



02/21/14

Groton Conservation Commission  
173 Main Street  
Groton, MA 01450

Dear Groton Conservation Commission:

Goddard Consulting, LLC is pleased to submit this Notice of Intent (NOI) on behalf of the applicant, Mahender Singh of NESSP, Inc. for a project located off Boston Road (Map 253, lots 23, 24, 25) in Groton, MA. The applicant proposes to construct a Temple with associated storm water management, utilities, grading and parking. Work within the 100-foot buffer zone to BVW/vernal pool will consist of storm water management and selective vegetation clearing and grading. A hay bale and silt fence erosion control barrier will be placed between the work area and the BVW, but will be located outside the fifty-foot (50') foot No Disturb Zone.

Goddard Consulting, LLC, delineated the wetland resource areas in the fall of 2013. The wetland border was flagged using the criteria in the most recent edition of MA Wetland Protection Act (WPA) and Regulations 310 CMR 10.00. Hydric soil indicators, vegetation changes, hydrological indicators, and topography were all considered for delineation purposes. According to the 2008 MA Natural Heritage Atlas, this site *is* located within an Estimated/Priority Habitat of Rare Wildlife and a certified vernal pool (CVP #3182) is located on site within the Bordering Vegetated Wetland flagged with Series "A". A separate MESA filing with the Massachusetts Natural Heritage Endangered Species Program (NHESP) will be filed for this project as well as a separate Request for Determination of Applicability with the town of Littleton.

Eleven copies of the NOI application are enclosed. The titles of all the documents enclosed are as follows:

- NOI (WPA Form 3) Application Form
- NOI Wetland Fee Transmittal Form and Copy of Fee Checks
- Certified Abutters List
- Notification to Abutters
- Affidavit of Service
- Proof of Mailing to NHESP
- Letter from NHESP

- USGS Locus Map
- Orthophoto view of site
- Regulatory Performance Standards Analysis, Goddard Consulting, LLC. 2/21/14
- Notice of Intent Plan Set, New England Shirdi Sai Parivaar Temple, (3 pages), Markey and Rubin Inc. 2/19/14
- Stormwater Drainage Report. Markey and Rubin Inc. 2/19/14

If there are any questions concerning this submission, please do not hesitate to contact us.

Very truly yours,  
GODDARD CONSULTING, LLC

by



Scott Goddard, Principal & PWS

Cc: MassDEP-CERO Office, Wetland Division, 627 Main Street, Worcester, MA 01608  
Regulatory Review-NHESP, 100-Hartwell Street, Suite 230, West Boylston, MA 01583  
NESSP, 290 Littleton Rd, Suite #4, Chelmsford, MA, 01824  
Mattbob Inc. P.O. Box 4034, Westford, MA 01886



# WPA Form 3 – Notice of Intent

Massachusetts Wetlands Protection Act M.G.L. c. 131, §40  
And under the Groton Wetland Protection Bylaw

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

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



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

## A. General Information

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

<u>Boston Road</u>	<u>Groton</u>	<u>01450</u>
a. Street Address	b. City/Town	c. Zip Code
<u>Latitude and Longitude:</u>	<u>42.571161</u>	<u>-71.510494</u>
	d. Latitude	e. Longitude
<u>Map 253</u>	<u>Lots 23/24/25</u>	
f. Assessors Map/Plat Number	g. Parcel /Lot Number	

2. Applicant:

<u>Mahender</u>	<u>Singh</u>	
a. First Name	b. Last Name	
<u>NESSP, Inc</u>		
c. Organization		
<u>290 Littleton Road</u>		
d. Street Address		
<u>Chelmsford</u>	<u>MA</u>	<u>01824</u>
e. City/Town	f. State	g. Zip Code
<u>978-528-1985</u>		
h. Phone Number	i. Fax Number	j. Email Address

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

<u>Matthew</u>	<u>Field</u>	
a. First Name	b. Last Name	
<u>Mattbob, Inc.</u>		
c. Organization		
<u>P.O. Box 4034</u>		
d. Street Address		
<u>Westford</u>	<u>MA</u>	<u>01886</u>
e. City/Town	f. State	g. Zip Code
<u>978-692-7222</u>		
h. Phone Number	i. Fax Number	j. Email address

4. Representative (if any):

<u>Scott</u>	<u>Goddard</u>	
a. First Name	b. Last Name	
<u>Goddard Consulting LLC</u>		
c. Company		
<u>P.O. Box 299</u>		
d. Street Address		
<u>Northborough</u>	<u>MA</u>	<u>01532</u>
e. City/Town	f. State	g. Zip Code
<u>(508) 525-0726</u>	<u>scott@goddardconsultingllc.com</u>	
h. Phone Number	i. Fax Number	j. Email address

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

<u>\$500.00</u>	<u>\$237.50</u>	<u>\$262.50</u>
a. Total Fee Paid	b. State Fee Paid	c. City/Town Fee Paid



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## A. General Information (continued)

6. General Project Description:

The construction of a Temple and associated grading, utilities and parking. Work within the outer 50 feet of the 100-ft BVW Buffer Zone will consist of selective vegetation clearing, grading, and stormwater basins.

7a. Project Type Checklist:

- 1.  Single Family Home
- 2.  Residential Subdivision
- 3.  Limited Project Driveway Crossing
- 4.  Commercial/Industrial
- 5.  Dock/Pier
- 6.  Utilities
- 7.  Coastal Engineering Structure
- 8.  Agriculture (e.g., cranberries, forestry)
- 9.  Transportation
- 10.  Other

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

1.  Yes  No If yes, describe which limited project applies to this project:

2. Limited Project

8. Property recorded at the Registry of Deeds for:

South Middlesex

a. County

35331

c. Book

b. Certificate # (if registered land)

604

d. Page Number

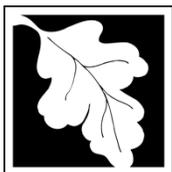
## B. Buffer Zone & Resource Area Impacts (temporary & permanent)

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

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

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 3. cubic yards dredged	2. square feet



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

Resource Area Size of Proposed Alteration Proposed Replacement (if any)
d. Bordering Land Subject to Flooding
e. Isolated Land Subject to Flooding
f. Riverfront Area
2. Width of Riverfront Area (check one):
3. Total area of Riverfront Area on the site of the proposed project:
4. Proposed alteration of the Riverfront Area:
5. Has an alternatives analysis been done and is it attached to this NOI?
6. Was the lot where the activity is proposed created prior to August 1, 1996?

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

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.

Resource Area Size of Proposed Alteration Proposed Replacement (if any)
a. Designated Port Areas
b. Land Under the Ocean
c. Barrier Beach
d. Coastal Beaches
e. Coastal Dunes



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

	<u>Size of Proposed Alteration</u>	<u>Proposed Replacement (if any)</u>
f. <input type="checkbox"/> Coastal Banks	_____	
	1. linear feet	
g. <input type="checkbox"/> Rocky Intertidal Shores	_____	
	1. square feet	
h. <input type="checkbox"/> Salt Marshes	_____	_____
	1. square feet	2. sq ft restoration, rehab., creation
i. <input type="checkbox"/> Land Under Salt Ponds	_____	
	1. square feet	
	_____	
	2. cubic yards dredged	
j. <input type="checkbox"/> Land Containing Shellfish	_____	
	1. square feet	
k. <input type="checkbox"/> Fish Runs	Indicate size under Coastal Banks, inland Bank, Land Under the Ocean, and/or inland Land Under Waterbodies and Waterways, above	
	_____	
	1. cubic yards dredged	
l. <input type="checkbox"/> Land Subject to Coastal Storm Flowage	_____	
	1. square feet	
4. <input type="checkbox"/> Restoration/Enhancement	If the project is for the purpose of restoring or enhancing a wetland resource area in addition to the square footage that has been entered in Section B.2.b or B.3.h above, please enter the additional amount here.	
	_____	_____
	a. square feet of BVW	b. square feet of Salt Marsh
5. <input type="checkbox"/> Project Involves Stream Crossings		
	_____	_____
	a. number of new stream crossings	b. number of replacement stream crossings

## C. Other Applicable Standards and Requirements

### Streamlined Massachusetts Endangered Species Act/Wetlands Protection Act Review

1. Is any portion of the proposed project located in **Estimated Habitat of Rare Wildlife** as indicated on the most recent Estimated Habitat Map of State-Listed Rare Wetland Wildlife published by the Natural Heritage and Endangered Species Program (NHESP)? To view habitat maps, see the *Massachusetts Natural Heritage Atlas* or go to [http://www.mass.gov/dfwele/dfw/nhESP/regulatory\\_review/priority\\_habitat/online\\_viewer.htm](http://www.mass.gov/dfwele/dfw/nhESP/regulatory_review/priority_habitat/online_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  
100 Hartwell Street, Suite 230  
West Boylston, MA 01583**

2008 \_\_\_\_\_  
b. Date of map



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Groton	_____
City/Town	_____

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

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.1.d, 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).*

### 1. 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
- 3.  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
  - (c)  MESA filing fee (fee information available at: [http://www.mass.gov/dfwele/dfw/nhosp/regulatory\\_review/ mesa/ mesa\\_fee\\_schedule.htm](http://www.mass.gov/dfwele/dfw/nhosp/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

### d. 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/nhosp/regulatory\\_review/ mesa/ mesa\\_exemptions.htm](http://www.mass.gov/dfwele/dfw/nhosp/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. 04-16796  
**Separate MESA filing will be submitted** a. NHESP Tracking # \_\_\_\_\_ b. Date submitted to NHESP \_\_\_\_\_

- Some projects **not** in Estimated Habitat may be located in Priority Habitat, and require NHESP review (see <http://www.mass.gov/dfwele/dfw/nhosp/nhosp.htm>, regulatory review tab). Priority Habitat includes habitat for state-listed plants and strictly upland species not protected by the Wetlands Protection Act.

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



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

3.  Separate MESA review completed.  
Include copy of NHESP "no Take" determination or valid Conservation & Management Permit with approved plan.
2. 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 or hand delivery of NOI to either:
- |   |  |
|---|--|
| South Shore - Cohasset to Rhode Island, and the Cape & Islands:   | North Shore - Hull to New Hampshire:   |
| Division of Marine Fisheries - Southeast Marine Fisheries Station<br>Attn: Environmental Reviewer<br>1213 Purchase Street – 3rd Floor<br>New Bedford, MA 02740-6694 | Division of Marine Fisheries - North Shore Office<br>Attn: Environmental Reviewer<br>30 Emerson Avenue<br>Gloucester, MA 01930 |

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.

3. 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
4. Is any portion of the proposed project within an area designated as an Outstanding Resource Water (ORW) as designated in the Massachusetts Surface Water Quality Standards, 314 CMR 4.00?
- a.  Yes  No
5. 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
6. 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:
- Applying for Low Impact Development (LID) site design credits (as described in Stormwater Management Handbook Vol. 2, Chapter 3)
  - A portion of the site constitutes redevelopment
  - Proprietary BMPs are included in the Stormwater Management System.
- b.  No. Check why the project is exempt:
- Single-family house

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



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

- 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

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.
- 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.

Notice of Intent Plan New England Shirdi Sai Parivaar Temple (3 pages)

a. Plan Title

Markey & Rubin

Ian Rubin

b. Prepared By

c. Signed and Stamped by

2/19/14

1"-40'

d. Final Revision Date

e. Scale

Drainage Report by Markey & Rubin

2/19/14

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.



Massachusetts Department of Environmental Protection  
Bureau of Resource Protection - Wetlands

**WPA Form 3 – Notice of Intent**

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

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City/Town

**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:

# 946, 947, 948      02/20/14  
2. Municipal Check Number      3. Check date  
# 949      02/20/14  
4. State Check Number      5. Check date  
NESSP, Inc.  
6. Payor name on check: First Name      7. Payor name on check: Last Name

**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.

M. Singh      2/20/2014  
1. Signature of Applicant (Mahender Singh of NESSP, Inc.)      2. Date  
Matthew Inc.      2/20/2014  
3. Signature of Property Owner (Matthew Inc.)      4. Date  
Scott Goddard      2/20/14  
5. Signature of Representative (Scott Goddard, Goddard Consulting, LLC)      6. Date

**For Conservation Commission:**

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

**For MassDEP:**

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

**Other:**

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

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



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

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



**A. Applicant Information**

1. Location of Project:

<u>Boston Road</u>	<u>Groton</u>
a. Street Address	b. City/Town
<u>949</u>	<u>\$237.50</u>
c. Check number	d. Fee amount

2. Applicant Mailing Address:

<u>Mahender</u>	<u>Singh</u>	
a. First Name	b. Last Name	
<u>NESSP, Inc</u>		
c. Organization		
<u>290 Littleton Rd</u>		
d. Mailing Address		
<u>Chelmsford</u>	<u>MA</u>	<u>01824</u>
e. City/Town	f. State	g. Zip Code
<u>978-528-1985</u>		
h. Phone Number	i. Fax Number	j. Email Address

3. Property Owner (if different):

<u>Matthew</u>	<u>Field</u>	
a. First Name	b. Last Name	
<u>Mattbob, Inc.</u>		
c. Organization		
<u>P.O. Box 4034</u>		
d. Mailing Address		
<u>Westford</u>	<u>MA</u>	<u>01886</u>
e. City/Town	f. State	g. Zip Code
<u>978-692-7222</u>		
h. Phone Number	i. Fax Number	j. Email Address

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

**B. Fees**

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

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

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

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

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

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

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

**B. Fees (continued)**



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

Step 1/Type of Activity	Step 2/Number of Activities	Step 3/Individual Activity Fee	Step 4/Subtotal Activity Fee
2(J)	1	\$500.00	\$500.00
Town Bylaw	1	\$53 + \$200	\$253.00

**Step 5/Total Project Fee:** \$500 + \$253 Bylaw

**Step 6/Fee Payments:**

Total Project Fee:	<u>\$500 + \$253 Bylaw</u> a. Total Fee from Step 5
State share of filing Fee:	<u>\$237.50</u> b. 1/2 Total Fee <b>less</b> \$12.50
City/Town share of filling Fee:	<u>\$262.50+ \$253 Bylaw</u> c. 1/2 Total Fee <b>plus</b> \$12.50

**C. Submittal Requirements**

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

Department of Environmental Protection  
 Box 4062  
 Boston, MA 02211

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

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

NESSP, INC.  
290 LITTLETON ROAD UNIT-4  
CHELMSFORD, MA 01824

949  
53-9182/2113  
32

02/20/2014

Due to the Order of COMMONWEALTH OF MA \$ 237.50

Two hundred thirty seven and 50/100

DCU Digital Federal Credit Union  
www.dcu.org

WPA State Fee

N. Fox

⑆2⑆1⑆39⑆18⑆25⑆⑆ ⑆338⑆7⑆238⑆⑆ 0949

NESSP, INC.  
290 LITTLETON ROAD UNIT-4  
CHELMSFORD, MA 01824

948  
53-9182/2113  
32

02/20/2014

Due to the Order of TOWN OF GROTON \$ 262.50

Two hundred sixty two and 50/100

DCU Digital Federal Credit Union  
www.dcu.org

WPA Town fee

N. Fox

⑆2⑆1⑆39⑆18⑆25⑆⑆ ⑆338⑆7⑆238⑆⑆ 0948

NESSP, INC.  
290 LITTLETON ROAD UNIT-4  
CHELMSFORD, MA 01824

947  
53-9182/2113  
32

02/20/2014

Due to the Order of TOWN OF GROTON \$ 200.00

Two hundred and 00/100

DCU Digital Federal Credit Union  
www.dcu.org

Bylaw fee

N. Fox

⑆2⑆1⑆39⑆18⑆25⑆⑆ ⑆338⑆7⑆238⑆⑆ 0947

NESSP, INC.  
290 LITTLETON ROAD UNIT-4  
CHELMSFORD, MA 01824

946  
53-9182/2113  
32

02/20/2014

Due to the Order of TOWN OF GROTON \$ 53.00

Fifty three and 00/100

DCU Digital Federal Credit Union  
www.dcu.org

PUBLIC NOTICE FEE

N. Fox



**TOWN OF GROTON**  
**Office of the Board of Assessors**  
173 Main Street  
Groton, MA 01450  
**(978) 448-1127**  
FAX: (978) 448-1115  
www.townofgroton.org

**Date:** February 19th, 2014

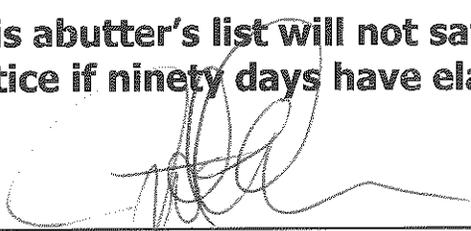
Map:253 Parcel:23/25/24 Lot:0/0/1

**Address:** Boston Road

**CERTIFICATION OF ABUTTERS**

Abutters are within 300 feet of any requested parcel's lot lines. We hereby certify that the enclosed list includes the name and addresses of all parties taken from the Board of Assessor's Real Estate property files per the deeds received as of February 14th, 2014. It is with interest under MGL Chapter 40A, Section 11 as amended to the best of our knowledge and belief.

**This abutter's list will not satisfy legal requirements for notice if ninety days have elapsed from the date of request.**

  
\_\_\_\_\_  
Rena E. Swezey, Principal Assessor  
Jonathan W. Greeno, Assistant Assessor  
Rebecca M. Babcock, Office Assistant

253/2310

253/2510

253/2411

134-19-0  
DAY, FREDERICK J.  
DAY, DELIA M. PACHECO  
47 SUNSET RD  
GROTON, MA 01450

253-12-0  
VIERA, ANDRES P.  
VIERA, MARIA  
56 STONE BRIDGE WAY  
GROTON, MA 01450

134-30-0  
NEW ENGLAND POWER COMPANY  
ATTN: PROPERTY TAX DEPT  
40 SYLVAN RD  
WALTHAM, MA 02451-2286

134-20-0  
HOMER, EDWARD W.  
HOMER, DOREEN R.  
P.O. BOX 933  
GROTON, MA 01450

253-21-0  
DAVIS, NICHOLAS M.  
QUATELA, TARA M.  
53 SUNSET RD  
GROTON, MA 01450

134-21-0  
MAITLAND, ROBERT  
MAITLAND, JEANNE M.  
50 SUNSET ROAD  
GROTON, MA 01450

253-22-0  
LATHROP, OLIN G.  
LATHROP, LESLIE G.  
55 SUNSET ROAD  
GROTON, MA 01450

134-23-0  
CASTELLUCCI FAMILY TRUST  
FRANCIS V. CASTELLUCCI - TRUSTEE  
28 SUNSET RD  
GROTON, MA 01450

253-23-0  
MATTOBOB, INC.  
P.O. BOX 4034  
WESTFORD, MA 01886

134-26-0  
VOGEL, AMY E.  
961 BOSTON RD  
GROTON, MA 01450

253-24-0  
FIELD, MATTHEW P.  
TIERNEY, ROBERT P.  
P.O. BOX 4034  
WESTFORD, MA 01886

134-28-0  
RODENHIZER CHILDREN'S GIFT TRUST  
WILLIAM AND JUDITH RODENHIZER - TR  
963 BOSTON RD  
GROTON, MA 01450

253-24-1  
MATTOBOB, INC.  
P.O. BOX 4034  
WESTFORD, MA 01886

134-29-0  
SLOSS, ALFRED K.  
PHILLIPS, PAULA T.  
965 BOSTON ROAD  
GROTON, MA 01450

253-25-0  
MATTOBOB, INC.  
P. O. BOX 4034  
WESTFORD, MA 01886

135-38-0  
THE NOBLE MONARCH NOMINEE TRUST  
EBRAHIM MASLEHDAN - TRUSTEE  
54 MONARCH PATH  
GROTON, MA 01450

238-1-0  
FITEK, DANIEL J.  
FITEK, REGINA A.  
994 BOSTON RD  
GROTON, MA 01450

253-10-0  
RAND, JOSEPH J.  
RAND, RITA M.  
79 STONE BRIDGE WAY  
GROTON, MA 01450

238-2-0  
GRAMOLINI, MICHAEL J.  
GRAMOLINI, KATHLEEN M.  
980 BOSTON ROAD  
GROTON, MA 01450

253-11-0  
MCEVOY, DENNIS A.  
MCEVOY, KRISTEN K.  
89 STONE BRIDGE WAY  
GROTON, MA 01450

238-3-0  
DYER, ROBERT  
DYER, KIMBERLY  
972 BOSTON ROAD  
GROTON, MA 01450



TOWN OF LITTLETON  
BOARD OF ASSESSORS

P.O. BOX 1305  
LITTLETON, MA 01460  
(978) 540-2410  
FAX: (978) 952-2321

Date: February 19, 2014

Re: Certified List of Abutters Conservation Commission

Applicant Rachel Watsky Name of Firm: Goddard Consulting, LLC  
Mailing Address PO Box 299 Northborough MA 01532

Owner Name: Mattbob, Inc.  
Subject Location & Parcel ID: 719 Great Road R24-27-0

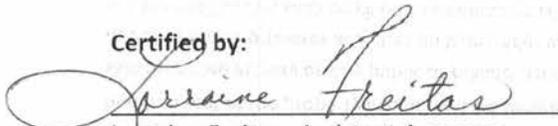
M.G.L. Chapter 131: Section 40 ..... "Any person filing a notice of intention with a conservation commission shall at the same time give written notification thereof, by delivery in hand or certified mail, return receipt requested, to all abutters within one hundred feet of the property line of the land where the activity is proposed, but not limited to, owners of land directly opposite said proposed activity on any public or private street or way, and in another municipality or across a body of water. When a notice of intent proposes activities on land under water bodies and waterways or on a tract of land greater than 50 acres, written notification shall be given to all abutters within 100 feet of the proposed project site. For the purposes of this action, "project site" shall mean lands where the following activities are proposed to take place: dredging, excavating, filling, grading, the erection, reconstruction or expansion of a building or structure, the driving of pilings, the construction or improvement of roads or other ways and the installation of drainage, sewerage and water systems, and "land under water bodies and waterways" shall mean the bottom of, or land under, the surface of the ocean or an estuary, creek, river stream, pond or lake. When a notice of intent proposes activity on a linear shaped project site longer than 1,000 feet in length, notification shall be given to all abutters within 1,000 feet of the proposed project site. If the linear project site takes place wholly within an easement through another person's land, notice shall also be given to the landowner. Said notification shall be at the applicant's expense, and shall state where copies of the notice of intention may be examined and obtained and where information regarding the date, time and place of the public hearing may be obtained. Proof of such notification, with a copy of the notice mailed or delivered, shall be filed with the conservation commission." .....

**I hereby certify the attached list of abutter (s) as stated in the M.G.L. Chapter 131, Section 40.**

*Number of Abutter (s) 6 including the subject parcels + 1 Applicant Requesting Abutter's List.*

**NOTE: ALSO ABUTS THE TOWN OF GROTON**

Certified by:

  
Lorraine Freitas, Assistant Assessor

Loc: 692 GREAT RD Parcel ID #: R24 21 1

LUC: 101

CRAUNAKIS LINDA M  
CRAUNAKIS JACK  
692 GREAT RD

LITTLETON MA 01460

Loc: 694 GREAT RD Parcel ID #: R24 21 2

LUC: 101

WILLIS MATTHEW M  
WILLIS LAURA P  
694 GREAT RD

LITTLETON MA 01460

Loc: 724 GREAT RD Parcel ID #: R24 21 3

LUC: 101

NORFOLK VIRGINIA L  
MAY JEFFREY A  
724 GREAT ROAD

LITTLETON MA 01460

Loc: OFF GREAT RD Parcel ID #: R24 24 0

LUC: 391

MATTBOB INC

PO BOX 4034

WESTFORD MA 01886

Loc: 713 GREAT RD Parcel ID #: R24 26 0

LUC: 101

ZAWIERUCHA ALINDA J  
ZAWIERUCHA MAREK  
713 GREAT ROAD

LITTLETON MA 01460

Loc: 719 GREAT RD Parcel ID #: R24 27 0

LUC: 101

MATTBOB INC

PO BOX 4034

WESTFORD MA 01886

GROTON TOWN LINE

Applicant Requesting Abutter's List

Rachel Watsky  
Goddard Consulting LLC  
P.O. Box 299  
Northborough, MA 01532

Additional Abutters Located in Littleton Located within 300-feet of the Site

Littleton Assessors Parcel ID: U42-31-0  
Gerard Delpriore  
59 New Estate Road  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-59-0  
Daniel & Denise Conseison  
2 Jane's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-60-0  
Debra Jean Livernois & Debra Baumgart  
4 Jane's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-17  
Gary & Teryl Sawosik  
21 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-16  
John & Bonnie Biefeld  
19 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-15  
Russel & Pamela Arena  
17 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-14  
Stephen & Kimberly Gentile  
15 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-34  
Stephen & Tracey Blakemore  
16 Ernie's Drive  
Littleton, MA 01460

Additional Abutters Located in Littleton Located within 300-feet of the Site,  
continued:

Littleton Assessors Parcel ID: R24-20-33  
John & Deborah Boutiette  
14 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-13  
Reema Nath & Tharavath Menon  
13 Ernie's Drive  
Littleton, MA 01460

Littleton Assessors Parcel ID: R24-20-12  
Dennis E. Merrill II & Amy Merrill  
11 Ernie's Drive  
Littleton, MA 01460 Littleton

Abutters in the Town of Ayer within 300-feet of Site

Ayer Assessors Map 9 Lot 1  
Owner: Michael and Kathleen Gramonlini  
Mailing Address: 980 Boston Road  
Groton, MA 01450

Ayer Assessors Map 9 Lot 2  
Owner: Daniel and Regina Fitek  
Mailing Address: 994 Boston Road  
Groton, MA 01450

Ayer Assessors Map 9 Lot 8  
Owner: New England Power Co  
Mailing Address: 40 Sylvan Road  
Waltham, MA 02451

**Notification to Abutters under the Massachusetts Wetlands Protection Act  
and the Town of Groton Wetlands Protection Bylaw**

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

A. The name of the applicant is: Mahender Singh of NESSP, Inc.

B. The name of the owner is: Mattbob Inc.

C. The applicant has filed a (check one) Notice of Intent , an Abbreviated Notice of Intent , Request for an Amendment to an Order of Conditions , or an Abbreviated Notice of Resource Area Delineation  with the Groton Conservation Commission

seeking confirmation of resource area delineation

seeking permission to remove, fill, dredge or alter an Area Subject to Protection under the Wetlands Protection Act (Massachusetts General Law Chapter 131, Section 40).

D. The address of the lot where the resource area is located or activity is proposed is: Boston Road  
Map 253, Lots 23-25

E. Copies of the Notice of Intent, Abbreviated Notice of Intent, Request for Amendment, or Abbreviated Notice of Resource Area Delineation may be examined at the Conservation Commission Office, Town Hall, 173 Main Street, Groton, MA, between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday. Please schedule an appointment by calling (978) 448-1106.

F. Copies of the Notice of Intent may be obtained from either (check one) the applicant , owner , the applicant's representative , or by calling Barbara Ganem at 978-448-1106 between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.

G. Information regarding the date, time, and place of the hearing may be obtained from the Groton Conservation Commission by calling 978-448-1106 between the hours of 8:00 a.m. and 4:00 p.m., Monday through Friday.

Note: Notice of the public hearing, including its date, time, and place, will be published at least five (5) business days prior to the hearing date in either the *Groton Herald*, the *Lowell Sun*, or the *Groton Landmark* newspapers.

Note: Notice of the meeting of the Conservation Commission, including its date, time and place will be posted at the Groton Town Hall no fewer than forty-eight (48) hours in advance of the meeting.

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

**Please include a brief description of the project:**

The applicant proposes to construct a New England Shirdi Sai Parivaar Temple with associated clearing, grading, utilities and parking. Work within the outer 100-ft buffer zone to BVW/vernal pool will include selective clearing, grading and storm water basins.

**AFFIDAVIT OF SERVICE**

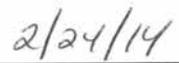
**UNDER THE MASSACHUSETTS WETLANDS PROTECTION ACT  
AND GROTON WETLAND PROTECTION BYLAW**

I, Nicole Hayes, hereby certify under the pains and penalties of perjury that on February 24, 2014, I gave notification to abutters within 300 feet of the proposed project in compliance with the Groton Wetland Protection Bylaw and with the second paragraph of the Massachusetts General Laws, Chapter 131, Section 40 and the DEP Guide to Abutter Notification dated April 8, 1994, in connection with the following matter:

A Notice of Intent application, filed under the Massachusetts Wetlands Protection Act and the Groton Wetland Protection Bylaw, by Scott Goddard of Goddard Consulting, LLC with the Groton Wetland Protection Committee on February 24, 2014 for a property located off Boston Road (Map 253 Lots 23, 24, 25) in Groton, Massachusetts.

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

  
\_\_\_\_\_  
Signature

  
\_\_\_\_\_  
Date

7012 3460 0001 5709 0490

U.S. Postal Service™  
**CERTIFIED MAIL™ RECEIPT**  
*(Domestic Mail Only; No Insurance Coverage Provided)*

For delivery information visit our website at [www.usps.com](http://www.usps.com)

**WEST BOYLSTON MA 01583**

Postage	\$	\$5.80
Certified Fee		\$3.30
Return Receipt Fee (Endorsement Required)		\$2.70
Restricted Delivery Fee (Endorsement Required)		\$0.00
<b>Total Postage &amp; Fees</b>	<b>\$</b>	<b>\$11.80</b>

0532  
01  
Postmark Here  
FEB 21 2014  
NORTHBOROUGH MA 01561  
USPS

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PS

Regulatory Review-NHESP  
100 Hartwell Street-Suite 230  
West Boylston, MA 01583

Instructions



**MassWildlife**

Commonwealth of Massachusetts

# Division of Fisheries & Wildlife

Wayne F. MacCallum, *Director*

November 01, 2013

Scott Goddard  
Goddard Consulting, LLC  
PO Box 299  
Northborough MA 01532

RE: Project Location: 993 Boston Road  
Town: GROTON  
NHESP Tracking No.: 04-16796

To Whom It May Concern:

Thank you for contacting the Natural Heritage and Endangered Species Program of the MA Division of Fisheries & Wildlife (the "Division") for information regarding state-listed rare species in the vicinity of the above referenced site. Based on the information provided, this project site, or a portion thereof, is located **within** *Priority Habitat 1458* (PH 1458) and *Estimated Habitat 16* (EH 16) as indicated in the *Massachusetts Natural Heritage Atlas* (13<sup>th</sup> Edition). Our database indicates that the following state-listed rare species have been found in the vicinity of the site:

<u>Scientific name</u>	<u>Common Name</u>	<u>Taxonomic Group</u>	<u>State Status</u>
<i>Emydoidea blandingii</i>	Blanding's Turtle	Reptile	Threatened

The species listed above is protected under the Massachusetts Endangered Species Act (MESA) (M.G.L. c. 131A) and its implementing regulations (321 CMR 10.00). State-listed wildlife are also protected under the state's Wetlands Protection Act (WPA) (M.G.L. c. 131, s. 40) and its implementing regulations (310 CMR 10.00). Fact sheets for most state-listed rare species can be found on our website ([www.mass.gov/nhesp](http://www.mass.gov/nhesp)).

Please note that projects and activities located within Priority and/or Estimated Habitat **must** be reviewed by the Division for compliance with the state-listed rare species protection provisions of MESA (321 CMR 10.00) and/or the WPA (310 CMR 10.00).

### **Wetlands Protection Act (WPA)**

If the project site is within Estimated Habitat and a Notice of Intent (NOI) is required, then a copy of the NOI must be submitted to the Division so that it is received at the same time as the local conservation commission. If the Division determines that the proposed project will adversely affect the actual Resource Area habitat of state-protected wildlife, then the proposed project may not be permitted (310 CMR 10.37, 10.58(4)(b) & 10.59). In such a case, the project proponent may request a consultation with the Division to discuss potential project design modifications that would avoid adverse effects to rare wildlife habitat.

A streamlined joint MESA/WPA review process is available. When filing a Notice of Intent (NOI), the applicant may file concurrently under the MESA on the same NOI form and qualify for a 30-day  
[www.mass.gov](http://www.mass.gov)

Division of Fisheries and Wildlife

Temporary Correspondence: 100 Hartwell Street, Suite 230, West Boylston, MA 01583

Permanent: Field Headquarters, North Drive, Westborough, MA 01581 (508) 389-6300 Fax (508) 389-7890

An Agency of the Department of Fish and Game

streamlined joint review. For a copy of the NOI form, please visit the MA Department of Environmental Protection's website: <http://www.mass.gov/dep/water/approvals/wpaform3.doc>.

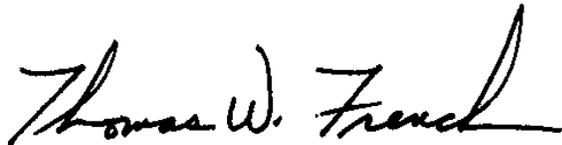
**MA Endangered Species Act (MESA)**

If the proposed project is located within Priority Habitat and is not exempt from review (see 321 CMR 10.14), then project plans, a fee, and other required materials must be sent to Natural Heritage Regulatory Review to determine whether a probable "take" under the MA Endangered Species Act would occur (321 CMR 10.18). Please note that all proposed and anticipated development must be disclosed, as MESA does not allow project segmentation (321 CMR 10.16). For a MESA filing checklist and additional information please see our website: [www.mass.gov/nhosp](http://www.mass.gov/nhosp) ("Regulatory Review" tab).

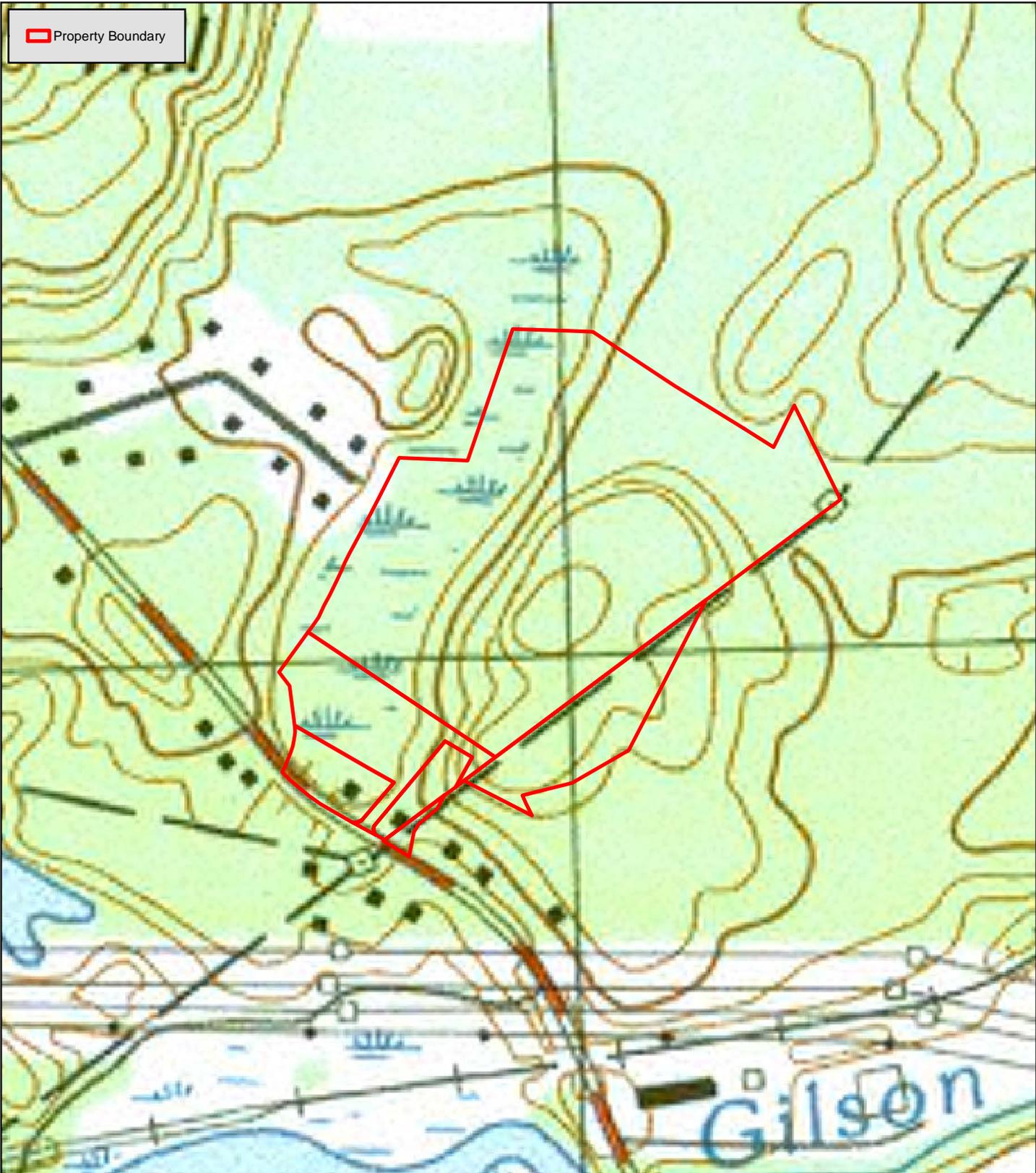
We recommend that rare species habitat concerns be addressed during the project design phase prior to submission of a formal MESA filing, as avoidance and minimization of impacts to rare species and their habitats is likely to expedite endangered species regulatory review.

This evaluation is based on the most recent information available in the Natural Heritage database, which is constantly being expanded and updated through ongoing research and inventory. If you have any questions regarding this letter please contact Emily Holt, Endangered Species Review Assistant, at (508) 389-6385.

Sincerely,

A handwritten signature in black ink that reads "Thomas W. French". The signature is written in a cursive style with a large, sweeping flourish at the end of the name.

Thomas W. French, Ph.D.  
Assistant Director



# USGS Site Locus

Boston Road - Groton, MA; 719 Great Road - Littleton, MA

N  
0 100 200 400 Feet  
1 inch = 400 feet  
Date: 2/13/2014

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

**GODDARD CONSULTING** LLC  
Scott Goddard, PWS  
Professional Wetland Scientist



# Orthophoto View of Site

Boston Road - Groton, MA; 719 Great Road - Littleton, MA


 0 75 150 300 Feet  
 1 inch = 300 feet  
 Date: 2/13/2014

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

**GODDARD CONSULTING**  
LLC  
 Scott Goddard, PWS  
 Professional Wetland Scientist

2/21/14

# ***Regulatory Performance Standards Analysis***

## **NESSP Temple Project**

Boston Road, Groton, MA & 719 Great Road, Littleton, MA

Prepared for:

NESSP, Inc.  
290 Littleton Road, Unit 4  
Chelmsford, MA 01824

## **1. Introduction**

Goddard Consulting, LLC has prepared the following Performance Standards Analysis on behalf of the applicant, NESSP, Inc. The analysis describes how the project has been designed to comply with the regulatory performance standards set forth by the MA Wetlands Protection Act (WPA) and Groton Wetlands Protection Bylaw for proposed alteration to the area within 100 feet of the delineated vernal pool boundary. This area is considered “buffer zone” under the WPA and “Adjacent Upland Resource Area” (AURA) under the Bylaw; the terms are used interchangeably in this report. The analysis also includes a description of the potential impacts to vernal pool and wildlife habitat under the Bylaw.

## **2. Existing Resource Areas and Wildlife Habitat**

A large certified vernal pool (CVP #3182) is located in the western half of the project site (see orthophoto). The delineated edge of Bordering Vegetated Wetland (BVW) is considered to be coincident with the edge of vernal pool. The 100-foot buffer zone from BVW is therefore also representative of the 100-foot AURA from the vernal pool.

Goddard Consulting has not conducted any wildlife surveys within the onsite portions of the vernal pool. We presume, however, that due to the large size of the vernal pool and large amount of contiguous forest surrounding the pool, that most (if not all) of the common vernal pool-associated amphibians in eastern Massachusetts make use of the vernal pool for breeding (mating and egg-deposition) and the adjacent uplands for non-breeding habitat (foraging, sheltering and overwintering - in the leaf litter, underground mammal burrows, under rotting logs and under tree bark). These common species include wood frogs, spotted salamanders, four-toed salamanders, American toads, spring peepers and gray treefrogs.

Although the vernal pool and majority of the project site is mapped as Priority Habitat of Rare Species by the MA Natural Heritage & Endangered Species Program (NHESP), only the Blanding’s turtle is currently listed as a species present in the vicinity<sup>1</sup>, therefore it is presumed that no state-listed amphibians breed in the vernal pool or are present in the project site. Blanding’s turtles may forage or over-winter within the vernal pool, but because the pool’s habitat consists of forested swamp and lacks areas of open, sun-exposed emergent marsh or shrub swamp habitats typically preferred by Blanding’s turtles, the vernal pool is not considered a high-quality habitat for this state-listed species. The AURA habitat adjacent to the vernal pool consists of mature forest with no suitable nesting habitat (sunny clearings with well-drained soils and sparsely vegetated). The AURA may be used by migrating Blanding’s turtles if they move between the vernal pool and other nearby suitable aquatic or nesting habitats. NHESP review of the project for impacts to the Blanding’s turtle under the MA Endangered Species Act (MESA) will be required, and will be conducted separately from the NOI.

The primary wildlife habitat function of the vernal pool consists of breeding, foraging and sheltering for the amphibians listed above that are associated with vernal pools in eastern MA. Numerous other wildlife species likely make use of the vernal pool habitat for foraging,

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<sup>1</sup> See species info request response letter from NHESP to Goddard Consulting, dated 11/1/13.

sheltering, breeding, and nesting such as birds, snakes, turtles, other amphibians and small mammals.

### **3. Regulatory Compliance**

#### 3.1 WPA

The project's impacts are limited to buffer zone; there is no proposed alteration or fill of any wetland resource areas. In addition:

- All work is located greater than 50 feet from the wetland.
- There is no impervious surface proposed within the buffer zone.
- Erosion and sedimentation controls will be located greater than 50 feet from the wetland.
- The project has been designed in compliance with MA DEP Stormwater Management Standards.

It is therefore our opinion that the project complies with WPA performance standards.

#### 3.2 Groton Wetlands Protection Bylaw

##### *3.2.1 No-disturbance Area*

The Bylaw Regulations state that no work is permitted within 50 feet of any wetlands. The project has been designed to remain completely outside of the 50-foot No Disturbance Area.

##### *3.2.2 Limited Disturbance Area*

The Bylaw Regulations allow for alteration within the portion of the AURA between 50 and 100 feet from the wetland provided that *"the proposed work or activity will not affect wetland values singularly or cumulatively and that reasonable alternatives to the proposed work or activity do not exist."* The cumulative impact of the Temple project would be the alteration of 15,843 s.f. within the AURA - which is only 8.4% of the existing land within the AURA - with all of the alteration between 50 and 100 feet of the vernal pool. Alteration of such a small percentage of the AURA will not affect the values and functions of the vernal pool. 91.6% of the mostly-forested habitat within 100 feet of the vernal pool will remain undisturbed. This will protect non-breeding forested habitat for vernal pool amphibians and other wildlife, and will provide natural erosion control and storm damage prevention functions for the vernal pool

There is no proposed impervious surface within the AURA; the areas of alteration consist of portions of stormwater detention basins and grading along the edge of a parking lot. Efforts to avoid all impacts within the AURA were attempted but not possible due to the project design constraints. The Temple project however, as explained below, has much less proposed impact to the AURA than the previously approved 40B project therefore this is a greatly improved alternative design.

### *3.2.3 Stormwater Management*

There are four stormwater discharge outlets, all of which are located outside of the AURA and greater than 100 feet from the vernal pool. All parking areas will be constructed with porous paving. See the Drainage Report prepared by Markey & Rubin for a full stormwater analysis.

## **4. Analysis of Potential Impacts to Vernal Pool Habitat and AURA Under the Groton Bylaw**

### 4.1 Introduction

There are two main types of potential impacts to vernal pool habitat from the two proposed construction projects:

- a) Changes in light penetration due to clearing of adjacent trees;
- b) Changes in water quality and/or chemistry due to direct discharge of stormwater;

A third potential impact, not to the vernal pool but to the habitat of the adjacent uplands, is also considered:

- c) Changes in the wildlife habitat function of the adjacent uplands, which are known to provide critical non-breeding habitat for the amphibians that breed in the vernal pool.

### 4.2 Changes in light penetration due to clearing of adjacent trees.

If an activity or natural event causes a change in amount of sunlight reaching a vernal pool there could be changes in water temperature, plant and algae growth rates, and numerous other unknown complex biochemical processes. An increase in sunlight penetration could potentially increase the temperature of the vernal pool water and/or lead to increased photosynthetic or other biological activity during some times of year. Whether these changes are beneficial or harmful to the habitat functions of a pool is not known, but they are changes nonetheless.

As a comparison with the Temple project, the proposed impacts from a previously approved 40B project at the site were calculated by Markey & Rubin (see attached figure "Ch. 40B Project," dated 11/13/13). In both the 40B and Temple projects, there is a large amount of proposed clearing of forest to the east of the vernal pool. The 40B project proposes to leave less of a forested buffer intact to the east of the pool: it proposes to alter 51,037 s.f. of the area within the AURA, while the Temple project proposes to alter only 15,843 s.f. of the mostly-forested habitat within 100 feet of the vernal pool. The 40B project proposes alteration inside the 50' buffer zone in three locations, while the Temple project proposes no alteration within 50 feet of the vernal pool. The amount of clearing outside of jurisdictional 100-foot AURA is similar between the two projects.

The amount of additional sunlight penetrating into the vernal pool due to clearing of forest to the east is not easily quantified. By maximizing the width of natural forest remaining immediately adjacent to the vernal pool any potential changes in light would become insignificant. In the case of the Temple project, there will be undisturbed mature forest with a width of almost 100 feet throughout the entire eastern side of the vernal pool, which should not cause any changes in the amount of sunlight reaching the vernal pool. The amount of remaining forest proposed for the

40B project is probably also wide enough to avoid causing any changes in amounts of sunlight reaching the pool, but the Temple project is clearly superior in this regard.

#### 4.3 Changes in water quality and/or chemistry due to direct discharge of stormwater.

Direct discharge of stormwater, treated or untreated, into the vernal pool could change the amount of suspended solids, pH, temperature, dissolved oxygen and numerous other parameters of the vernal pool water. In the Temple project design all four stormwater outlet discharges are located outside of the AURA and greater than 100 feet from the vernal pool. Based on the stormwater design, any discharges would take place only during low-probability extreme storm events, thus direct stormwater discharge towards the vernal pool is an unlikely occurrence. Since there will be 50-100 feet of mature forest between the discharge outlets and the vernal pool, even if a low-probability discharge did occur, the wide strip of vegetation would serve as a natural filter to slow the discharge flow and prevent direct drainage of untreated stormwater into the vernal pool.

As a comparison, the 40B project at the site proposed three separate stormwater discharges within the AURA as indicated on the following annotated images of the site plan<sup>2</sup>.

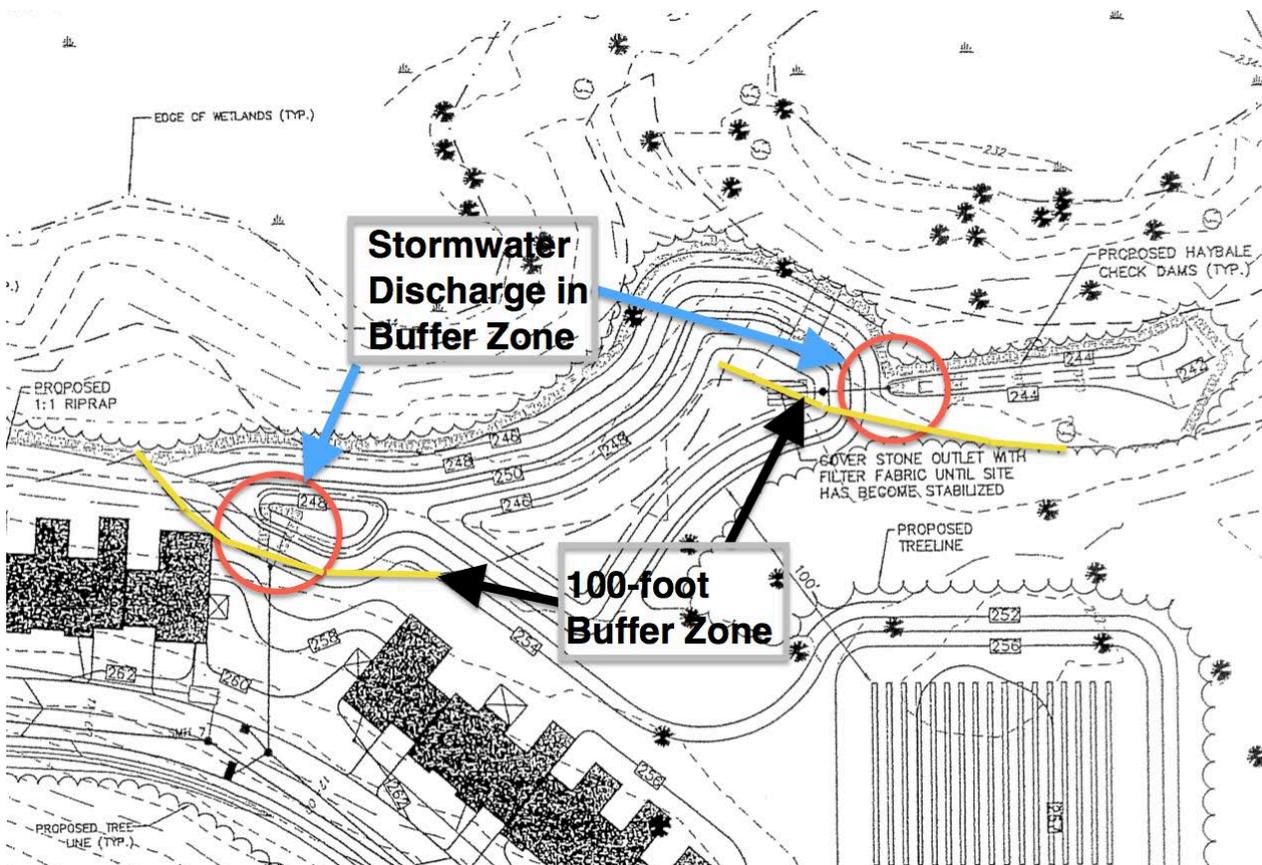


Image 1 - Stormwater discharges within the AURA in northern portions of site.

<sup>2</sup> "Erosion Control Plan, Oak Ridge Manor," prepared by Landtech Consultants, Inc., revision date 9/15/08, sheets EC-1 and EC-2.

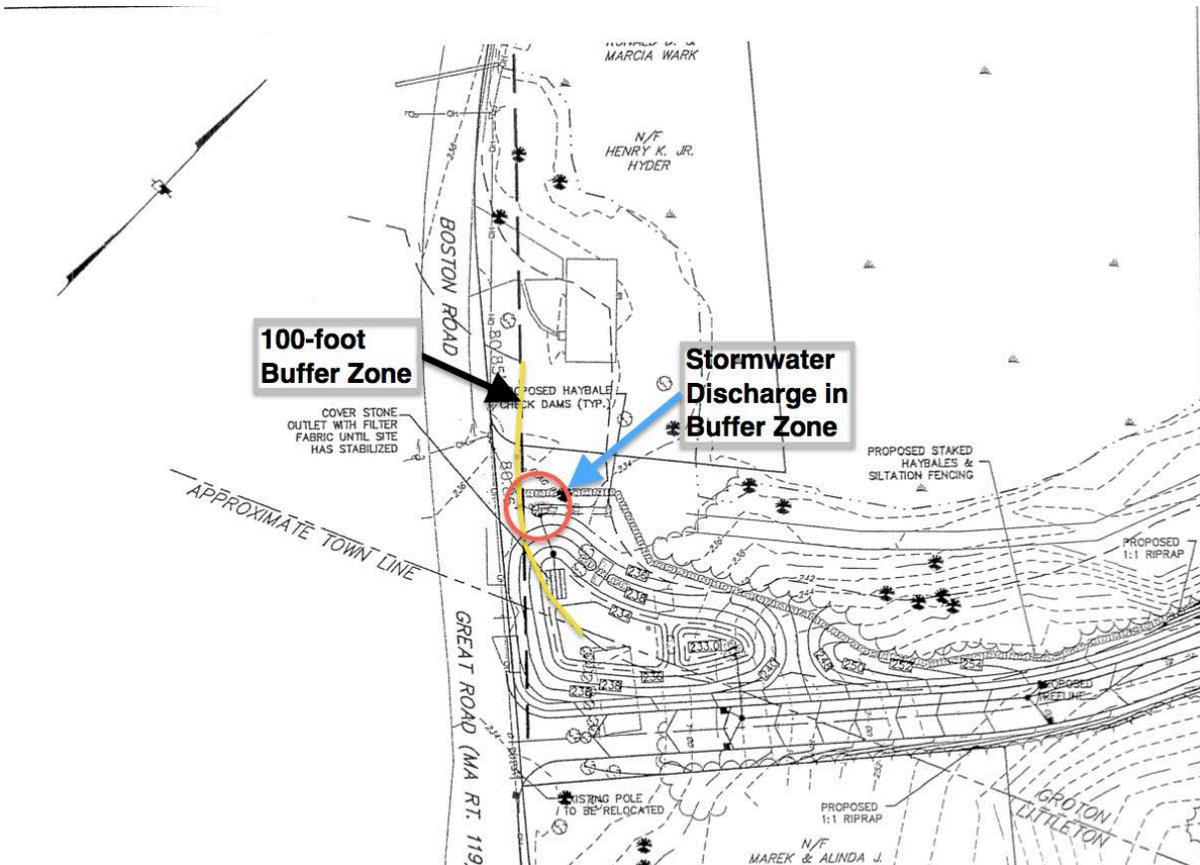


Image 2 - Stormwater discharge within the AURA in southern portion of site.

4.4 Changes in the wildlife habitat function of the adjacent uplands, which are known to provide critical non-breeding habitat for the amphibians that breed in the vernal pool.

The adult wood frogs, spotted salamanders, and other vernal pool-breeding amphibians expected to be present typically only use vernal pools during a brief breeding season in March and April. The remainder of the year they live in habitat adjacent to vernal pools that contains a mature forest canopy, usually with thick leaf litter and a large amount of coarse woody debris. Larvae and juvenile amphibians are likely present in the pool until it dries up completely (in the case of CVP #3182 there is likely some water until the fall). Vernal pool amphibians have been documented to migrate over 1,000 feet from their breeding pools, however the greatest density of amphibians is usually present in forested habitat within approximately 300 feet of the vernal pool. The upland habitat adjacent to vernal pools (if forested) thus provides the habitat functions of foraging, sheltering, migration and over-wintering to amphibians that breed in vernal pools.

The 40B project proposes to develop 51,037 s.f. of the area within 100 feet of the vernal pool, while the Temple project proposes to develop only 19,051 s.f. of the area (less than 10% of the total AURA area). The 40B project proposed 309 s.f. of impervious surface within 100 feet; the Temple proposes no impervious surface within 100 feet. The Temple project will alter less non-breeding amphibian habitat than the 40B project, and therefore will have less impact on the wildlife habitat function of the adjacent uplands.

#### 4.5 B-Series Wetland

One final example of how the Temple project will have a reduced impact on AURA in comparison with the 40B project is the B-Series wetland, located in the northeast corner of the site. The 40B project proposes alteration (grading) within 100 feet of this wetland (see image below), while the Temple project is located completely outside of the AURA of this wetland.

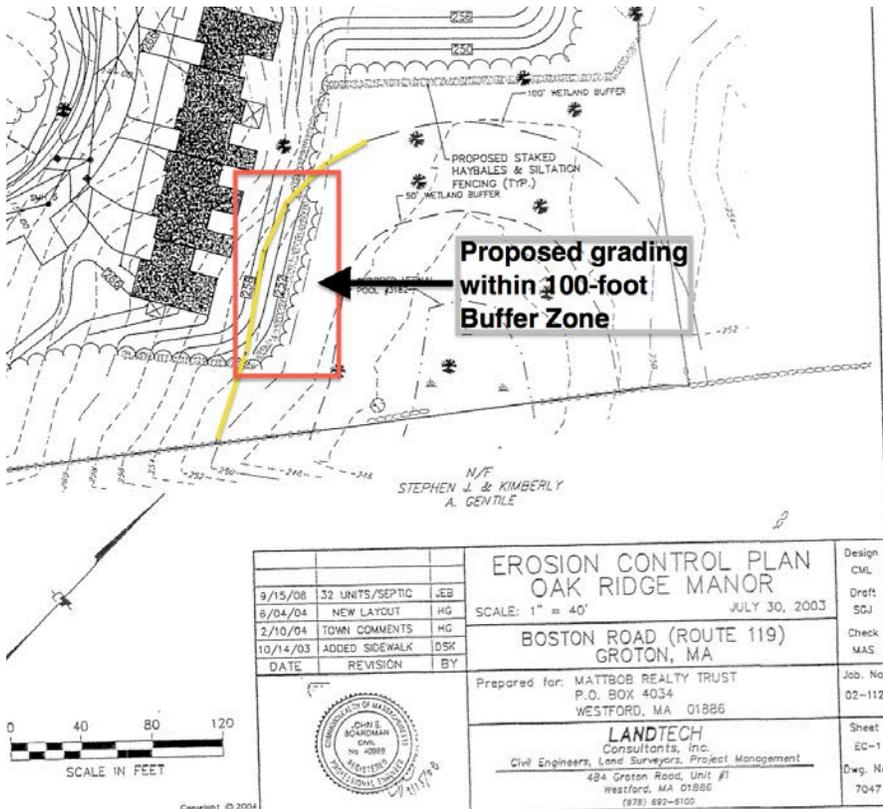


Image 3 – Proposed grading within Buffer Zone in northeast corner of site, 40B project.

#### 4.6 Conclusions

It is unlikely that the vernal pool will experience any significant changes in light penetration, which in turn means that there is unlikely to be any changes in vernal pool water temperature, photosynthetic activity or other unknown response, from either proposed project. The Temple project proposes a wider forested buffer adjacent to the pool than the 40B project, so poses a reduced likelihood of impacting the amount of light penetrating to the pool among the two projects.

The Temple project’s stormwater management system is unlikely to cause any changes in the water quality or chemistry of the vernal pool. All of the four discharge outlets are located outside of the AURA, and the 50-to-100-foot wide strip of forested habitat between each discharge and the vernal pool will serve as a natural filter to dissipate and absorb any direct discharges. This is a substantial improvement over the 40B project, which has three stormwater discharge locations within the AURA. Since there is no direct discharge of untreated stormwater to the vernal pool in either project, the impacts to the water quality of the vernal pool are small in both scenarios.

The Temple project will alter substantially less area of forested uplands within 100 feet of the vernal pool than the 40B project. It will therefore result in less impact to the wildlife habitat functions of the adjacent uplands. Additionally, since there will be no direct alteration of the vernal pool, no direct stormwater discharge within 100 feet and there will remain a 100-foot undisturbed vegetated buffer surrounding most of the pool, there will be no impact to the amphibian breeding function of the vernal pool or foraging, sheltering and over-wintering habitat functions for other wildlife.

If there are any questions concerning this submission, please do not hesitate to contact us.

Sincerely,  
Goddard Consulting, LLC

by

A handwritten signature in black ink, appearing to read "Scott Goddard", written in a cursive style.

Scott Goddard, Manager & PWS

# "Ch. 40B Project"



- BUILDINGS 4.6%
- ROADS 5.8%
- SIDEWALKS 0.7%
- LAWN, DRAINAGE PONDS, SEPTIC SYSTEM 23.2%
- WOODS 34.0%
- WETLANDS 31.7%

TOTAL IMPERVIOUS SURFACE	137,496 S.F.	11.1%
IMPERVIOUS AREA IN BUFFER	309 S.F.	0.0%
WORK BOUNDARY IN BUFFER	51,037 S.F.	4.1%
CLOSEST WORK BOUNDARY TO WETLANDS	38 FT.	

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**Markey & Rubin**

November 13, 2013