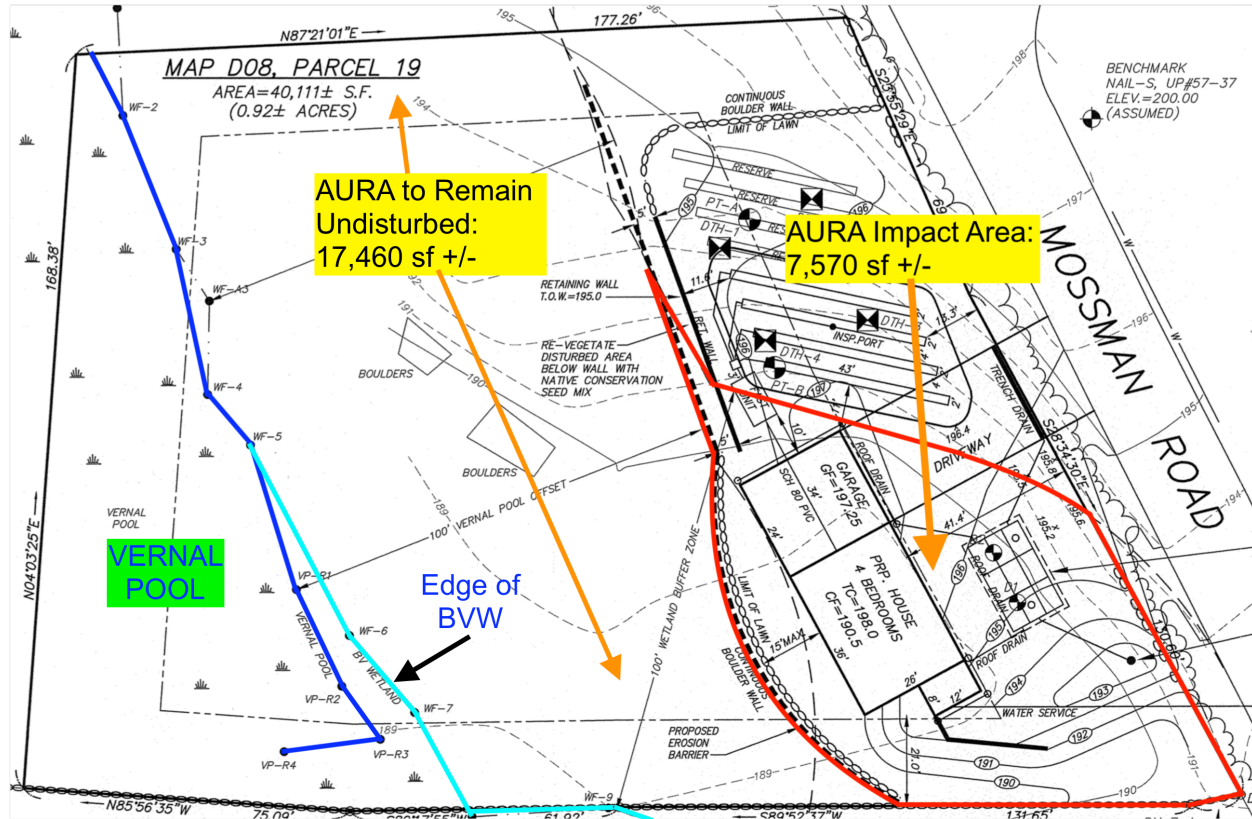


Figure 1- Resource Areas subject to the jurisdiction of the Sudbury Wetlands Administration Bylaw.

Photos 1 & 2 show typical view of the AURA Impact Area, with Photo 1 facing south and Photo 2 facing west.

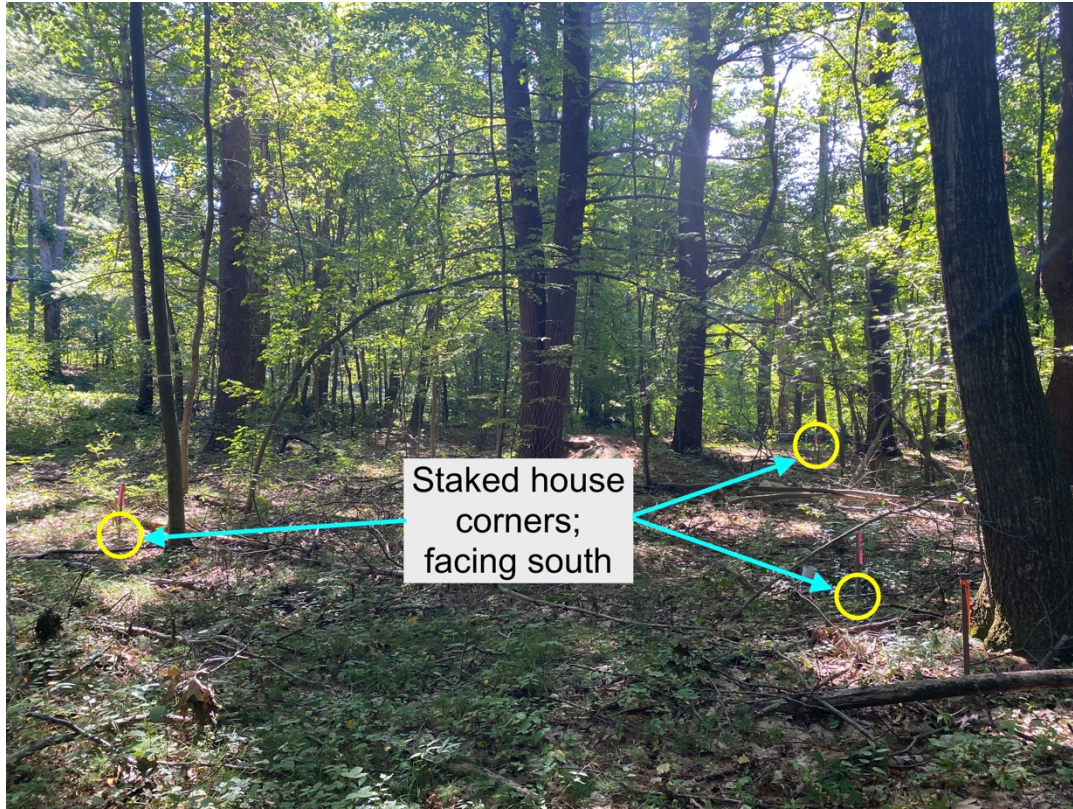


Photo 2- View of staked house corners within AURA Impact Area, facing south.



Photo 3 - View of typical vegetation present within AURA Impact Area, facing west.

5. Description of Existing Wildlife Habitat Characteristics in AURA Impact Area

No unique or uncommon wildlife habitat features are present within the AURA Impact Area. It contains 13 mature trees (with a dbh of 5" or greater) including seven white pines (Photo 3), two black locust (a non-native invasive species), and one each of American elm, red maple, red oak, shagbark hickory. The pines are mature enough that they may provide foraging, sheltering and nesting habitat for birds, small mammals and non-breeding habitat for arboreal amphibians and squirrels. The deciduous species are not as old or expansive, so have less value as bird nesting habitats or as food sources. No cavities were visible within the trees.



Photo 4 - Large white pines (5 of 7 are visible) to be removed within AURA Impact Area.

Shrub cover is dominated by non-native invasive species including glossy buckthorn and burning bush. The non-native invasive shrub species present are not likely to provide much wildlife habitat other than cover and possibly a food source for birds (though this food source is undesirable as it leads to the spread of these species). Ground cover is mostly native species including Canada mayflower and Virginia creeper.

Being entirely forested, there is no turtle nesting habitat (exposed, sparsely vegetated sandy soils) within the AURA (nor any other portions of the property).

Although a small population of wood frogs breeds in the onsite vernal pool, the non-breeding forested habitat within the Impact Area is of low quality to this species. Wood frogs require a thick leaf litter for foraging, sheltering and over-wintering, and typically over-winter within the uplands immediately adjacent to their breeding vernal pools. The leaf litter is fairly sparse within the Impact Area, probably due to the dominance by white pines, and the Impact Area is located greater than 100 feet from the pool, further reducing the value of the habitat to wood frogs.

Common wildlife that may make use of the AURA impact area include small mammals such as chipmunks, voles, shrews, mice and moles which could find invertebrates, seeds and berries for food but limited sheltering opportunities. Larger mammals such as skunks and raccoons could forage for invertebrate prey and use the AURA as a migratory corridor. Large mammals such as deer, foxes and coyotes could use the AURA as a migratory corridor to connect with the forest in other areas, but would not be expected to use the area as a denning site. Garter snakes may forage for insects and amphibians but there is limited sheltering microhabitat within the area such as crevices and logs.

One large woody debris object was observed (Photo 4).



Photo 5 - Large rotting log woody debris object in AURA Impact Area.

A lone dead snag (black locust) was noted within the Impact Area (Photo 5).



Photo 6 - Dead standing black locust tree within AURA Impact Area.

The proposed mitigation will restore, enhance, and mitigate for any of the wildlife habitat characteristics and functions that may be lost due to proposed work.

6. Potential Impacts to Vernal Pool Amphibians

Based on the three years of monitoring the vernal pool, I concluded that there is only a small local population of wood frogs and spotted salamanders that breed in CVP 1433. The proposed 100-foot setback from the vernal pool will provide more than adequate amount of non-breeding forested habitat to ensure that the project will not adversely affect the local populations of the two species. At two studies conducted nearby in Sudbury, MA,

Regosin et al. (2003a)¹ reported that overwintering densities of wood frogs in upland habitat adjacent to vernal pools ranged from 0-6.3 wood frogs per 100 square meters, and overwintering densities of spotted salamanders ranged from 0-4 per 100 square meters (Regosin et al. 2003b)². There will be 19,147 sf of undeveloped forested habitat onsite (including the area outside of the AURA to the north of the leaching field), which is equivalent to 1,779 square meters. Therefore, the remaining forested habitat could potentially support overwintering by 112 wood frogs and 71 spotted salamanders respectively using the maximum estimated densities from Regosin et al. Given the small observed breeding populations of these species, there will be more than enough habitat remaining to support the local wood frog and spotted salamander populations.

The site is entirely forested, so no turtle nesting habitat would be altered. There are no significant wildlife habitat features within the work area, such as large cavity trees, boulders, dense herbaceous cover. The work area is not located within a likely wildlife migratory corridor, and there will be ample undeveloped habitat available upon completion of the project for large animals to migrate into the vernal pool and BVW system.

From a cumulative impact perspective, this project would be the only possible residential development in the area surrounding CVP 1433. There are no potential buildable lots remaining within the typical migratory distance from this vernal pool. There is a significant amount of undeveloped habitat to the west of the vernal pool, which would not be developable according to local zoning regulations and protection offered by the SWAB. Upon completion of the project, there would be no significant cumulative adverse impact to the local wildlife and their habitat.

7. Conclusions

- No unique or uncommon wildlife habitat features will be eliminated for construction of the project.
- Only 13 trees will be removed, while 68 will remain.
- None of the 13 trees to be removed contain any obvious nesting cavities.
- All of the existing important habitat features identified above (large pine trees, deciduous trees, rotting log woody debris, etc.) are present and/or abundant elsewhere within the site's undeveloped wetland and upland resource areas.
- The current project plan contains numerous improvements from the plan approved by MassDEP in November of 2018.

¹ Regosin, J.V., B.S. Windmiller and J.M. Reed. 2003a. Terrestrial habitat use and winter densities of the wood frog (*Rana sylvatica*). Journal of Herpetology 37(2): pp. 390-394.

² Regosin, J.V., B.S. Windmiller and J.M. Reed. 2003b. Influence of abundance of small-mammal burrows and conspecifics on the density and distribution of spotted salamanders (*Ambystoma maculatum*) in terrestrial habitats. Canadian Journal of Zoology. 81: 596-605.

- The proposed Habitat Restoration Plan will greatly enhance the ability of the AURA to provide wildlife habitat and wetlands values and functions.
- The vernal pool will continue to function as breeding habitat for wood frogs as it has prior to the proposed development.
- The footprint and magnitude of the wildlife habitat impacts is small relative to the amount of forested wetland and upland forest that will remain in place upon completion of the project.
- No work will take place within the 100 feet immediately adjacent to the vernal pool, which is considered the most important habitat for reptiles, amphibians and small mammals that utilize vernal pools for their various life history functions.
- There will be sufficient forested habitat remaining immediately adjacent to the vernal pool to support over-wintering by much greater densities of wood frogs and spotted salamanders than is currently breeding in the vernal pool based on observed egg mass counts over three breeding seasons.

Based on the above, I conclude that the proposed alteration of the onsite AURA will not result in an impairment of the capacity of this Bylaw Resource Area to provide any important wildlife habitat functions.

Goddard Consulting, LLC

By: 

Daniel L. Wells, M.S.
Senior Wildlife Biologist and Wetland Scientist

August 21, 2020

Habitat Restoration Plan

137 Mossman Road
Sudbury, MA

Submitted to:
Sudbury Conservation Commission
Department of Public Works Building
275 Old Lancaster Road
Sudbury, MA 01776

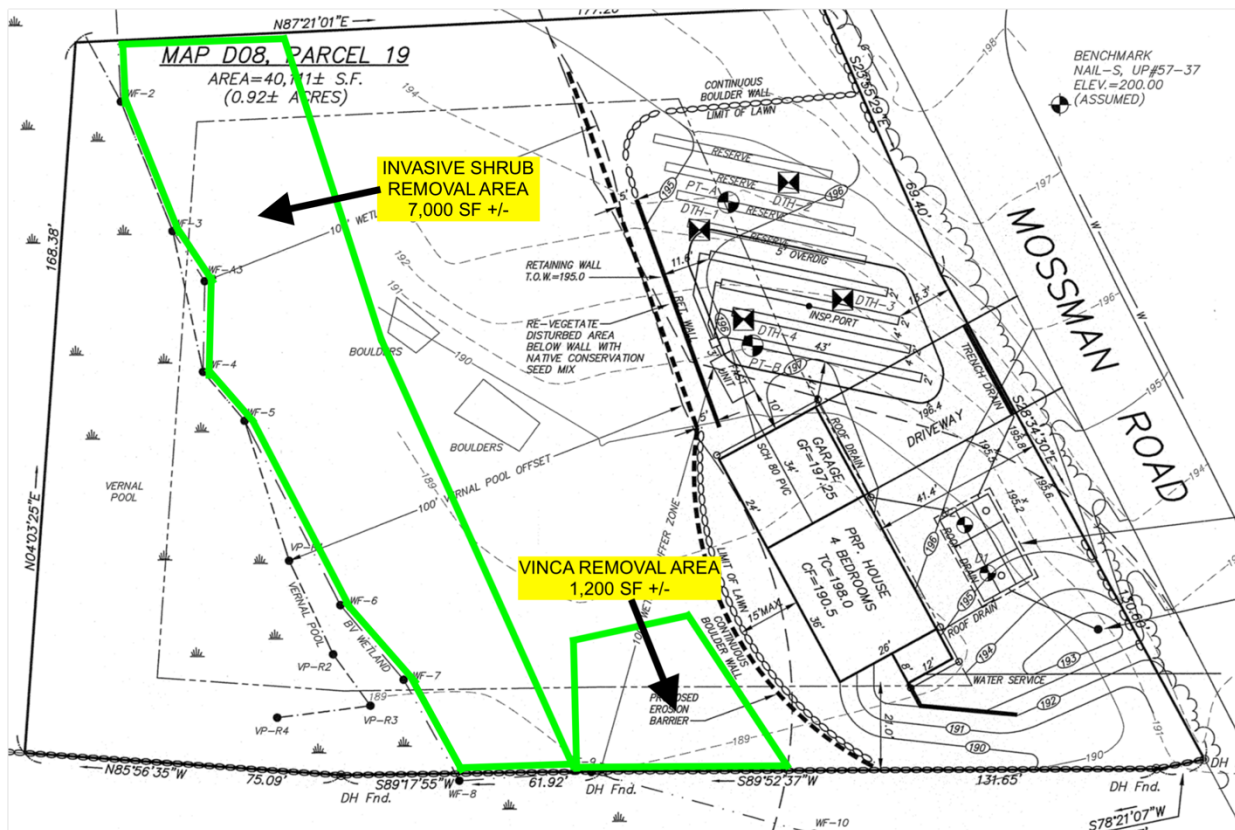
Prepared for:
Doris Smith

1. INTRODUCTION

On behalf of the Applicant, Doris Smith, Goddard Consulting, LLC is pleased to submit this Habitat Restoration Plan as a component of the Notice of Intent filed for 137 Mossman Road in Sudbury, MA. Restoration is proposed within Adjacent Upland Resource Area to the west of the proposed project, in order to mitigate for the proposed alteration of natural vegetation for the project.

2. RESTORATION PLAN SUMMARY

The plan includes invasive species removal plus native shrub and fern plantings within a 8,200 sf +/- area located immediately west of the proposed project. See the following figure for a visual plan of the proposed restoration locations.



Vinca Removal Area

To the immediate southwest of the project limits there is a large patch of non-native *Vinca minor* groundcover (aka periwinkle), approximately 1,200 sf in extent (Photo 1). This ground cover has created a monoculture by crowding out the growth of native ground cover and herbaceous species, while supporting the growth of invasive shrubs. The *Vinca* will be hand-pulled to ensure all roots are removed, and 20 native ferns will be planted throughout the footprint of the removed vegetation. Any native ferns or other herbaceous species will be identified and left in place, while any seedlings of invasive woody species will be hand-pulled.



Photo 1 - View of large patch of non-native Vinca ground cover SW of project.



Photo 2 - Close up view of Vinca ground cover. Note the seedling invasive species burning bush.

East of the vernal pool and BVW, the forest has a rather open understory, with mostly native tree, shrub and herbaceous species present (Photo 3). Glossy buckthorn is present in a moderate density throughout this zone, and individual plants (approximately 30 in number) will be hand pulled or dug up by the roots with a weed wrench. Upon removal of all buckthorn specimens (and the few other individual invasive shrubs such as burning bush) from this 7,000 sf +/- zone, a total of 30 native, shade-tolerant shrubs will be planted within natural spaces between existing trees.



Photo 3 - Typical view of invasive shrub removal area, facing northeast from near wetland edge.

3. RESTORATION PLAN DETAILS

3.1 Overview

Supervision: All work within the restoration areas shall be supervised by a qualified wetland scientist or biologist with a minimum of five years' experience. The supervisor shall submit monitoring reports to the Conservation Commission as described below. Reports shall contain details of all work performed and photographs of completed conditions.

Timing: Invasive species removal may take place during any time of year. Restoration area plantings should be installed during the Spring or Fall growing seasons.

3.2 Sequencing of Procedures

Step 1: Define Limits of Work

The limits of work for the restoration area shall be within the area shown in Figure 1, generally from the eastern edge of vernal pool/BVW eastward to the western edge of the existing boulder piles, and within the well-defined Vinca patch southwest of limit of work for the house project. Erosion control barriers shall not be necessary given the lack of grading required and generally flat nature of the restoration area.

Step 2: Identify invasive species for removal

The wetland scientist shall identify and flag (with pink flagging) a representative sample of any non-native invasive species to be removed. The scientist shall provide identification training to removal contractor and laborers if necessary.

Step 3: Remove invasive species

All invasive species specimens shall be removed and discarded in accordance with the following species-specific procedures:

Glossy false buckthorn, burning bush: hand-pull individual plants so that entire root system is removed. Chip or burn, taking care not to spread any berries beyond already-contaminated areas. If roots cannot be removed, cut as close to ground as possible to impede growth of stump sprouts the following growing season.

Vinca: hand-pull the entire plants, including roots. Dispose of in trash bags.

Additional invasive species: other non-native invasive species that may be present in low densities include but are not limited to black locust, common buckthorn, Oriental bittersweet, garlic mustard, honeysuckle. If encountered, the supervising scientist should be consulted on the proper removal methodology.

Step 4: Planting

The supervising wetland scientist shall direct the placement of shrubs during installation, but they should be generally distributed evenly throughout the area. Suggested species and actual quantity to be planted include:

FOR VINCA REMOVAL AREA:

Ferns (20 total)

- 20 intermediate wood fern (*Dryopteris intermedia*)

FOR INVASIVE SHRUB REMOVAL AREA:

Shrubs (30 total)

- 10 witch hazel (*Hamamelis virginiana*) (2-3' height)
- 10 gray dogwood (*Cornus racemosa*) (2-3' height)
- 10 maple leaf viburnum (*Viburnum acerifolium*)

Notes

1) The shrubs to be planted must be native “non-cultivar” individuals. Cultivars are hybrids between the native species and a similar but non-native species, usually created to produce larger fruits/berries or showier flowers. These cultivars often are not used by the local native wildlife, which have not adapted to the different size/shape food source. Below is an example of how to choose a non-cultivar plant at the nursery:

* VACCINIUM COR. 'BLUE CROP' #3		BLUE CROP Highbush Blueberry #3
* VACCINIUM COR. 'JERSEY' #3	CULTIVARS: DO NOT CHOOSE	JERSEY Highbush Blueberry #3
* VACCINIUM COR. 'NORTHCOUNTRY' #3		NORTHCOUNTRY Highbush Blueberry #3
* VACCINIUM COR. 'PINK LEMONADE' #3		PINK LEMONADE Highbush Blueberry #3
* VACCINIUM CORYMBOSUM #1		Highbush Blueberry #1
* VACCINIUM CORYMBOSUM #3	STRAIGHT NATIVE SPECIES	Highbush Blueberry #3

Figure 1 - Example of cultivar vs. straight species of Highbush Blueberry (from Bigelow Nurseries, Northboro, MA).

2) If the specified non-cultivar shrub species are not available at any local nurseries, then substitutions can be made. Substitutions shall be made from the Sudbury Conservation Commission list of approved Native Plants.

3) All plantings shall be distributed randomly throughout the area; shrubs spaced at least 6-8' on center. Precise citing of plants shall be determined by the wetland scientist in the field prior to installation.

4) Each plant will have its roots loosened prior to planting to encourage root growth away from the planting bulb.

5) Leaf litter shall be spread throughout the Vinca removal area if available.

6) Plantings shall take place during suitable growing conditions and not before completion of the site grading and invasive plant species removal.

7) All plantings shall be watered appropriately during the first growing season, and shall be monitored by the supervising biologist at the end of the first growing season to assess survival and whether replacement plantings are necessary.

8) Any plants that do not survive the first growing season shall be replaced prior to the next growing season.

Step 6: Place woody debris and boulders

A variety of woody debris and rocks (taken from the development area before grading and stockpiled) shall be randomly placed throughout the restoration area to provide cover for wildlife and provide wildlife habitat. Dead wood shall consist of 6" or greater diameter logs approximately 6-feet long.

Step 7: Monitoring

a. **Seasonal monitoring reports** shall be prepared for the restoration area by a qualified wetland scientist for a period of 2 additional years after installation. This monitoring program will consist of early summer and early fall inspections, and will include photographs and details about the vitality of the restoration area. Monitoring reports shall be submitted to the Commission by November 30th of each year. Monitoring reports shall describe, using narratives, plans, and color photographs, the physical characteristics of the area, survival of vegetation and plant mortality, aerial extent and distribution, species diversity and vertical stratification (i.e. herb, shrub and tree layers). Invasive species will be documented if present, monitored and removed.

b. **At least 90% of the plantings** shall be healthy and established within two growing seasons. If the restoration area does not meet the 90% survivorship requirement by the end of the second growing season after installation, the Applicant shall submit a remediation plan to the Commission for approval that will achieve, under the supervision of a Wetland Specialist, the desired goals. This plan must include an analysis of why the plants did not survive and how the Applicant intends to resolve the problem.

c. There should be an intensive effort to prevent the establishment of non-native invasive plant species, and to ensure timely and consistent treatment (e.g., hand pulling, cutting) of any invasive plant species that become established within the Restoration Area.

