



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands

DEP File Number:

WPA Form 4B – Order of Resource Area Delineation

338-0654

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

Provided by DEP

A. General Information

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



From:

Westwood Conservation Commission
 Conservation Commission

This Issuance is for (check one):

- Order of Resource Area Delineation
- Amended Order of Resource Area Delineation

To: Applicant:

Rosario Paparazzo
 Name
 397 Nahatan Street
 Mailing Address
 Westwood MA 02090
 City/Town State Zip Code

Property Owner (if different from applicant):

Name
 Mailing Address
 City/Town State Zip Code

1. Project Location:

405 Nahatan Street Street Address	Westwood City/Town
29 Assessors Map/Plat Number	170 Parcel /Lot Number

2. Title and Date (or Revised Date if applicable) of Final Plans and Other Documents:

WETLAND DELINEATION PLAN 405 NAHATAN STREET WESTWOOD MASSACHUSETTS	12/22/17 rev. 7/11/18
Title	Date
Title	Date

3. Dates:

8/22/17 Date Notice of Intent Filed	7/25/18 Date Public Hearing Closed	8/9/18 Date of Issuance
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WPA Form 4B – Order of Resource Area Delineation

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

B. Order of Delineation

The Conservation Commission has determined the following (check whichever is applicable):

Accurate: The boundaries described on the referenced plan(s) above and in the Abbreviated Notice of Resource Area Delineation are accurately drawn for the following resource area(s):

Bordering Vegetated Wetlands

Other Resource Area(s), specifically:

Modified: The boundaries described on the plan(s) referenced above, as modified by the Conservation Commission from the plans contained in the Abbreviated Notice of Resource Area Delineation, are accurately drawn from the following resource area(s):

Bordering Vegetated Wetlands

Other Resource Area(s), specifically:

Inaccurate: The boundaries described on the referenced plan(s) and in the Abbreviated Notice of Resource Area Delineation were found to be inaccurate and cannot be confirmed for the following resource area(s):

Bordering Vegetated Wetlands

Other Resource Area(s), specifically:

Wetland flags GC19C - GC38

The boundaries were determined to be inaccurate because:

See attached addendum

Addendum to Order of Resource Area Delineation
405 Nahatan Street

The Westwood Conservation Commission has determined that the wetland delineation, which was flagged based on vegetation, is inaccurate, as wetland soils and buttressed tree roots were observed on the upland side of the delineation. See "Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetland Protection Act, chapter 3, When vegetation alone may be used for delineating BVW, #3".

Additionally, in October of 2009 an ANRAD (DEP #338-0474) was approved by the Commission. In November of 2014 a new ANRAD (DEP #338-0581) was submitted. The wetland line on this submittal was very different (up to 80 feet in some areas) than the approved 2009 submittal. The 2014 submittal was withdrawn because the 2009 submittal had not expired under the Permit Extension Act. Before this filing was withdrawn the Commission hired Comprehensive Environmental (CEI) to do a peer review (See exhibit A). Also attached is an email from DEP regarding the physiological and morphological adaptations to life in saturated conditions, specifically the White Pines/Pinus strobus (See exhibit B).

The DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form from the 2017 (DEP #338-0645) show the White Pines/Pinus strobus as the dominant plant indicator for the Tree Layer (See exhibit C). As stated in the email from DEP, (See exhibit B) these White pines/Pinus strobus are buttressed, and therefore should be considered wetland indicators. Given this change to the DEP Field Data Form, 50% of the plants are wetland indicators, which indicates this area to be wetland, not uplands.

Several site visits were performed with the applicant's representative, Goddard Consulting, LLC, the conservation agent, and members of the Westwood Conservation Commission for both the 2014 (DEP #338-0581) and the 2017/2018 (DEP #338-0645) ANRAD submittals. At all visits the commission members witnessed hydric soils and buttressed White Pines/Pinus strobus in the area flagged as upland.

Deny



Massachusetts Department of Environmental Protection
Bureau of Resource Protection - Wetlands

Provided by MassDEP:
338-0654
MassDEP File Number

**WPA Form 4B – Order of Resource Area
Delineation**

eDEP Transaction Number
Westwood
City/Town

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

8/9/18
Date of Issuance

E. Signatures

Please indicate the number of members who will sign this form.

5
1. Number of Signers

Charles Pace
Signature of Conservation Commission Member

John Kiger
Signature of Conservation Commission Member

Stephen David
Signature of Conservation Commission Member

Stefan Gordon
Signature of Conservation Commission Member

Todd Sullivan
Signature of Conservation Commission Member

Signature of Conservation Commission Member

Signature of Conservation Commission Member

This Order is valid for three years from the date of issuance.

If this Order constitutes an Amended Order of Resource Area Delineation, this Order does not extend the issuance date of the original Final Order, which expires on _____ unless extended in writing by the issuing authority.

This Order is issued to the applicant and the property owner (if different) as follows:

2 By hand delivery on

3 By certified mail, return receipt requested on

a. Date

8/9/18 7615 3610 0002 0344 14
a. Date



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

Mail transmittal forms and DEP payments, payable to:

Commonwealth of Massachusetts
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436 Dwight Street
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Fax: 617-556-1049
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COMPREHENSIVE
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July 18, 2014

Ms. Karon Skinner-Catrone
Westwood Conservation Agent
Town of Westwood
50 Carby Street
Westwood, MA 02090

- Engineering
- Design
- Construction
- Inspection

RE: ANRAD REVIEW
405 NAHATAN STREET

Dear Ms. Catrone:

Responsive
service,
cost-effective
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Comprehensive Environmental Inc. (CEI) conducted a site visit in relation to the ANRAD submitted earlier this year for 405 Nahatan Street in Westwood. I visited the site on June 25, 2014 and subsequently Dr. William Kuriger, PhD., PWS and CWS visited the site on June 30, 2014.

A previous ANRAD was filed in 2009 and an Order of Resource Area Delineation (ORAD) issued confirming a Bordering Vegetated Wetland (BVW) delineation for this site. The current ANRAD and the previously approved ANRAD BVW boundaries differ significantly throughout the site.

- Drainage & Flooding
- Energy & Sustainability
- Hazardous Waste
- Permitting & NEPA
- Stormwater & LID
- Transportation
- Water & Wastewater
- Watershed Restoration

Both site visits conducted by CEI resulted in the observation of hydric soils throughout the area between the current delineation and previously approved ANRAD. The vegetative community is a mix of upland and wetland plant species ranging in OBL to UPL indicator status. Using the 50% dominance method, this area is not dominated by wetland vegetation by falling just under the 50% dominance threshold. However, it was observed that the dominant White Pine (*Pinus strobus*) has in many instances shallow roots that are likely a morphological adaptation of a FACU plant growing in a wetland.

According to the MassDEP publication *Delineating Bordering Vegetated Wetlands Under the Massachusetts Wetlands Protection Act, 1995*, individual plants that exhibit morphological or physiological adaptations to life in saturated or inundated conditions can be considered a 'wetland indicator plant'. Specifically, plants with indicator categories of UPL, FACU, or FAC- that exhibit adaptations to life in saturated conditions can be considered wetland indicator plants (i.e., White pine, *Pinus strobus*, FACU, with buttressed trunks and shallow roots).

July 18, 2014
Ms. Karon Skinner-Catrone



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Given the above where White Pine was considered a FAC species due to morphological adaptations, the area between the current delineation and the previously approved ANRAD would be delineated as BVW.

CEI provides the following options for the Commission to consider:

- Engineering Accept the 2009 ANRAD delineation, as this appears to more accurately reflect the current conditions of the site and BVW delineation;
- Design Re-delineate the site taking into consideration the morphological adaptations of the White Pine (and any other species); or
- Construction Accept the current delineation (as modified in the field) and consider a no-disturb buffer zone to protect the area in question.
- Inspection

Please feel free to contact me with questions at 800.725.2550 or

Stephanic.Hanson@ceiengineers.com

Responsive
service,
cost-effective
solutions,
technical
excellence

Sincerely,

COMPREHENSIVE ENVIRONMENTAL INC.

Stephanic Hanson
Principal Scientist
Project Manager

- Drainage & Flooding
- Energy & Sustainability
- Hazardous Waste
- Permitting & NEPA
- Stormwater & LID
- Transportation
- Water & Wastewater
- Watershed Restoration

Karon Catrone

From: Merrill, Pamela (DEP) <pamela.merrill@state.ma.us>
Sent: Monday, July 21, 2014 3:32 PM
To: kcatrone@townhall.westwood.ma.us
Subject: 310 CMR 10.55(2)(c)

Citation from 310 CMR 10.55(2)(c) with emphasis added.

(c) The boundary of **Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist.** Wetland indicator plants shall include but not necessarily be limited to those plant species identified in the Act. Wetland indicator plants are also those classified in the indicator categories of Facultative, Facultative+, Facultative Wetland-, Facultative Wetland, Facultative Wetland+, or Obligate Wetland in the National List of Plant Species That Occur in Wetlands: Massachusetts (Fish & Wildlife Service, U.S. Department of the Interior, 1988) or **plants exhibiting physiological or morphological adaptations to life in saturated or inundated conditions.**

1. Areas containing a predominance of wetland indicator plants are presumed to indicate the presence of saturated or inundated conditions. Therefore, the boundary as determined by 50% or more wetland indicator plants shall be presumed accurate when:

- a. all dominant species have an indicator status of obligate, facultative wetland+, facultative wetland, or facultative wetland- and the slope is distinct or abrupt between the upland plant community and the wetland plant community;
- b. the area where the work will occur is clearly limited to the buffer zone; or
- c. the issuing authority determines that sole reliance on wetland indicator plants will yield an accurate delineation.

2. **When the boundary is not presumed accurate as described in 310 CMR 10.55(2)(c)1.a. through c. or to overcome the presumption,** credible evidence shall be submitted by a competent source demonstrating that the boundary of Bordering Vegetated Wetlands is the line within which 50% or more of the vegetational community consists of wetland indicator plants and saturated or inundated conditions exist. **The issuing authority must evaluate vegetation and indicators of saturated or inundated conditions** if submitted by a credible source, or may require credible evidence of saturated or inundated conditions when determining the boundary. Indicators of saturated or inundated conditions sufficient to support wetland indicator plants shall include one or more of the following:

- a. groundwater, including the capillary fringe, within a major portion of the root zone;
- b. observation of prolonged or frequent flowing or standing surface water;
- c. **characteristics of hydric soils.**

3. **Where an area has been disturbed (e.g. by cutting, filling, or cultivation),** the boundary is the line within which there are indicators of saturated or inundated conditions sufficient to support a predominance of wetland indicator plants, a predominance of wetland indicator plants, or credible evidence from a competent source that the area supported or would support under undisturbed conditions a predominance of wetland indicator plants prior to the disturbance.

DEP Bordering Vegetated Wetland (310 CMR 10.55) Delineation Field Data Form

DEP File # _____

Applicant: _____ Prepared by: Goddard Consulting LLC Project location: Natahan St, Westwood
 Check all that apply: Vegetation alone presumed adequate to delineate B/W boundary; fill out Section I only. Vegetation and other indicators of hydrology used to delineate B/W boundary; fill out Sections I and II. Method other than dominance test used (attach additional information)

Section I. Vegetation (Observation Plot Number: CC-43) Transect Number: Upgradient Date of Delineation: 14-Sep-17

Sample Layer and Plant Species	Scientific name	% Cover	% Dominance	Dominant Plant (yes or no)	Wetland Indical Category*
Tree Layer					
Red Oak	<i>Quercus rubra</i>	30%	21.5%	Yes	FACU
White pine	<i>Pinus strobus</i>	63%	67.7%	Yes	FACU
Red maple	<i>Acer rubrum</i>	10%	10.8%	No	FAC*
Shrub Layer					
Great-laurel	<i>Rhododendron maximum</i>	20%	100.0%	Yes	FAC*
Climbing Woody Vine					
Ground Cover					
Northern Bracken fern	<i>Pteridium aquilinum</i>	10%	50.0%	Yes	FACU
Canada mayflower	<i>Maianthemum canadense</i>	10%	50.0%	Yes	FACU

Remarks: * An asterisk after common plant name indicates stunted growth. ** indicates extremely stunted growth

Morphological Adaptations: 0 Description: _____

* An asterisk after indicator status denotes wetlands plants. plants listed in the Wetlands Protection Act (MGL c.131, s.40) plants in the genus *Sphagnum*, or plants listed as FAC, FACW, or OBL.

Vegetation conclusion: _____

Number of dominant wetland indicator plants: 1 Number of dominant non-wetland indicator plants: 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no

If vegetation alone is presumed adequate to delineate the B/W boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.

