



## Caron Environmental Consulting

978-874-5469

Wetlands • Forestry • Permitting • Habitat Studies

December 9, 2010

Acton Conservation Commission  
472 Main Street  
Acton, MA 01770

Re: Lot 3 Robbins Street

Dear Commission Members:

In response to issues raised by the Commission during your site walk of the above-referenced site, we returned to the site to more closely examine the wetland delineation. It is our understanding that the Commission was concerned that the wetland line between Flags B10 and B11 needs to be shifted upslope. We delineated the wetlands on the site on July 27, 2009.

We conducted an examination of this area on December 4, 2010. Delineation Data Plots were established 5 feet above and below the wetland line between Flags B10 and B11, and a detailed examination was made of the vegetation and soils. The Delineation Field Data Forms, and photographs of the plots and soils, are attached.

We observed that some wetland species are present on the upland side of the line, but the vegetation analysis for the data plots indicates that there are 6 upland versus 2 wetland indicator species that are dominant in the area. We also observed that many upland plants are straggling into the wetlands in this location. In fact, the evidence from the data plots could argue for moving the line down slope. On the wetland side of the line we found there are 4 upland versus 3 wetland dominant indicator species.

The soils, however, reveal a distinct and sharp change from upland to hydric conditions between the two plots. Evidence of wet hydrologic conditions was not found on the upland side of the line within the upper two feet of the soil profile. There is a sharp change to reduced soil conditions just below two feet. On the wetland side of the line the soils are significantly (more than 5%) mottled to the surface and the B-horizon has a 2-chroma and is heavily mottled.

It is our opinion that the vegetation and soils as detailed on the data forms indicate that the original wetland delineation in this area is correct, and that the line does not need to be adjusted.

If you should have any questions in regards to this matter please feel free to contact us.

Very truly yours,

Charles E. Caron

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

Applicant: Centennial Homes Prepared by: Caron Environmental Consulting Project location: Lot 3 Robbins St, Acton 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: B10/11-U	Transect Number: B10/11	Date of Delineation: 7/27/09	
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*
<u>Herbs &amp; Seedlings</u>				
Hay-scented Fern ( <i>Dennstaedtia punctilobula</i> )	60	60	Yes	UPL
Cinnamon Fern ( <i>Osmunda cinnamomea</i> )	35	35	Yes	FACW*
Marginal Woodfern ( <i>Dryopteris marginalis</i> )	5	5	No	FACU
<u>Shrubs</u>				
Forsythia ( <i>Forsythia</i> spp.)	10	67	Yes	UPL
Winterberry ( <i>Ilex verticillata</i> )	5	33	Yes	FACW*
<u>Epiphytes</u>				
Bittersweet ( <i>Celastrus scandens</i> )	15	75	Yes	FACU
Fox Grape ( <i>Vitis labrusca</i> )	5	25	Yes	FACU
<u>Saplings</u>				
White Pine ( <i>Pinus strobus</i> )	10	100	Yes	FACU
<u>Trees</u>				
Red Oak ( <i>Quercus rubra</i> )	2.095	85	Yes	FACU
White Pine ( <i>Pinus strobus</i> )	0.372	15	No	FACU

\* Use an asterisk to mark wetland indicator plants

**Vegetation conclusion:**  
 Number of dominant wetland indicator plants: 2      Number of dominant non-wetland indicator plants: 6  
 Is the number of dominant wetland indicator plants equal to or greater than the number of dominant non-wetland indicator plants?    No

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.

MA DEP; 3/95

**Section II. Indicators of Hydrology** Plot B10/11-U

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site?  Yes  No  
 Title/date: Middlesex County Massachusetts Interim Soil Survey  
 Report  
 Map number: 29/34  
 Soil type mapped: 7B- Charlton-Hollis-Rock Outcrop Complex  
 Hydric soil inclusions:

Are field observations consistent with soil survey?  Yes  No  
 Remarks:

2. Soil Description

Horizon	Depth (inches)	Matrix Color	Mottles Color
A	0"-10"	10 YR 3/3	
Bw1	10"-18"	10 YR 5/6	less than 5% 10 YR 6/3 7.5 YR 5/6
Bw2	18"-22"	10 YR 5/4	5% -same
C1	22"-26"	2.5 Y 5/3	5% -same
C2	26"+	2.5 Y 6/2	10% 7.5 YR 5/6

Remarks:  
 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:

<b>Vegetation and Hydrology Conclusion</b>		
	Yes	No
Number of wetland indicator plants		
>/= number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" 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"/>
<b>Sample location is in a BVW</b>	<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: Centennial Homes Prepared by: Caron Environmental Consulting Project location: Lot 3 Robbins St, Acton 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: B10/11-W	Transect Number: B10/11	Date of Delineation: 7/27/09	
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*
<u>Herbs &amp; Seedlings</u>				
Cinnamon Fern ( <i>Osmunda cinnamomea</i> )	25	56	Yes	FACW*
Marginal Woodfern ( <i>Dryopteris marginalis</i> )	10	22	Yes	FACU
Hay-scented Fern ( <i>Dennstaedtia punctilobula</i> )	10	22	Yes	UPL
<u>Shrubs</u>				
Winterberry ( <i>Ilex verticillata</i> )	45	82	Yes	FACW*
Multiflora Rose ( <i>Rosa multiflora</i> )	10	18	No	FACU
<u>Epiphytes</u>				
Fox Grape ( <i>Vitis labrusca</i> )	5	100	Yes	FACU
<u>Saplings</u>				
White Pine ( <i>Pinus strobus</i> )	30	100	Yes	FACU
<u>Trees</u>				
Red Maple ( <i>Acer rubrum</i> )	3.077	95	Yes	FAC*
Sugar Maple ( <i>Acer saccharum</i> )	0.153	5	No	FACU

\* Use an asterisk to mark wetland indicator plants

**Vegetation conclusion:**  
 Number of dominant wetland indicator plants: 3      Number of dominant non-wetland indicator plants: 4  
 Is the number of dominant wetland indicator plants equal to or greater than the number of dominant non-wetland indicator plants?      No

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.

MA DEP; 3/95

**Section II. Indicators of Hydrology** Plot B10/11-W

Hydric Soil Interpretation

1. Soil Survey

Is there a published soil survey for this site?  Yes  No  
 Title/date: Middlesex County Massachusetts Interim Soil Survey  
 Report  
 Map number: 29/34  
 Soil type mapped: 32B-Ridgebury 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
A	0"-8"	2.5 Y 3/2	5% 5 YR 4/6 10 YR 5/2
B	8"-16"+	2.5 Y 6/2	15% 7.5 YR 5/6 10 YR 5/1

Remarks:

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:

<b>Vegetation and Hydrology Conclusion</b>		
	Yes	No
Number of wetland indicator plants		
>/= number of non-wetland indicator plants	<input type="checkbox"/>	<input checked="" 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"/>
<b>Sample location is in a BVW</b>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

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

**DELINEATION DATA PLOT PHOTOGRAPHS  
LOT 3 ROBBINS STREET  
ACTON, MA  
DECEMBER 4, 2010**



Photo 1: Uplands at Plot B10/11



Photo 2: Soil Profile at Plot B10/11



Photo 3: Wetlands at Plot B10/11



Photo 4: Soil Profile at Plot B10/11