



55 Leroy Road, Suite 15  
Williston, VT 05495  
Tel: 802-497-3653 Fax: 802-497-3656

October 12<sup>th</sup>, 2016

Shannon Morrison  
District Wetland Ecologist  
Vermont Department of Environmental Conservation  
Watershed Management Division  
One National Life Drive, Main Bldg., 2nd Floor  
Montpelier, VT 05620

**Re: Waterbury Bridge No. 203 VT Rte 100  
Vermont General Wetland Permit Application**

Ms. Morrison:

EIV Technical Services has prepared the enclosed Vermont General Wetland Permit Application in regards to the above-referenced project. We have also attached relevant plans and location maps. Feel free to contact me with any further questions.

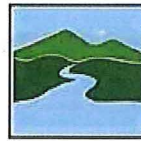
Regards,

A handwritten signature in black ink, consisting of a series of loops and a long horizontal stroke at the end.

Emmalee Cherington, CPESC  
Wetland Scientist / Environmental Engineer

**Vermont Wetlands Program  
General Permit Qualification Form**

Under Sections 9  
of the Vermont Wetland Rules



VERMONT DEPARTMENT OF  
ENVIRONMENTAL CONSERVATION  
**WATERSHED  
MANAGEMENT DIVISION**  
WETLANDS PROGRAM

**1. General Permit Eligibility Checklist:**

*If you cannot verify all of the following, stop and proceed to the Individual Permit Application.*

- The activity does not qualify as an Allowed Use under [Section 6](#) of the Vermont Wetland Rules.
- The activity does not need additional conditions to protect functions and values.
- All impacts have been avoided and minimized to the greatest extent possible.
- The wetland complex is not significant for Function 5.5 Exemplary Wetland Natural Community or 5.6 Rare, Threatened and Endangered Species Habitat, or applicant has received a waiver letter from VT Fish and Wildlife. (attach waiver)
- The activity is not located in or adjacent to a [vernal pool, fen, or bog](#).
- The wetland is not at or above 2,500' in elevation (headwaters wetland).
- The project is not located in a Class I wetland or associated buffer zone.
- The activity is not an as-built project that constitutes a violation of the Vermont Wetland Rules.
- The activity is not associated with an activity which received a Wetland Permit.

**2. Project Type** *(as described in the General Permit)*

Linear Project (linear facilities)

**3. Wetland Type Proposed for Impact**

Managed Area      <Choose Secondary>

**4. 50ft Wetland Buffer Proposed for Impact**

Managed Area      <Choose Secondary>

**5. Activity Threshold** *based on the selections above, select the appropriate threshold. If the activity is greater than the thresholds below, stop and proceed to the Individual Permit Application. eg: Project type is non-linear, wetland and buffer type is managed and natural, and total impacts are 700 sqft → choose option (d) below.*

- (a) The total activity impacts proposed are <3,000 square feet of managed wetland or buffer **and** will not exceed 999 square feet of natural wetland or buffer **and** will not exceed 149 square feet of surface water margins.
- (b) The activity is associated with a linear project **and** total activity impacts proposed are <5,000 square feet of managed wetland or buffer **and** will not exceed 2,999 square feet of natural wetland or buffer **and** will not exceed 149 square feet of surface water margins.

**6. Section 8B Specific Activity Best Management Practices** *All permittees covered under the VT Wetland General Permit must implement best management practices (BMP) under section V. of the permit. Here, identify if the proposed activity must implement special BMPs in accordance with Section 8B*

- 8B(a) Placement, relocation, removal, or upgrade of overhead utility lines
- 8B(b) Installation of underground facilities including utilities, dry hydrants, foundation drains, and wells
- 8B(c) Activities in surface water body margins
- None Apply

The Secretary may require a person applying for an authorization under a general permit to apply for an individual permit. VWR §9.8. Contact your District Ecologist to verify eligibility before submittal.

## Vermont Wetlands Program Permit Application Database Form

Under Sections 8 and 9  
of the Vermont Wetland Rules



Application Submittal Instructions
<ul style="list-style-type: none"> <li>■ If submitting via US post, include a check in the correct fee amount made payable to the "State of Vermont," and a CD for applications that contain large files (1 MB or greater).                             <p style="margin-left: 40px;"><b>Mail to:</b> Vermont Wetlands Program Watershed Management Division One National Life Drive, Main 2 Montpelier, VT 05620-3522</p> </li> <li>■ Applications can also be submitted via email to the following address: <a href="mailto:anr.wsmdwetlands@vermont.gov">anr.wsmdwetlands@vermont.gov</a> <ul style="list-style-type: none"> <li>■ If submitting via email, please mail a check in the correct fee amount, made payable to the "State of Vermont," and a copy of the Vermont Wetlands Program Application Database Form (this page) to the address provided above. <b><i>It is not necessary to mail in a copy of the complete application.</i></b></li> </ul> </li> </ul>

<b>Applicant Name:</b> Vermont Agency of Transportation	<b>Application Preparer Name:</b> Emmalee Cherington
<b>Town where project is located:</b> Waterbury	<b>County:</b> Washington
<b>Span#:</b>	<b>Vermont Wetlands Project (VWP)# if Known:</b>
<b>Project Location Description:</b> Bridge #203 is located on VT Route 100, 140 feet south of Bittersweet Lane (5 miles 911 street address or direction from nearest intersection north of the intersection of VT Route 2)	
<b>Brief Project Summary:</b> The current steel culvert was installed in 1932 for small stream/steep passage. The culvert is now extremely deteriorated and rated in poor condition. The proposed project will install liner sections and grout between the host pipe and the liner. The project additionally requires installation of a 100' x 16' temporary access at the inlet portion of the culvert.	
<b>Application Type:</b> <input type="checkbox"/> Individual Permit (multiple wetlands) <input type="checkbox"/> After the Fact Permit <input type="checkbox"/> Wetland Determination <input type="checkbox"/> Individual Permit (single wetland) <input checked="" type="checkbox"/> General Permit Coverage Authorization <input type="checkbox"/> Permit Amendment: VWP Project # _____	
<b>Existing Land Use Type(s):</b> (Check all that apply) <input type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial	
<b>Proposed Land Use Type(s):</b> (Check all that apply) <input type="checkbox"/> Residential (single family) <input type="checkbox"/> Residential (subdivision) <input type="checkbox"/> Undeveloped <input type="checkbox"/> Agriculture <input checked="" type="checkbox"/> Transportation <input type="checkbox"/> Forestry <input type="checkbox"/> Parks/Rec/Trail <input type="checkbox"/> Institutional <input type="checkbox"/> Industrial/Commercial	
<b>Proposed Impact Type(s):</b> (Check all that apply) <input type="checkbox"/> Buildings <input type="checkbox"/> Utilities <input type="checkbox"/> Parking <input type="checkbox"/> Septic/Well <input checked="" type="checkbox"/> Stormwater <input type="checkbox"/> Driveway <input type="checkbox"/> Park/Path <input type="checkbox"/> Agriculture <input type="checkbox"/> Pond <input type="checkbox"/> Lawn <input type="checkbox"/> Dry Hydrant <input type="checkbox"/> Beaver Dam Alteration <input type="checkbox"/> Silviculture <input checked="" type="checkbox"/> Road <input type="checkbox"/> Aesthetics <input type="checkbox"/> No Impact <input checked="" type="checkbox"/> Other: <u>Culvert Liner</u>	
<b>Wetland and Buffer Impact Type:</b> (Check all that apply) <input type="checkbox"/> Dredge <input type="checkbox"/> Drain <input checked="" type="checkbox"/> Cut Vegetation <input checked="" type="checkbox"/> Stormwater <input type="checkbox"/> Trench/Fill <input type="checkbox"/> Other: _____	
<b>Wetland Delineation Date(s):</b> 5/15/2016	

Wetland Improvements	Buffer Zone Improvements	Reason for Improvements
Restoration: s.f.	Restoration: s.f.	<input type="checkbox"/> Correction of Violation
Creation: s.f.	Creation: s.f.	<input type="checkbox"/> To offset permit impacts
Enhancement: s.f.	Enhancement: s.f.	<input type="checkbox"/> Voluntary
Conservation: s.f.	Conservation: s.f.	

Wetland Impact Fee Calculations: Round to the nearest square foot. Fees will auto-calculate.			
Total Wetland Impact (minus linear clear, including ATF)	900 square feet (s.f.)	Wetland Impact Fee: (\$0.75/sf)	\$ 675.00
Total Wetland Clearing (qualified linear projects only)	square feet (s.f.)	Wetland Clearing Fee: (\$0.25/sf)	\$ 0.00
After The Fact Wetland Impact (to correct a violation)	square feet (s.f.)	After the Fact Wetland Fee: (0.75/sf) <i>(Required for after the fact permit applications)</i>	\$ 0.00

Total Buffer Zone Impacts and Calculations: Round to the nearest square foot			
Total Buffer Zone Impact	800 square feet (s.f.)	Buffer Impact Fee: (\$0.25/sf)	\$ 200.00

Additional Fees			
	Agricultural Crop Conversion <i>Check here:</i> <input type="checkbox"/>	<i>(Flat fee of \$200.00)</i>	\$ 0.00
		Minimum Application Fee: (\$50.00) <i>Required when total impact fee is less than \$50.00</i>	\$ 0.00
		Administrative Fee:	\$ 240.00

<b>Make Checks Payable to: State of Vermont</b>	<b>Total Check Amount:</b> \$ 1,115.00
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**Application for Authorization Under  
the Vermont General Wetland Permit  
and Determination Petition**  
Under Sections 8 and 9  
of the Vermont Wetland Rules

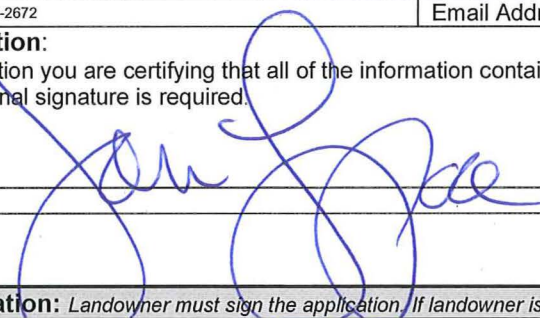


**Applicant Information:** *If the applicant is someone other than the landowner, the landowner information must be included below*

Applicant Name: John Lepore representing Vermont Agency of Transportation

Address: One National Life	City/Town: Montpelier	State: VT	Zip: 05633-5001
Phone Number: (802) 828-2672	Email Address: john.lepore@vermont.gov		

**Applicant Certification:**  
By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.

Applicant Signature:  Date: 10/13/2016

**Landowner Information:** *Landowner must sign the application. If landowner is different from the applicant this section must be filled out*

**Check this box if landowner is the same as the applicant**

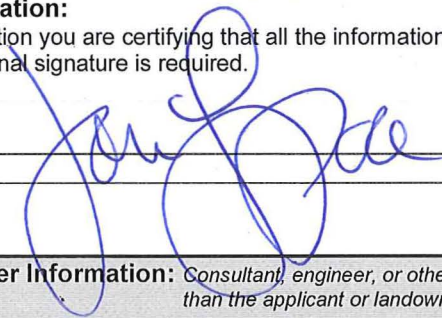
Landowner Name: \_\_\_\_\_

Address: _____	City/Town: _____	State: _____	Zip: _____
Phone Number: _____	Email Address: _____		

Landowner Easement: *Attach copies of any easements, agreements, or other documents conveying permission, and agreement with the landowner stating who will be responsible for meeting the terms and conditions of the permit. List the attachment for this information in this section. Describe the nature of the agreement or easement in the space provided below:*

\_\_\_\_\_

**Landowner Certification:**  
By signing this application you are certifying that all the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.

Landowner Signature:  Date: 10/13/2016

**Application Preparer Information:** *Consultant, engineer, or other representative that is responsible for filling out the application, if other than the applicant or landowner.*

Application Preparer Name: Emmalee Cherington

Address: 55 Leroy Rd, Suite 15	City/Town: Williston	State: VT	Zip: 05495
Phone Number: (802) 497-3653	Email Address: echangington@eivtech.com		

**Application Preparer Certification:**  
By signing this application you are certifying that all of the information contained within is true, accurate, and complete to the best of your knowledge. Original signature is required.

Application Preparer Signature: \_\_\_\_\_ Date: \_\_\_\_\_

*Handwritten signatures are also accepted.*

**1. Location of wetland and project:** (Individual Permit Application [IPA] Section 1)   
 Location description should include the road the wetland is located on, the compass direction of the wetland in relation to the road, 911 street address if available, and any other distinguishing features.

Bridge # 203 is located on VT Route 100, 5 miles north of VT Route 2. The wetland is located on each side of the bridge.

**2. Program Contact:** (IPA Section 2)   
 Indicate here if you have been in contact with the Wetlands Program before the application submittal.

<b>2.1 Date of Interaction with State Wetland Ecologist</b>	<b>2.2. State Wetland Ecologist Name</b>
May 28, 2016	Shannon Morrisson

**3. Wetland Classification:** (IPA Section 3)

**3.1. The wetland is a class II wetland because:** (IPA Section 3.1)

The wetland is contiguous to a VSWI mapped wetland

**3.2. Section 4.6 Presumption** (IPA Section 3.2)   
 If the wetland meets the Section 4.6 Presumption, it does so because:

<Choose One>  
 <Choose One>  
 <Choose One>

**4. Description of Entire Wetland:** (IPA Section 4)  
 Answer the following questions regarding the entire wetland, which includes all wetland areas connected to the wetland area proposed for impact. Answers may be estimates based on desktop review when wetland extends past the investigation area (parcel boundary). Specific questions about the wetland in the project area will follow.

**4.1. Size of Complex in Acres:** (IPA Section 4.1)   
 The size of the complex can be obtained from the Wetland Inventory Map for mapped wetlands, or best estimation based on review of aerial photography or site visit. This is not the size of the delineated wetland on the subject property unless the entirety of the wetland is represented in the delineation.

1.3368 acres

**4.2. Vegetation Cover Types Present:** (IPA Section 4.2)   
 List all wetland types in the entire wetland and their percent cover.  
**For example:** 50 acres of softwood forested swamp; or 30% scrub swamp, 70% emergent wetland

100 % shallow emergent marsh

**4.3. Pre-project Cumulative Impacts to the Wetland:** (IPA Section 4.7)   
 Identify any cumulative ongoing impacts outside of the proposed project that may influence the wetland. **Examples include but are not limited to:** Wetland encroachments on and off the subject property, land use management in or surrounding the wetland, or development that influences hydrology or water quality. List any past Vermont Wetland Permits or CUD's related to this property.

Wetland is located at toe of slope of Route 100. The slope is mowed regularly by the district.

**5. Context of Subject Wetland:** (IPA Section 5.1)   
 Describe where the subject wetland is in the context of the larger wetland or wetland complex described above. **For example:** Upslope/downslope, narrow eastern "finger", 400 ft. from open water portion.

The subject wetland is located at the inlet of the culvert. The greater wetland complex is at the outlet, on the western side of VT Route 100.

**6. Subject Wetland Vegetation:** (IPA Section 5.3)   
 List dominant wetland vegetation cover type and associated dominant plant species. For example: emergent marsh with cattails; forested swamp dominated by red maple and yellow birch; shrub swamp dominated by speckled alder and peat moss; wet meadow dominated by reed canary grass.

Shallow emergent swamp dominated by Salix discolor, Spirea tomentosa and Carex stricta.

**7. Buffer Zone: (IPA Section 5.6)**  
*Describe the buffer zone of the subject wetland*

**7.1 Buffer Land Use: (IP Section 5.6.1)**  
*For example: Mowed shoulder, forested, old field, paved road, and residential lawns, etc.*  
*Describe any previous and ongoing disturbance in the buffer zone.*

The upland area bordering the wetland consists of medium sized Malus spp., Crataegus spp. and Ulmus Americana

**8. Wetland Function Summary: (IPA Section 6)**  
*Check which functions are present in the wetland complex*

<input checked="" type="checkbox"/> Flood/Storm Storage	<input type="checkbox"/> RTE Species
<input checked="" type="checkbox"/> Surface & Groundwater Protection	<input type="checkbox"/> Education & Research
<input type="checkbox"/> Fish Habitat	<input type="checkbox"/> Recreation/Economic
<input checked="" type="checkbox"/> Wildlife Habitat	<input type="checkbox"/> Open Space/Aesthetics
<input type="checkbox"/> Exemplary Natural Community	<input checked="" type="checkbox"/> Erosion Control

**9. Overall Project Description: (IPA Section 17)**

**9.1. Overall Project Purpose: (IPA Section 17.1)**  
*Description of the basic project.*  
*For example: six-lot residential subdivision; expansion of an existing commercial building, building a single family residence.*

The scope of work involved in this project includes lining the existing culvert with a 62 foot long 54" poly-coated steel liner. A 100' by 16' temporary access road will be installed at the inlet of the culvert.

**10. Project Details: (IPA Section 18)**  
*Provide details regarding specific impacts to the wetland and buffer zone.*

**10.1. Specific Impacts to Wetland and Buffer Zone Dimensions: (IPA Section 18.1)**  
*List portions of the project that will specifically impact the wetland or buffer zone and their dimensions.*  
*For example: driveway crossing with 16' wide fill, installation of buried sewer force main with 5' trench including fill footprint.*

A temporary access road will be built at the inlet of the existing culvert (100' x 16'). The road will be located within the wetland buffer zone, creating an impact of 50' x 16' (800 SF).

**10.2. Bridges and Culverts: (IPA Section 18.2)**  
*Culvert circumference, length, placement and shapes, or bridge details. List any stream alteration permits that are required or obtained where perennial streams or rivers are involved.*

The proposed culvert liner is 54" poly-coated, 62 ft long.  
 A stream alteration permit will not be required.  
 ACOE Section 404 Category 2 will be required.

**11. Wetland and Buffer Zone Impacts: (IPA Section 19)**

**11.1. Wetland Impacts: (IPA Section 19.1)**

Summarize the square footage of impact in the appropriate category. Round to nearest square foot

Permanent Wetland Fill		s.f.
Temporary Wetland Impact		s.f.
Other Permanent Wetland Impact <i>(this number includes clearing of woody vegetation, dredging, and does not include fill)</i>	900	s.f.
Total Wetland Impact:	900	s.f.

Describe in detail the proposed impact to wetlands

**For example:** Fill for road crossing, temporary impacts for trench and fill related to utility installation.

A group of Salix discolor will need to be removed in order to complete the work. Additionally, Stone Fill to alleviate scour will impact the wetland at the inlet (30' x 30' totaling 900 SF).

**11.2. Buffer Zone Impacts: (IPA Section 19.2)**

Summarize the square footage of impact in the appropriate category.

Temporary Buffer Impact	800	s.f.
Permanent Buffer Impact		s.f.
Total Buffer Impact:	800	s.f.

Describe in detail the proposed impact to buffer zones

**For example:** Addition of fill along roadway embankment extending into buffer zone.

A portion of the temporary access road necessary for installing the liner will impact the buffer zone in an area of 50' x 16', totaling 800 SF.

**11.3. Cumulative Impacts: (IPA Section 19.3)**

List any potential cumulative or ongoing, direct and indirect impacts on the functions of the wetland.

**For example:** Increased noise from parking lot, vegetation management, inputs from stormwater pond outlet, reduction in flood storage volume from the addition of fill from the project.

The proposed project should not have any cumulative impacts on the function of the wetland. Currently, the culvert suffers from sever deterioration, potentially allowing erosion and scour and road failure.

<p><b>12. Mitigation Sequence:</b> (IPA Section 20)  <i>Please refer to Section 9.5b of the rules on Mitigation Sequencing for this section.</i></p>	
<p><b>12.1. Avoidance of Wetland Impacts:</b> (IPA Section 20.1)</p>	
<p><b>12.1.1. Can the activity be located on another site owned or controlled by the applicant, or reasonably available to satisfy the basic project purpose? If not, indicate why. Cite any alternative sites and explain why they were not chosen.</b></p>	<input type="checkbox"/>
<p>The access road was specifically located in to minimize the impacts on the greater wetland complex. This is the least obstructive method repair possible in terms of potential impact.</p>	
<p><b>12.1.2. Can the proposed activity be practicably located outside the wetland/buffer zone? If not, indicate why. Explain the alternatives you have explored for avoiding the wetland and buffer onsite, And why they are not feasible.</b></p>	<input type="checkbox"/>
<p>The current culvert requires replacement before there is significant failure at the road level. It will create less impact to install a liner into the current location than to install a new culvert.</p>	
<p><b>12.2. Avoidance to the Impact to Functions and Values:</b> (IPA Section 20.2)</p>	
<p><b>12.2.1. If the proposed activity cannot be practicably located outside the wetland/buffer zone, have all practicable measures been taken to avoid adverse impacts on protected functions?</b></p> <p style="text-align: center;"> <input checked="" type="checkbox"/> Yes      <input type="checkbox"/> No         </p>	<input type="checkbox"/>
<p><b>12.2.2. What design alternatives were examined to avoid impacts to wetland function?</b>  <i>For example: Use of matting, relocation of footprint, etc.</i></p>	<input type="checkbox"/>
<p>The area related to the temporary access road will be grubbed, seeded and mulched upon reaching finished grade. Additionally, the required bypass pumping will consist of a sump/sand bag dam that diverts water through the proposed liner in an effort to minimize additional scour.</p>	
<p><b>12.2.3. What steps have been taken to minimize the size and scope of the project to avoid impacts to wetland functions and values? Include information on project size reduction and relocation.</b></p>	<input type="checkbox"/>
<p>The project has been designed to install a liner as opposed to an entirely new culvert which would require a greater footprint and impact area due to the need to maintain traffic on VT 100.</p>	
<p><b>12.2.4. Explain how the proposed project represents the least impact alternative design. Explain why other alternatives, which you described above, were not chosen.</b></p>	<input type="checkbox"/>
<p>In order to install a new culvert or box culvert in this location, the road would have to be closed for an extended period of time. The project would require constructing a cofferdam in order to control the seeping water, the existing culvert would need to be removed, a new culvert installed and backfilled. The project footprint would be greatly larger than the existing proposal.</p>	



**13. Wetland Determination: (IP Section 21)**  
*If the application involves a wetland determination please answer the following.*

- Wetland is mapped or contiguous to the Vermont Significant Wetland Inventory Map
- Wetland is not mapped on or contiguous to the Vermont Significant Wetland Inventory Map

**13.1. Reason for Petition: (IP Section 21.1)**  
*Please choose one from the dropdown menu.*

<Choose One>

**13.3. Determination Narrative: (IP Section 21.2)**  
*Please provide any narrative to support the petition for a wetland determination here, including previous decisions by the Secretary or Water Board. Determinations are made based on an evaluation of the functions and values present. Here add narrative description on the functions listed in section 8 of this application and described in section 5 of the Vermont Wetland Rules. For example: Wetland provides water storage and surface water protection because it is large in size, concave, and naturally vegetated.*

**14. Supporting Materials: (IP Section 22)**

**\*\*ADDITIONAL MATERIALS REQUIRED TO CALL APPLICATION COMPLETE**

**14.1. \*\*Location Map: (IP Section 22.1)**  
*Provide a location map that is 8 1/2" x 11" and separate from any site plans. The Vermont Natural Resources Atlas is appropriate using USGS topography map base layer, roads, and VSWI wetlands.*

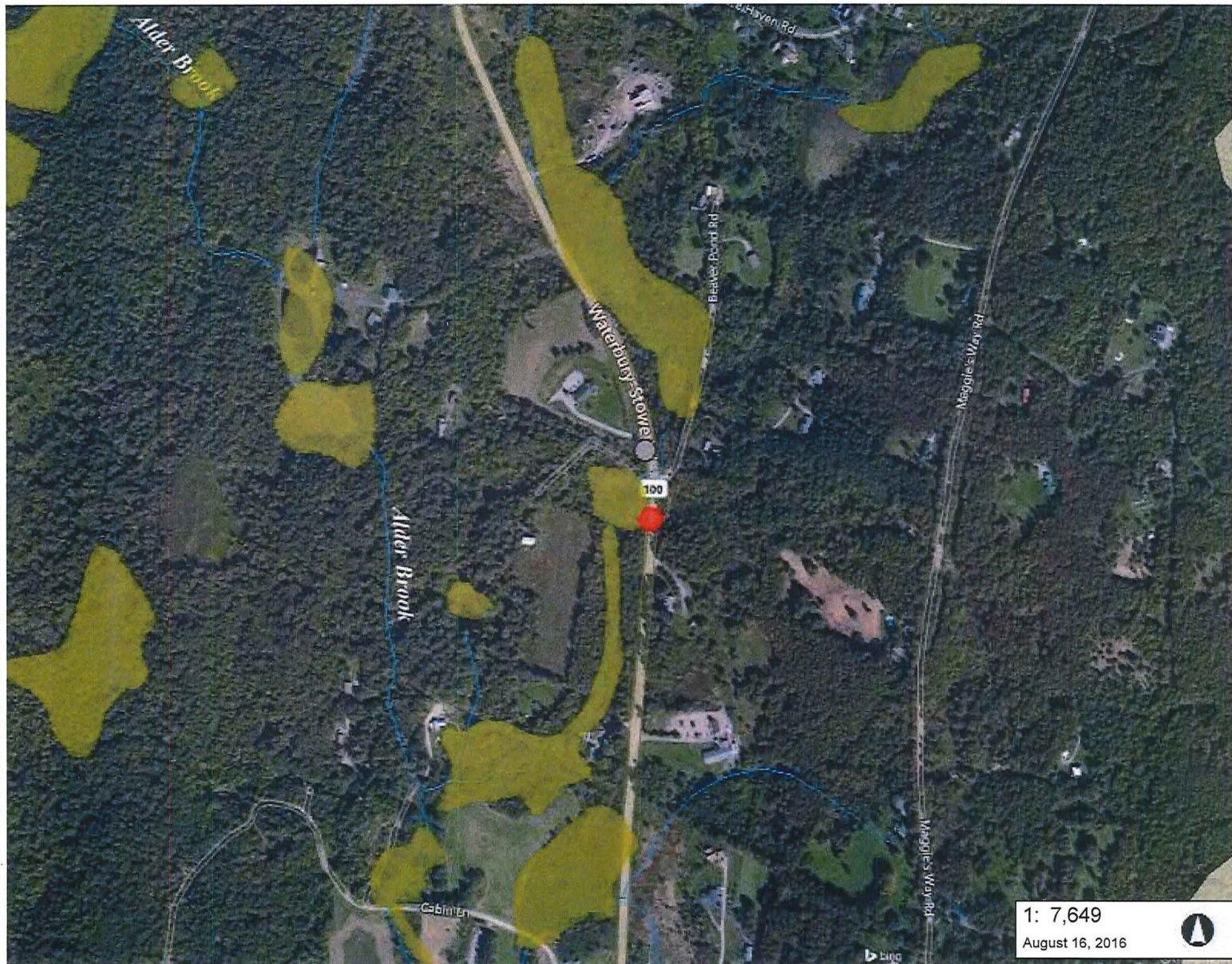
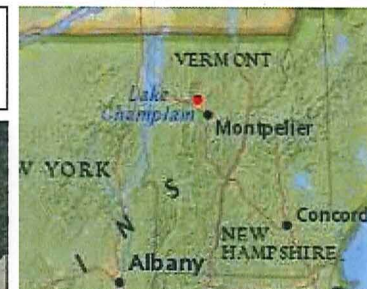
Date	Title
August 16, 2016	Waterbury Bridge 203

**14.2. \*\*Site Plan(s): (IP Section 22.2)**  
*Please list by date, date of last revision, author, and title. Plans must include wetland delineation and buffer zones, limits of disturbance, erosion controls, building envelopes, and any permanent memorialization.*

Title	Author	Date	Last Revision Date
Bridge Repair Plans	Jason Cloutier	7/12/2016	

**14.3. Other Supporting Documents: (IP Section 22.5)**  
*Provide any other documentation that supports the application. Examples include but are not limited to: Photographs, easements, agreements, restoration/plan, GIS shapefiles, additional ACOE forms.*

Date	Last Revision	Author	Title
5/15/2016		Scott Hance	Wetland Delineation Form- Upland
5/15/2016		Scott Hance	Wetland Delineation Form- Wetland
10/10/2016			Soils Map



### LEGEND

- Vernal Pools Confirmed – AEA
- Vernal Pools Unconfirmed – AI
- Wetlands - VSWI**
  - Class 1 Wetland
  - Class 2 Wetland
- Conserved Lands**
  - Housing and Conservation Board
  - Local Government
  - Private Organization
  - US Dept. of Defense
  - US Fish and Wildlife Service
  - US National Park Service
  - UVM and State Colleges
  - VT Dept. Buildings and General Se
  - VT Division for Historical Preservati
- Stream Crossings**
  - Fully Passable
  - Reduced Passage
  - Impassable except for Adult Trout
  - Impassable
  - Bridge/Arch (Fully Passable)
- Invasive Plant Atlas**
  - Acer platanoides
  - Berberis thunbergii
  - Euonymus alatus
- Rare Threatened Endangered**
  - Threatened or Endangered

1: 7,649  
August 16, 2016

389.0 0 194.00 389.0 Meters

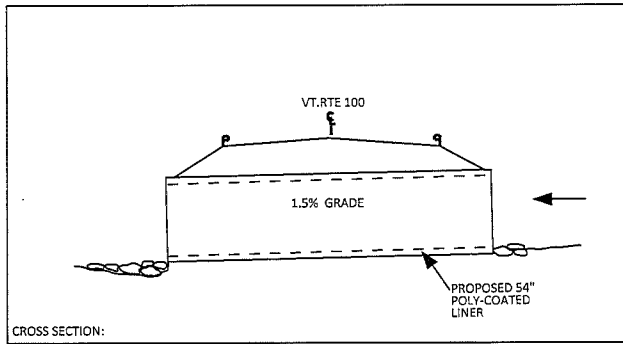
WGS\_1984\_Web\_Mercator\_Auxiliary\_Sphere 1" = 637 Ft. 1cm = 76 Meters

© Vermont Agency of Natural Resources THIS MAP IS NOT TO BE USED FOR NAVIGATION

**DISCLAIMER:** This map is for general reference only. Data layers that appear on this map may or may not be accurate, current, or otherwise reliable. ANR and the State of Vermont make no representations of any kind, including but not limited to, the warranties of merchantability, or fitness for a particular use, nor are any such warranties to be implied with respect to the data on this map.

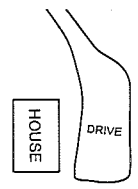
### NOTES




Map created using ANR's Natural Resources Atlas



STOWE

VT. 100



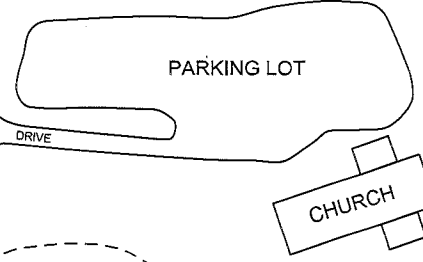
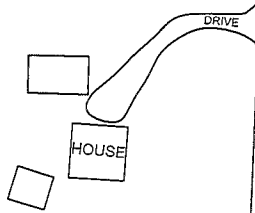
-  PERMANENT CLASS II WETLAND DISTURBANCE = 900 SF
-  PERMANENT DISTURBANCE = 400 SF
-  WETLAND BUFFER ZONE DISTURBANCE = 800 SF

TEMPORARY ACCESS  
(100' X 16')

WETLAND BUFFER  
ZONE DISTURBANCE  
(50' X 16' = 800SF)

PERMANENT  
DISTURBANCE  
CLASS II WETLAND  
(30' X 30' = 900SF)

SEEP AREA




WATERBURY CENTER

NOTES:

- (1) WATER BY-PASS SYSTEM WILL CONSIST OF SUMP/SAND BAG DAM AND 3" PUMP, PLUMBED THROUGH PROPOSED LINER, DAY LIGHTING PAST WORK AREA.

PLAN VIEW:

<b>STATE OF VERMONT AGENCY OF TRANSPORTATION</b>		DESIGN T. COUTNER
		CHECKED SF
		DATE 07/15/2018
BRIDGE REPAIR PLANS		SCALE N/A
TOWN OF WATERBURY		FILE
<b>VT RTE 100</b>		SHEET NO. 2 OF 2
BRIDGE # 203		

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Vermont Route 100 Bridge 89 City/County: Washington Sampling Date: 5/15/2016

Applicant/Owner: VTRANS State: VT Sampling Point: Wetland

Investigator(s): Scott Hance Section, Township, Range: Waterbury

Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): Concave Slope %: 3-8%

Subregion (LRR or MLRA): [Redacted] Lat: 44.4008333 Long: 72.7188888 Datum: \_\_\_\_\_

Soil Map Unit Name: Cabot silt loam NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes <u>x</u> No _____ Hydric Soil Present? Yes <u>x</u> No _____ Wetland Hydrology Present? Yes <u>x</u> No _____	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1) _____ Water-Stained Leaves (B9) <u>X</u> High Water Table (A2) _____ Aquatic Fauna (B13) <u>x</u> Saturation (A3) _____ Marl Deposits (B15) _____ Water Marks (B1) <u>x</u> Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2) _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3) _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4) _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5) _____ Thin Muck Surface (C7) <u>x</u> Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) <u>x</u> Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) <u>x</u> Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes <u>x</u> No _____ Depth (inches): <u>10</u> Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: Wetland

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A) Total Number of Dominant Species Across All Strata: <u>5</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1.																				
2.																				
3.																				
4.																				
5.																				
6.																				
7.																				
=Total Cover																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>30'</u> )					<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <thead> <tr> <th style="width:50%;">Total % Cover of:</th> <th style="width:50%;">Multiply by:</th> </tr> </thead> <tbody> <tr><td>OBL species <u>40</u></td><td>x 1 = <u>40</u></td></tr> <tr><td>FACW species <u>110</u></td><td>x 2 = <u>220</u></td></tr> <tr><td>FAC species <u>30</u></td><td>x 3 = <u>90</u></td></tr> <tr><td>FACU species <u>0</u></td><td>x 4 = <u>0</u></td></tr> <tr><td>UPL species <u>0</u></td><td>x 5 = <u>0</u></td></tr> <tr><td>Column Totals: <u>180</u> (A)</td><td><u>350</u> (B)</td></tr> <tr><td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>1.94</u></td></tr> </tbody> </table>	Total % Cover of:	Multiply by:	OBL species <u>40</u>	x 1 = <u>40</u>	FACW species <u>110</u>	x 2 = <u>220</u>	FAC species <u>30</u>	x 3 = <u>90</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>180</u> (A)	<u>350</u> (B)	Prevalence Index = B/A = <u>1.94</u>
Total % Cover of:	Multiply by:																			
OBL species <u>40</u>	x 1 = <u>40</u>																			
FACW species <u>110</u>	x 2 = <u>220</u>																			
FAC species <u>30</u>	x 3 = <u>90</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>180</u> (A)	<u>350</u> (B)																			
Prevalence Index = B/A = <u>1.94</u>																				
1. <u>Salix discolor</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>																	
2. <u>Spiraea tomentosa</u>	<u>30</u>	<u>Yes</u>	<u>FACW</u>																	
3.																				
4.																				
5.																				
6.																				
7.																				
=Total Cover																				
<b>Herb Stratum</b> (Plot size: <u>10'</u> )				<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain) <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
1. <u>Carex stricta</u>	<u>40</u>	<u>Yes</u>	<u>OBL</u>																	
2. <u>Onoclea sensibilis</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>																	
3. <u>Solidago sp.</u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
4.																				
5.																				
6.																				
7.																				
8.																				
9.																				
10.																				
11.																				
12.																				
=Total Cover																				
<b>Woody Vine Stratum</b> (Plot size: <u>5'</u> )				<b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
1.																				
2.																				
3.																				
4.																				
=Total Cover																				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No <u>    </u>																

**SOIL**

Sampling Point          Wetland         

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)								
Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-6	10yr 3/2	98	10yr 5/6	2	c	m		Prominent redox concentrations
6-10	10yr 4/2	100						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.      <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

- |  |  |  |
|--|--|--|
| <p><b>Hydric Soil Indicators:</b></p> <p><input type="checkbox"/> Histosol (A1)</p> <p><input type="checkbox"/> Histic Epipedon (A2)</p> <p><input type="checkbox"/> Black Histic (A3)</p> <p><input checked="" type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input type="checkbox"/> Depleted Below Dark Surface (A11)</p> <p><input type="checkbox"/> Thick Dark Surface (A12)</p> <p><input type="checkbox"/> Sandy Mucky Mineral (S1)</p> <p><input type="checkbox"/> Sandy Gleyed Matrix (S4)</p> <p><input type="checkbox"/> Sandy Redox (S5)</p> <p><input type="checkbox"/> Stripped Matrix (S6)</p> <p><input checked="" type="checkbox"/> Dark Surface (S7)</p> | <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Marl (F10) (LRR K, L)</p> | <p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</p> <p><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (F22)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |
|--|--|--|

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: _____</p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present?      Yes <input checked="" type="checkbox"/>      No <input type="checkbox"/></p>
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Remarks:

This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

**WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region**

Project/Site: Vermont Route 100 Bridge 89 City/County: Washington Sampling Date: 5/15/2016

Applicant/Owner: VTRANS State: VT Sampling Point: upland

Investigator(s): Scott Hance Section, Township, Range: Waterbury

Landform (hillside, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): Concave Slope %: 3-8%

Subregion (LRR or MLRA): [Redacted] Lat: 44.4008333 Long: 72.7188888 Datum: \_\_\_\_\_

Soil Map Unit Name: Cabot silt loam NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No \_\_\_\_\_ (If no, explain in Remarks.)

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes x No \_\_\_\_\_

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? (If needed, explain any answers in Remarks.)

**SUMMARY OF FINDINGS – Attach site map showing sampling point locations, transects, important features, etc.**

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>x</u> Wetland Hydrology Present? Yes _____ No <u>x</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> _____ Surface Water (A1)                      _____ Water-Stained Leaves (B9) _____ High Water Table (A2)                      _____ Aquatic Fauna (B13) _____ Saturation (A3)                                      _____ Marl Deposits (B15) _____ Water Marks (B1)                                      _____ Hydrogen Sulfide Odor (C1) _____ Sediment Deposits (B2)                              _____ Oxidized Rhizospheres on Living Roots (C3) _____ Drift Deposits (B3)                                      _____ Presence of Reduced Iron (C4) _____ Algal Mat or Crust (B4)                                      _____ Recent Iron Reduction in Tilled Soils (C6) _____ Iron Deposits (B5)                                      _____ Thin Muck Surface (C7) _____ Inundation Visible on Aerial Imagery (B7) _____ Other (Explain in Remarks) _____ Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> _____ Surface Soil Cracks (B6) _____ Drainage Patterns (B10) _____ Moss Trim Lines (B16) _____ Dry-Season Water Table (C2) _____ Crayfish Burrows (C8) _____ Saturation Visible on Aerial Imagery (C9) _____ Stunted or Stressed Plants (D1) _____ Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

**VEGETATION – Use scientific names of plants.**

Sampling Point: upland

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status																	
1. <u><i>Ulmus americana</i></u>	5	No	FACW	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)																
2. <u><i>Acer rubrum</i></u>	60	Yes	FAC																	
3. <u><i>Malus domestica</i></u>	40	Yes																		
4. <u><i>Crataegus</i></u>	10	No																		
5. _____																				
6. _____																				
7. _____																				
115 =Total Cover				<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>25</u></td> <td>x 2 = <u>50</u></td> </tr> <tr> <td>FAC species <u>82</u></td> <td>x 3 = <u>246</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>107</u> (A)</td> <td><u>296</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.77</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>25</u>	x 2 = <u>50</u>	FAC species <u>82</u>	x 3 = <u>246</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>107</u> (A)	<u>296</u> (B)	Prevalence Index = B/A = <u>2.77</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>25</u>	x 2 = <u>50</u>																			
FAC species <u>82</u>	x 3 = <u>246</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>107</u> (A)	<u>296</u> (B)																			
Prevalence Index = B/A = <u>2.77</u>																				
57 =Total Cover																				
<b>Sapling/Shrub Stratum (Plot size: <u>30'</u>)</b>																				
1. <u><i>Lonicera tatarica</i></u>	50	Yes																		
2. <u><i>Acer rubrum</i></u>	2	No	FAC																	
3. <u><i>Spiraea tomentosa</i></u>	5	No																		
4. _____																				
5. _____																				
6. _____																				
7. _____																				
57 =Total Cover																				
<b>Herb Stratum (Plot size: <u>10'</u>)</b>																				
1. _____																				
2. <u><i>Onoclea sensibilis</i></u>	20	Yes	FACW																	
3. <u><i>Solidago sp.</i></u>	20	Yes	FAC																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
40 =Total Cover																				
<b>Woody Vine Stratum (Plot size: <u>5'</u>)</b>																				
1. _____																				
2. _____																				
3. _____																				
4. _____																				
_____ =Total Cover																				
<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																				
				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																				
<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																				
Remarks: (Include photo numbers here or on a separate sheet.)																				



**SOIL**

Sampling Point upland

**Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)**

Depth (inches)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
0-10	7.5Yr 4/3	100						

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. <sup>2</sup>Location: PL=Pore Lining, M=Matrix.

<b>Hydric Soil Indicators:</b> <input type="checkbox"/> Histosol (A1) <input type="checkbox"/> Histic Epipedon (A2) <input type="checkbox"/> Black Histic (A3) <input type="checkbox"/> Hydrogen Sulfide (A4) <input type="checkbox"/> Stratified Layers (A5) <input type="checkbox"/> Depleted Below Dark Surface (A11) <input type="checkbox"/> Thick Dark Surface (A12) <input type="checkbox"/> Sandy Mucky Mineral (S1) <input type="checkbox"/> Sandy Gleyed Matrix (S4) <input type="checkbox"/> Sandy Redox (S5) <input type="checkbox"/> Stripped Matrix (S6) <input type="checkbox"/> Dark Surface (S7)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B) <input type="checkbox"/> High Chroma Sands (S11) (LRR K, L) <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L) <input type="checkbox"/> Loamy Gleyed Matrix (F2) <input type="checkbox"/> Depleted Matrix (F3) <input type="checkbox"/> Redox Dark Surface (F6) <input type="checkbox"/> Depleted Dark Surface (F7) <input type="checkbox"/> Redox Depressions (F8) <input type="checkbox"/> Marl (F10) (LRR K, L)	<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b> <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B) <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R) <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L) <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L) <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R) <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B) <input type="checkbox"/> Red Parent Material (F21) <input type="checkbox"/> Very Shallow Dark Surface (F22) <input type="checkbox"/> Other (Explain in Remarks)
---	---	---

<sup>3</sup>Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.

<b>Restrictive Layer (if observed):</b> Type: _____ Depth (inches): _____	<b>Hydric Soil Present?</b> Yes _____      No <u>X</u>
---	--

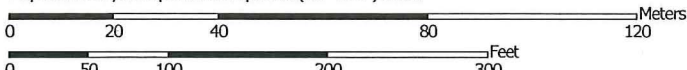
**Remarks:**  
 This data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to include the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. ([http://www.nrcs.usda.gov/Internet/FSE\\_DOCUMENTS/nrcs142p2\\_051293.docx](http://www.nrcs.usda.gov/Internet/FSE_DOCUMENTS/nrcs142p2_051293.docx))

Soil Map—Washington County, Vermont  
(Waterbury Bridge No. 203)



Warning: Soil Map may not be valid at this scale.

Map Scale: 1:1,380 if printed on A portrait (8.5" x 11") sheet.



Map projection: Web Mercator Corner coordinates: WGS84 Edge ties: UTM Zone 18N WGS84



Natural Resources  
Conservation Service


Web Soil Survey  
National Cooperative Soil Survey

10/10/2016  
Page 1 of 3

Soil Map—Washington County, Vermont  
(Waterbury Bridge No. 203)


### MAP LEGEND

**Area of Interest (AOI)**

 Area of Interest (AOI)


**Soils**


 Soil Map Unit Polygons


 Soil Map Unit Lines


 Soil Map Unit Points

**Special Point Features**

 Blowout

 Borrow Pit


 Clay Spot

 Closed Depression


 Gravel Pit

 Gravelly Spot

 Landfill

 Lava Flow

 Marsh or swamp


 Mine or Quarry

 Miscellaneous Water


 Perennial Water

 Rock Outcrop

 Saline Spot


 Sandy Spot


 Severely Eroded Spot


 Sinkhole


 Slide or Slip

 Sodic Spot

 Spoil Area

 Stony Spot


 Very Stony Spot

 Wet Spot

 Other

 Special Line Features

**Water Features**

 Streams and Canals

**Transportation**

 Rails


 Interstate Highways

 US Routes

 Major Roads

 Local Roads

**Background**

 Aerial Photography

### MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:20,000.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service  
Web Soil Survey URL: <http://websoilsurvey.nrcs.usda.gov>  
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Washington County, Vermont  
Survey Area Data: Version 18, Sep 25, 2015

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: May 1, 2011—Sep 26, 2011

The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

## Map Unit Legend

Washington County, Vermont (VT023)			
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
14B	Colonel fine sandy loam, 3 to 8 percent slopes	0.0	0.0%
14C	Colonel fine sandy loam, 8 to 15 percent slopes	4.7	51.0%
17B	Cabot silt loam, 3 to 8 percent slopes	4.5	49.0%
<b>Totals for Area of Interest</b>		<b>9.2</b>	<b>100.0%</b>