



**NORSE ENVIRONMENTAL SERVICES, INC.**

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**Website: [www.norseenvironmental.com](http://www.norseenvironmental.com)**

August 18, 2019

Northborough Conservation Commission  
Northborough Town Hall  
63 Main Street  
Northborough, MA 01532

Re: Wetland Border Report  
0 Hudson Street, Northborough, MA

Dear Northborough Conservation Commission:

On August 18, 2019, wetland resources were delineated on land located at the above referenced site. One Bordering Vegetated Wetland was delineated with foil tags/pink flags labeled with the series A1-A54. This wetland is dominant in sensitive fern, sedges, rushes, loosestrife, goldenrod, dogwood and red maple. The adjacent upland is dominant in goldenrod, Japanese knotweed, rose, black raspberry and upland grasses. Department of Environmental Protection BVW field data forms were documented at wetland flag # A11 (see attached forms).

The Mean Annual High Water of a mapped perennial stream was also delineated on site with flag series MAHW 1-11. The top of Bank of the river corresponded with the MAHW line. The river banks are 6-12 inches in height and are vegetated with ferns, dogwood, and sedges.

According to the Mass GIS data layers for NHESP, this site not is located within Estimated and/or Priority Habitat of Rare Wildlife, and no mapped potential or certified vernal pools are located on site. The site is not located in an ACEC; but is located in a jurisdictional FEMA Flood Zone which means the resource area Bordering Land Subject to Flooding is located from the wetland line up to the 100-year FEMA flood elevation.

Any work within the resource area (BVW or BLSF) and/or the 100-foot BVW buffer zone requires a Request for Determination (RDA) or Notice of Intent (NOI) be filed with the Conservation Commission. If you need further assistance with permitting, please call us we would be happy to assist.

Sincerely,

Steve Eriksen  
Norse Environmental Services, Inc

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

Applicant: \_\_\_\_\_  
 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)

Prepared by: Steve Eriksen  
 Project location: 0 Hudson St, Northboro

DEP File #: \_\_\_\_\_

Section I. Vegetation		Transsect Number: <u>Upgradient</u>	Date of Delineation: <u>18-Aug-19</u>
Sample Layer and Plant Species	Scientific name	% Cover	% Dominance
<u>Tree Layer</u>			Dominant Plant (yes or no)
			Wetland Indicator Category*
<u>Sapling Layer</u>			
<u>Shrub Layer</u>	<i>Reynoutria japonica</i> <i>Rubus allegheniensis</i>	63% 20%	75.9% 24.1%
			Yes Yes
			FACU FACU
<u>Climbing Woody Vine</u>			
<u>Ground Cover</u>	<i>Reynoutria japonica</i> <i>Solidago sp.</i>	36% 10%	78.3% 21.7%
			Yes Yes
			FACU NI
<p><b>Remarks:</b> * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth</p> <p><b>Morphological Adaptations:</b> 0</p> <p>* An asterisk after indicator status denotes wetlands plants: plants listed in the Wetlands Protection Act (MGL c.131, s.40); plants in the genus <i>Sphagnum</i>; or plants listed as FAC, FACW, or OBL.</p> <p><b>Vegetation conclusion:</b></p> <p><b>Number of dominant wetland indicator plants: 0</b></p> <p><b>Number of dominant non-wetland indicator plants: 4</b></p> <p><b>Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? no</b></p>			

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

**Section II. Indicators of Hydrology**

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site?  yes  no

title/date: Soil Survey of Worcester County, Northeastern Part - 1985

map number: \_\_\_\_\_

soil type mapped: Merrimac fine sandy loam

hydric soil inclusions: \_\_\_\_\_

Are field observations consistent with soil survey?  yes  no

Remarks: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
A	1-10	10YR2/2	
B	10-20	10YR3/2	10YR5/6

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Remarks: \_\_\_\_\_

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

3. Other:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Conclusion: Is soil hydric?  yes  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 BWV: \_\_\_\_\_
- Oxidized rhizospheres: \_\_\_\_\_
- Water-stained leaves: \_\_\_\_\_
- Recorded data (stream, lake, or tidal gauge; aerial photo; other): \_\_\_\_\_
- Other: \_\_\_\_\_

**Vegetation and Hydrology Conclusion for Upgradient of A-11**

yes no

Number of wetland indicator plants  
 >= number of non-wetland plants

X

Wetland hydrology present:

hydric soils present

X

other indicators of hydrology present

X

Sample location is in a BWV

X

*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: \_\_\_\_\_  
 Check all that apply:

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

Project location: 0 Hudson St, Northboro

DEP File #: \_\_\_\_\_

Section I. Vegetation		Transect Number: <b>Downgradient</b>	Date of Delineation: <b>18-Aug-19</b>
Sample Layer and Plant Species	Scientific name	% Cover	% Dominance
Tree Layer			Dominant Plant (yes or no)
Shrub Layer			Wetland Indicator Category*
<u>Sapling Layer</u>			
<u>Shrub Layer</u> Silky dogwood	<i>Cornus amomum</i>	36%	100.0%  Yes  FACW*
<u>Climbing Woody Vine</u>			
<u>Ground Cover</u> Sensitive fern Sweet-scented Joe-pye-weed	<i>Onoclea sensibilis</i> <i>Eutrochium purpureum</i>	63% 20%	75.9% 24.1%  Yes Yes  FACW* FAC*
<p><b>Remarks:</b> * An asterisk after common plant name indicates stunted growth; ** indicates extremely stunted growth</p>			
<p><b>Morphological Adaptations:</b> 0</p>			
<p>* 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.</p>			
<p><b>Vegetation conclusion:</b></p>			
<p><b>Number of dominant wetland indicator plants: 3</b></p>			
<p><b>Is the number of dominant wetland plants equal to or greater than the number of dominant non-wetland plants? yes</b></p>			
<p><b>Number of dominant non-wetland indicator plants: 0</b></p>			
<p><b>Is the number of dominant non-wetland plants equal to or greater than the number of dominant non-wetland indicator plants? yes</b></p>			
<p><i>If vegetation alone is presumed adequate to delineate the BWV boundary, submit this form with the Request for Determination of Applicability or Notice of Intent.</i></p>			

**Section II. Indicators of Hydrology**

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site?  yes  no

title/date: Soil Survey of Worcester County, Northeastern Part - 1985  
map number: \_\_\_\_\_

soil type mapped: Wapole  
hydric soil inclusions: \_\_\_\_\_

Are field observations consistent with soil survey?  yes  no  
Remarks: \_\_\_\_\_

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color or Texture
O	1-10	10YR2/2	10YR5/6
C	10-20	10YR6/1	

Remarks: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

3. Other: \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Conclusion: Is soil hydric?  yes  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: \_\_\_\_\_

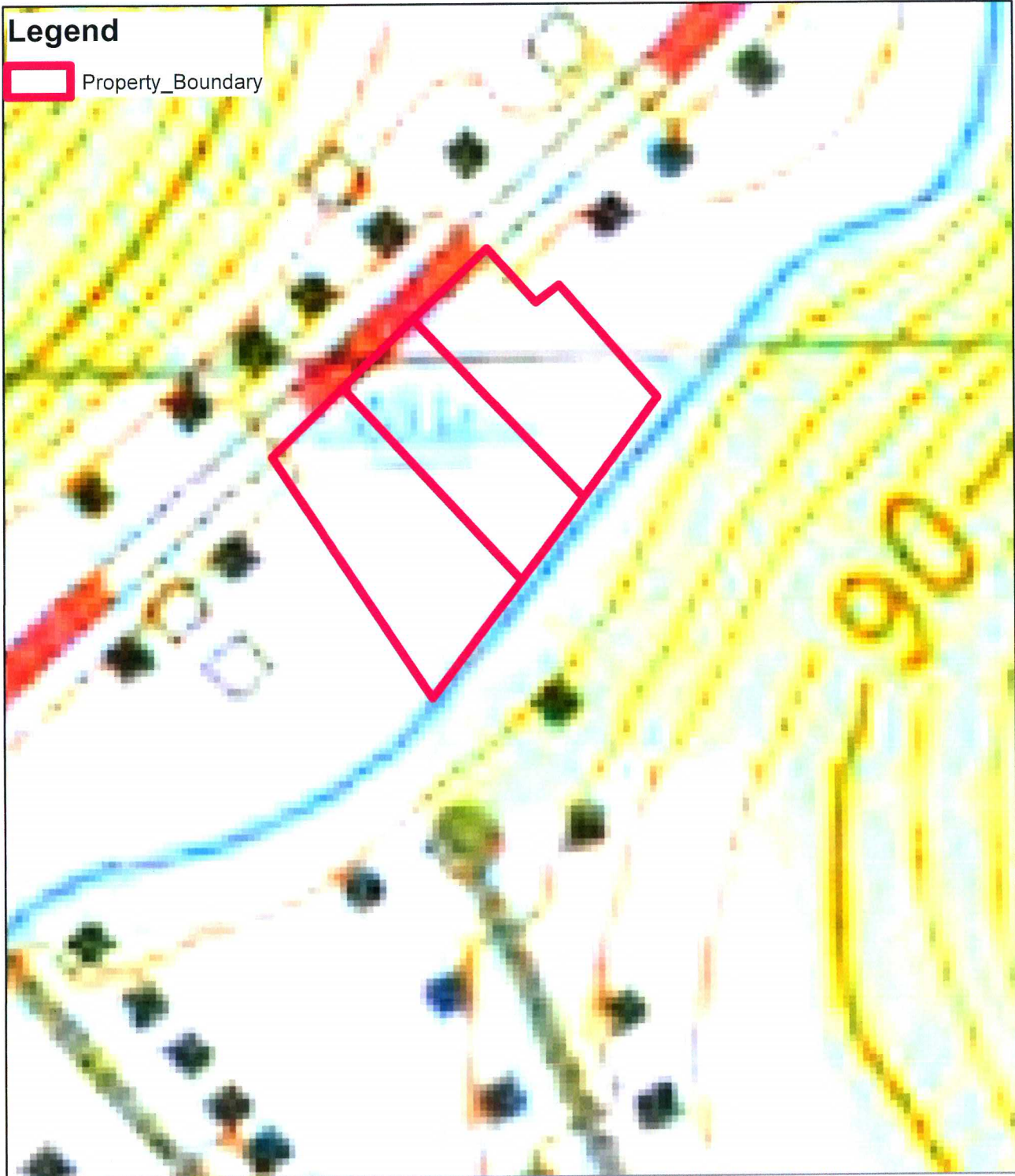
**Vegetation and Hydrology Conclusion for Downgradient of A-11**

	yes	no
Number of wetland indicator plants >= number of non-wetland plants	X	
Wetland hydrology present: hydric soils present	X	
other indicators of hydrology present	X	
<b>Sample location is in a BVW</b>	X	

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

**Legend**

 Property\_Boundary



**USGS Site Locus**

0 Hudson Street, Northborough, MA 01532

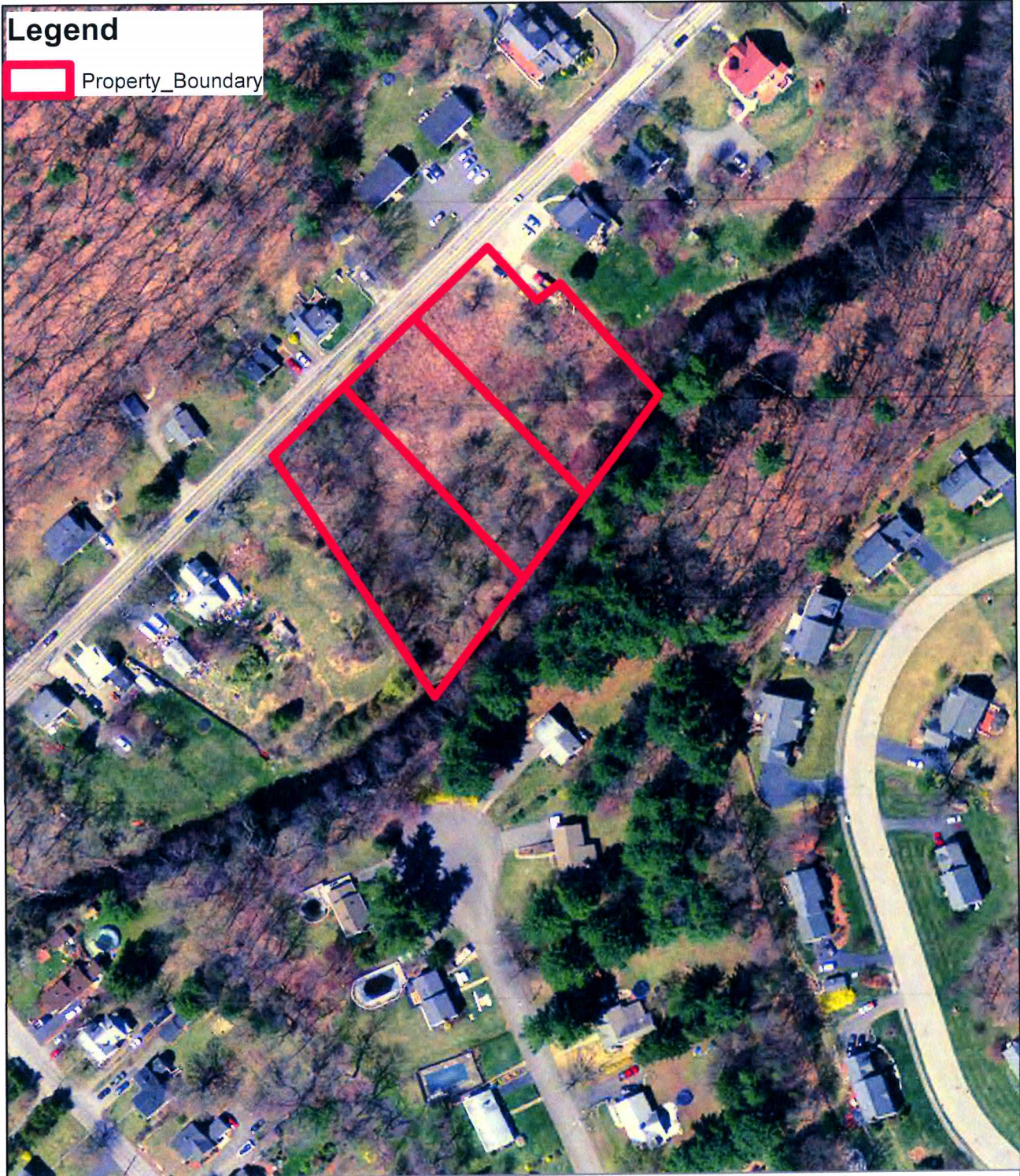


1 inch = 150 feet  
Date: 4/18/18

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



**Legend**  
Property\_Boundary



### Ortho Image of Site

0 Hudson Street, Northborough, MA 01532



1 inch = 150 feet  
Date: 4/18/18

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