

Stamski and McNary, Inc.

Engineering - Planning - Surveying

1000 Main Street Acton, MA 01720 (978) 263-8585

www.stamskiandmcnary.com

Abbreviated Notice of Resource Area Delineation

Under the Massachusetts Wetland Protection Act,
M.G.L. c. 131, s. 40 &
And The Town of Stow Wetland Protection Bylaw

for

**58 Randall Road
Map R11, Parcel 25B-3
Stow, MA 01775**

Applicant:

Mark O'Hagan
MCO & Associates, Inc.
P.O. Box 372
Harvard, MA 01451

Date:

December 15, 2021

SM-6781

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 - *Massachusetts Natural Heritage Atlas 13th Edition, Effective: August 1, 2021*
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Resource Area Description

Resource Area Description

The property at 58 Randall Road (Map R11 Parcel 25B-3) is a 177 acre lot containing primarily open space and woods associated with a golf course. There is Bordering Vegetated Wetland (BVW) on the southern, eastern, and northern portions of this lot that project 100' Buffer Zone. There is also Riverfront Area on the southern portion of the lot. The resource areas were delineated by wetland scientist David Crossman of B&C Associates, Inc. and located by field survey. The applicant is seeking confirmation of the existing wetland resource areas.

WPA Form 4A (Abbreviated Notice of Resource Area Delineation)



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4A – Abbreviated Notice of
Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Stow
City/Town

A. General Information

1. Project Location (**Note:** electronic filers will click on button for GIS locator):

58 Randall Road
a. Street Address

Stow
b. City/Town

01775
c. Zip Code

Latitude and Longitude:

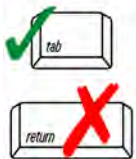
42.4222 N
d. Latitude

71.5251 W
e. Longitude

R11
f. Assessors Map/Plat Number

25B-3
g. Parcel /Lot Number

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



2. Applicant:

Mark
a. First Name

O'Hagan
b. Last Name

MCO & Associates, Inc.
c. Organization

P.O. Box 372
d. Mailing Address

Harvard
e. City/Town

MA
f. State

01451
g. Zip Code

508-395-1211
h. Phone Number

markohagan@mcoassociates.com
i. Fax Number

markohagan@mcoassociates.com
j. Email Address

3. Property owner (if different from applicant):

Check if more than one owner (attach additional sheet with names and contact information)

Stow Holdings, LLC
a. First Name

Stow Holdings, LLC
b. Last Name

c. Organization

258 Andover Street
d. Mailing Address

Georgetown
e. City/Town

MA
f. State

01833
g. Zip Code

h. Phone Number

i. Fax Number

j. Email Address

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

4. Representative (if any):

Nathaniel
a. Contact Person First Name

Cataldo
b. Contact Person Last Name

Stamski and McNary, Inc.
c. Organization

1000 Main Street
d. Mailing Address

Acton
e. City/Town

MA
f. State

01720
g. Zip Code

978-263-8585 X204
h. Phone Number

978-263-9883
i. Fax Number

nc@stamskiandmcnary.com
j. Email Address

Fees will be calculated for online users.

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

\$2,000.00
a. Total Fee Paid

\$987.50
b. State Fee Paid

\$1,012.50 + Bylaw \$148.00
c. City/Town Fee Paid



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B. Area(s) Delineated

1. Bordering Vegetated Wetland (BVW) 6,963
Linear Feet of Boundary Delineated

2. Check all methods used to delineate the Bordering Vegetated Wetland (BVW) boundary:

- a. MassDEP BVW Field Data Form (attached)
- b. Other Methods for Determining the BVW boundary (attach documentation):
 - 1. 50% or more wetland indicator plants
 - 2. Saturated/inundated conditions exist
 - 3. Groundwater indicators
 - 4. Direct observation
 - 5. Hydric soil indicators
 - 6. Credible evidence of conditions prior to disturbance

3. Indicate any other resource area boundaries that are delineated:

Riverfront Area
a. Resource Area

213
b. Linear Feet Delineated

c. Resource Area

d. Linear Feet Delineated

C. Additional Information

Applicants must include the following plans with this Abbreviated Notice of Resource Area Delineation. 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. ANRAD (Delineation Plans only)
- 2. 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.)
- 3. Plans identifying the boundaries of the Bordering Vegetated Wetlands (BVW) (and/or other resource areas, if applicable).
- 4. List the titles and final revision dates for all plans and other materials submitted with this Abbreviated Notice of Resource Area Delineation.

D. Fees



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

Provided by MassDEP:

MassDEP File Number

Document Transaction Number

Stow
City/Town

The fees for work proposed under each Abbreviated Notice of Resource Area Delineation must be calculated and submitted to the Conservation Commission and the Department (see Instructions and Wetland Fee Transmittal Form).

- 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 the attached Wetland Fee Transmittal Form) to confirm fee payment:

5235
2. Municipal Check Number

Dec 9, 2021
3. Check date

5234
4. State Check Number

Dec 9, 2021
5. Check date

MCO & Associates, Inc.
6. Payor name on check: First Name

7. Payor name on check: Last Name

E. Signatures

I certify under the penalties of perjury that the foregoing Abbreviated Notice of Resource Area Delineation and accompanying plans, documents, and supporting data are true and complete to the best of my knowledge. I



Massachusetts Department of Environmental Protection
 Bureau of Resource Protection - Wetlands
WPA Form 4A – Abbreviated Notice of
Resource Area Delineation
 Massachusetts Wetlands Protection Act M.G.L. c. 131, §40

Provided by MassDEP:

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 Stow
 City/Town

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 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.

I hereby grant permission, to the Agent or member of the Conservation Commission and the Department of Environmental Protection, to enter and inspect the area subject to this Notice at reasonable hours to evaluate the wetland resource boundaries subject to this Notice, and to require the submittal of any data deemed necessary by the Conservation Commission or Department for that evaluation.

I acknowledge that failure to comply with these certification requirements is grounds for the Conservation Commission or the Department to take enforcement action.

 1. Signature of Applicant

 3. Signature of Property Owner (if different)

 5. Signature of Representative (if any)

 2. Date 12/9/2021

 4. Date 12/9/2021

 6. Date 12/15/2021

For Conservation Commission:

Two copies of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; two copies of the ANRAD Wetland Fee Transmittal Form; and the city/town fee payment must be sent to the Conservation Commission by certified mail or hand delivery.

For MassDEP:

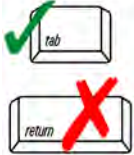
One copy of the completed Abbreviated Notice of Resource Area Delineation (Form 4A), including supporting plans and documents; one copy of the ANRAD Wetland Fee Transmittal Form; and a copy of the state fee payment must be sent to the MassDEP Regional Office (see Instructions) by certified mail or hand delivery. (E-filers may submit these electronically.)

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
ANRAD 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>58 Randall Road</u>	<u>Stow</u>
a. Street Address	b. City/Town
<u>\$987.50</u>	<u>5234</u>
c. Fee amount	d. Check number

2. Applicant:

<u>Mark</u>	<u>O'Hagan</u>	<u>MCO & Associates, Inc.</u>
a. First Name	b. Last Name	c. Company
<u>P.O. Box 372</u>		
d. Mailing Address		
<u>Harvard</u>	<u>MA</u>	<u>01451</u>
e. City/Town	f. State	g. Zip Code
<u>508-395-1211</u>		
h. Phone Number		

3. Property Owner (if different):

		<u>Stow Holdings, LLC</u>
a. First Name	b. Last Name	c. Company
<u>258 Andover Street</u>		
d. Mailing Address		
<u>Georgetown</u>	<u>MA</u>	<u>01833</u>
e. City/Town	f. State	g. Zip Code
<u></u>		
h. Phone Number		

B. Fees

The fee is calculated as follows for each Resource Area Delineation included in the ANRAD (check applicable project type). The maximum fee for each ANRAD, regardless of the number of Resource Area Delineations, is \$200 activities associated with a single-family house and \$2,000 for any other activity.

Bordering Vegetated Wetland Delineation Fee:

1. <input type="checkbox"/>	single family house project	<u></u>	<u>x \$2.00 =</u>	<u></u>
2. <input checked="" type="checkbox"/>	all other projects	<u>6,963</u>	<u>\$13,926</u>	<u>\$13,926.00</u>
		a. feet of BVW	x \$2.00 =	b. Fee for BVW
		a. feet of BVW	x \$2.00 =	b. Fee for BVW

Other Resource Area (e.g., bank, riverfront area, etc.):

3. <input type="checkbox"/>	single family house project	<u></u>	<u>x \$2.00 =</u>	<u></u>
4. <input checked="" type="checkbox"/>	all other projects	<u>213</u>	<u>\$426</u>	<u>\$426.00</u>
		a. linear feet	x \$2.00 =	b. Fee
		a. linear feet	x \$2.00 =	b. Fee

Total Fee for all Resource Areas: \$2000.00 (Max.)
 Fee

State share of filing fee: \$987.50
 5. 1/2 of total fee **less** \$12.50

City/Town share of filing fee: \$1,012.50 + Bylaw \$148
 6. 1/2 of total fee **plus** \$12.50

Online users: check box if fee exempt.



Massachusetts Department of Environmental Protection

Bureau of Resource Protection - Wetlands

ANRAD Wetland Fee Transmittal Form

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

C. Submittal Requirements

- a.) Send a copy of this form, with a check or money order for the state share of the fee, payable to the Commonwealth of Massachusetts, to:

Department of Environmental Protection
Box 4062
Boston, MA 02211

- b.) **To the Conservation Commission:** Send the Abbreviated Notice of Resource Area Delineation; a **copy** of this form; and the city/town fee payment.
- c.) **To DEP Regional Office:** Send one copy of the Abbreviated Notice of Resource Area Delineation (and any additional documentation required as part of a Simplified Review Buffer Zone Project); a **copy** of this form; and a **copy** of the state fee payment. (E-filers of Notices of Intent may submit these electronically.)

Certified Abutters List

ABUTTERS LIST
58 Randall Rd
MAP R11 PARCELS 25B-3

MAP/PARCEL	PROPERTY LOCATION	OWNER NAME 1	OWNER NAME 2	MAILING ADDRESS	CITY	STATE	ZIP CODE	DEED BOOK	DEED PAGE
00R-10 000050	0 HUDSON RD	O'GRADY MARGARET A		10 CAPRI ROAD	FRAMINGHAM	MA	01701	14757	103
00R-10 00049B	22 ELIZABETH DR	KENNEDY, BRENDON C.		22 ELIZABETH DR	STOW	MA	01775	77189	416
00R-10 00049C	21 ELIZABETH DR	PEABODY MICHAEL E		21 ELIZABETH DRIVE	STOW	MA	01775	24458	190
00R-10 0053-1	112 HUDSON RD	SARKISIAN DAVID J		112 HUDSON RD	STOW	MA	01775	64120	103
00R-10 0053-2	102 HUDSON RD	MANDEVILLE MATTHEW R		102 HUDSON RD	STOW	MA	01775	68324	266
00R-10 025B-1	0 GATES LN	STOW WOODLANDS LLC		PO BOX 620-636	NEWTON LOWER FA	MA	02462	17734	443
00R-10 025B-2	OFF ELIZABETH DR	STOW WOODLANDS LLC		PO BOX 620-636	NEWTON LOWER FA	MA	02462	17734	443
00R-10 053-1A	110 HUDSON RD	KLOCHKOV ARTYOM		110 HUDSON ROAD	STOW	MA	01775	71488	487
00R-11 000023	80 EDSON ST	THOMAS BRUCE A		80 EDSON ST	STOW	MA	01775	22623	610
00R-11 000024	77 RANDALL RD	GEORGE DOROTHY E		50 CONCORD ST	MAYNARD	MA	01754	28371	62
00R-11 000026	21 CROSS ST	HAM RONALD J TR		21 CROSS ST	STOW	MA	01775	37128	285
00R-11 000027	5 CROSS ST	GOLDSTEIN AARON		5 CROSS STREET	STOW	MA	01775	68183	266
00R-11 000028	295 GLEASONDALE RD	SIROIS PAUL E		295 GLEASONDALE ROAD	STOW	MA	01775	25771	400
00R-11 00005A	285 GLEASONDALE RD	JACKSON, CHRISTIAN M.		285 GLEASONDALE RD	STOW	MA	01775	76032	445
00R-11 00006A	279 GLEASONDALE RD	SMITS JOHN A		279 GLEASONDALE ROAD	STOW	MA	01775	49398	589
00R-11 00007A	265 GLEASONDALE RD	BRADWAY ROBERT		265 GLEASONDALE RD	STOW	MA	01775	50930	244
00R-11 00011A	0 HUDSON RD	STOW HOLDINGS LLC		258 ANDOVER STREET	GEORGETOWN	MA	01833	67309	266
00R-11 00011B	0 EDSON ST	TOWN OF STOW		380 GREAT ROAD	STOW	MA	01775	61033	573
00R-11 00036A	32 RANDALL RD	FRANCOEUR KATHERINE M		32 RANDALL RD	STOW	MA	01775	69120	411
00R-11 00037A	58 RANDALL RD	STOW HOLDINGS LLC		258 ANDOVER STREET	GEORGETOWN	MA	01833	67309	266
00R-11 0025-4	64 EDSON ST	COBB JENNIFER S		64 EDSON ST	STOW	MA	01775	61961	393
00R-11 0033-2	147 BOON RD	PETERS FAMILY TRUST		147 BOON RD	STOW	MA	01775	72991	531
00R-11 0033-3	41 RANDALL RD	GALLACHER MATTHEW J		41 RANDALL RD	STOW	MA	01775	59425	183
00R-11 0033-4	30 CROSS ST	DOUCETTE THOMAS		30 CROSS ST	STOW	MA	01775	22961	254
00R-11 0033-5	22 CROSS ST	WENDLER JOHN P		22 CROSS STREET	STOW	MA	01775	24257	514
00R-11 0054-2	137 RANDALL RD	ZINKE ALEXANDER W		137 RANDALL ROAD	STOW	MA	01775	68456	565
00R-11 025-11	0 FAIRWAY DR	SARTORI LOUIS R		2203 ATLANTIC ST APT 721	MELBOURNE BEACH	FL	32951	46140	406
00R-11 025-12	11 FAIRWAY DR	SARTORI LOUIS R		2203 ATLANTIC ST APT 721	MELBOURNE BEACH	FL	32951	46140	404
00R-11 025-13	7 FAIRWAY DR	GEREMIAS RONALDO		7 FAIRWAY DR	STOW	MA	01775	66971	149
00R-11 025-5A	70 EDSON ST	BOUDO WILLIAM M		70 EDSON STREET	STOW	MA	01775	67531	449
00R-11 025-6A	76 EDSON ST	SEIGAL STEPHEN		76 EDSON ST	STOW	MA	01775	70653	388
00R-11 025-9A	32 FAIRWAY DR	L'HOMMEDIEU CHRISTOPHER G		32 FAIRWAY DRIVE	STOW	MA	01775	61723	532
00R-11 025A-1	148 HUDSON RD	FANNING MATTHEW J		148 HUDSON ROAD	STOW	MA	01775	66947	284
00R-11 025B-3	0 RANDALL RD	STOW HOLDINGS LLC		258 ANDOVER STREET	GEORGETOWN	MA	01833	67309	266
00R-11 025B-4	OFF HUDSON RD	STOW WOODLANDS LLC		PO BOX 620-636	NEWTON LOWER FA	MA	02462	17734	443
00R-11 025B-8	0 CROSS ST	VIRNELLI TANYA		59 GLEASONDALE RD	STOW	MA	01775	71019	388
00R-11 025B-9	111 RANDALL RD	KANE JOHN L		111 RANDALL RD	STOW	MA	01775	54227	469
00R-11 25-10A	36 FAIRWAY DR	ROY JONATHAN T		36 FAIRWAY DRIVE	STOW	MA	01775	72751	41
00R-11 25B-10	121 RANDALL RD	ALEXANDER BRIAN		121 RANDALL RD	STOW	MA	01775	53905	348
00R-14 0001-2	282 GLEASONDALE RD	HALL BERNARD J & NOREEN M		282 GLEASONDALE RD	STOW	MA	01775	1375	81
00R-14 0001-4	8 DEACON BENHAM DR	KERRIGAN, JR., EDWARD J.		8 DEACON BENHAM DR	STOW	MA	01775	1562	186
00R-15 000065	264 GLEASONDALE RD	GONET REESA T		264 GLEASONDALE ROAD	STOW	MA	01775	32022	514
00R-15 000066	0 WHEELER RD	PAGE FAMILY LIMITED PARTNERSHP		115 WHEELER ROAD	STOW	MA	01775	26923	577
* recent sales									

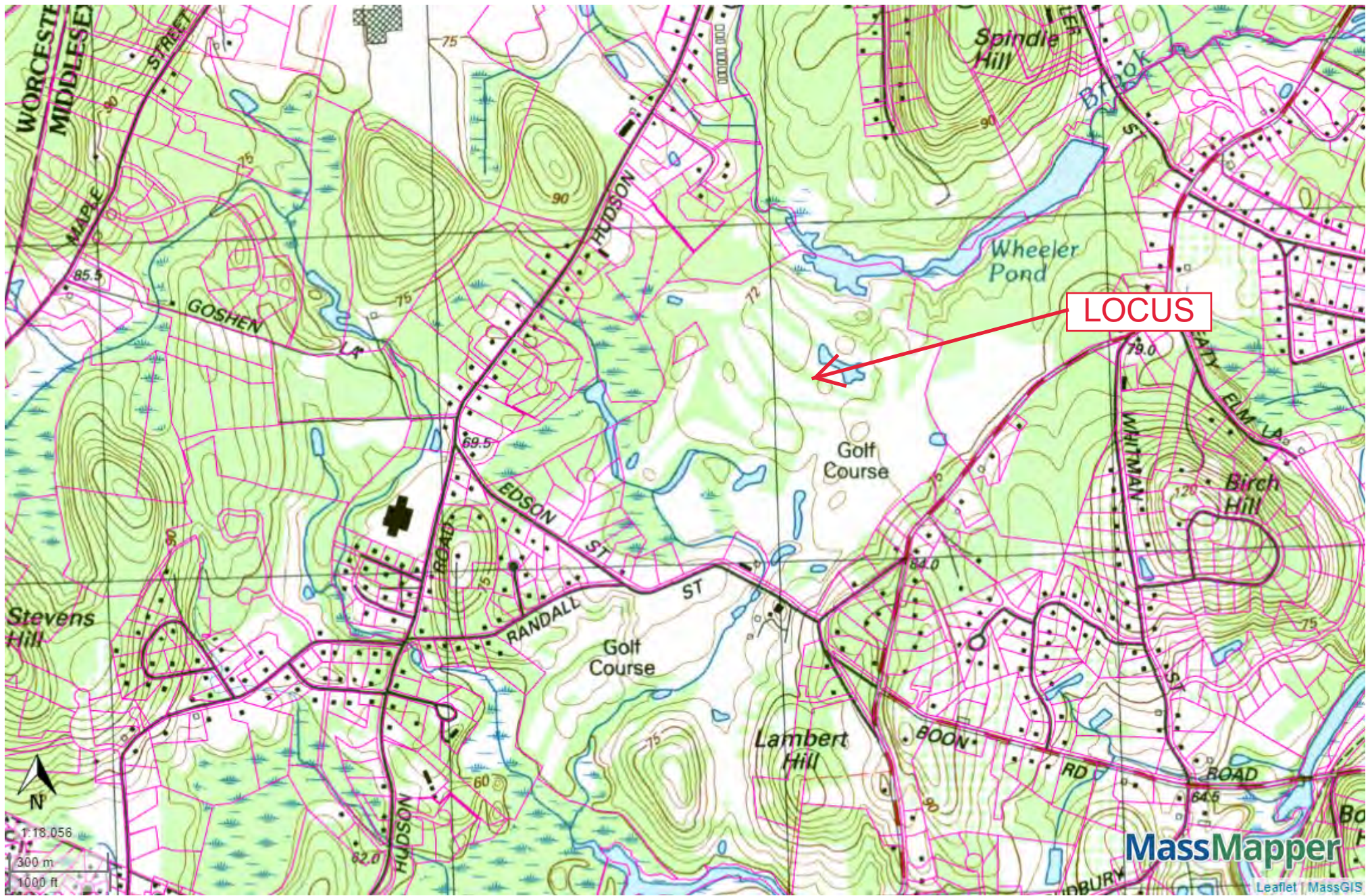
Certified by the Stow Board of Assessors:

Stuart Carter, MAA

Date Certified or Re-Certified:

12/2/21 Ft: *300*

U.S.G.S. Locus Map

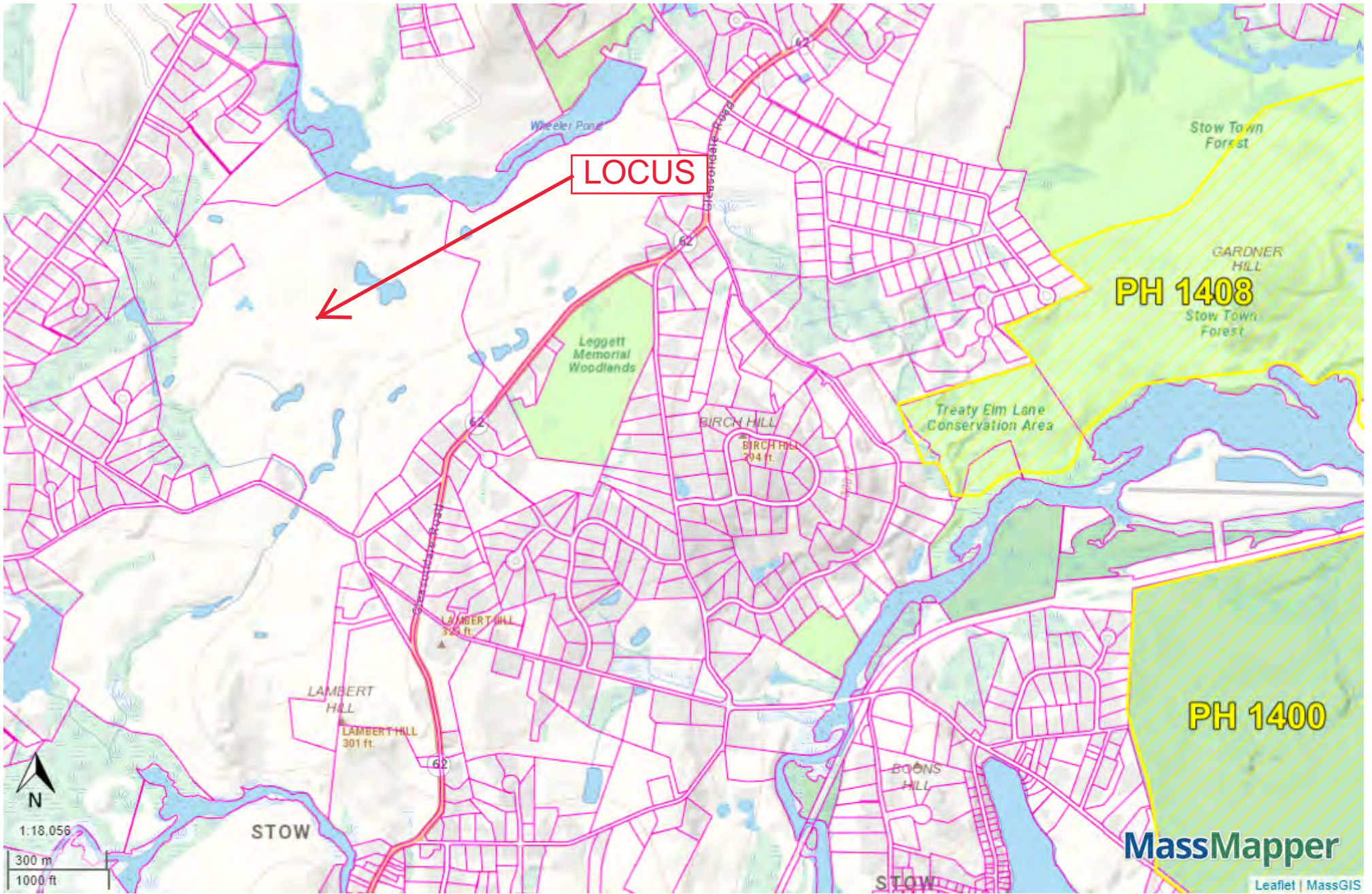


LOCUS

MassMapper

Leaflet | MassGIS

Massachusetts Natural Heritage Atlas 13th Edition

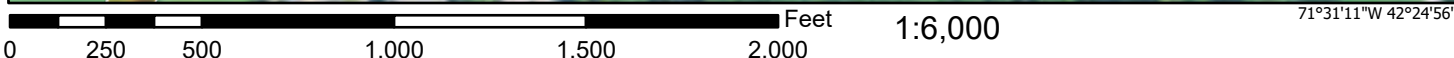


FEMA Flood Map

National Flood Hazard Layer FIRMette



71°31'49"W 42°25'23"N



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

Legend

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

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) <i>Zone A, V, A99</i>
		With BFE or Depth <i>Zone AE, AO, AH, VE, AR</i>
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile <i>Zone X</i>
		Future Conditions 1% Annual Chance Flood Hazard <i>Zone X</i>
		Area with Reduced Flood Risk due to Levee. See Notes. <i>Zone X</i>
		Area with Flood Risk due to Levee <i>Zone D</i>
OTHER AREAS		NO SCREEN Area of Minimal Flood Hazard <i>Zone X</i>
		Effective LOMRs
GENERAL STRUCTURES		Area of Undetermined Flood Hazard <i>Zone D</i>
		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
OTHER FEATURES		20.2 Cross Sections with 1% Annual Chance
		17.5 Water Surface Elevation
		Coastal Transect
		Base Flood Elevation Line (BFE)
		Limit of Study
MAP PANELS		Jurisdiction Boundary
		Coastal Transect Baseline
		Profile Baseline
		Hydrographic Feature
		Digital Data Available
		No Digital Data Available
		Unmapped
		The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.



This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on **12/2/2021 at 9:58 AM** and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

Wetland Delineation Sheets

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

Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres, Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
 Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
 Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 1 Transect Number: A Date of Delineation: 11/10/2021

A. Sample Layer and Plant Species (by common/scientific name)		B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *
Herbaceous:	Goldenrod	<i>Solidago sp.</i>	63.0	57%	Yes
	Soft Rush	<i>Juncus effuses</i>	38.0	34%	Yes
	Upland Grasses	<i>Graminae sp.</i>	10.5/111.5	9%	No
Shrubs:	Silky Dogwood	<i>Cornus amomum</i>	10.5	39%	Yes
	Old Field Raspberry	<i>Rubus alumnus</i>	10.5	39%	Yes
	Multiflora Rose	<i>Rosa multiflora</i>	3.0	11%	No
	Common Elderberry	<i>Sambucus canadensis</i>	3.0/27.0	11%	No
Saplings:	None				
Lianas:	Oriental Bittersweet	<i>Celastrus orbiculatus</i>	10.5/10.5	100%	Yes
Overstory:	None				

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 2 Number of dominant non-wetland Indicator plant: 2

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021

map number: 23

soil type mapped: Merrimac fine sandy loam

hydric soil inclusions:

Are field observations consistent with soil survey? **YES**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-6"	10 YR 2/2	
B	6-15"	10 YR 5/3	

Remarks:

3. Other: 9' 3" to Wetland Flag # 57
16' 1" to Wetland Flag # 58

Conclusion: Is soil hydric? **NO**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):

- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>

Submit this form with the Request for Determination of Applicability or Notice of Intent

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

Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres , Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 2 Transect Number: A Date of Delineation: 11/10/2021

A. Sample Layer and Plant Species (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *
Herbaceous:	Soft Rush	<i>Juncus effuses</i>	38.0	74%	Yes	FACW+ *
	Joe-Pye-Weed	<i>Eupatoriadelphus maculata</i>	10.5	20%	Yes	FACW+ *
	Goldenrods	<i>Solidago sp.</i>	3.0/51.5	6%	No	
Shrubs:	Silky Dogwood	<i>Cornus amomum</i>	20.5	50%	Yes	FACW *
	Common Elderberry	<i>Sambucus canadensis</i>	20.5/41.0	50%	Yes	FACW- *
Saplings:	None					
Lianas:	Oriental Bittersweet	<i>Celastrus orbiculatus</i>	38.0/38.0	100%	Yes	UPL
Overstory:	None					

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:
 Number of dominant wetland indicator plants: 4 Number of dominant non-wetland Indicator plant: 1
 Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021
 map number: 23
 soil type mapped: Scarboro mucky fine sandy loam
 hydric soil inclusions:

Are field observations consistent with soil survey? **YES**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-6"	10 YR 3/1	
B _G	6-17"	10 YR 5/2	10 YR 7/1 10 YR 5/6

Remarks:

3. Other: 17' 8" to Wetland Flag # 57
 11' 0" to Wetland Flag # 58
 13' 3" Downgradient from A1

Conclusion: Is soil hydric? **YES**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: 0"
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):

- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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

Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres, Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 1 Transect Number: B Date of Delineation: 11/18/2021

A. Sample Layer and Plant Species (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *
Herbaceous:	Hayscented Fern	<i>Dennstaedtia punctilobula</i>	3.0/3.0	100%	Yes	UPL
Shrubs:	Highbush Blueberry	<i>Vaccinium corymbosum</i>	10.5	44%	Yes	FACW- *
	Swamp Azalea	<i>Azalea viscosum</i>	10.5	44%	Yes	OBL *
	European Buckthorn	<i>Rhamnus frangula</i>	3.0/24.0	12%	No	FAC *
Saplings:	Red Maple	<i>Acer rubrum</i>	20.5	60%	Yes	FAC *
	White Birch	<i>Betula papyrifera</i>	10.5	31%	Yes	FACU
	Black Birch	<i>Betula lenta</i>	3.0/34.0	9%	No	FACU
Lianas:	Oriental Bittersweet	<i>Celastrus orbiculatus</i>	20.5	87%	Yes	UPL
	Poison Ivy	<i>Toxicodendron radicans</i>	3.0/23.5	13%	No	FAC *
Overstory:	White Pine	<i>Pinus strobus</i>	1533.7	66%	Yes	FACU
	Red Maple	<i>Acer rubrum</i>	706.8	30%	Yes	FAC *
	White Birch	<i>Betula papyrifera</i>	78.2/2318.7	3%	No	FACU

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:	
Number of dominant wetland indicator plants: 4	Number of dominant non-wetland Indicator plant: 4
Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants?	YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021

map number: 23

soil type mapped: Hinckley loamy sand

hydric soil inclusions:

Are field observations consistent with soil survey? **YES**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
O _t	2-0"		
A	0-5"	10 YR 2/2	
B	5-16"	10 YR 5/6	

Remarks:

3. Other: 10' 10" to Wetland Flag # 235
7' 5" to Wetland Flag # 236

Conclusion: Is soil hydric? **NO**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):

- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres, Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 2 Transect Number: B Date of Delineation: 11/18/2021

A. Sample Layer and Plant Species (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *	
Herbaceous:	Spinulose Woodfern	<i>Dryopteris spinulosa</i>	10.5/10.5	100%	Yes	FAC+	*
Shrubs:	Highbush Blueberry	<i>Vaccinium corymbosum</i>	10.5	44%	Yes	FACW-	*
	Swamp Azalea	<i>Azalea viscosum</i>	10.5	44%	Yes	OBL	*
	European Buckthorn	<i>Rhamnus frangula</i>	3.0/24.0	12%	No	FAC	*
Saplings:	Red Maple	<i>Acer rubrum</i>	20.5	60%	Yes	FAC	*
	White Birch	<i>Betula papyrifera</i>	10.5	31%	Yes	FACU	
	Black Birch	<i>Betula lenta</i>	3.0/34.0	9%	No	FACU	
Lianas:	Oriental Bittersweet	<i>Celastrus orbiculatus</i>	20.5	87%	Yes	UPL	
	Poison Ivy	<i>Toxicodendron radicans</i>	3.0/23.5	13%	No	FAC	*
Overstory:	White Pine	<i>Pinus strobus</i>	1533.7	60%	Yes	FACU	
	Red Maple	<i>Acer rubrum</i>	962.3	37%	Yes	FAC	*
	White Birch	<i>Betula papyrifera</i>	78.2/2574.2	3%	No	FACU	

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 5 Number of dominant non-wetland Indicator plant: 3

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021

map number: 23

soil type mapped: Hinckley loamy sand

hydric soil inclusions:

Are field observations consistent with soil survey? **NO**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
O _A	0-19"	10 YR 2/1	

Remarks:

3. Other: 13' 8" to Wetland Flag # 235
4' 10" to Wetland Flag # 236
8' 10" Downgradient from B1

Conclusion: Is soil hydric? **YES**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: 2"
- Depth to soil saturation in observation hole: 0"
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):

- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres, Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 1 Transect Number: C Date of Delineation: 11/19/2021

A. Sample Layer and Plant Species (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *
Herbaceous:	Hayscented Fern	<i>Dennstaedtia punctilobula</i>	38.0	78%	Yes	UPL
	Cinnamon Fern	<i>Osmunda cinnamomea</i>	10.5/48.5	22%	Yes	FACW *
Shrubs:	Highbush Blueberry	<i>Vaccinium corymbosum</i>	10.5	44%	Yes	FACW-
	Winterberry	<i>Ilex verticillata</i>	10.5	44%	Yes	FACW+
	Silky Dogwood	<i>Cornus amomum</i>	3.0/24.0	12%	No	FACW *
Saplings:	Red Maple	<i>Acer rubrum</i>	20.5	49%	Yes	FAC *
	White Pine	<i>Pinus strobus</i>	10.5	25%	Yes	FACU
	Black Birch	<i>Betula lenta</i>	10.5/41.5	25%	Yes	FACU
Lianas:	Poison Ivy	<i>Toxicodendron radicans</i>	10.5/10.5	100%	Yes	FAC *
Overstory:	Red Oak	<i>Quercus rubra</i>	1929.5	71%	Yes	FACU-
	White Pine	<i>Pinus strobus</i>	515.7	19%	No	FACU
	Tupelo	<i>Nyssa sylvatica</i>	244.0	9%	No	FACW+
	Red Maple	<i>Acer rubrum</i>	28.7/2717.9	1%	No	FAC *

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Vegetation conclusion:

Number of dominant wetland indicator plants: 5 Number of dominant non-wetland Indicator plant: 4

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021

map number: 23

soil type mapped: Hinckley loamy sand

hydric soil inclusions:

Are field observations consistent with soil survey? **YES**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
A	0-7"	10 YR 2/2	
B	7-19"	10 YR 5/3	

Remarks:

3. Other: 17' 4" to Wetland Flag # 346
9' 1" to Wetland Flag # 347

Conclusion: Is soil hydric? **NO**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: _____
- Depth to soil saturation in observation hole: _____
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):

- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
other indicators of hydrology present	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Sample location is in a BVW	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

Applicant: _____ Prepared by: B & C Associates Inc. Project location: North Course - Stow Acres, Stow DEP File #: _____

Check all that apply:

- Vegetation alone presumed adequate to delineate BVW boundary: fill out Section I only
- Vegetation and other indicators of hydrology used to delineate BVW boundary: fill out Sections I and II
- Method other than dominance test used (attach additional information)

Section I. Vegetation Observation Plot Number: 2 Transect Number: C Date of Delineation: 11/19/2021

A. Sample Layer and Plant Species (by common/scientific name)			B. Percent Cover (or basal area)	C. Percent Dominance	D. Dominant Plant (yes or no)	E. Wetland Indicator Category *	
Herbaceous:	Sensitive Fern	<i>Onoclea sensibilis</i>	10.5	54%	Yes	FACW	*
	Spinulose Woodfern	<i>Dryopteris spinulosa</i>	3.0	15%	No	FAC+	*
	Sedge	<i>Carex sp.</i>	3.0	15%	No	FACW+	*
	Royal Fern	<i>Osmunda regalis</i>	3.0/19.5	15%	No	OBL	*
Shrubs:	Highbush Blueberry	<i>Vaccinium corymbosum</i>	10.5	30%	Yes	FACW-	*
	European Buckthorn	<i>Rhamnus frangula</i>	10.5	30%	Yes	FAC	*
	Winterberry	<i>Ilex verticillata</i>	10.5	30%	Yes	FACW+	*
	Buttonbush	<i>Cephalanthus occidentalis</i>	3.0/34.5	9%	No	OBL	*
Saplings:	Red Maple	<i>Acer rubrum</i>	20.5/20.5	100%	Yes	FAC	*
Lianas:	Poison Ivy	<i>Toxicodendron radicans</i>	10.5/10.5	100%	Yes	FAC	*
Overstory:	Red Oak	<i>Quercus rubra</i>	1615.4	81%	Yes	FACU-	
	White Pine	<i>Pinus strobus</i>	226.3	11%	No	FACU	
	Tupelo	<i>Nyssa sylvatica</i>	131.1	7%	No	FACW+	*
	Red Maple	<i>Acer rubrum</i>	28.7/2001.5	1%	No	FAC	*

* Use an asterisk to mark wetland indicator plants: plant species listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus *Sphagnum*; plants listed as FAC, FAC+, FACW-, FACW, FACW+, or OBL; or plants with physiological or morphological adaptations. If any plants are identified as wetland indicator plants due to physiological or morphological adaptations, describe the adaptation next to the asterisk.

Vegetation conclusion:

Number of dominant wetland indicator plants: 6 Number of dominant non-wetland Indicator plant: 1

Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? YES

**Section II. Indicators of Hydrology
Hydric Soil Interpretation**

1. Soil Survey

Is there a published soil survey for this site? **YES**

title/date: Middlesex County 9/02/2021

map number: 23

soil type mapped: Freetown muck

hydric soil inclusions:

Are field observations consistent with soil survey? **YES**

Remarks:

2. Soil Description

Horizon	Depth	Matrix Color	Mottles Color
O _A	0-14"	10 YR 2/1	
B _G	14-18"	10 YR 4/2	

Remarks:

3. Other: 19' 1" to Wetland Flag # 346
9' 1" to Wetland Flag # 347
13' 2" Downgradient from C1

Conclusion: Is soil hydric? **YES**

Other Indicators of Hydrology: (check all that apply and describe)

- Site inundated: _____
- Depth to free water in observation hole: 5"
- Depth to soil saturation in observation hole: 0"
- Water marks: _____
- Drift lines: _____
- Sediment deposits: _____
- Drainage patterns in BVW: _____
- Oxidized rhizospheres: _____
- Water-stained leaves: _____
- Recorded data (stream, lake, or tidal gauge; aerial photo; other):
Elizabeth Brook
- Other: _____

Vegetation and Hydrology Conclusion

	Yes	No
Number of wetland indicator plants ≥ number of non-wetland indicator plants	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Wetland hydrology present: hydric soil present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
other indicators of hydrology present	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Sample location is in a BVW	<input checked="" type="checkbox"/>	<input type="checkbox"/>

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Resource Area Delineation Plan
By Stamski and McNary, Inc.