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**Memorandum** To: TDI-NE / New England Clean Power Link Project File Date: November 7, 2014

Project No.: 57666.00

From: Chelsea Martin, Wetland Scientist

Re: TDI-NE / New England Clean Power Link Wetland and Waters Delineation

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At the request of Champlain VT, LLC (d/b/a TDI New England) ("TDI-NE"), Vanasse Hangen Brustlin, Inc. and TRC Environmental Corporation ("VHB/TRC") conducted natural resources studies for the proposed New England Clean Power Link ("NECPL" or "Project"). The Project is a proposed 1,000 MW DC high-voltage direct current ("HVDC") electric power transmission system that will have both aquatic (underwater) and terrestrial (underground) segments in Vermont. The NECPL will connect clean power sources from Canada to the ISO-NE system via a substation located in Ludlow, VT. The planned transmission line, which would run entirely through Vermont, would originate in the United States at the U.S./ Canadian border in Alburgh, Vermont and continue under the waters of Lake Champlain to Benson, Vermont (aquatic segment) then continue overland, primarily in public rights-of-way, to a proposed HVDC convertor station in Ludlow, Vermont and then proceed to the VELCO Coolidge Substation in Cavendish, Vermont (terrestrial segment) (see NECPL Index Map, Appendix 1). This technical memorandum describes wetland and waters delineation study methods and results within the areas studied by VHB/TRC for the terrestrial component of the Project for the purpose of providing supporting documentation for federal Clean Water Act Sections 404/401 regulatory requirements. The supporting attachments, which summarize the results of the wetland and stream studies, include:

- Attachment 1 - Natural Resources Maps,
- Attachment 2 - Summary of Delineated Streams
- Attachment 3 - Summary of Delineated Wetlands, and
- Attachment 4 - U.S. Army Corps of Engineers ("USACE") Wetland Determination Data Forms.

## PROJECT DESCRIPTION

The terrestrial portion of the proposed NECPL transmission line traverses through portions of thirteen towns in Rutland and Windsor Counties and one town in Grand Isle County, Vermont. From the US/Canadian border in Alburgh, Vermont, the HVDC transmission line will be located

underground for approximately 0.5 mile, within roadway right-of-way (“ROW”)and overland. The HVDC transmission system, consisting of two parallel cables, will then enter Lake Champlain via horizontal directional drilling (“HDD”) and will be installed within the lake for approximately 98 miles to the southern end of Lake Champlain in the Town of Benson where the HVDC transmission line will exit the water via HDD onto a private land parcel. From there, the transmission line would traverse through 13 towns from Benson to Cavendish and would be installed largely within existing town and/or state roadways/railroads or the associated ROW. Use of the previously disturbed roadway/railroad ROW will allow the Project to avoid and minimize impacts to natural resource features. Furthermore, unavoidable impacts would occur primarily to natural resource features that have been previously impacted due to road/railroad construction and ongoing operational management activities. The HVDC transmission line would terminate at a proposed converter station location proposed to be built on privately-owned lands off Nelson Road in Ludlow, Vermont. A short segment of alternating current (“AC”) cable would continue from the proposed convertor station to the VELCO Coolidge substation.

As currently planned, the cables would be installed underground within the terrestrial segment as follows:

- Bay Road in Alburgh, VT north of Vermont Route 2 (0.5 mile)
- Benson town roads (in ROW or within road) west of Vermont Route 22A (4.4 miles)
- Vermont Route 22A ROW south to Vermont Route 4 in Fair Haven (8.1 miles)
- Vermont Route 4 ROW east to U.S. Route 7 in Rutland (17.2 miles)
- U.S. Route 7 ROW south to Vermont Route 103 in North Clarendon (2.6 miles)
- Vermont Route 103 ROW south/southeast to the RR option in Shrewsbury (3.9 miles)
- Green Mountain Railroad (“GMR”) ROW in Shrewsbury to Vermont Route 103 in Shrewsbury (3.5 miles)
- Vermont Route 103 ROW to Vermont Route 100 in Ludlow (10.4 miles)
- Vermont Route 100 ROW north to Ludlow town roads (0.8 mile)
- Ludlow town roads to proposed HVDC converter station (4.8 miles)
- HVDC Convertor station to VELCO Coolidge Substation (0.3 mile)

## **ASSESSMENT METHODOLOGIES**

Prior to conducting wetland and waters delineations, VHB/TRC developed a field delineation protocol for the Project which was presented to and reviewed by staff with both the Vermont Agency of Natural Resources and the USACE prior to the initiation of fieldwork in Spring 2014. Both review agencies approved of the field protocol. The following sections provide more detail on the specific methodologies used for waters and wetland delineations for the Project.

## **WATERS**

VHB/TRC Environmental Scientists conducted stream and open water delineations and assessment work along the terrestrial portions of the transmission line as well as potential additional workspaces and/or material staging areas in May to early November 2014.

Streams are identified according to federal delineation procedures (USACE 2005) and were flagged with blue survey tape. Flagging was coded with the consultant identification (“T” for TRC or “V” for VHB), Town Name Abbreviation (e.g., “WR” for West Rutland) and stream number, along with the specific flag number (e.g., T-WR-S-1-1). Generally, perennial and intermittent streams (channels 6 feet or wider) are flagged along the stream Top-of-Bank (“TB”) or Top-of-Slope (“TS”), according to guidelines in the *Guidance for Agency Act 250 and Section 248 Comments Regarding Riparian Buffers* (ANR 2005). Narrow features, including most ephemeral channels, are flagged along the center line. Ditches or constructed ponds are typically not included in the delineation if such features are due to excavation from upland. However, such features were included in the delineation if these features were determined to be modified, naturally occurring streams or wetlands that would meet federal criteria for jurisdiction. Stream flags were located in the field using a Trimble® GPS unit capable of sub-meter accuracy and post-processed using Trimble® Pathfinder software. Stream identification and ordinary high water (“OHW”) width were also assessed, according to methods detailed in the “Regulatory Guidance Letter: Subject – Ordinary High Water Identification” (USACE 2005). The OHW width for each channel segment is determined from an average of measurements of bank-to-bank OHW widths taken at regular intervals along the surveyed portion of the watercourse. During field work, flow regimes are preliminarily classified as perennial, intermittent, ephemeral or jurisdictional ditch and are determined based on qualitative observations of instream hydrology indicators at the time of observation and existing geomorphic characteristics.

Open waters, such as those associated with Lake Champlain and Lake Bomoseen, are delineated along the field-determined ordinary-high-water levels.

In addition to areas VHB/TRC had access to detailed field delineations, an area 50-feet wide off most detailed delineation areas was added in order to approximate the boundaries of potential water resources. Such “Approximate Study Areas” are indicated on the maps in Attachment 1. Approximated resources are based on a combination of information gathering from off-site lands during field site visits with reconnaissance-level verification and mapping from off-site resource review/interpretation.

#### WETLANDS

VHB/TRC field staff conducted wetland delineation work from May to early November 2014. Wetland delineations were made pursuant to the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Routine Determination Method*

(USACE 2011). Wetlands were identified in the field with pink “Wetland Delineation” flagging. Field notes were taken to record information relative to wetland classifications under the 2010 Vermont Wetland Rules (“VWR”), general characteristics, potential functions and values of the wetland, any unique characteristics observed during the site assessment, along with other considerations relevant to support site findings. Wetlands were also classified in accordance with the *Classification of Wetlands and Deepwater Habitats of the United States* (Cowardin, et al. 1979). Wetland functions criteria were qualitatively evaluated based on the field notes and observations according to the VWR Section 5 (Functional Criteria for Evaluating a Wetland’s Significance) (NRB 2010). Wetland features were located in the field with the same equipment and methods as for waters.

In addition to areas VHB/TRC had access to detailed field delineations, an area 50-feet wide off most detailed delineation areas was added in order to approximate the boundaries of potential wetland resources. Such “Approximate Study Areas” are indicated on the maps in Attachment 1. VHB/TRC utilized a combination of off-site review (including aerial photography, available topography, soil survey maps, VSWI-mapping, previous delineations etc.), and mapping, to conservatively assess the extent of any wetland features.

In May 2014, VHB/TRC Environmental Scientists also conducted a survey for vernal pool sites according to the definitions of and criteria for vernal pools provided by the USACE (2007) and Thompson and Sorenson (2005). There were either no observed vernal pool biological indicators, or other physical vernal pool characteristics present. Portions of the Project Study Area completed after May 2014 were assessed for the presence of potential vernal pools. This is further corroborated by surveys for Special Aquatic Sites completed in summer 2014 and reported separately by Arrowwood Environmental. From this, there are no vernal pools or potential vernal pools present within the Study Areas.

## **RESULTS:**

Based on application of the *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region Routine Determination Method*, VHB/TRC identified and delineated wetlands and water resources within Project Study Areas (see the NECPL Natural Resources Series, Summary of Delineated Wetlands, and Summary of Delineated Streams, Attachment 2). The following sections give a general description of the wetland and water resources identified. With the exception of the GMR railroad corridor study area in Shrewsbury as well as some additional work spaces and material staging areas that have not been field reviewed, the results of VHB/TRC delineations have been field-reviewed by USACE and Vermont Department of Environmental Conservation (“VT DEC”) personnel in July and August 2014, including an overview of the terrestrial segment of the Project.

*STREAMS AND JURISDICTIONAL DITCHES:*

VHB/TRC conducted stream delineations throughout the Study Area and identified a variety of perennial, intermittent, ephemeral streams and jurisdictional ditches (see Natural Resource Index and Series for stream mapping, Attachment 1). Streams range in size from mapped Vermont Hydrography Dataset (“VHD”) streams and rivers, to small streams and channelized/ditched segments within agricultural or residential settings. The major water courses within the Study Area include the Hubbardton River, Mud Brook, North Brenton Brook, Castleton River, Clarendon River, Otter Creek, Cold River, Mill River, Freeman Brook, Branch Brook, Coleman Brook, and Black River. VHB analyzed the mapped VHD streams within the Project Study Area to determine watershed sizes in the context of potential review by the VT DEC Rivers Management Program under the Vermont Stream Alteration regulatory program (WMD 2014b). As part of this review, VHB also reviewed the Vermont Water Quality Standards (“VWQS”) (WMD 2014a) to determine the classifications of the streams throughout the NECPL alignment. The NECPL Stream Summary spreadsheets provide details on each stream feature or segment, which include ditches that could be considered under federal jurisdiction (see the NECPL Natural Resource Series Maps in Attachment 1, and the NECPL Stream Summary Spreadsheets in Attachment 2). The data provided in the NECPL Stream Summary Spreadsheet include:

- VHB/TRC Stream ID,
- Stream Name [Geographic Names Information System (“GNIS”)],
- Town,
- Average OHW,
- Potential Flow Regime (Perennial, Intermittent, Ephemeral, Ditch) or Open Water,
- Watershed Size > 0.5 mile (yes/no), and
- Impaired or Priority Waters.

All delineated streams and rivers are Vermont Class B waters, as designated by the 2014 VWQS (see Stream Summary Spreadsheet, Attachment 2).

Project impacts to federally jurisdictional waters, including streams, will likely require a Department of the Army Section 404 Individual Permit. Lake Champlain would be considered a navigable water under the Section 10 of the Rivers and Harbors Act. “Navigable waters of the United States” are “those waters that are subject to the ebb and flow of the tide and/or are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce. 33 C.F.R. § 329.4. The Project crosses the Otter Creek, which is a Section 10 Navigable Water, but the crossing occurs in Rutland, Vermont, which is upstream of the limits of Section 10 jurisdiction in Proctor, Vermont.

**WETLANDS:**

Wetland delineations included a variety of wetland features across different cover classes (see the NECPL Natural Resources Map, Attachment 1; and Wetland Summary Table, Attachment 3) There were no vernal pools or potential vernal pools identified as part of the survey conducted in May 2014 and corroborated by further studies through early November 2014. The wetland delineation also included assessments for the classification of wetlands per the VWR. As part of the field studies, all wetland features were delineated within the Study Areas, several of which are not distinct wetlands, but rather components of larger on or off-Study Area complexes (see the NECPL Natural Resource maps in Attachment 1). The Summary of Delineated Wetlands table in Attachment 3 details wetland characteristics relative to the criteria for classifying significant wetlands under the 2010 VWR, as well as other summary data including:

- VHB Wetland ID,
- Town,
- Cowardin Classification,
- Contiguous to mapped VSWI (Yes/no),
- Delineation Area (Square Feet), and
- Proposed VWR Classification.

Vermont Wetland Evaluation Forms were used as guidance to determine which functions are provided by each delineated wetland. From which proposed Class II wetlands are found to meet one or more of the VWR Section 5:

- 5.1 Water Storage for Flood Water and Storm Runoff,
- 5.2 Surface and Ground Water Protection,
- 5.4 Wildlife Habitat,
- 5.5 Exemplary Wetland Natural Community,
- 5.6 Rare Threatened and Endangered Species Habitat,
- 5.7 Education and Research in Natural Sciences,
- 5.8 Recreational Value and Economic Benefits,
- 5.9 Open Space and Aesthetics, and
- 5.10 Erosion Control through Binding and Stabilizing the Soil.

Data was collected in the field in order to complete USACE Wetland Determination Forms (Attachment 4) for representative delineated wetlands throughout the Study Area. As part of this effort, determination forms were also completed within representative upland areas within the Study Area to document non-wetland conditions on representative boundaries.

**ATTACHMENTS:**

- Attachment 1- NECPL Natural Resources Index and Series maps

- Attachment 2- Summary of Delineated Streams/Waters
- Attachment 3 - Summary of Delineated Wetlands
- Attachment 4 - USACE Wetland Determination Data Forms

## REFERENCES

Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. *Classification of Wetlands and Deepwater Habitat of the United States*. U.S. Fish and Wildlife Service. FWS/OBD-79/31. 103pp.

USACE. 2005. "Regulatory Guidance Letter. Subject: Ordinary High Water Mark Identification." No. 05-05. Available online at: <http://www.usace.army.mil/Portals/2/docs/civilworks/RGLS/rgl05-05.pdf>

USACE. 2011. *Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeastern Region (Version 2.0)*, ed. J.S. Wakely, R.W. Lichvar, C.V. Noble, and J.F. Berkowitz. ERDC/EL TR-12-1. Vicksburg, MS: U.S. Army Engineer Research and Development Center.

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Vermont Agency of Natural Resources – Watershed Management Division (WMD). 2014a. Vermont Water Quality Standards. Environmental Protection Rule Chapter 29. Available online at: <http://www.anr.state.vt.us/dec/rulesum.htm>.

Vermont Agency of Natural Resources – Watershed Management Division (WMD). 2014b. Stream Alteration Permits website: [http://www.watershedmanagement.vt.gov/permits/htm/pm\\_streamalt.htm](http://www.watershedmanagement.vt.gov/permits/htm/pm_streamalt.htm)

# **ATTACHMENT 1**

(Report Attachment 1 - NR Maps excluded from this section of the Vermont Wetland Permit application.  
Refer to Attachment 2 of Permit Application.)



# **ATTACHMENT 2**

Natural Resource Map Series Page Number	Waters ID	Mile Post	Waters Name	Town	Mapping Type (Center, TB, and/or OHW)	Average Ordinary High Water Width (OHW) Feet <sup>1</sup>	Flow Regime (Perennial, Intermittent, Ephemeral and Ditch) <sup>2</sup>	Watershed Size > 0.5 square miles (Yes/No) <sup>3</sup>	VWQS Water Classification <sup>4</sup>	2012 Impaired or Priority Surface Waters <sup>5</sup> (Yes/No)
1	V-BE-LC	98	Lake Champlain	Benson	OHW	NA	Open Water	No	B	No
1	V-BE-S-1	97.7	NA	Benson	Center	5	Intermittent	No	B	No
1	V-BE-S-2	97.7	NA	Benson	Center	3	Ephemeral	No	B	No
2	V-BE-S-6	99.4	NA	Benson	Center	4	Intermittent	No	B	No
2	V-BE-AS-3	98.9	NA	Benson	Digitized	3	Perennial	No	B	No
2	V-BE-AS-4	99	NA	Benson	Digitized	5	Perennial	No	B	No
2	V-BE-AS-5	99.3	NA	Benson	Digitized	7	Intermittent	Yes	B	No
2	V-BE-AS-6	99.4	NA	Benson	Digitized	4	Intermittent	No	B	No
2	V-BE-S-7	99.7	NA	Benson	Center	6	Intermittent	No	B	No
3	V-BE-S-8	100.5	UT to Hubbardton River	Benson	TOB	7	Perennial	No	B	No
3	V-BE-S-9	100.75	NA	Benson	Center	4	Jurisdictional Ditch	No	B	No
3	V-BE-AS-8	100.5	UT to Hubbardton River	Benson	Digitized	7	Perennial	No	B	No
3	V-BE-AS-9	100.7	NA	Benson	Digitized	4	Jurisdictional Ditch	No	B	No
3	V-BE-AS-7	99.8	NA	Benson	Digitized	6	Intermittent	No	B	No
3	V-BE-AS-10	101	NA	Benson	Digitized	5	Perennial	No	B	No
4	V-BE-S-100	102	NA	Benson	Center	3	Perennial	No	B	No
4	V-BE-S-12	115.3	NA	Benson	Center	4	Jurisdictional Ditch	No	B	No
4	V-BE-AS-100	102	NA	Benson	Digitized	3	Perennial	No	B	No
4	V-BE-AS-11	101.5	NA	Benson	Digitized	4	Intermittent	No	B	No
4	V-BE-AS-12	101.9	NA	Benson	Digitized	4	Jurisdictional Ditch	No	B	No
5	V-BE-S-101	102.8	NA	Benson	Center	1.5	Jurisdictional Ditch	No	B	No
5	V-BE-S-102	103	Unnamed Tributary to Hubbardton River	Benson	Center	3	Perennial	No	B	No
5	V-BE-S-103	103.4	NA	Benson	Center	1.5	Jurisdictional Ditch	No	B	No
5	V-BE-AS-101	102.8	NA	Benson	Digitized	1.5	Ditch	No	B	No
5	V-BE-AS-102	103	yes	Benson	Digitized	2	Intermittent	No	B	No
5	V-BE-AS-103	103.3	NA	Benson	Digitized	1.5	Ditch	No	B	No
6	V-BE-S-104	103.9	NA	Benson	Center	1	Jurisdictional Ditch	No	B	No
6	V-BE-S-105	104.3	NA	Benson	Center	1.5	Jurisdictional Ditch	No	B	No
6	V-BE-S-106	104.6	Hubbardton River	Benson	TOB	25	Perennial	Yes	B	No
6	V-BE-AS-104	103.9	NA	Benson	Digitized	1	Ditch	No	B	No
6	V-BE-AS-105	104.3	NA	Benson	Digitized	1.5	Intermittent	No	B	No
6	V-BE-AS-106	104.6	Hubbardton River	Benson	Digitized	25	Perennial	Yes	B	No
6	V-BE-S-107	104.7	NA	Benson	Center	1.5	Jurisdictional Ditch	No	B	No
6	V-BE-AS-107	104.7	NA	Benson	Digitized	1.5	Ditch	No	B	No
7	V-BE-S-109	105	Unnamed Tributary to Hubbardton River	Benson	Center	4	Perennial	No	B	No
7	V-WH-S-101	105.3	NA	West Haven	Center	2	Jurisdictional Ditch	No	B	No
7	V-BE-AS-109	105	NA	Benson	Digitized	4	Perennial	No	B	No
7	V-WH-AS-101	105.3	NA	West Haven	Digitized	2	Ditch	No	B	No
7	V-WH-AS-100	105.8	NA	West Haven	Digitized	2	Ditch	No	B	No
8	V-WH-S-4	106	UT to Poultney River	West Haven	Center	5	Perennial	No	B	No
8	V-WH-S-5	106.6	UT to Hubbardton River	West Haven	Center	3	Intermittent	No	B	No
8	V-WH-S-6	111.45	NA	West Haven	Center	3	Jurisdictional Ditch	No	B	No
8	V-WH-S-7	106.8	NA	West Haven	Center	2	Jurisdictional Ditch	No	B	No
8	V-WH-S-100	105.8	NA	West Haven	Center	2	Jurisdictional Ditch	No	B	No
8	V-WH-AS-4	106.1	Unnamed Tributary to Hubbardton River	West Haven	Digitized	5	Perennial	No	B	No
8	V-WH-AS-5	106.6	UT to Hubbardton River	West Haven	Digitized	3	Ditch	No	B	No
8	V-WH-AS-7	106.8	NA	West Haven	Digitized	2	Ditch	No	B	No
9	V-WH-S-2	107.9	UT to Poultney River	West Haven	Center	4.5	Perennial	Yes	B	No
9	V-WH-S-3	107.6	NA	West Haven	Center	2	Ephemeral	No	B	No
9	V-WH-AS-2	107.9	UT to Poultney River	West Haven	Digitized	4.5	Ephemeral	No	B	No
9	V-WH-AS-3	107.6	NA	West Haven	Digitized	2	Ephemeral	No	B	No
9	V-WH-S-1	108	NA	West Haven	Center	2	Intermittent	No	B	No
9	V-WH-AS-1	108.1	NA	West Haven	Digitized	2	Intermittent	No	B	No
10	V-FH-S-22	109	UT to Poultney River	Fair Haven	Center	2	Ephemeral	No	B	No
10	V-FH-S-23	108.9	NA	Fair Haven	Center	2	Intermittent	No	B	No
10	V-FH-S-24	108.8	NA	Fair Haven	Center	2	Intermittent	No	B	No
10	V-FH-S-25	108.3	NA	Fair Haven	Center	5	Perennial	No	B	No
10	V-FH-AS-23	108.9	NA	Fair Haven	Digitized	2	Intermittent	No	B	No
10	V-FH-AS-24	108.7	NA	Fair Haven	Digitized	2	Intermittent	No	B	No
10	V-FH-AS-25	108.2	NA	Fair Haven	Digitized	5	Perennial	No	B	No
10	V-SH-AS-22	109	NA	Shrewsbury	Digitized	1	Ephemeral	No	B	No
10	V-FH-S-18	109.3	UT to Poultney River	Fair Haven	Center	2	Intermittent	No	B	No
10	V-FH-AS-18	109.2	UT to Poultney River	Fair Haven	Digitized	2	Intermittent	No	B	No
10	V-FH-AS-19	109.1	NA	Fair Haven	Digitized	3	Ditch	No	B	No
11	V-FH-S-12	110.1	NA	Fair Haven	Center	2	Jurisdictional Ditch	No	B	No
11	V-FH-S-13	110.1	Mud Brook	Fair Haven	TOB	18	Perennial	Yes	B	No
11	V-FH-S-15	110	NA	Fair Haven	Center	2	Jurisdictional Ditch	No	B	No
11	V-FH-S-16	109.9	NA	Fair Haven	Center	2	Ephemeral	No	B	No
11	V-FH-S-17	109.5	UT to Mud Brook	Fair Haven	Center	3	Perennial	No	B	No
11	V-FH-AS-13	110	NA	West Haven	Digitized	18	Perennial	Yes	B	No
11	V-FH-AS-16	109.9	NA	Fair Haven	Digitized	2	Perennial	No	B	No
11	V-FH-AS-17	109.5	UT to Mud Brook	Fair Haven	Digitized	3	Perennial	No	B	No
11	V-FH-S-3	110.4	NA	Fair Haven	Center	1.5	Jurisdictional Ditch	No	B	No

11	V-FH-AS-3	110.4	NA	Fair Haven	Digitized	1.5	Jurisdictional Ditch	No	B	No
12	V-FH-S-4	110.7	NA	Fair Haven	Center	1.5	Ephemeral	No	B	No
12	V-FH-S-9	111.1	NA	Castleton	Center	3	Intermittent	No	B	No
12	V-FH-S-26	111.1	NA	Fair Haven	Center	2	Jurisdictional Ditch	No	B	No
12	V-FH-S-5	110.8	NA	Fair Haven	Center	4	Perennial	No	B	No
12	V-FH-S-5a	111.1	UT to Mud Brook	Fair Haven	Center	1	Ephemeral	No	B	No
12	V-FH-AS-4	110.7	NA	Fair Haven	Digitized	1.5	Perennial	No	B	No
12	V-FH-AS-5	110.8	NA	Fair Haven	Digitized	4	Perennial	No	B	No
12	V-FH-AS-6	111.4	NA	Fair Haven	Digitized	2	Intermittent	No	B	No
12	V-FH-S-6	111.4	NA	Fair Haven	Center	2	Intermittent	No	B	No
13	V-FH-S-10	111.6	UT to Castleton River	Fair Haven	Center	2	Perennial	Yes	B	No
13	V-FH-S-11	133.9	NA	Fair Haven	Center	1	Ephemeral	No	B	No
13	V-FH-S-7	111.9	NA	Fair Haven	Center	1	Ephemeral	No	B	No
13	V-FH-AS-7	111.9	NA	Fair Haven	Digitized	1	Ephemeral	No	B	No
13	V-FH-S-8	112.4	NA	Castleton	Center	3	Intermittent	No	B	No
13	V-CN-S-100	112.6	NA	Castleton	Center	2	Ephemeral	No	B	No
13	V-CN-AL-1	112.6	NA	Castleton	Digitized	2	Open Water	No	B	No
13	V-CN-L-1	112.6	NA	Castleton	OHW	NA	Open Water	No	B	No
14	V-CN-S-101	113	Unnamed Tributary To Castleton River	Castleton	Center	3.5	Perennial	Yes	B	No
14	V-CN-AS-101	113	Unnamed Tributary To Castleton River	Castleton	Digitized	3.5	Perennial	No	B	No
15	V-CN-S-103	113.9	NA	Castleton	Center	2	Intermittent	No	B	No
15	V-CN-S-102	114.6	NA	Castleton	Center	2	Intermittent	No	B	No
16	V-CN-S-11	115.1	NA	Castleton	Center	1	Intermittent	No	B	No
16	V-CN-S-12	115.3	UT to Castleton River	Castleton	TOB	16	Perennial	Yes	B	No
16	V-CN-S-12a	115.3	NA	Castleton	Center	1	Ephemeral	No	B	No
16	V-CN-S-13	115.6	NA	Castleton	Center	1	Intermittent	No	B	No
16	V-CN-S-14	115.6	NA	Castleton	Center	3	Ephemeral	No	B	No
16	V-CN-AS-11	115.2	NA	Castleton	Digitized	1	Intermittent	No	B	No
16	V-CN-AS-12	115.3	UT to Castleton River	Castleton	Digitized	16	Perennial	Yes	B	No
16	V-CN-AS-12a	115.3	NA	Castleton	Digitized	1	Ephemeral	No	B	No
16	V-CN-AS-13	115.6	NA	Castleton	Digitized	1	Intermittent	No	B	No
16	V-CN-AS-14	115.6	NA	Castleton	Digitized	3	Ephemeral	No	B	No
16	V-CN-AS-1a	NA	NA	Castleton	Digitized	2	Intermittent	No	B	No
16	V-CN-S-15	115.8	NA	Castleton	Center	2	Ephemeral	No	B	No
17	V-CN-S-8	116.4	North Branch Brook	Castleton	TOB	26	Perennial	Yes	B	No
17	V-CN-S-9	116.5	NA	Castleton	Center	3	Intermittent	No	B	No
17	V-CN-S-9a	116.55	NA	Castleton	Center	2	Ephemeral	No	B	No
17	V-CN-AS-8	116.4	North Branch Brook	Castleton	Digitized	26	Perennial	Yes	B	No
17	V-CN-S-5	116.8	NA	Castleton	Center	2	Ephemeral	No	B	No
17	V-CN-AS-5	116.9	NA	Castleton	Digitized	2	Ephemeral	No	B	No
18	V-CN-S-3	117.8	UT to Castleton River	Castleton	Center	0.5	Intermittent	No	B	No
18	V-CN-S-4	117.6	UT to Castleton River	Castleton	Center	5	Perennial	No	B	No
18	V-CN-S-6	117.4	NA	Castleton	Center	3	Intermittent	No	B	No
18	V-CN-S-7	117.1	NA	Castleton	Center	1	Ephemeral	No	B	No
18	V-CN-AS-3	117.8	UT to Castleton River	Castleton	Digitized	0.5	Intermittent	No	B	No
18	V-CN-AS-4	117.6	UT to Castleton River	Castleton	Digitized	5	Perennial	No	B	No
18	V-CN-AS-6	117.4	NA	Castleton	Digitized	3	Intermittent	No	B	No
18	V-CN-AS-7	117.1	NA	Castleton	Digitized	1	Ephemeral	No	B	No
18	V-CN-S-10	118	118	Castleton	Center	3	Perennial	No	B	No
19	V-CN-S-2	118.25	UT to Castleton River	Castleton	Center	2.5	Intermittent	No	B	No
19	V-CN-AS-1	119	NA	Castleton	Digitized	2	Intermittent	No	B	No
19	V-CN-S-1	119	NA	Castleton	Center	2	Intermittent	No	B	No
19	V-CN-AS-2	118.3	UT to Castleton River	Castleton	Digitized	2.5	Intermittent	No	B	No
19	T-IR-S5	119.1	NA	Ira	Center	2	Intermittent	No	B	No
20	T-IR-DITCH1	119.65	NA	Ira	Center	3	Jurisdictional Ditch	No	B	No
20	T-IR-S6	119.4	NA	Ira	Center	1	Intermittent	No	B	No
20	T-IR-S3	119.8	NA	Ira	Center	5	Intermittent	No	B	No
20	T-IR-S4	119.5	NA	Ira	Center	5	Perennial	Yes	B	No
20	T-IR-AS-3	119.8	NA	Ira	Digitized	5	Intermittent	No	B	No
20	T-IR-AS-4	119.5	Unnamed Tributary to Castleton River	Ira	Digitized	5	Perennial	Yes	B	No
20	T-WR-S35	120.3	NA	West Rutland	Center	1	Intermittent	No	B	No
20	T-IR-S1	120.2	NA	Ira	Center	4	Intermittent	No	B	No
20	T-IR-S2	120.1	NA	Ira	Center	2	Intermittent	No	B	No
20	T-IR-AS1	120.1	NA	Ira	Digitized	4	Intermittent	No	B	No
21	T-WR-S30	120.7	NA	West Rutland	Center	5	Intermittent	No	B	No
21	T-WR-S31	120.5	NA	West Rutland	Center	1	Intermittent	No	B	No
21	T-WR-S32	120.8	NA	West Rutland	Center	3	Ephemeral	No	B	No
21	T-WR-S33	120.85	NA	West Rutland	Center	4	Intermittent	No	B	No
21	T-WR-S34	121	NA	West Rutland	Center	3	Perennial	No	B	No
21	T-WR-AS-31	120.5	NA	West Rutland	Digitized	1	Intermittent	No	B	No
21	T-WR-AS-37	120.9	NA	West Haven	Digitized	3	Intermittent	No	B	No
22	T-WR-S19	122.3	NA	West Rutland	Center	3	Intermittent	No	B	No
22	T-WR-S29	121.5	Castleton River	West Rutland	TOB	30	Perennial	Yes	B	No
22	T-WR-S28	121.6	NA	West Rutland	Center	6	Perennial	No	B	No
22	T-WR-AS-28	121.7	NA	West Rutland	Digitized	6	Perennial	No	B	No
22	T-WR-AS29	121.5	Castleton River	West Rutland	Digitized	30	Perennial	Yes	B	No
22	T-WR-S21	122.4	NA	West Rutland	Center	4	Intermittent	No	B	No
22	T-WR-S20	122.4	NA	West Rutland	Center	5	Intermittent	No	B	No
23	T-WR-S22	122.75	NA	West Rutland	Center	4	Ephemeral	No	B	No
23	T-WR-S24	122.9	NA	West Rutland	Center	3	Intermittent	No	B	No
23	T-WR-DITCH6	123	NA	West Rutland	Center	1	Jurisdictional Ditch	No	B	No

23	T-WR-S25	122.95	NA	West Rutland	Center	1	Ephemeral	No	B	No
23	T-WR-S23	122.8	NA	West Rutland	Center	4	Intermittent	No	B	No
23	T-WR-S26	122.7	NA	West Rutland	Center	2	Intermittent	No	B	No
23	T-WR-S27	122.6	NA	West Rutland	Center	2	Ephemeral	No	B	No
23	T-WR-S17	123.4	NA	West Rutland	Center	2	Intermittent	No	B	No
23	T-WR-S18	123.2	NA	West Rutland	OHW	10	Perennial	Yes	B	No
23	T-WR-AS-17	123.5	NA	West Rutland	Digitized	2	Intermittent	No	B	No
23	T-WR-AS-18	123.2	NA	West Rutland	Digitized	10	Perennial	Yes	B	No
23	T-WR-AS-22	122.7	NA	West Rutland	Digitized	4	Ephemeral	No	B	No
23	T-WR-S36	123.6	Clarendon River	Rutland	TOB	30	Perennial	Yes	B	No
23	T-WR-DITCH5	NA	NA	West Rutland	Center	30	Jurisdictional Ditch	No	B	No
23	T-WR-AS-36	123.6	Clarendon River	Rutland	Digitized	30	Perennial	Yes	B	No
24	T-WR-S4	124.3	NA	West Rutland	Center	2	Intermittent	No	B	No
24	T-WR-S6	124.3	NA	West Rutland	Center	3	Intermittent	No	B	No
24	T-WR-S7	124.3	NA	West Rutland	Center	2	Intermittent	No	B	No
24	T-WR-S5	124.3	NA	West Rutland	Center	5	Intermittent	No	B	No
24	T-WR-DITCH2	124.4	NA	West Rutland	Center	2	Jurisdictional Ditch	No	B	No
24	T-WR-S8	124.4	NA	West Rutland	Center	2	Ephemeral	No	B	No
24	T-WR-S11	124	NA	West Rutland	Center	3	Intermittent	No	B	No
24	T-WR-S13	124.1	NA	West Rutland	Center	1	Ephemeral	No	B	No
24	T-WR-S15	124.2	NA	West Rutland	Center	2	Ephemeral	No	B	No
24	T-WR-S14	124.2	NA	West Rutland	Center	1	Intermittent	No	B	No
24	T-WR-S16	124.15	NA	West Rutland	Center	4	Ephemeral	No	B	No
24	T-WR-S12	124.1	NA	West Rutland	Center	4	Intermittent	No	B	No
24	T-WR-AS-11	124	NA	West Rutland	Digitized	3	Intermittent	No	B	No
24	T-WR-AS-14	124.2	NA	West Rutland	Digitized	1	Intermittent	No	B	No
24	T-WR-AS-15	124.2	NA	West Rutland	Digitized	2	Ephemeral	No	B	No
24	T-WR-AS-16	NA	NA	West Rutland	Digitized	4	Ephemeral	No	B	No
24	T-WR-AS-3	NA	NA	West Rutland	Digitized	5	Intermittent	No	B	No
24	T-WR-AS-4	124.4	NA	West Rutland	Digitized	2	Intermittent	No	B	No
24	T-WR-AS-5	124.3	NA	West Rutland	Digitized	5	Intermittent	No	B	No
24	T-RU-S7	124.8	NA	Rutland	Center	5	Intermittent	No	B	No
24	T-RU-S10	124.65	NA	Rutland	Center	3	Ephemeral	No	B	No
24	T-RU-S5	124.8	NA	Rutland	Center	2	Intermittent	No	B	No
24	T-RU-S6	124.8	NA	Rutland	Center	2	Ephemeral	No	B	No
24	T-RU-S8	124.8	NA	Rutland	Center	5	Ephemeral	No	B	No
24	T-RU-AS-7	NA	NA	Rutland	Digitized	5	Intermittent	No	B	No
25	T-WR-S1	125.3	NA	West Rutland	Center	4	Intermittent	No	B	No
25	T-WR-DITCH1	125.3	NA	West Rutland	Center	1	Jurisdictional Ditch	No	B	No
25	T-RU-DITCH4	125	NA	Rutland	Center	1	Jurisdictional Ditch	No	B	No
25	T-RU-AS-11	NA	NA	Rutland	Digitized	2	Intermittent	No	B	No
25	T-RU-AS-12	NA	NA	Rutland	Digitized	2	Intermittent	No	B	No
25	T-WR-S1	125.3	NA	West Rutland	Digitized	4	Intermittent	No	B	No
25	T-RU-S4	126.1	NA	Rutland	Center	2	Intermittent	No	B	No
25	T-RU-S4	126.1	NA	Rutland	Digitized	2	Intermittent	No	B	No
26	T-RU-S2	126.5	Otter Creek	Rutland	TOB	100	Perennial	Yes	B	No
26	T-RU-S3	126.3	NA	Rutland	Center	1.5	Intermittent	No	B	No
26	T-RU-DITCH2	126.1	NA	Rutland	Center	1.5	Jurisdictional Ditch	No	B	No
26	T-RU-AS-2	126.5	Otter Creek	Rutland	Digitized	100	Perennial	Yes	B	No
26	T-RU-AS-3	NA	NA	Rutland	Digitized	1.5	Intermittent	No	B	No
27	T-RU-S1	127.5	NA	Rutland	Center	2	Intermittent	No	B	No
27	T-RU-DITCH5	NA	NA	Rutland	Center	1	Jurisdictional Ditch	No	B	No
27	T-CL-S6	127.9	Cold River	Clarendon	TOB	75	Perennial	Yes	B	No
27	T-CL-AS-6	128	Cold River	Clarendon	Digitized	75	Perennial	Yes	B	No
28	T-CL-S4	128.5	NA	Clarendon	Center	15	Perennial	No	B	No
28	T-CL-DITCH5	128.6	NA	Clarendon	Center	6	Jurisdictional Ditch	No	B	No
28	T-CL-S5	128.6	NA	Clarendon	Center	2	Ephemeral	No	B	No
28	T-CL-S8	128.1	Trib to otter Creek	Clarendon	Center	3	Perennial	No	B	No
28	T-CL-AS-4	128.6	NA	Clarendon	Digitized	15	Perennial	No	B	No
28	T-CL-AS-5	128.6	NA	Clarendon	Digitized	2	Ephemeral	No	B	No
28	T-CL-AS-S4	128.6	NA	Clarendon	Digitized	5	Perennial	No	B	No
28	T-CL-S8	128.1	Tributary to Otter Creek	Clarendon	Digitized	3	Perennial	No	B	No
28	T-CL-AS-5a	128.6	NA	Clarendon	Digitized	6	Jurisdictional Ditch	No	B	No
29	T-CL-S1	129.7	NA	Clarendon	Center	2	Intermittent	No	B	No
29	T-CL-S3	129.5	NA	Clarendon	Center	3	Intermittent	No	B	No
29	T-CL-S2	129.5	NA	Clarendon	OHW	10	Perennial	Yes	B	No
29	T-CL-AS2	129.5	NA	Clarendon	Digitized	10	Perennial	No	B	No
30	T-WR-S9	130.8	NA	West Rutland	Center	1	Ephemeral	No	B	No
30	T-WR-AS-9	130.8	NA	West Rutland	Digitized	1	Ephemeral	No	B	No
30	T-CL-DITCH2	131.4	NA	Clarendon	Center	6	Jurisdictional Ditch	No	B	No
31	V-SH-S-16	132.5	NA	Shrewsbury	Center	3	Perennial	No	B	No
31	V-SH-S-17	132.5	NA	Shrewsbury	Center	2	Intermittent	No	B	No
31	V-SH-AS-16	132.6	NA	Shrewsbury	Digitized	3	Perennial	No	B	No
31	V-SH-AS-17	132.5	NA	Shrewsbury	Digitized	2	Intermittent	No	B	No
32	V-SH-S-14	133.2	UT to Mill River	Shrewsbury	TOB	25	Perennial	Yes	B	No
32	V-SH-S-13	133.3	NA	Shrewsbury	Center	1	Ephemeral	No	B	No
32	V-SH-S-15	132.65	NA	Shrewsbury	Center	2	Intermittent	No	B	No
32	V-SH-AS-14	133.3	UT to Mill River	Shrewsbury	Digitized	45	Perennial	Yes	B	No
32	V-SH-AS-15	132.6	NA	Shrewsbury	Digitized	2	Intermittent	No	B	No
32	V-SH-AS-1a	NA	NA	Shrewsbury	Digitized	1	Ephemeral	No	B	No
32	V-SH-AS-12	NA	NA	Shrewsbury	Digitized	12	Ephemeral	No	B	No

33	V-SH-5-7	NA	UT to Mill River	Shrewsbury	Center	2	Perennial	No	B	No
33	V-SH-5-8	NA	UT to Mill River	Shrewsbury	TOB	10	Perennial	No	B	No
33	V-SH-5-9	NA	NA	Shrewsbury	Center	3	Intermittent	No	B	No
33	V-SH-5-10	R134	NA	Shrewsbury	Center	1	Perennial	No	B	No
33	V-SH-5-11	133.9	NA	Shrewsbury	Center	4	Intermittent	No	B	No
33	T-SH-51	134.1	NA	Shrewsbury	Center	5	Intermittent	No	B	No
33	T-SH-52	134.2	Unnamed Trib to Mill R	Shrewsbury	TOB	25	Perennial	Yes	B	No
33	T-SH-54	134.5	Unnamed Trib to Mill R	Shrewsbury	Center	5	Intermittent	No	B	No
33	T-SH-AS-1	R134.1	NA	Shrewsbury	Digitized	5	Intermittent	No	B	No
33	T-SH-AS-2	R134.2	Unnamed Trib to Mill R	Shrewsbury	Digitized	25	Perennial	Yes	B	No
33	T-SH-AS4	R134.6	Unnamed Trib to Mill R	Shrewsbury	Digitized	5	Intermittent	No	B	No
33	V-SH-AS-10	R134	NA	Shrewsbury	Digitized	1	Perennial	No	B	No
33	V-SH-AS-11	R134	NA	Shrewsbury	Digitized	4	Intermittent	No	B	No
33	V-SH-AS-7	NA	UT to Mill River	Shrewsbury	Digitized	2	Perennial	No	B	No
33	V-SH-AS-8	NA	UT to Mill River	Shrewsbury	Digitized	10	Perennial	No	B	No
33	V-SH-AS-9	NA	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
33	T-SH-AS-4	R134.6	NA	Shrewsbury	Digitized	5	Intermittent	No	B	No
33	V-SH-5-1	NA	Mill River	Shrewsbury	TOB	55	Perennial	No	B	No
33	V-SH-AS-1	NA	Mill River	Shrewsbury	Digitized	55	Perennial	Yes	B	No
34	V-SH-5-3	NA	NA	Shrewsbury	Center	5	Intermittent	No	B	No
34	V-SH-5-4	NA	NA	Shrewsbury	Center	3	Intermittent	No	B	No
34	V-SH-5-5	NA	NA	Shrewsbury	Center	3	Ephemeral	No	B	No
34	V-SH-5-6	NA	UT to Mill River	Shrewsbury	Center	2	Intermittent	No	B	No
34	T-SH-53	135.4	Unnamed Trib to Mill R	Shrewsbury	TOB	20	Perennial	Yes	B	No
34	T-SH-55	135.6	NA	Shrewsbury	Center	3	Intermittent	No	B	No
34	T-SH-AS-3	R135.4	Unnamed Trib to Mill R	Shrewsbury	Digitized	20	Perennial	Yes	B	No
34	T-SH-AS-5	R135.7	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
34	V-SH-AS-3	NA	NA	Shrewsbury	Digitized	5	Intermittent	No	B	No
34	V-SH-AS-4	NA	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
34	V-SH-AS-5	NA	NA	Shrewsbury	Digitized	3	Ephemeral	No	B	No
34	V-SH-AS-6	NA	UT to Mill River	Shrewsbury	Digitized	2	Intermittent	No	B	No
35	V-SH-5-2	NA	NA	Shrewsbury	Center	3	Intermittent	No	B	No
35	V-WA-5-3	NA	NA	Wallingford	Center	2	Ephemeral	No	B	No
35	V-WA-5-4	NA	Freeman Brook	Wallingford	TOB	38	Perennial	No	B	No
35	V-SH-5-2a	NA	NA	Shrewsbury	Center	3	Intermittent	No	B	No
35	T-SH-56	135.9	NA	Shrewsbury	Center	3	Intermittent	No	B	No
35	T-SH-57	135.9	NA	Shrewsbury	TOB	3	Perennial	No	B	No
35	T-SH-59	136.1	NA	Shrewsbury	Center	1	Ephemeral	No	B	No
35	T-SH-510	136.1	NA	Shrewsbury	TOB	3	Intermittent	No	B	No
35	T-SH-511	136.5	NA	Shrewsbury	Center	2	Ephemeral	No	B	No
35	T-WA-513	136.5	NA	Wallingford	Center	3	Intermittent	No	B	No
35	T-WA-51	136.7	Freeman Brook	Wallingford	TOB	30	Perennial	Yes	B	No
35	T-SH-AS-10	R136.2	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
35	T-SH-AS-6	R135.9	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
35	V-SH-AS-2	NA	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
35	V-SH-AS-2a	NA	NA	Shrewsbury	Digitized	3	Intermittent	No	B	No
35	V-WA-AS-3	NA	NA	Shrewsbury	Digitized	5	Ephemeral	No	B	No
35	V-WA-AS-4	NA	Freeman Brook	Wallingford	Digitized	38	Perennial	Yes	B	No
35	V-WA-AS-5	NA	NA	Wallingford	Digitized	5	Intermittent	No	B	No
35	T-WA-52	136.9	NA	Wallingford	Center	1	Intermittent	No	B	No
36	V-WA-5-1	R137.5	Mill River	Wallingford	TOB	55	Intermittent	No	B	No
36	V-WA-5-6	137.5	NA	Wallingford	Center	2	Ephemeral	No	B	No
36	V-WA-5-103	137.7	NA	Wallingford	Center	3	Perennial	No	B	No
36	V-WA-5-105	137.6	NA	Wallingford	Center	3	Perennial	No	B	No
36	V-WA-5-106	137.5	No	Wallingford	Center	4	Perennial	No	B	No
36	T-WA-54	137.2	NA	Wallingford	Center	6	Intermittent	No	B	No
36	T-WA-55	137.2	NA	Wallingford	Center	3	Intermittent	No	B	No
36	T-WA-56	137.4	NA	Wallingford	Center	4	Intermittent	No	B	No
36	T-WA-53	137.1	NA	Wallingford	Center	6	Intermittent	No	B	No
36	T-WA-AS3	R137.1	NA	Wallingford	Digitized	6	Intermittent	No	B	No
36	T-WA-AS4	R137.1	NA	Wallingford	Digitized	6	Intermittent	No	B	No
36	T-WA-AS6	R137.4	NA	Wallingford	Digitized	4	Intermittent	No	B	No
36	V-WA-AS-1	R137.5	Mill River	Wallingford	Digitized	55	Perennial	Yes	B	No
36	V-WA-AS-103	137.7	NA	Wallingford	Digitized	3	Perennial	No	B	No
36	V-WA-AS-104	137.7	NA	Wallingford	Digitized	5	Intermittent	No	B	No
36	V-WA-AS-105	137.6	NA	Wallingford	Digitized	3	Perennial	No	B	No
36	V-WA-AS-106	137.5	Unnamed Tributary to Mill River	Wallingford	Digitized	4	Perennial	No	B	No
36	V-WA-5-102	137.95	NA	Wallingford	Center	1	Jurisdictional Ditch	No	B	No
36	V-WA-AS-101	137.9	Mill River	Wallingford	Digitized	55	Perennial	Yes	B	No
36	V-WA-AS-102	138	NA	Wallingford	Digitized	1	Jurisdictional Ditch	No	B	No
37	V-WA-5-100	138.3	NA	Wallingford	Center	2	Intermittent	No	B	No
37	T-MH-DITCH15	139.1	NA	Mount Holly	Center	6	Jurisdictional Ditch	No	B	No
37	T-MH-DITCH17	139	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
37	T-MH-DITCH18	138.7	NA	Mount Holly	Center	2	Jurisdictional Ditch	No	B	No
37	T-MH-537	139.1	NA	Mount Holly	Center	6	Perennial	No	B	No
37	T-MH-538	138.9	NA	Mount Holly	Center	1	Ephemeral	No	B	No
37	T-MH-AS-37	139	NA	Mount Holly	Digitized	6	Perennial	No	B	No
37	T-MH-AS-38	138.8	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
37	T-MH-AS-39	138.5	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
37	T-MH-AS-40	138.8	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
37	V-MH-AS-100	138.4	NA	Mount Holly	Digitized	2	Intermittent	No	B	No

37	V-MH-AS-101	138.5	NA	Mount Holly	Digitized	2	Intermittent	No	B	No
37	V-WA-AS-100	138.2	NA	Wallingford	Digitized	2	Intermittent	No	B	No
37	T-MH-AS-34	139.2	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
37	T-MH-AS-35	139.1	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
37	T-MH-AS-36	139.1	NA	Mount Holly	Digitized	1	Ephemeral	No	B	No
38	T-MH-DITCH13	139.7	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
38	T-MH-S30	139.7	NA	Mount Holly	Center	1	Intermittent	No	B	No
38	T-MH-DITCH14	139.75	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
38	T-MH-DITCH16	139.4	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
38	T-MH-S32	139.6	NA	Mount Holly	Center	1	Intermittent	No	B	No
38	T-MH-S31	139.55	NA	Mount Holly	TOB	25	Perennial	No	B	No
38	T-MH-S28	140.1	NA	Mount Holly	TOB	25	Perennial	Yes	B	No
38	T-MH-AS-28	140.1	Unnamed Tributary to Mill River	Mount Holly	Digitized	25	Perennial	Yes	B	No
38	T-MH-AS-29	139.9	NA	Mount Holly	Digitized	2	Intermittent	No	B	No
38	T-MH-AS-31	139.6	NA	Mount Holly	Digitized	25	Perennial	No	B	No
38	T-MH-AS-32	139.6	NA	Mount Holly	Digitized	1	Intermittent	No	B	No
38	T-MH-AS-33	139.3	NA	Mount Holly	Digitized	1	Intermittent	No	B	No
38	T-MH-AS-DITCH13	139.7	NA	Mount Holly	Digitized	1	Jurisdictional Ditch	No	B	No
38	T-MH-S27	140.4	NA	Mount Holly	Center	2	Ephemeral	No	B	No
38	T-MH-DITCH11	140.3	NA	Mount Holly	Center	3	Jurisdictional Ditch	No	B	No
38	T-MH-DITCH12	140.2	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
38	T-MH-AS-11	140.25	NA	Mount Holly	Digitized	3	Jurisdictional Ditch	No	B	No
38	T-MH-AS-27	140.4	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
39	T-MH-S24	141.2	NA	Mount Holly	Center	3	Intermittent	No	B	No
39	T-MH-S26	140.8	NA	Mount Holly	Center	1	Ephemeral	No	B	No
39	T-MH-DITCH9	140.8	NA	Mount Holly	Center	3	Jurisdictional Ditch	No	B	No
39	T-MH-DITCH10	140.5	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
39	T-MH-S25	140.9	NA	Mount Holly	Center	1	Intermittent	No	B	No
39	T-MH-AS-24	141.1	NA	Mount Holly	Digitized	3	Intermittent	No	B	No
39	T-MH-AS-25	140.9	NA	Mount Holly	Digitized	1	Intermittent	No	B	No
39	T-MH-AS-23	141.5	NA	Mount Holly	Digitized	4	Perennial	No	B	No
40	T-MH-S21	142.3	NA	Mount Holly	Center	3	Intermittent	No	B	No
40	T-MH-S22	141.8	NA	Mount Holly	Center	2	Intermittent	No	B	No
40	T-MH-AS-21	142.25	NA	Mount Holly	Digitized	3	Intermittent	No	B	No
40	T-MH-AS-41	142	NA	Mount Holly	Digitized	2	Intermittent	No	B	No
40	T-MH-AS-20	142.6	NA	Mount Holly	Digitized	4	Perennial	Yes	B	No
41	T-MH-AS-42	143.3	NA	Mount Holly	Digitized	3	Intermittent	No	B	No
41	T-MH-AS-43	143.4	NA	Mount Holly	Digitized	4	Intermittent	No	B	No
41	T-MH-AS-44	143.1	NA	Mount Holly	Digitized	3	Intermittent	No	B	No
41	T-MH-AS-45	142.9	NA	Mount Holly	Digitized	5	Perennial	No	B	No
42	T-MH-S15	144.3	NA	Mount Holly	Center	2	Intermittent	No	B	No
42	T-MH-S16	144.2	NA	Mount Holly	Center	1	Intermittent	No	B	No
42	T-MH-S17	144.1	NA	Mount Holly	Center	2	Ephemeral	No	B	No
42	T-MH-S18	144	NA	Mount Holly	Center	1	Ephemeral	No	B	No
42	T-MH-S19	143.9	NA	Mount Holly	Center	1	Ephemeral	No	B	No
42	T-MH-DITCH5	143.8	NA	Mount Holly	Center	2	Jurisdictional Ditch	No	B	No
42	T-MH-DITCH6	143.8	NA	Mount Holly	Center	1	Jurisdictional Ditch	No	B	No
42	T-MH-DITCH7	143.8	NA	Mount Holly	Center	2	Jurisdictional Ditch	No	B	No
42	T-MH-AS-17	144.1	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
42	T-MH-S14	144.5	NA	Mount Holly	TOB	12	Perennial	No	B	No
42	T-MH-AS-14	144.55	Unnamed Tributary to Branch Brook	Mount Holly	Digitized	12	Perennial	No	B	No
42	T-MH-AS-15	144.4	NA	Mount Holly	Digitized	2	Intermittent	No	B	No
42	T-MH-AS-3	145.8	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
42	T-MH-AS-4a	145.3	NA	Mount Holly	Digitized	3	Jurisdictional Ditch	No	B	No
42	T-MH-AS-4b	145.3	NA	Mount Holly	Digitized	6	Intermittent	No	B	No
42	T-MH-AS-4c	145.3	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
43	T-MH-S10	145.1	Branch Brook	Mount Holly	TOB	30	Perennial	Yes	B	No
43	T-MH-S4	145.4	NA	Mount Holly	Center	6	Intermittent	No	B	No
43	T-MH-AS-10	145.1	Branch Brook	Mount Holly	Digitized	30	Perennial	Yes	B	No
43	T-MH-AS-12	144.8	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
43	T-MH-AS-13	144.7	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
43	T-MH-AS-8	145.3	NA	Mount Holly	Digitized	2	Ephemeral	No	B	No
43	T-MH-S5	145.8	NA	Mount Holly	Center	2	Intermittent	No	B	No
43	T-MH-AS-5	145.7	NA	Mount Holly	Digitized	2	Intermittent	No	B	No
43	T-MH-AS-6	145.6	NA	Mount Holly	Digitized	3	Ephemeral	No	B	No
44	T-LU-S32	146.4	NA	Ludlow	Center	15	Intermittent	No	B	No
44	T-LU-S33	146.45	NA	Ludlow	Center	6	Ephemeral	No	B	No
44	T-LU-S34	146.5	NA	Ludlow	Center	2	Intermittent	No	B	No
44	T-LU-S37	146.55	NA	Ludlow	Center	2	Ephemeral	No	B	No
44	T-MH-DITCH1	145.9	NA	Mount Holly	Center	5	Jurisdictional Ditch	No	B	No
44	T-LU-S38	146.6	NA	Ludlow	Center	15	Ephemeral	No	B	No
44	T-LU-S36	146.5	NA	Ludlow	Center	1	Ephemeral	No	B	No
44	T-LU-S35	146.5	NA	Ludlow	OHW	10	Intermittent	No	B	No
44	T-MH-S2	146	NA	Mount Holly	Center	4	Ephemeral	No	B	No
44	T-MH-S3	145.9	NA	Mount Holly	Center	2	Ephemeral	No	B	No
44	T-MH-S1	146.1	NA	Mount Holly	TOB	7	Perennial	No	B	No
44	T-LU-AS32	146.4	NA	Ludlow	Digitized	15	Intermittent	No	B	No
44	T-LU-AS-34	146.5	NA	Ludlow	Digitized	2	Intermittent	No	B	No
44	T-LU-AS-35	146.5	NA	Ludlow	Digitized	10	Intermittent	No	B	No
44	T-LU-AS-37	146.55	NA	Ludlow	Digitized	2	Ephemeral	No	B	No
44	T-MH-AS-1	146.1	NA	Mount Holly	Digitized	7	Perennial	No	B	No

44	T-MH-AS-2	145.9	NA	Mount Holly	Digitized	4	Ephemeral	No	B	No
44	T-LU-S31	146.7	NA	Ludlow	Center	4	Ephemeral	No	B	No
44	T-LU-AS-34a	146.5	NA	Ludlow	Digitized	8	Perennial	No	B	No
45	T-LU-S30	146.9	NA	Ludlow	Center	2	Ephemeral	No	B	No
45	T-LU-S3	147.6	NA	Ludlow	Center	2	Intermittent	No	B	No
45	T-LU-AS-30	146.8	NA	Ludlow	Digitized	2	Ephemeral	No	B	No
45	T-LU-AS4	147.65	Coleman brook	Ludlow	Digitized	15	Perennial	Yes	B	No
45	T-LU-S2	147.9	Branch Brook	Ludlow	TOB	59	Perennial	Yes	B	No
45	T-LU-S4	147.7	Coleman Brook	Ludlow	TOB	15	Perennial	Yes	B	No
45	T-LU-S5	148.1	NA	Ludlow	Center	3	Perennial	No	B	No
45	T-LU-AS-2	147.8	Branch Brook	Ludlow	Digitized	59	Perennial	Yes	B	No
45	T-LU-AS5	148.15	NA	Ludlow	Digitized	3	Perennial	No	B	No
46	T-LU-S1	148.6	Black River	Ludlow	TOB	50	Perennial	Yes	B	No
46	T-LU-S29	148.7	NA	Ludlow	Center	4	Perennial	No	B	No
46	T-LU-AS-1	148.7	Black River	Ludlow	Digitized	50	Perennial	Yes	B	No
46	T-LU-AS-29	148.7	Unnamed Tributary to Black River	Ludlow	Digitized	4	Perennial	No	B	No
47	T-LU-DITCH3	149.6	NA	Ludlow	Center	1	Jurisdictional Ditch	No	B	No
47	T-LU-S28	149	NA	Ludlow	Center	2	Ephemeral	No	B	No
47	T-LU-DITCH4	149	NA	Ludlow	Center	2	Jurisdictional Ditch	No	B	No
47	T-LU-S24	149.6	NA	Ludlow	Center	1	Ephemeral	No	B	No
47	T-LU-S25	149.5	NA	Ludlow	Center	4	Ephemeral	No	B	No
47	T-LU-S26	149.5	NA	Ludlow	Center	2	Ephemeral	No	B	No
47	T-LU-S27	149.4	NA	Ludlow	Center	1	Ephemeral	No	B	No
47	T-LU-AS-24	149.6	NA	Ludlow	Digitized	1	Ephemeral	No	B	No
47	T-LU-AS-25	149.55	NA	Ludlow	Digitized	4	Ephemeral	No	B	No
47	T-LU-AS-26	149.5	NA	Ludlow	Digitized	2	Ephemeral	No	B	No

47	T-LU-AS-27	149.4	NA	Ludlow	Digitized	1	Ephemeral	No	B	No
47	T-LU-AS-28	149	NA	Ludlow	Digitized	2	Ephemeral	No	B	No
47	T-LU-S22	149.9	NA	Ludlow	Center	3	Intermittent	No	B	No
47	T-LU-S23	149.8	NA	Ludlow	Center	3	Ephemeral	No	B	No
47	T-LU-AS-22	149.95	NA	Ludlow	Digitized	3	Intermittent	No	B	No
47	T-LU-AS-23	149.85	NA	Ludlow	Digitized	3	Ephemeral	No	B	No
48	T-LU-S16	151.1	NA	Ludlow	Center	1	Ephemeral	No	B	No
48	T-LU-S17	150.9	NA	Ludlow	Center	1	Intermittent	No	B	No
48	T-LU-S21	150.1	NA	Ludlow	Center	2	Perennial	No	B	No
48	T-LU-S20	150.1	NA	Ludlow	TOB	10	Perennial	Yes	B	No
48	T-LU-AS-16	151.1	NA	Ludlow	Digitized	1	Ephemeral	No	B	No
48	T-LU-AS-17	151	NA	Ludlow	Digitized	1	Intermittent	No	B	No
48	T-LU-AS-19	150.5	NA	Ludlow	Digitized	1	Intermittent	No	B	No
48	T-LU-AS-20	150.3	Unnamed trib Black River	Ludlow	Digitized	10	Perennial	Yes	B	No
48	T-LU-AS-21	150.1	NA	Ludlow	Digitized	2	Perennial	No	B	No
48	T-LU-S12	151.3	NA	Ludlow	Center	4	Perennial	No	B	No
48	T-LU-S13	151.3	NA	Ludlow	Center	2	Intermittent	No	B	No
48	T-LU-S14	151.2	NA	Ludlow	Center	2	Intermittent	No	B	No
48	T-LU-S15	151.2	NA	Ludlow	Center	6	Perennial	No	B	No
48	T-LU-AS-12	151.3	NA	Ludlow	Digitized	4	Perennial	No	B	No
48	T-LU-AS-13	151.3	NA	Ludlow	Digitized	2	Intermittent	No	B	No
48	T-LU-AS-14	151.2	NA	Ludlow	Digitized	2	Intermittent	No	B	No
48	T-LU-AS-15	151.2	NA	Ludlow	Digitized	6	Perennial	No	B	No
49	T-LU-S10	152.2	NA	Ludlow	Center	4	Intermittent	No	B	No
49	T-LU-S11	151.9	NA	Ludlow	Center	1	Intermittent	No	B	No
49	T-LU-AS-10	152.2	NA	Ludlow	Digitized	4	Intermittent	No	B	No
49	T-LU-AS-11	151.9	NA	Ludlow	Digitized	1	Intermittent	No	B	No
50	T-LU-DITCH1	152.65	NA	Ludlow	Center	1	Jurisdictional Ditch	No	B	No
50	T-LU-S7	152.5	NA	Ludlow	Center	3	Ephemeral	No	B	No
50	T-LU-S9	152.4	NA	Ludlow	Center	1	Ephemeral	No	B	No
50	T-LU-AS-6	152.7	NA	Ludlow	Digitized	2	Intermittent	No	B	No
50	T-LU-AS-7	152.55	NA	Ludlow	Digitized	3	Ephemeral	No	B	No
50	T-LU-AS-9	152.45	NA	Ludlow	Digitized	1	Ephemeral	No	B	No
51	V-S-AL-1	0.5	Lake Champlain	Alburgh	OHW	NA	Open Water	No	B	No

<sup>1</sup>U.S. Army Corps of Engineers (USACE), 2005. "Regulatory Guidance Letter. Subject: Ordinary High Water Mark Identification." No. 05-05.

<sup>2</sup>Stream flow regime determined based on qualitative observations of in stream hydrology indicators and geomorphic characteristic and are subject to professional judgment. Ditches were included in the delineation if they were determined to meet federal criteria for jurisdiction.

<sup>3</sup>Watershed size was determined from Vermont ANR Stream Alteration Regulatory Program mapping.

<sup>4</sup>Under Vermont Water Quality Standards (Vt. Code R. 12 004 052), Effective October 30,2014 all of the streams mapped are considered Class B Waters

<sup>5</sup>List of streams from the 2012 Vermont 303 (d) List



# **ATTACHMENT 3**

TDI New England Clean Power Link (NECPL)												
Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
1	V-BE-W-1	97.60	Benson	PSS	1L, 2L, 10P	c	Yes	V-BE-S-1	3305	Yes	II	Contiguous with Lake Champlain
1	V-BE-W-2	97.60	Benson	PFO	1P, 2P, 10P	c	No	V-BE-S-1	3928	Yes	II	Small wetland in distinct topographical break along a stream
2	V-BE-AW-3	98.90	Benson	PEM	1P, 10P	a,b	no	V-BE-AS-3	2738	Yes	II	Scrub-shrub wetland adjacent to stream; saturated soils and drainage patterns present
2	V-BE-AW-4	98.90	Benson	PEM	1P, 10P	a,b	yes	no	2382	Yes	II	Topographical depression; hydrologically connected to V-AW-3; drainage patterns
2	V-BE-W-5	99.00	Benson	PEM/PFO	1P, 2P, 10P	a,c	Yes	No	1101	Yes	II	Stream located outside of study area; located on northeast side of road
2	V-BE-AW-5	99.00	Benson	PEM/PFO	1P, 2P, 10P	a,c	Yes	No	2700	Yes	II	Stream located outside of study area; located on northeast side of road
2	V-BE-AW-6	99.00	Benson	PEM/PFO	1P, 2P, 10P	a,c	yes	V-BE-AS-4	3421	Yes	II	Stream located outside of study area; located on northeast side of road
2	V-BE-AW-7	99.30	Benson	PEM/PSS	1P, 2P, 10P	a, c	no	V-BE-AS-5, V-BE-AS-6	8992	Yes	II	Stream located outside of study area; larger wetland feature
2	V-BE-W-8	99.40	Benson	PEM	1P, 2H, 4P	a	No	V-BE-S-6	382	Yes	II	Wetland located on south side of North Lake Road; Amphibian breeding observed; forest and pasture buffer
2	V-BE-AW-8	99.40	Benson	PEM	1P, 2H, 4P	a	No	V-BE-S-6	16404	Yes	II	Wetland located on south side of North Lake Road; Amphibian breeding observed; forest and pasture buffer
2	V-BE-W-9	99.70	Benson	PEM/PSS/PFO	2P, 4P	a	Yes	No	433	Yes	II	Part of large mapped VSWI; saturated to surface; drainage patterns
2	V-BE-AW-9	99.70	Benson	PEM/PSS/PFO	2P, 4P	a	Yes	No	7380	Yes	II	Part of large mapped VSWI; saturated to surface; drainage patterns
2	V-BE-AW-10	99.70	Benson	PSS/PFO	1P, 2P, 4P	a	Yes	No	7853	Yes	II	Wetland located in topographical depression; drains across North Lake Road
2	V-BE-W-10	99.80	Benson	PSS/PFO	1P, 2P, 4P	a	Yes	No	3389	Yes	II	Wetland located in topographical depression; drains across North Lake Road
2	V-BE-W-11	99.90	Benson	PFO	1P, 2P, 4P	a	Yes	No	2331	Yes	II	Wetland feature has no inlet or outlet; buffers include roadway and hardwood forest
2	V-BE-AW-11	99.90	Benson	PFO	1P, 2P, 4P	a	Yes	No	9941	Yes	II	Wetland feature has no inlet or outlet; buffers include roadway and hardwood forest
3	V-BE-W-12	100.10	Benson	PSS/PFO	1P, 2P, 4P	a	Yes	No	99	Yes	II	Part of large mapped VSWI; located in topographical depression off of Old North Lake Road
3	V-BE-AW-12	100.10	Benson	PSS/PFO	1P, 2P, 4P	a	Yes	No	8165	Yes	II	Part of large mapped VSWI; located in topographical depression off of Old North Lake Road
3	V-BE-W-13	100.40	Benson	PSS	2L	NA	No	No	258	No	III	Small wetland feature in topographical depression; seep enhanced by road
3	V-BE-W-14	100.50	Benson	PSS/PFO	1P, 2H, 3P, 4H	a	Yes	V-BE-S-8	1483	Yes	II	Part of large mapped VSWI; Inundated in center with seeps
3	V-BE-AW-14	100.50	Benson	PSS/PFO	1P, 2H, 3P, 4H	a	Yes	V-BE-S-8	24987	Yes	II	Part of large mapped VSWI; Inundated in center with seeps
3	V-BE-W-15	100.70	Benson	PFO	1L, 2L, 10L	NA	No	No	1852	No	III	Small depressional wetland; saturated to surface
3	V-BE-AW-15	100.70	Benson	PFO	1L, 2L, 10L	NA	No	No	2828	No	III	Small Depressional wetland; saturated to surface
3	V-BE-AW-16	100.80	Benson	PEM	1P	NA	no	No	2760	No	III	Located in topographical depression; saturated to surface
3	V-BE-AW-17	101.00	Benson	PEM/PFO	1P	a	no	V-BE-AS-106	2936	Yes	II	Located in topographical depression; drainage patterns; surrounded by agricultural fields
4	V-BE-W-18	101.80	Benson	PSS	2L	NA	No	No	1	No	III	Drains farm fields and a seep; saturated to surface
4	V-BE-AW-18	101.80	Benson	PSS	2L	NA	No	No	3860	No	III	Drains farm fields and a seep; saturated to surface
4	V-BE-W-100	102.00	Benson	PEM	1P, 2P, 10P	a,c	No	V-BE-S-100	739	Yes	II	Emergent wetland adjacent to VHD-mapped stream
4	V-BE-AW-100	102.00	Benson	PEM	1P, 2P, 10P	a,c	No	V-BE-S-100	7364	Yes	II	Emergent wetland adjacent to VHD-mapped stream
4	V-BE-W-101	102.20	Benson	PEM	1L	NA	No	No	907	No	III	Small emergent wetland within active pasture
4	V-BE-AW-101	102.20	Benson	PEM	1L	NA	No	No	4406	No	III	Small emergent wetland within active pasture
5	V-BE-W-102	103.00	Benson	PEM/OW	1P, 2P, 10P	a	Yes	V-BE-S-102	94	Yes	II	Emergent wetland with area of open water (impounded section of adjacent stream)
5	V-BE-AW-102	103.00	Benson	PEM/OW	1P, 2P, 10P	a	Yes	V-BE-S-102	2274	Yes	II	Emergent wetland with area of open water (impounded section of adjacent stream)
5	V-BE-AW-103	103.30	Benson	PEM	1P	NA	no	No	4217	No	III	Located in topographical depression; saturated to surface; small wetland
6	V-BE-W-104	103.70	Benson	PEM	1L, 2L	NA	No	No	989	No	III	Small emergent wetland between active agricultural fields
6	V-BE-AW-104	103.70	Benson	PEM	1L, 2L	NA	No	No	1594	No	III	Small emergent wetland between active agricultural fields
6	V-BE-AW-106	103.80	Benson	PEM	1L, 2L	NA	no	No	1753	No	III	Small emergent wetland between active agricultural fields
6	V-BE-W-107	104.00	Benson	PEM	1L, 2L	NA	No	No	5144	No	III	Emergent wetland between roadway and active agricultural field
6	V-BE-AW-107	104.00	Benson	PEM	1L, 2L	NA	No	No	9518	No	III	Emergent wetland between roadway and active agricultural field
6	V-BE-AW-108	104.50	Benson	PEM/PSS	1P	NA	no	V-BE-AS-106	823	No	III	Wetland located on terrace above stream; drains toward stream but does not provide stream stabilization function
6	V-BE-AW-109	104.60	Benson	PEM/PSS/PFO	1P, 2P, 10P	a,b	yes	V-BE-AS-106	13605	Yes	II	Large wetland along stream outside of study area; saturated to surface; drainage channels; large feature
7	V-WH-AW-102	103.00	West Haven	PEM	1L, 2L	NA	No	No	1773	No	III	Emergent wetland in pasture (active or former, unclear)
7	V-WH-AW-103	103.30	West Haven	PEM	1P, 2P	a	No	V-WH-S-101	707	Yes	II	Emergent wetland in former pasture; drains to V-WH-S-101
7	V-BE-W-111	104.80	Benson	PEM	1L, 2L	NA	No	No	1995	No	III	Emergent wetland within active hay field (mowed previously)
7	V-BE-AW-111	104.80	Benson	PEM	1L, 2L	NA	No	No	4561	No	III	Emergent wetland within active hay field (mowed previously)
7	V-WH-W-103	105.20	West Haven	PEM	1P, 2P	a	No	V-WH-S-101	43	Yes	II	Emergent wetland in former pasture; drains to V-WH-S-101
7	V-WH-W-102	105.50	West Haven	PEM	1L, 2L	NA	No	No	352	No	III	Emergent wetland in pasture (active or former, unclear)
8	V-WH-AW-100	102.00	West Haven	PEM	1L, 2L	NA	No	No	894	No	III	Small emergent wetland between active agricultural fields
8	V-WH-AW-101	102.20	West Haven	PEM	1L, 2L	NA	No	No	1020	No	III	Small emergent wetland in pasture field
8	V-WH-W-101	105.90	West Haven	PEM	1L, 2L	NA	No	No	142	No	III	Small emergent wetland in pasture field
8	V-WH-W-100	105.90	West Haven	PEM	1L, 2L	NA	No	No	98	No	III	Small emergent wetland between active agricultural fields
8	V-WH-W-5	106.10	West Haven	PEM	1H, 2P	a	Yes	No	1455	Yes	II	Large wetland extends to mapped VSWI; wetland restoration project with plantings
8	V-WH-AW-5	106.10	West Haven	PEM	1H, 2P	a	Yes	No	5344	Yes	II	Large wetland extends to mapped VSWI; wetland restoration project with plantings
8	V-WH-W-6	106.20	West Haven	PEM	1H, 2P	a	Yes	No	116	Yes	II	Large wetland extends to mapped VSWI; wetland restoration project with plantings
8	V-WH-AW-6	106.20	West Haven	PEM	1H, 2P	a	Yes	No	688	Yes	II	Large wetland extends to mapped VSWI; wetland restoration project with plantings
8	V-WH-W-7	106.40	West Haven	PEM	1H, 2P	NA	No	No	146	No	III	Small swale wetland located in topographical depression
8	V-WH-AW-7	106.40	West Haven	PEM	1H, 2P	NA	No	No	786	No	III	Small swale wetland located in topographical depression
8	V-WH-W-8	106.50	West Haven	PEM	1H, 2P	a	No	No	6358	Yes	II	Large wetland extends outside of ROW; saturated to surface
8	V-WH-AW-8	106.50	West Haven	PEM	1H, 2P	a	No	No	44167	Yes	II	Large wetland extends outside of ROW; saturated to surface
8	V-WH-W-9	106.70	West Haven	PEM	1H, 2P	a	Yes	No	4785	Yes	II	Large wetland extends outside of ROW; saturated to surface
8	V-WH-AW-9	106.70	West Haven	PEM	1H, 2P	a	Yes	No	13887	Yes	II	Large wetland extends outside of ROW; saturated to surface
8	V-WH-W-10	106.80	West Haven	PEM	1P, 2P	a	No	No	1802	Yes	II	Wetland saturated to surface; drainage patterns
8	V-WH-AW-10	106.80	West Haven	PEM	1P, 2P	a	No	No	7146	Yes	II	Wetland saturated to surface; drainage patterns
9	V-WH-W-11	107.00	West Haven	PEM	1P, 2P, 4P	a	No	No	1219	Yes	II	Large wetland extends outside ROW; saturated to surface
9	V-WH-AW-11	107.00	West Haven	PEM	1P, 2P, 4P	a	No	No	8089	Yes	II	Large wetland extends outside ROW; saturated to surface
9	V-WH-W-13	107.40	West Haven	PEM/PSS	1P, 2P	a	No	No	6298	Yes	II	Wetland saturated to the surface; extends outside of study area; topographical depression along 22A
9	V-WH-AW-13	107.40	West Haven	PEM/PSS	1P, 2P	a	No	No	11263	Yes	II	Wetland saturated to the surface; extends outside of study area; topographical depression along 22A

TDI New England Clean Power Link (NECPL)												
Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
9	V-WH-W-4	107.50	West Haven	PEM	1P, 2P	a	No	No	736	Yes	II	Wetland extends to larger feature outside of study area; saturated to the surface continues via culvert under local road
9	V-WH-AW-4	107.50	West Haven	PEM	1P, 2P	a	No	No	19397	Yes	II	Wetland extends to larger feature outside of study area; saturated to the surface continues via culvert under local road
9	V-WH-W-3	107.60	West Haven	PEM	1L, 2L	NA	No	No	1294	No	III	Wetland saturated to the surface; topographical depression along 22A
9	V-WH-AW-3	107.60	West Haven	PEM	1L, 2L	NA	No	No	1445	No	III	Wetland saturated to the surface; topographical depression along 22A
9	V-WH-W-2	107.70	West Haven	PEM	1L	NA	No	No	1349	No	III	Wetland saturated to the surface; topographical depression along 22A
9	V-WH-AW-14	107.70	West Haven	PEM	1L	NA	no	No	6918	No	III	Located in a field; saturated to the surface
9	V-WH-AW-2	107.70	West Haven	PEM	1L	NA	No	No	1051	No	III	Wetland saturated to the surface; topographical depression along 22A
9	V-WH-W-1	108.00	West Haven	PEM	1L	NA	No	No	426	No	III	Drains to V-WH-S-1 Under Road; Saturated to Surface
9	V-WH-AW-1	108.00	Fair Haven	PEM	1L	NA	No	No	496	No	III	Drains to V-WH-S-1 Under Road; Saturated to Surface
10	V-FH-W-27	108.30	Fair Haven	PEM	2L	NA	No	V-FH-S-25	462	No	III	Seep wetland; drains toward V-FH-S-25; saturated to surface; small feature
10	V-FH-AW-27	108.30	Fair Haven	PEM	2L	NA	No	V-FH-S-25	584	No	III	Seep wetland; drains toward V-FH-S-25; saturated to surface; small feature
10	V-FH-W-26	108.50	Fair Haven	PEM/PSS	1L	NA	No	No	223	No	III	Slight topographical depression along road; mowed field
10	V-FH-AW-26	108.50	Fair Haven	PEM/PSS	1L	NA	No	No	2630	No	III	Slight topographical depression along road; mowed field
10	V-FH-W-25	108.70	Fair Haven	PEM/PSS	1P, 2P	a	Yes	V-FH-S-24	1692	Yes	II	Depressional wetland feature; saturated to the surface; extends to mapped VSWI
10	V-FH-AW-25	108.70	Fair Haven	PEM/PSS	1P, 2P	a	Yes	V-FH-S-24	6233	Yes	II	Depressional wetland feature; saturated to the surface; extends to mapped VSWI
10	V-FH-W-24	108.80	Fair Haven	PEM	1P	NA	No	No	1012	No	III	Depressional wetland feature; saturated to surface
10	V-FH-AW-24	108.80	Fair Haven	PEM	1P	NA	No	No	4699	No	III	Depressional wetland feature; saturated to surface
10	V-FH-W-22	109.10	Fair Haven	PEM	1L	NA	No	No	1134	No	III	Small isolated feature in depression along 22a and driveway; saturated to the surface; partially mowed
10	V-FH-W-23	109.10	Fair Haven	PEM	1H, 2H	a	Yes	No	1997	Yes	II	Extends to mapped VSWI outside of study area; saturated to surface; partially mowed
10	V-FH-AW-23	109.10	Fair Haven	PEM	1H, 2H	a	Yes	No	5824	Yes	II	Extends to mapped VSWI outside of study area; saturated to surface; partially mowed
10	V-FH-W-21	109.30	Fair Haven	PEM/PSS	1H, 2H, 4P	a	Yes	V-FH-S-18	8777	Yes	II	Wetland drains across 22a via culvert; large mapped VSWI to the south of road
10	V-FH-AW-21	109.30	Fair Haven	PEM/PSS	1H, 2H, 4P	a	Yes	V-FH-S-18	13941	Yes	II	Wetland drains across 22a via culvert; large mapped VSWI to the south of road
11	V-FH-W-20	109.50	Fair Haven	PEM/PSS	1H, 2H, 4P, 10P	a, b	Yes	V-FH-S-16	10696	Yes	II	Wetland extends to larger mapped VSWI; drains across Route 22a
11	V-FH-W-19	109.60	Fair Haven	PEM	1H, 2H, 4P	a	Yes	No	9069	Yes	II	Wetland extends to topographical depression; ponded water
11	V-FH-AW-20	109.60	Fair Haven	PEM/PSS	1H, 2H, 4P, 10P	a, b	Yes	V-FH-S-16	21490	Yes	II	Wetland extends to larger mapped VSWI; drains across Route 22a
11	V-FH-AW-19	109.60	Fair Haven	PEM	1H, 2H, 4P	a	Yes	No	3445	Yes	II	Wetland extends to topographical depression; ponded water
11	V-FH-AW-18	109.80	Fair Haven	PEM/PFO	1P, 2P	a	No	No	2060	Yes	II	Wetland extends to larger feature outside of study area; topographical depression
11	V-FH-W-17	110.00	Fair Haven	PEM/PSS	1L	NA	No	V-FH-S-15	1429	No	III	Jurisdictional ditch drains from wetland
11	V-FH-W-16	110.00	Fair Haven	PEM	1L	NA	No	V-FH-S-15	1197	No	III	Jurisdictional ditch V-FH-S-15 drains to wetland
11	V-FH-AW-15	110.00	Fair Haven	PEM/PSS	1H, 2H, 4P, 9P, 10P	a, b	Yes	V-SH-S-13	20630	Yes	II	Large mapped VSWI; stream V-SH-S-13 drains through wetland
11	V-FH-AW-17	110.00	Fair Haven	PEM/PSS	1L	NA	No	V-FH-S-15	1121	No	III	Jurisdictional ditch drains from wetland
11	V-FH-AW-16	110.00	Fair Haven	PEM	1L	NA	No	V-FH-S-15	1813	No	III	Jurisdictional ditch V-FH-S-15 drains to wetland
11	V-FH-W-15	110.10	Fair Haven	PEM/PSS	1H, 2H, 4P, 9P, 10P	a, b	Yes	V-SH-S-13	10713	Yes	II	Large mapped VSWI; stream V-SH-S-13 drains through wetland
11	V-FH-W-29	110.20	Fair Haven	PEM / PSS	1L, 2L	NA	No	No	925	No	III	Small topographical depression wetland; saturated to surface
11	V-FH-W-12	110.30	Fair Haven	PEM / PSS	1P, 2P	a	Yes	V-FH-S-12	25324	Yes	II	Mapped VSWI; located between on ramp of Route 4 and Route 4
11	V-FH-AW-1	110.30	Fair Haven	PEM	1P, 2P	a	No	No	6769	Yes	II	Wetland in topographical depression; saturated to surface
11	V-FH-W-1	110.30	Fair Haven	PEM	1P, 2P	a	No	No	13621	Yes	II	Wetland in topographical depression; saturated to surface
11	V-FH-W-2	110.40	Fair Haven	PEM	1P, 2P, 10L	a	No	V-FH-S-3	2816	Yes	II	Wetland located along Route 4; topographical depression
12	V-FH-W-3	110.70	Fair Haven	PEM / PSS	1P, 2P, 3P	a	Yes	V-FH-S-4	2171	Yes	II	Mapped VSWI; saturated to surface; drainage patterns
12	V-FH-W-5	110.70	Fair Haven	PEM	1L, 2L	a	Yes	No	6285	Yes	II	Saturated to surface; drainage channels
12	V-FH-AW-3	110.70	Fair Haven	PEM / PSS	1P, 2P, 3P	a	Yes	V-FH-S-4	2153	Yes	II	Mapped VSWI; saturated to surface; drainage patterns
12	V-FH-AW-5	110.70	Fair Haven	PEM	1L, 2L	NA	Yes	No	1112	Yes	II	Saturated to surface; drainage channels
12	V-FH-AW-4	110.80	Fair Haven	PEM / PFO / PSS	1P, 2P, 4P	a	Yes	V-FH-S-5	12511	Yes	II	Large mapped VSWI; seepage wetland; saturated to surface; drainage channels; drains toward stream V-FH-S-5
12	V-FH-W-4	110.90	Fair Haven	PEM / PFO / PSS	1P, 2P, 4P	a	Yes	V-FH-S-5	85513	Yes	II	Large mapped VSWI; seepage wetland; saturated to surface; drainage channels; drains toward stream V-FH-S-5
12	V-FH-W-7	111.00	Fair Haven	PEM / PFO	1L, 2L	NA	No	No	2821	Yes	II	Small wetland; saturated to surface; depression
12	V-FH-W-6	111.00	Fair Haven	PEM	5.1, 5.2	NA	No	No	5315	No	III	Small wetland; saturated to surface; depression
12	V-FH-AW-28	111.00	Fair Haven	PEM	1P, 2P	a	No	V-FH-S-12	4581	Yes	II	Saturated to surface; extends to larger wetland outside of Study area; seep feature
12	V-FH-W-28	111.10	Fair Haven	PEM	1P, 2P	a	No	V-FH-S-12	6738	Yes	II	Saturated to surface; extends to larger wetland outside of Study area; seep feature
12	V-FH-W-8	111.10	Fair Haven	PEM / PSS / PFO	1P, 2P	a	No	No	10867	Yes	II	Wetland located in topographical depression; separated by off ramp
12	V-FH-AW-8	111.10	Fair Haven	PEM / PSS / PFO	1P, 2P	a	No	No	5370	Yes	II	Wetland located in topographical depression; separated by off ramp
12	V-FH-AW-9	111.40	Fair Haven	PEM / PSS	1H, 2H, 4H, 9P	a	Yes	V-FH-S-6	5125	Yes	II	Large mapped VSWI wetland; saturated to surface; drainage patterns
12	V-FH-W-9	111.50	Fair Haven	PEM / PSS	1H, 2H, 4H, 9P	a	Yes	V-FH-S-6	41636	Yes	II	Large mapped VSWI wetland; saturated to surface; drainage patterns
12	V-FH-W-13	111.60	Fair Haven	PEM / PSS / PFO	1L, 2L	NA	No	No	1840	No	III	Small wetland; topographical depression
13	V-FH-W-14	111.60	Fair Haven	PEM	1L, 2L	NA	No	No	1275	No	III	Small wetland; topographical depression
13	V-FH-W-10	111.70	Fair Haven	PEM	1P, 2P	a, b	Yes	V-FH-S-10	4404	Yes	II	Wetland in topographical depression; receives water from overland flow
13	V-FH-AW-10	111.70	Fair Haven	PEM	1P, 2P	a, b	Yes	V-FH-S-10	7209	Yes	II	Wetland in topographical depression; receives water from overland flow
13	V-CN-W-1a	112.30	Castleton	PEM/PSS	1P, 2P	a	No	No	3449	Yes	II	Wetland located in topographical depression; saturated to surface

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Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
13	V-CN-AW-1a	112.30	Castleton	PEM/PSS	1P, 2P	a	No	No	3619	Yes	II	Wetland located in topographical depression; saturated to surface
13	V-FH-W-11	112.40	Castleton	PEM	1P, 2P	a	No	V-FH-S-8	1748	Yes	II	Wetland saturated to surface; connects to larger wetland
13	V-CN-W-101	112.60	Castleton	PEM / OW / PSS / PFO	1H, 2H, 4P	a, b	No	No	46866	Yes	II	Large wetland located along Route 4; connected to Lake Bomoseen; topographical depression
13	V-CN-AW-101	112.60	Castleton	PEM / OW / PSS / PFO	1H, 2H, 4P	a, b	No	No	23661	Yes	II	Large wetland located along Route 4; connected to Lake Bomoseen; topographical depression
13	V-CN-W-105	112.70	Castleton	PEM / OW	1P, 2P, 10P	a	No	No	12751	Yes	II	Wetland separated by old wood road and connected by culvert; borders Lake Bomoseen. Vegetated shallow SAS.
13	V-CN-AW-105	112.60	Castleton	PEM / OW	1P, 2P, 10P	a	No	No	3693	Yes	II	Wetland separated by old wood road and connected by culvert; borders Lake Bomoseen
14	V-CN-W-106	112.90	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	5076	Yes	II	Wetland connects to mapped VSWI; saturated to surface; drainage patterns
14	V-CN-AW-106	112.90	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	2587	Yes	II	Wetland connects to mapped VSWI; saturated to surface; drainage patterns
14	V-CN-W-102	113.00	Castleton	PEM	1P, 2P, 10P	a	Yes	No	10401	Yes	II	Large mapped VSWI; topographical depression;
14	V-CN-AW-102	113.00	Castleton	PEM/PFO	1P, 2P, 10P	a	Yes	No	11413	Yes	II	Large mapped VSWI; topographical depression;
14	V-CN-W-107	113.30	Castleton	PEM	1L, 2L	NA	No	No	805	No	III	Small class III wetland along shallow ledge; receives water from a ground seep
14	V-CN-W-103	113.50	Castleton	PEM / PSS	1P, 2P	a	Yes	No	25934	Yes	II	Large mapped VSWI wetland; topographical depression; drains under Route 4 via culvert
14	V-CN-AW-103	113.50	Castleton	PEM / PSS	1P, 2P	a	Yes	No	10848	Yes	II	Large mapped VSWI wetland; topographical depression; drains under Route 4 via culvert
14	V-CN-W-104	113.70	Castleton	PFO / PEM / PSS	1P, 2P, 4P, 9P	a	Yes	No	119099	Yes	II	Large mapped VSWI wetland; drains under route 4 via culverts
14	V-CN-AW-104	113.70	Castleton	PFO / PEM / PSS	1P, 2P, 4P, 9P	a	Yes	No	87273	Yes	II	Large mapped VSWI wetland; drains under route 4 via culverts
15	V-CN-W-114	114.00	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	9104	Yes	II	Wetland located in topographical depression; seep wetland
15	V-CN-AW-114	114.00	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	4382	Yes	II	Wetland located in topographical depression; seep wetland
15	V-CN-W-113	114.20	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	30223	Yes	II	Large mapped VSWI complex; extends outside of study area; drains under Route 4
15	V-CN-W-112	114.20	Castleton	PEM / PSS	1P, 2P	a	Yes	No	7829	Yes	II	Located in topographical depression; extends to larger wetland
15	V-CN-AW-113	114.20	Castleton	PEM / PSS / PFO	1P, 2P	a	Yes	No	36754	Yes	II	Large mapped VSWI complex; extends outside of study area; drains under Route 4
15	V-CN-AW-112	114.20	Castleton	PEM / PSS	1P, 2P	a	Yes	No	2533	Yes	II	Located in topographical depression; extends to larger wetland
15	V-CN-W-111	114.40	Castleton	PEM / PFO	1P, 2P	a	No	No	22068	Yes	II	Located in topographical depression; drainage patterns
15	V-CN-W-115	114.50	Castleton	PEM	1P, 2P	a	No	No	17294	Yes	II	Wetland located in topographical depression; saturated to surface
15	V-CN-AW-115	114.50	Castleton	PEM	1P, 2P	a	No	No	6320	Yes	II	Wetland located in topographical depression; saturated to surface
15	V-CN-AW-111	114.40	Castleton	PEM / PFO	1P, 2P	a	No	No	7563	Yes	II	Located in topographical depression; drainage patterns
15	V-CN-W-110	114.60	Castleton	PEM / PFO	1P, 2P, 10P	a,b	No	V-CN-S-102	7140	Yes	II	Located in topographical depression; drains under Route 4
15	V-CN-AW-110	114.60	Castleton	PEM / PFO	1P, 2P, 10P	a,b	No	V-CN-S-102	5494	Yes	II	Located in topographical depression; drains under Route 4
15	V-CN-W-109	114.70	Castleton	PEM	1L, 2L	NA	No	No	1065	No	III	Small wetland feature; slight topographical depression
15	V-CN-W-116	114.70	Castleton	PEM, PSS, PFO	1P, 2P	a	No	No	1576	Yes	II	Large wetland saturated to the surface; topographical depression
15	V-CN-AW-116	114.70	Castleton	PEM, PSS, PFO	1P, 2P	a	No	No	6492	Yes	II	Large wetland saturated to the surface; topographical depression
15	V-CN-W-10	114.80	Castleton	PEM/PSS	1H, 2H, 4P	a	Yes	No	6752	Yes	II	Wetland surrounded by steep slopes; drains through culvert under Route 4; large mapped VSWI
15	V-CN-AW-10	114.80	Castleton	PEM/PSS	1H, 2H, 4P	a	Yes	No	10452	Yes	II	Wetland surrounded by steep slopes; drains through culvert under Route 4; large mapped VSWI
16	V-CN-W-15	115.5	Castleton	PEM/PSS	1P, 2P	a	Yes	No	21511	Yes	II	Wetland extends to VSWI; saturated to surface
16	V-CN-W-20	115.00	Castleton	PEM/PSS	1H, 2H	a	Yes	No	9441	Yes	II	Wetland located in topographical depression; extends to mapped VSWI; saturated to surface
16	V-CN-AW-20	115.00	Castleton	PEM/PSS	1H, 2H	a	Yes	No	9343	Yes	II	Wetland located in topographical depression; extends to mapped VSWI; saturated to surface
16	V-CN-AW-11	115.00	Castleton	PEM/PSS/PFO	1P, 2P	a	No	No	6520	Yes	II	Seep wetland; drains toward the east; extends into forested area
16	V-CN-W-11	115.10	Castleton	PEM/PSS/PFO	1P, 2P	a	No	No	5945	Yes	II	Seep wetland; drains toward the east; extends into forested area
16	V-CN-W-12	115.10	Castleton	PEM/PSS	1H, 2H, 10P	a,b	Yes	V-CN-S-12; V-CN-S-11	12063	Yes	II	Large mapped VSWI; drains under Route 4 via culverts; saturated to surface; drainage patterns
16	V-CN-AW-12	115.10	Castleton	PEM/PSS	1H, 2H, 10P	a,b	Yes	V-CN-S-12; V-CN-S-11	27225	Yes	II	Large mapped VSWI; drains under Route 4 via culverts; saturated to surface; drainage patterns
16	V-CN-W-13	115.20	Castleton	PEM	1P	NA	No	No	5963	No	III	Wetland receives water from man made pond and Route 4; saturated to surface
16	V-CN-AW-13	115.20	Castleton	PEM	1P	NA	No	No	2290	No	III	Wetland receives water from man made pond and Route 4; saturated to surface
16	V-CN-W-14	115.30	Castleton	PEM/PSS	1L, 2L	NA	No	No	1487	No	III	Wetland perched above stream; seep wetland feature
16	V-CN-AW-15	115.50	Castleton	PEM/PSS	1P, 2P	a	Yes	No	4540	Yes	II	Wetland extends to VSWI; saturated to surface
16	V-CN-W-21	115.60	Castleton	PEM	2L	NA	No	V-CN-S-14	1393	No	III	Small wetland; located in swale; minimal function; seep feature
16	V-CN-W-16	115.80	Castleton	PEM	1L, 2L	a	Yes	No	1507	Yes	II	Wetland overlaps mapped VSWI; topographical depression
16	V-CN-W-17	115.90	Castleton	PEM/PSS	1H, 2H, 4P, 9P, 10P	a,b	Yes	Castleton River (off ROW)	43996	Yes	II	Wetland extends to Castleton River; mapped VSWI; drainage patterns
17	V-CN-W-18	116.10	Castleton	PEM/PFO	1P, 2P, 4P	a,b	Yes	No	16474	Yes	II	Wetland mapped VSWI; topographical depression; surrounded by Route 4 and local roads
17	V-CN-W-19	116.10	Castleton	PEM/PSS	1P, 2P	a	Yes	No	19201	Yes	II	Mapped VSWI; saturated to surface; located between Route 4 and exit ramp
17	V-CN-AW-18	116.10	Castleton	PEM/PFO	1P, 2P, 4P	a,b	Yes	No	21670	Yes	II	Wetland mapped VSWI; topographical depression; surrounded by Route 4 and local roads
17	V-CN-W-5	116.30	Castleton	PEM	1L	h	Yes	No	1842	Yes	II	Mapped VSWI wetland; hydrologically connected to larger feature outside of ROW
17	V-CN-W-4	116.40	Castleton	PEM	2P	NA	No	No	1588	No	III	Drains toward stream; seep wetland feature
17	V-CN-W-3/6	116.50	Castleton	PEM/PSS	1H, 2H	a	No	V-CN-S-9	9904	Yes	II	Seep wetland; located in topographical depression; saturated to surface
17	V-CN-AW-3/6	116.50	Castleton	PEM/PSS	1H, 2H	a	No	V-CN-S-9	5682	Yes	II	Seep wetland; located in topographical depression; saturated to surface
17	V-CN-AW-4	116.40	Castleton	PEM	2P	NA	No	No	386	No	III	Drains toward stream; seep wetland feature
17	V-CN-AW-17	115.90	Castleton	PEM/PSS	1H, 2H, 4P, 9P, 10P	a,b	Yes	Castleton River (off ROW)	56327	Yes	II	Wetland extends to Castleton River; mapped VSWI; drainage patterns
17	V-CN-W-2	116.80	Castleton	PEM/PSS	2P	NA	No	V-CN-S-5	2059	No	III	Small wetland; seep feature; does not provide stream stabilization
17	V-CN-AW-2	116.80	Castleton	PEM/PSS	2P	NA	No	V-CN-S-5	1075	No	III	Small wetland; seep feature; does not provide stream stabilization

TDI New England Clean Power Link (NECPL)												
Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
17	V-CN-W-7	117.00	Castleton	PEM/PSS	1L	NA	No	No	1872	No	III	Small wetland located in topographical depression
17	V-CN-AW-7	117.00	Castleton	PEM/PSS	1L	NA	No	No	4551	No	III	Small wetland located in topographical depression
18	V-CN-W-1	117.80	Castleton	PEM / PSS	1P, 2P	NA	No	No	12780	No	III	Wetland located in field; saturated to surface; slight topographical depression
18	V-CN-W-8	117.50	Castleton	PEM/PSS	1P, 2P	a	Yes	No	35105	Yes	II	Wetland located in topographical depression along railroad; hydrologically connected to larger mapped VSWI
18	V-CN-AW-8	117.50	Castleton	PEM/PSS	1P, 2P	a	Yes	No	64392	Yes	II	Wetland located in topographical depression along railroad; hydrologically connected to larger mapped VSWI
19	V-CN-W-9	119.00	Castleton	PEM/PSS	1H, 2P, 4P, 9P	a	Yes	No	9794	Yes	II	Wetland located in topographical depression along railroad; hydrologically connected to larger mapped VSWI
19	V-CN-AW-9	119.00	Castleton	PEM/PSS	1H, 2P, 4P, 9P	a	Yes	No	21394	Yes	II	Wetland located in topographical depression along railroad; hydrologically connected to larger mapped VSWI
20	T-IR-W1	119.70	Ira	PSS	1H, 2P, 4H, 9P, 10P	NA	Yes	No	14902	Yes	II	Part of VSWI mapped wetland. A depression between Rt. 4 and railroad tracks.
20	T-IR-AW-1	119.70	Ira	PSS	1H, 2H, 3H, 4H, 5P, 6P, 7P, 8P, 9H, 10P	c, g	Yes	No	17278	Yes	II	Extension of T-IR-W1 adjacent to railroad
20	T-IR-W2	120.10	Ira	PEM/PSS	1H, 2H, 3H, 4H, 5P, 6P, 7P, 8P, 9H, 10P	g, c	Yes	T-IR-S2	38259	Yes	II	Large wetland at toe of slope; parallel to Rt. 4 bordering intermittent stream and draining to VSWI wetland complex and off-ROW stream.
21	T-WR-W9	120.50	West Rutland	PFO/PSS	1H, 2P, 4H, 9P	NA	Yes	No	1681	Yes	II	Located at the toe of the highway slope; bound by railroad tracks. Wetland is on the floodplain of the Castleton River.
21	T-WR-AW-9	120.50	West Rutland	PSS	1H, 2P, 4H, 9P	NA	Yes	No	12853	Yes	II	Extension of T-WR-W9; Large floodplain associated with Castleton River
21	T-WR-W7	120.60	West Rutland	PEM	2P	NA	No	No	1382	No	III	Small wetland depression; ditch-like.
21	T-WR-AW-13	120.90	West Rutland	PSS/PUB	1P, 2P	NA	Yes	No	6057	Yes	II	Large floodplain associated with Castleton River
21	T-WR-AW-12	120.90	West Rutland	PFO	2P	b	No	T-WR-AS-37	2686	Yes	II	Forested wetland within valley
21	T-WR-W10	121.00	West Rutland	PEM/PSS	10L	NA	Yes	No	1758	No	II	Small wetland at toe of highway slope. Hydrology primarily stormwater fed; restricted by railroad. Class II due to proximity to VSWI wetland, but not functionally significant due to the "Low" Function and Value rating.
21	T-WR-AW-10	121.00	West Rutland	PSS	10L	NA	Yes	No	2487	Yes	II	Small wetland at toe of highway slope. Hydrology primarily stormwater fed; restricted by railroad. Class II due to proximity to VSWI wetland, but not functionally significant due to the "Low" Function and Value rating.
21	T-IR-AW-2	120.10	Ira	PSS	1H, 2H, 3H, 4H, 5P, 6P, 7P, 8P, 9H, 10P	c, g	Yes	T-IR-AS1	249955	Yes	II	Extension of T-IR-W2
21	T-WR-W8	120.30	West Rutland	PSS/PEM	2P	b	No	T-WR-S35	6721	No	III	Exits a larger forested wetland; drainage patterns; natural spring and seep flowing toward Rt. 4. Does not meet Class II, because associated stream is small in size and intermittent.
21	T-WR-W11	121.30	West Rutland	PSS	1H, 2P, 4H, 9P	NA	Yes	No	1394	Yes	II	PSS wetland bound by highway and railroad tracks; on the floodplain of the Castleton River.
22	T-WR-W5	122.30	West Rutland	PSS	2L	b	No	T-WR-S19	1451	No	III	Wetland bordering stream; atop cliff face. Does not meet Class II, because associated stream is small in size and intermittent.
22	T-WR-AW-11	121.40	West Rutland	PSS/PUB	1H, 2P, 4H, 9P	NA	Yes	No	32072	Yes	II	Extension of T-WR-W11; Large floodplain associated with Castleton River
23	T-WR-W6	122.80	West Rutland	PFO	2P, 4P	NA	Yes	No	3656	Yes	II	Sideslope seeps; drain into ponded quarry.
23	T-WR-AW-6	122.80	West Rutland	PFO/PUB	2P, 4P	g	Yes	No	15159	Yes	II	Extension of T-WR-W6, appears to be old quarry
23	T-WR-W4	123.50	West Rutland	PFO	1H, 3P, 4P	NA	Yes	No	12580	Yes	II	Wetland on floodplain; bordering an off-ROW stream; adjacent to agricultural field; within a VSWI wetland.
23	T-WR-W3	123.60	West Rutland	PSS	1P, 4P	NA	No	No	738	Yes	II	Isolated wetland; possibly excavated; on the Clarendon River floodplain. Hydrology received from stormwater conveyance.
23	T-WR-AW-4	123.50	West Rutland	PFO	1H, 3P, 4P	NA	Yes	No	15722	Yes	II	Wetland on floodplain; bordering an off-ROW stream; adjacent to agricultural field; within a VSWI wetland.
24	T-WR-W2	124.30	West Rutland	PFO	2P, 6P	g, b	No	T-WR-S6	17346	No	III	Forested wetland seep with three intermittent stream channels.
24	T-WR-AW-2	124.30	West Rutland	PFO	2P, 6P	g, b	No	T-WR-S6	4736	No	III	Forested wetland seep
25	T-WR-W1	125.00	West Rutland	PEM/PFO	2P	NA	No	No	547	Yes	II	Small emergent wetland at toe of highway slope; on top of hill; drainage patterns present.
25	T-WR-AW-1	125.00	Rutland	PEM/PFO	2P	NA	No	No	11320	Yes	II	Small emergent wetland at toe of highway slope; on top of hill; drainage patterns present.
25	T-RU-W8	125.10	Rutland	PEM/PFO	2P	a	No	No	22593	No	III	Isolated wetland bound by Rt. 4; a forest; and agricultural field; with a forested seep.
25	T-RU-AW-8	125.10	Rutland	PEM/PFO	2P	a	No	No	9308	No	III	Isolated wetland bound by Rt. 4; a forest; and agricultural field; with a forested seep.
26	T-RU-W6	126.40	Rutland	PEM	NONE	NA	No	No	1845	No	III	Isolated wetland formed by culvert outflow; drains into horse pasture.
26	T-RU-W5	126.40	Rutland	PFO	1H	NA	Yes	No	5872	Yes	II	VSWI wetland on the Otter Creek floodplain. Otter Creek and storm drains provide hydrology.
26	T-RU-W7	126.40	Rutland	PEM	1H, 10L	NA	No	No	2080	Yes	II	Small PEM wetland on the floodplain of Otter Creek.
26	T-RU-AW-6	126.40	Rutland	PEM	NONE	NA	No	No	2498	No	III	Isolated wetland formed by culvert outflow; drains into horse pasture.
26	T-RU-AW-7	126.40	Rutland	PEM	1H, 10L	NA	No	No	2413	Yes	II	Small PEM wetland on the floodplain of Otter Creek.
26	T-RU-W3	126.70	Rutland	PFO/PEM	1H, 4P, 6P	g	Yes	No	7739	Yes	II	VSWI wetland; receives Otter Creek floodplain backwater.
26	T-RU-AW-3	126.70	Rutland	PFO/PEM	1H, 4P, 6P	g	Yes	No	8279	Yes	II	VSWI wetland; receives Otter Creek floodplain backwater.
26	T-RU-AW-5	126.40	Rutland	PFO	1H	NA	Yes	No	1104	Yes	II	VSWI wetland on the Otter Creek floodplain. Otter Creek and storm drains provide hydrology.
26	T-RU-AW-2	126.70	Rutland	PEM/PFO/PUB	1H, 2H, 4H, 6P, 9P	NA	Yes	No	92203	Yes	II	Large floodplain associated with Otter Creek
26	T-RU-W2	126.80	Rutland	PEM/PFO	1H, 2H, 4H, 6P, 9P	g	Yes	No	267591	Yes	II	Large wetland in VSWI parallel to Rt. 4; in the Otter Creek floodplain valley; intersected by railroad crossing.
26	T-RU-AW-4	126.80	Rutland	PEM/PSS	1H, 2H, 4H, 6P, 9P	g	Yes	No	147644	Yes	II	Large wetland in VSWI parallel to Rt. 4; bound by corn field to south; on the Otter Creek floodplain.
26	T-RU-W4	127.00	Rutland	PEM/PSS	1H, 2H, 4H, 6P, 9P	g	Yes	No	223762	Yes	II	Large wetland in VSWI parallel to Rt. 4; bound by corn field to south; on the Otter Creek floodplain.
27	T-RU-W9	NA	Rutland	PEM/PSS	1L, 2P, 4L	NA	No	T-RU-DITCH5	13925	No	III	Drainage patterns from dug ditch that channelizes parking lot runoff; wetland sloped/ditched and retains little floodwater.
27	T-RU-AW-9	NA	Rutland	PEM/PSS	1L, 2P, 4L	NA	No	T-RU-DITCH5	14664	No	III	Drainage patterns from dug ditch that channelizes parking lot runoff; wetland sloped/ditched and retains little floodwater.
27	T-RU-W1	127.50	Rutland	PEM/PSS	2P	b	No	T-RU-S1	15850	No	III	Small; dominated by Phragmites; stormwater structures drive hydrology. Does not meet Class II, because associated stream is small in size and intermittent.
27	T-RU-AW-1	127.50	Rutland	PEM/PSS	2P	b	No	T-RU-S1	30135	No	III	Small; dominated by Phragmites; stormwater structures drive hydrology. Does not meet Class II, because associated stream is small in size and intermittent.
27	T-CL-W14	127.80	Clarendon	PFO/PEM	1H, 2P	NA	No	No	5083	Yes	II	On the floodplain of the Cold River; adjacent to forest.
27	T-CL-AW-14	127.80	Clarendon	PFO/PEM	1H, 2P	NA	No	No	3537	Yes	II	On the floodplain of the Cold River; adjacent to forest.
27	T-CL-W13 NORTH	128.10	Clarendon	PEM/PSS	1H, 2P, 3P, 4P, 10P	NA	No	No	22078	Yes	II	Wetland surrounds a 3-ft.-wide stream which is a tributary to Otter Creek.
27	T-CL-AW-13	128.10	Clarendon	PEM/PSS	1H, 2P, 3P, 4P, 10P	NA	No	No	1332	Yes	II	Wetland surrounds a 3-ft.-wide stream which is a tributary to Otter Creek.
28	T-CL-W13 SOUTH	128.20	Clarendon	PEM	NONE	NA	No	No	2585	No	III	Small emergent depression which receives culvert outflow and drains into a stream.
28	T-CL-W12	128.40	Clarendon	PEM	2P	NA	No	No	1195	No	III	Small isolated wetland that drains from forest into culvert under road.
28	T-CL-AW-12	128.40	Clarendon	PFO	2P	NA	No	No	875	No	III	Small isolated wetland that drains from forest into culvert under road.
28	T-CL-W11	128.50	Clarendon	PFO	1P, 4P	NA	No	No	2335	No	III	Small isolated depression adjacent to forested upland.

TDI New England Clean Power Link (NECL)												
Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
28	T-CL-W8	128.80	Clarendon	PEM	2P, 4P, 9P	NA	Yes	No	11126	Yes	II	Wetland on a mowed hayfield adjacent to VSWI wetland; saturated to the surface.
28	T-CL-W7	128.90	Clarendon	PFO/PEM	1P, 2P, 4P	NA	Yes	No	11019	Yes	II	Wetland on both sides of the road; a swale on one side; a Phragmites stand on the other; saturated to the surface.
28	T-CL-AW-7	128.90	Clarendon	PFO	1P, 2P, 4P	NA	Yes	No	19367	Yes	II	Wetland on both sides of the road; a swale on one side; a Phragmites stand on the other; saturated to the surface.
28	T-CL-AW-8	128.80	Clarendon	PEM	2P, 4P, 9P	NA	Yes	No	9732	Yes	II	Wetland on a mowed hayfield adjacent to VSWI wetland; saturated to the surface.
28	T-CL-W6	129.10	Clarendon	PFO	2P	NA	No	No	1013	Yes	II	Isolated wetland with drainage patterns; forested swale that continues off-ROW.
28	T-CL-AW-6	129.10	Clarendon	PFO	2P	NA	No	No	3403	Yes	II	Isolated wetland with drainage patterns; forested swale that continues off-ROW.
28	T-CL-W5	#N/A	Clarendon	PEM	1P, 2P	NA	No	No	2698	No	III	Ditch-like swale adjacent to forested upland; flows into culvert; saturated to the surface.
28	T-CL-AW-5	#N/A	Clarendon	PEM	1P, 2P	NA	No	No	7300	No	III	Ditch-like swale adjacent to forested upland; flows into culvert; saturated to the surface.
29	T-CL-W4	129.40	Clarendon	PFO	1P, 2P	NA	No	No	1616	No	III	Forested roadside swale adjacent to forested upland; saturated to the surface.
29	T-CL-W3	129.40	Clarendon	PEM	1L, 2L, 10L	NA	No	No	673	No	III	Small wetland adjacent to large VSWI complex; drains median; disperses upland.
29	T-CL-AW-4	129.40	Clarendon	PFO	1P, 2P	NA	No	No	2400	No	III	Forested roadside swale adjacent to forested upland; saturated to the surface.
29	T-CL-W2	129.60	Clarendon	PFO/PEM	1L, 2P	NA	No	No	771	No	III	Small wetland adjacent to large VSWI complex; drains median; disperses on upland slope.
29	T-CL-W9	129.80	Clarendon	PEM	1P, 2P, 4P	NA	Yes	No	3599	Yes	II	An isolated flat basin near a forested area; saturated to the surface; inside VSWI wetland.
29	T-CL-AW-9	129.80	Clarendon	PEM	1P, 2P, 4P	NA	Yes	No	13737	Yes	II	An isolated flat basin near a forested area; saturated to the surface; inside VSWI wetland.
29	T-CL-W1	129.90	Clarendon	PEM	1L, 2L	NA	No	No	2549	No	III	Wetland adjacent to forest buffer along agricultural land; located under the VELCO ROW.
29	T-CL-W10	130.00	Clarendon	PSS	2P	NA	No	No	532	No	III	Isolated PEM wetland; mowed; saturated to the surface; hydrology created by stormwater drain.
29	T-CL-AW-2	129.50	Clarendon	PFO/PEM	1L, 2P	NA	No	No	126	No	III	Small wetland adjacent to large VSWI complex; drains median; disperses on upland slope.
29	T-CL-W15	130.30	Clarendon	PEM	2H, 4P,	NA	Yes	No	280	Yes	II	PEM wetland with drainage patterns; connects to large VSWI wetland complex.
29	T-CL-AW-15	130.30	Clarendon	PEM	2H, 4P	NA	Yes	No	8777	Yes	II	Large Depressional Wetland
30	T-CL-AW-25	130.40	Clarendon	PEM	1P, 2P	NA	Yes	No	3366	Yes	II	Large Depressional Wetland
30	T-CL-W16	130.50	Clarendon	PEM	2L	NA	No	No	630	No	III	Small wetland depression between two roads; dominated by Phragmites.
30	T-CL-AW-24	130.50	Clarendon	PEM	1P, 2P	NA	Yes	No	8655	Yes	II	Large Depressional Wetland
30	T-CL-AW-16	130.50	Clarendon	PEM	2L	NA	No	No	1433	No	III	Small wetland depression between two roads; dominated by Phragmites.
30	T-CL-W17	130.60	Clarendon	PEM	2H, 4H	NA	Yes	No	1951	Yes	II	PEM depressional wetlands; hydrologically connected through culverts; connect to larger VSWI complex.
30	T-CL-AW-17	130.60	Clarendon	PEM/PFO	2H, 4H	NA	Yes	No	25141	Yes	II	Large wetland on both sides of Route 103
30	T-CL-W18	130.70	Clarendon	PFO	2H, 4H	b	Yes	T-CL-S9	905	Yes	II	Narrow forested wetland strip at road toe of slope; part of large VSWI complex.
30	T-CL-AW-18	130.70	Clarendon	PFO	2H, 4H	b	Yes	T-CL-S9	19407	Yes	II	Narrow forested wetland strip at road toe of slope; part of large VSWI complex.
30	T-CL-W19	131.00	Clarendon	PFO	4P	g	No	No	8174	Yes	II	Roadside forested wetland that extends off-ROW; no outlet.
30	T-CL-AW-19	131.00	Clarendon	PFO	4P	g	No	No	14181	Yes	II	Roadside forested wetland that extends off-ROW; no outlet.
30	T-CL-W20	131.20	Clarendon	PFO	4P, 9P	NA	No	No	2421	Yes	II	Forested wetlands on both sides of road; 10% slope; may connect to large VSWI wetland complex.
30	T-CL-AW-20	131.20	Clarendon	PFO	4P, 9P	NA	No	No	5736	Yes	II	Forested wetlands on both sides of road; 10% slope; may connect to large VSWI wetland complex.
30	T-CL-W21	131.30	Clarendon	PEM	1L, 2L	NA	No	No	1213	No	III	Isolated wetland in yard; dominated by Phragmites stand.
30	T-CL-AW-21	131.30	Clarendon	PEM	1L, 2L	NA	No	No	772	No	III	Isolated wetland in yard; dominated by Phragmites stand.
31	T-CL-W22	131.50	Clarendon	PEM	2P, 4H, 9P	NA	Yes	No	34153	Yes	II	PEM wetland at highway toe of slope; part of larger VSWI wetland complex/depression.
31	T-CL-AW-23	131.50	Clarendon	PFO	4P	NA	No	No	5569	No	III	Narrow forested roadside ditch.
31	T-CL-W23	131.60	Clarendon	PFO	4P	NA	No	No	16921	No	III	Narrow forested roadside ditch.
31	T-CL-AW-22	131.70	Clarendon	PEM	2P, 4H, 9P	NA	Yes	No	68423	Yes	II	PEM wetland at highway toe of slope; part of larger VSWI wetland complex/depression.
31	V-SH-AW-8	132.50	Shrewsbury	PEM/PSS	1P	NA	No	No	579	No	III	Small depressional wetland
31	V-SH-W-9	132.50	Shrewsbury	PEM/PSS	2L	NA	No	V-SH-S-17	91	No	III	Seep wetland drains toward stream V-SH-S-17
32	V-SH-AW-1a	133.20	Shrewsbury	PEM/PFO	1P, 2P	a	No	No	637	Yes	II	Wetland located in topographical depression; Potential Vernal Pool
33	V-SH-AW-7	133.80	Shrewsbury	PEM/PSS	2P	a	No	V-SH-S-11	9488	Yes	II	Wetland located on ledge; saturated to surface; drains to V-SH-S-11
33	V-SH-W-7	133.90	Shrewsbury	PEM/PSS	2P	a	No	V-SH-S-11	1692	Yes	II	Wetland located on ledge; saturated to surface; drains to V-SH-S-11
33	V-SH-W-6	NA	Shrewsbury	PEM	1P, 2P	NA	No	No	396	No	III	Depressional wetland; saturated to surface
33	V-SH-AW-6	NA	Shrewsbury	PEM	1P, 2P	NA	No	No	1563	No	III	Depressional wetland; saturated to surface
33	V-SH-AW-5	NA	Shrewsbury	PEM/PSS	1H, 2H, 10P	a, b	Yes	No	23804	Yes	II	Large mapped VSWI; saturated to surface; drainage patterns; located along stream V-SH-S-7 and V-SH-S-8
33	V-SH-W-5	NA	Shrewsbury	PEM/PSS	1H, 2H, 10P	a, b	Yes	No	4381	Yes	II	Large mapped VSWI; saturated to surface; drainage patterns; located along stream V-SH-S-7 and V-SH-S-8
33	V-SH-W-4	NA	Shrewsbury	PEM/PSS	1P	NA	No	No	1052	No	III	Small wetland; partially mowed; saturated to surface
33	T-SH-AW1	134.10	Shrewsbury	PFO	2P, 4P	a,b	Yes	No	7272	Yes	II	Large Forested complex
33	T-SH-W7	134.30	Shrewsbury	PFO	2L	NA	No	No	842	No	III	Isolated forested wetland
33	T-SH-AW7	134.30	Shrewsbury	PFO	2L	NA	No	No	2029	No	III	Isolated forested wetland
33	V-SH-AW-4	NA	Shrewsbury	PEM/PSS	1P	NA	No	No	1894	No	III	Small wetland; partially mowed; saturated to surface
33	V-SH-AW-201	134.1	Shrewsbury	PFO	1L, 2P,	b	No	T-SH-S1	5411	Yes	II	Fringe wetland to T-SH-S1; widens as slope flattens; adjacent modification from Railroad
33	V-SH-AW-202	134.3	Shrewsbury	PSS/PFO	2P	NA	No	No	679	No	III	Isolated feature; adjacent modifications from railroad; depressional area
33	T-SH-W2	134.60	Shrewsbury	PEM	2L, 8P	NA	No	No	1689	No	III	Cow Pasture
33	T-SH-AW2	134.60	Shrewsbury	PEM	2L, 8P	NA	No	No	4627	No	III	Cow Pasture
34	V-SH-AW-2a	NA	Shrewsbury	PEM/PFO	1P, 2P	a	no	V-SH-AS-6	989	Yes	II	Large feature in topographical depression; extends to river
34	V-SH-W-3	NA	Shrewsbury	PEM	1P	NA	No	No	163	No	III	Small depressional wetland; saturated to surface

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34	V-SH-AW-3	NA	Shrewsbury	PEM	1P	NA	No	No	1101	No	III	Small depressional wetland; saturated to surface
34	V-SH-W-2	NA	Shrewsbury	PEM/PFO	1P, 2P	a	Yes	V-SH-S-3	850	Yes	II	Extends to mapped VSWI; located along mapped channel; topographical depression; floodplain feature
34	V-SH-AW-2	NA	Shrewsbury	PEM/PFO	1P, 2P	a	Yes	V-SH-S-3	19341	Yes	II	Extends to mapped VSWI; located along mapped channel; topographical depression; floodplain feature
34	V-SH-W-1	NA	Shrewsbury	PEM/PFO	1P	NA	No	No	444	No	III	Wetland located along steep slope; saturated to surface
34	T-SH-W3	135.00	Shrewsbury	PFO	1H, 4P, 10P	a,b	Yes	Mill River	2166	Yes	II	Large Forested Floodplain of Mill River
34	T-SH-AW3	135.00	Shrewsbury	PFO	1H, 4P, 10P	a,b	Yes	Mill River	10857	Yes	II	Large Forested Floodplain of Mill River
34	T-SH-W4	135.30	Shrewsbury	PFO	2L	NA	No	No	286	No	III	Isolated adjacent to Railroad
34	T-SH-AW4	135.30	Shrewsbury	PFO	2L	NA	No	No	454	No	III	Isolated adjacent to Railroad
34	T-SH-W6	135.40	Shrewsbury	PFO	2P	NA	No	No	1862	No	III	Isolated forested wetland
34	T-SH-AW6	135.40	Shrewsbury	PFO	2P	NA	No	No	6174	No	III	Isolated forested wetland
34	T-SH-W5	135.50	Shrewsbury	PEM	2L	NA	No	No	1577	No	III	Isolated in hayfield
34	T-SH-AW8	135.70	Shrewsbury	PSS	1P	b	Yes	T-SH-S5	4509	No	II	Associated with perennial stream
34	V-SH-AW-1	NA	Shrewsbury	PEM/PFO	1P	NA	No	No	2594	No	III	Wetland located along steep slope; saturated to surface
34	T-SH-W9	135.90	Shrewsbury	PFO	4P	a,b	Yes	T-SH-S6	9180	Yes	II	large seep with high amount of sedimentation/perennial stream
34	T-SH-AW9	135.90	Shrewsbury	PFO	4P	a,b	Yes	T-SH-S6	24841	Yes	II	large seep with high amount of sedimentation/perennial stream
34	T-SH-AW11	135.90	Shrewsbury	PSS	1L, 2P, 4L	a	No	No	19263	Yes	II	seep in bench cut for RR
35	V-WA-W-1	NA	Wallingford	PEM/PSS	1L	NA	No	V-WA-S-3	931	No	III	Drains under driveway; saturated to surface; steep slope
35	V-WA-AW-1	NA	Wallingford	PEM/PSS	1L	NA	No	V-WA-S-3	11334	Yes	II	Drains under driveway; saturated to surface; steep slope
35	V-WA-W-2	NA	Wallingford	PEM	1L	NA	No	No	154	No	III	Small wetland; saturated to surface; depression; mowed fringe
35	V-WA-AW-2	NA	Wallingford	PEM	1L	NA	No	No	2207	No	III	Small wetland; saturated to surface; depression; mowed fringe
35	V-WA-AW-3	NA	Wallingford	PEM	1H,2P,4P,10P	a, b	Yes	V-WA-S-4	5342	Yes	II	Wetland located along stream; saturated to surface extends to Mill River
35	V-WA-W-4	NA	Wallingford	PEM/PFO	1P	a	Yes	-	6	Yes	II	Located in topographical depression; extends to mapped VSWI
35	V-WA-AW-1a	NA	Wallingford	PEM/PFO	1P, 10 P	b	no	no	553	Yes	II	Located in depression; extends to river; saturated to the surface
35	T-SH-W10	135.90	Shrewsbury	PFO	1L, 2P, 4L	a,b	No	T-SH-S7	4001	Yes	II	Hillside seep with drainage patterns
35	T-SH-AW10	135.90	Shrewsbury	PFO	1L, 2P, 4L	a,b	No	T-SH-S7	8050	Yes	II	Hillside seep with drainage patterns
35	T-SH-W11	135.90	Shrewsbury	PSS	1L, 2P, 4L	a	No	No	1888	Yes	II	seep in bench cut for RR
35	T-SH-W12	136.00	Shrewsbury	PEM	2L	NA	No	No	770	No	III	
35	T-SH-W13	136.60	Wallingford	PSS	1P, 2P, 4P	a	Yes	No	11760	Yes	II	forested wetland abutting RR both side of RR
35	T-SH-AW13	136.60	Wallingford	PSS	1P, 2P, 4P	a	Yes	No	36953	Yes	II	forested wetland abutting RR both side of RR
35	T-WA-W2	136.70	Wallingford	PEM	1P, 2P, 4P, 10P	a, c	No	T-WA-S1	627	Yes	II	large seep drains to perennial stream
35	T-WA-AW2	136.70	Wallingford	PEM	1P, 2P, 4P, 10P	a, c	No	T-WA-S1	1109	Yes	II	large seep drains to perennial stream
35	T-WA-W1	136.70	Wallingford	PEM	1L, 2L	a	No	No	189	Yes	II	small seep drains to perennial stream
35	T-WA-AW1	136.70	Wallingford	PEM	1L, 2L	a	No	No	286	Yes	II	small seep drains to perennial stream
35	V-WA-AW-4	NA	Wallingford	PEM/PFO	1P	a	Yes	No	7502	Yes	II	Located in topographical depression; extends to mapped VSWI
35	T-WA-W3	137.00	Wallingford	PFO	1P, 2P, 4L	a, b	No	T-WA-S2	22153	No	III	large marginal wetland along RR bank and managed forest area
36	V-WA-W-5	NA	Wallingford	PEM	1P	NA	No	V-WA-S-6	695	No	III	Drains to V-WA-S6; topographical depression along road
36	V-WA-AW-106	137.60	Wallingford	PSS	1P, 2H, 10P	b	No	V-WA-S-103	7158	Yes	II	Scrub-shrub wetland adjacent to V-WA-S-103
36	V-WA-W-105	137.70	Wallingford	PSS/ PFO	1P, 2P	b	No	V-WA-S-103	6	Yes	II	Scrub-shrub wetland adjacent to V-WA-S-103
36	V-WA-AW-105	137.70	Wallingford	PSS/ PFO	1P, 2P	b	No	V-WA-S-103	8636	Yes	II	Scrub-shrub wetland adjacent to V-WA-S-103
36	V-WA-AW-104	137.70	Wallingford	PSS	1L, 2L	NA	No	V-WA-S-105	1745	No	III	Scrub-shrub wetland; adjacent to V-WA-S-104
36	V-WA-W-103	137.80	Wallingford	PSS	1L, 2L	NA	No	V-WA-S-103	597	No	III	Small scrub shrub wetland; drained by V-WA-S-103
36	V-WA-W-102	137.80	Wallingford	PEM/ PSS	1L, 2L	NA	No	No	64	No	III	Emergent wetland (scrub shrub out side of study area) drains to culvert under Rt 103
36	V-WA-AW-102	137.80	Wallingford	PEM/ PSS	1L, 2L	NA	No	No	3469	No	III	Emergent wetland (scrub shrub out side of study area) drains to culvert under Rt 103
36	V-WA-AW-103	137.80	Wallingford	PSS	1L, 2L	NA	No	V-WA-S-103	5085	No	III	Small scrub shrub wetland; drained by V-WA-S-103
36	T-WA-W4	137.00	Wallingford	PFO	1L, 2P, 10P	a, b	No	T-WA-S3, T-WA-S4	8624	Yes	II	multiple intermittent/ephemeral drainages up slope drain to wetland
36	T-WA-AW4	137.00	Wallingford	PFO	1L, 2P, 10P	a, b	No	T-WA-S3, T-WA-S4	16102	Yes	II	multiple in/eph drainages up slope drain to wetland
36	T-WA-W5	137.10	Wallingford	PFO	2L, 10L	NA	No	No	1639	No	III	marginal forested wetland along rock wall
36	T-WA-AW5	137.10	Wallingford	PFO	2L, 10L	NA	No	No	5871	No	III	marginal forested wetland along rock wall
36	T-WA-W6	137.10	Wallingford	PFO	2L	NA	No	No	1295	No	III	isolated hillside seep
36	T-WA-AW6	137.10	Wallingford	PFO	2L	NA	No	No	1953	No	III	isolated hillside seep
36	T-WA-W7	137.20	Wallingford	PSS	2L	NA	No	No	452	No	III	isolated hillside seep
36	T-WA-W8	137.20	Wallingford	PEM	2P, 10L	NA	No	No	2044	No	III	isolated hillside seep in T-line ROW
36	T-WA-W9	137.30	Wallingford	PEM	1L, 2P, 10L	c	No	T-WA-S6	1272	Yes	II	seep associated with int stream
36	T-WA-AW10	137.30	Wallingford	PEM	2P, 1L	NA	No	No	273	Yes	II	isolated hillslope seep
36	V-WA-AW-5	R137.5	Wallingford	PEM	1P	NA	No	V-WA-S-6	5016	Yes	II	Drains to V-WA-S6; topographical depression along road
36	T-WA-W10	137.30	Wallingford	PEM	2P, 1L	NA	No	No	1053	Yes	II	Isolated hillslope seep
36	T-WA-AW3	137.00	Wallingford	PFO/PEM	1P, 2P, 4L	a, b	No	T-WA-S2	22933	No	III	large marginal wetland along RR bank and managed forest area

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Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
37	V-WA-W-101	138.20	Wallingford	PEM/ PFO	1P, 2H, 10P	b	No	No	2304	Yes	II	Emergent/ forested wetland adjacent to stream located outside of study area
37	V-WA-AW-101	138.30	Wallingford	PEM/PSS	1P, 2H, 10P	b	No	No	35797	Yes	II	Emergent/ forested wetland adjacent to stream located outside of study area
37	V-WA-AW-100	138.40	Wallingford	PSS/ PEM	1P, 2P	b	No	No	7018	Yes	II	Scrub-shrub wetland; receives flow from stormwater culvert
37	T-MH-W55	138.50	Mount Holly	PSS	1P, 2P, 4P	b	No	V-MH-S-100	554	Yes	II	PSS wetlands on both sides of road; drainage patterns.
37	T-MH-AW-55	138.50	Mount Holly	PEM/PFO	1P, 2P, 4P	b	No	T-MH-S39	22005	Yes	II	Fields north of Route 103, Forested to the south
37	T-MH-W56	138.70	Mount Holly	PEM	1L, 2L, 4L	NA	Yes	T-MH-DITCH18	538	No	II	Wetland drainage to jurisdictional ditch; at the bottom of a sloped and mowed lawn; part of VSWI wetland. Class II due to proximity to VSWI wetland, but not functionally significant due to the "Low" Function and Value rating.
37	T-MH-AW-56	138.70	Mount Holly	PEM/PUB	1L, 2L, 4L	NA	Yes	No	2627	Yes	II	Includes farm pond in residential area
37	T-MH-W53 NORTH	138.90	Mount Holly	PFO	1P, 2P, 3P, 4P	NA	No	T-MH-DITCH17	229	Yes	II	Forested hillslope; drains to jurisdictional ditch.
37	T-MH-AW-53	138.90	Mount Holly	PFO	1P, 2P, 3P, 4P	b	Yes	T-MH-S-38	15892	Yes	II	Forested on both sides of Route 103
37	T-MH-W54	139.00	Mount Holly	PEM	2L, 4L	NA	No	T-MH-DITCH-17	633	No	III	Small wetland on a hillslope seep; drains to jurisdictional ditch.
37	T-MH-AW-74	139.10	Mount Holly	PUB	1P,2P,3P,4P	NA	Yes	No	2690	Yes	II	Man-made pond
37	T-MH-W50	139.10	Mount Holly	PEM/PSS	1P, 2P, 3P, 4P	NA	No	T-MH-DITCH15	5385	No	III	Wetland drains to jurisdictional ditch.
37	T-MH-AW-50	139.10	Mount Holly	PFO	1P, 2P, 3P, 4P	NA	No	No	20695	No	III	Wetland drains to jurisdictional ditch.
37	T-MH-AW-49	139.10	Mount Holly	PEM	1P, 2P, 3P, 4P	c	Yes	T-MH-S36	4052	Yes	II	Small PEM wetland; drains to VSWI wetland complex via ephemeral stream.
37	T-MH-W48 NORTH	139.20	Mount Holly	PEM	2L, 4L	NA	No	No	131	No	III	Very small PEM wetland on both sides of road; drains to VSWI complex.
37	T-MH-W51	139.30	Mount Holly	PSS	1L, 2L, 4L	NA	No	No	294	No	III	Small isolated wetland that drains through a culvert to a small stream.
37	T-MH-AW-51	139.30	Mount Holly	PFO/PSS	1L, 2L, 4L	NA	No	No	2380	No	III	Within transmission corridor
37	T-MH-AW-48	139.20	Mount Holly	PEM	2L, 4L	NA	Yes	No	534	Yes	II	Very small PEM wetland on both sides of road; drains to VSWI complex.
38	T-MH-W52	139.40	Mount Holly	PEM	1L, 2P, 4L	NA	No	T-MH-DITCH-16	2137	No	III	PEM wetland that drains to jurisdictional ditch which drains through a culvert to a small stream.
38	T-MH-AW-52	139.40	Mount Holly	PFO/PSS	1L, 2P, 4L	NA	No	No	9649	No	III	Within transmission corridor
38	T-MH-AW-73	139.50	Mount Holly	PEM	1P,2P,3P,4L	NA	No	No	1532	Yes	II	Edge of large wet hayfield
38	T-MH-W46	139.60	Mount Holly	PEM	1L, 3L, 4L	c	No	T-MH-S-32	0	No	III	Intermittent stream flows through; drains under road to VSWI wetland complex. Does not meet Class II, because associated stream is small in size and intermittent.
38	T-MH-AW-46	139.60	Mount Holly	PFO/PEM	1L, 3L, 4L	c	No	T-MH-S-32	800	No	III	Drainage swale between residential housing
38	T-MH-W45	139.80	Mount Holly	PSS/PEM	1P, 2L, 4P	NA	No	No	8461	Yes	II	PSS wetland along road; drains to VSWI wetland.
38	T-MH-W44	139.90	Mount Holly	PFO	1L, 2L	NA	No	No	457	Yes	II	Roadside marginal forest wetland; higher elevation; gradually sloped; drains into VSWI wetland.
38	T-MH-W43	139.90	Mount Holly	PSS	2P, 4L	NA	No	No	62	Yes	II	PSS wetland along road; drains to VSWI wetland.
38	T-MH-AW-44	139.90	Mount Holly	PFO	1L, 2L	NA	No	No	11923	Yes	II	drains into Stream T-MH-S31
38	T-MH-AW-43	139.90	Mount Holly	PSS	2P, 4L	NA	No	No	2622	Yes	II	PSS wetland along road; drains to VSWI wetland.
38	T-MH-W41	140.10	Mount Holly	PEM	1P, 2P, 3L	NA	No	No	2513	Yes	II	Marginal roadside PEM wetlands on both sides of road; southern section drains to VSWI wetland.
38	T-MH-AW-41	140.10	Mount Holly	PEM	1P, 2P, 3L	NA	No	No	16844	Yes	II	Marginal roadside PEM wetlands on both sides of road; southern section drains to VSWI wetland.
38	T-MH-AW-42	140.10	Mount Holly	PSS	1P, 2P, 3P, 4L	NA	No	No	1024	Yes	II	Very small isolated wetland; signs of shallow flooding; perhaps from S-28
38	T-MH-AW-45	139.80	Mount Holly	PSS/PEM	1P, 2L, 4P	NA	No	No	13567	Yes	II	PSS wetland along road; drains to VSWI wetland.
38	T-MH-W38	140.30	Mount Holly	PSS/PFO	1H, 2P, 4P	NA	No	T-MH-DITCH11	1060	No	II	Wetlands on both sides of Rt. 103; comprise the northern boundary of a larger wetland complex; comprised of forest and lawn.
38	T-MH-AW-38	140.30	Mount Holly	PFO	1H, 2P, 4P	NA	No	No	18202	Yes	II	Large Forested complex
38	T-MH-W37	140.40	Mount Holly	PSS	1H, 2P, 3P, 4P	b	No	T-MH-S27	442	Yes	II	PSS wetland on both sides of highway; encompasses ephemeral stream
39	T-MH-W36	140.50	Mount Holly	PSS	1L, 2L, 4L	NA	No	T-MH-DITCH-10	904	No	III	Forested sideslope seep; drainage patterns from roadside ditch.
39	T-MH-W35 NORTH	140.70	Mount Holly	PSS	2L, 4L	NA	No	No	128	No	III	Very small isolated wetland on north side of road; drainage patterns; forested hillslope.
39	T-MH-W34	140.70	Mount Holly	PSS	1L, 2L, 4L	NA	No	No	358	No	III	Very small isolated PSS wetland.
39	T-MH-AW-35	140.70	Mount Holly	PFO	2L, 4L	NA	Yes	No	804	Yes	II	drains into VSWI wetland
39	T-MH-AW-34	140.70	Mount Holly	PFO	1L, 2L, 4L	NA	No	No	441	No	III	Small isolated wetland
39	T-MH-W33	140.80	Mount Holly	PSS	1L, 2P, 4P	NA	No	No	953	Yes	II	Roadside wetland; PEM/PSS; drainage patterns present; south section borders VSWI wetland.
39	T-MH-AW-33	140.80	Mount Holly	PFO	1L, 2P, 4P	NA	Yes	No	11019	Yes	II	drains into VSWI wetland
39	T-MH-W32	140.90	Mount Holly	PEM	1L, 2P, 4L	c	No	T-MH-S-25	565	No	III	PEM wetland on both sides of road; surrounds intermittent stream which drains south under road.
39	T-MH-W31	140.90	Mount Holly	PEM	1L, 2L, 4L	NA	No	No	966	No	III	Wetland seep (man-made from road cut); naturalized.
39	T-MH-AW-32	140.90	Mount Holly	PSS/PEM	1L, 2P, 4L	c	No	T-MH-S-25	6432	No	III	old field
39	T-MH-W30	141.00	Mount Holly	PEM	1L, 2P, 4L	NA	No	No	302	No	III	Depressional area receiving water from culvert upslope; drains to ditch; lawn to north; floodplain to south.
39	T-MH-AW-30	141.00	Mount Holly	PSS/PEM	1L, 2P, 4L	NA	No	No	4866	No	III	old field
39	T-MH-AW-29	141.00	Mount Holly	PEM	1L, 2L, 4L	NA	No	No	1029	No	III	Very small PEM wetland; bound by road and non-jurisdictional ditch.
39	T-MH-AW-36	140.40	Mount Holly	PSS	1L, 2L, 4L	NA	No	T-MH-DITCH-10	215	No	III	Forested sideslope seep; drainage patterns from roadside ditch.
39	T-MH-AW-39	140.60	Mount Holly	PFO/PUB	1H, 2L, 4L	NA	Yes	No	19553	Yes	II	Large Forested complex
39	T-MH-AW-37	140.40	Mount Holly	PSS	1H, 2P, 3P, 4P	B	No	T-MH-S27	150	No	III	Small PSS wetland on both sides of highway; encompasses ephemeral stream. Does not meet Class II, because associated stream is small in size and ephemeral.
40	T-MH-W26	141.60	Mount Holly	PEM	1L, 2L	NA	No	No	2891	No	III	A PEM wetland; saturated to the surface; includes stream in eastern portion.
40	T-MH-W25	141.80	Mount Holly	PEM	1L, 2L	NA	No	No	913	No	III	Narrow PEM wetlands on both sides of Rt. 103; bound by railroad tracks on south side.
40	T-MH-W24	142.00	Mount Holly	PSS	1P, 2L, 5P, 6P	g b	No	T-MH-S-41	886	No	III	PSS wetlands on both sides of Rt. 103; bound by railroad tracks on south side; intermittent stream on south side.
40	T-MH-AW-24	142.00	Mount Holly	PFO	1P, 2L	NA	No	No	9697	Yes	III	Extends under transmission corridor
40	T-MH-W23	142.20	Mount Holly	PEM/PSS	1P	NA	Yes	No	220	Yes	II	Wetlands on both sides of Rt. 103; bound by railroad tracks and PEM on south side; PSS on north side with drainage patterns.
40	T-MH-AW-23	142.20	Mount Holly	PEM/PSS	1P	NA	Yes	No	12490	Yes	II	Wetlands on both sides of Rt. 103; bound by railroad tracks and PEM on south side; PSS on north side with drainage patterns.



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40	T-MH-AW-22	142.20	Mount Holly	PSS	1P, 2L, 10P	B	No	T-MH-S-21	234	No	III	Very small; wetland fringe associated with S-21; intermittent stream; between railroad tracks and Rt. 103.
40	T-MH-AW-25	141.70	Mount Holly	PEM	1L, 2L	NA	No	No	6621	No	III	Narrow PEM wetlands on both sides of Rt. 103; bound by railroad tracks on south side.
40	T-MH-W28	141.30	Mount Holly	PSS	1H, 2H, 10P	NA	Yes	No	4741	Yes	II	Wetland on both sides of highway; saturated to the surface; bound by railroad tracks on the south side; connects to large wet field on north side; connects to VSWI wetland off-ROW.
40	T-MH-AW-28	141.30	Mount Holly	PSS	1H, 2H, 4L, 10P	NA	Yes	No	17996	Yes	II	old field
40	T-MH-AW-69	141.30	Mount Holly	PSS	1H,2H,3H,4H,9H	NA	Yes	No	99	Yes	II	Large Floodplain wetland
40	T-MH-AW-70	141.40	Mount Holly	PSS	1L,2L,4L	NA	Yes	No	7852	No	III	Small wetland adjacent to Railroad
40	T-MH-W27	141.50	Mount Holly	PEM/PSS	1L	NA	No	No	93	No	III	Small isolated wetland near roadside; storm drain within; saturated to surface.
40	T-MH-AW-26	141.60	Mount Holly	PEM	1L, 2L	NA	No	No	11635	No	III	A PEM wetland; saturated to the surface; includes stream in eastern portion.
40	T-MH-AW-27	141.40	Mount Holly	PEM/PSS	1L	NA	No	No	259	No	III	Small isolated wetland near roadside; storm drain within; saturated to surface.
41	T-MH-AW-67	143.00	Mount Holly	PFO	1L, 2P, 4L	NA	No	No	1695	No	III	Small isolated wetland
41	T-MH-AW-65	143.30	Mount Holly	PFO	1P, 2L, 4L	c	No	T-MH-AS42	3228	No	III	Small isolated wetland
41	T-MH-AW-66	143.30	Mount Holly	PFO	1P, 2L, 4L	c	No	T-MH-AS-42	4579	No	III	Small isolated wetland
41	T-MH-AW-64	143.40	Mount Holly	PFO	1P, 2L, 4L, 10P	b	No	T-MH-AS-43	3950	No	III	Small isolated wetland
41	T-MH-W21	142.40	Mount Holly	PSS	1P, 2L	NA	No	No	2519	No	III	Roadside PSS wetland; split by driveway; saturated to surface.
41	T-MH-W20	142.50	Mount Holly	PEM/PSS	1P, 2L	NA	No	No	1178	No	III	Wetland on both sides of Rt. 103; drains from north to south and collects in depression at railroad boundary.
41	T-MH-AW-20	142.50	Mount Holly	PEM/PSS	1P, 2L	NA	No	No	3395	No	III	Wetland on both sides of Rt. 103; drains from north to south and collects in depression at railroad boundary.
41	T-MH-AW-21	142.40	Mount Holly	PSS	1P, 2L	NA	No	No	430	No	III	Roadside PSS wetland; split by driveway; saturated to surface.
41	T-MH-AW-63	143.40	Mount Holly	PFO/PSS	1H, 2H, 4L	NA	Yes	No	4405	Yes	II	Large Beaver influenced wetland
42	T-MH-W18	143.70	Mount Holly	PSS	1P, 2L, 4L, 5P, 6P	g	Yes	No	5590	Yes	II	Wetland in depression; bound by Rt. 103 and driveways on either side; drains to jurisdictional ditch.
42	T-MH-AW-18	143.70	Mount Holly	PFO	1H, 2P, 4L, 5P, 6P	g	Yes	No	12808	Yes	II	Mapped VSWI
42	T-MH-W16	143.90	Mount Holly	PEM	1P, 2P, 4L	NA	No	T-MH-DITCH-6	6571	No	III	PEM wetland; drains to jurisdictional ditch; saturated to the surface.
42	T-MH-W14	143.90	Mount Holly	PSS	1L	NA	No	T-MH-DITCH5	816	No	III	Overlaps VSWI wetland; jurisdictional ditch enters wetland from west.
42	T-MH-AW-16	143.90	Mount Holly	PFO	1P, 2P, 4L	NA	No	T-MH-DITCH-6	12927	No	III	PEM wetland; drains to jurisdictional ditch; saturated to the surface.
42	T-MH-W12	144.00	Mount Holly	PFO	1H, 2L, 4P	b	No	T-MH-S-18	254	No	III	Wetland within stream overflow area; saturated to the surface.
42	T-MH-W11	144.10	Mount Holly	PSS	1P, 2L	b	Yes	T-MH-S-17	31	Yes	II	Saturated to the surface; drainage patterns; surrounds an ephemeral stream which connects to a VSWI wetland.
42	T-MH-W10	144.10	Mount Holly	PSS/PEM	1P, 2P, 4L	NA	No	No	1599	No	III	Saturated to the surface; near an off-ROW stream; borderline hydric vegetation.
42	T-MH-AW-11	144.10	Mount Holly	PFO	1P, 2L	b	Yes	T-MH-S-17	3265	Yes	II	Mapped VSWI
42	T-MH-W8	144.20	Mount Holly	PSS	1P, 2P, 4L	NA	No	T-MH-DITCH-3	472	No	III	Saturated to the surface; located below transmission lines; culvert drains wetland under highway.
42	T-MH-W9	144.30	Mount Holly	PSS	1P, 2P, 4P	b	Yes	T-MH-S-16	1058	Yes	II	Wetland saturated to the surface; borders intermittent stream on south side; borders non-jurisdictional ditch to the north; connects to a VSWI wetland.
42	T-MH-AW-9	144.30	Mount Holly	PSS	1P, 2P, 4P	NA	Yes	No	16367	Yes	II	large Mapped VSWI
42	T-MH-AW-62	144.40	Mount Holly	PFO	1P, 2P	b	Yes	T-MH-S-15	5853	Yes	II	Small isolated wetland
42	T-MH-AW-61	144.50	Mount Holly	PFO	1P, 2P	b	Yes	T-MH-S-15	3272	Yes	II	Small isolated wetland
42	T-MH-AW-8	144.10	Mount Holly	PSS	1P, 2P, 4L	NA	No	T-MH-DITCH-3	1534	No	III	Saturated to the surface; located below transmission lines; culvert drains wetland under highway.
42	T-MH-AW-10	144.10	Mount Holly	PSS/PEM	1P, 2P, 4L	NA	No	No	610	No	III	Saturated to the surface; near an off-ROW stream; borderline hydric vegetation.
42	T-MH-AW-13	144.00	Mount Holly	PSS	1L	NA	No	No	544	No	III	PSS receives water from non-jurisdictional ditch; wetland drains under Rt. 103.
42	T-MH-AW-19	143.60	Mount Holly	PSS	1P, 2P, 4L, 5P, 6P	NA	No	No	3318	No	III	Wetland in depression below forest; bound by Rt. 103 and driveways on either side.
42	T-MH-AW-12	144.00	Mount Holly	PFO	1H, 2L, 4P	B	No	T-MH-S-18	264	No	III	Wetland within stream overflow area; saturated to the surface.
42	T-MH-AW-14	143.80	Mount Holly	PSS	1L	NA	No	T-MH-DITCH-5	85	No	III	Overlaps VSWI wetland; jurisdictional ditch enters wetland from west.
42	T-MH-W17	143.70	Mount Holly	PEM	1P, 2L	NA	No	No	3419	No	III	PEM wetland; saturated to the surface; overlaps VSWI wetland; ditch-like characteristics.
42	T-MH-AW-17	143.60	Mount Holly	PEM	1P, 2L	NA	No	No	1401	No	III	PEM wetland; saturated to the surface; overlaps VSWI wetland; ditch-like characteristics.
42	T-MH-W7	144.30	Mount Holly	PSS	1P, 2L, 4L, 10L	b	Yes	T-MH-S15	516	Yes	II	Narrow PSS wetland parallel to road; saturated to the surface; hydrologically connected by intermittent stream S15.
42	T-MH-W6	144.70	Mount Holly	PSS	1P, 2L	NA	No	No	107	No	III	Saturated to surface; drains to jurisdictional ditch to east.
42	T-MH-AW-6	144.70	Mount Holly	PFO	1L, 2L	NA	No	No	12501	No	III	forested wetland swale
42	T-MH-AW-7	144.30	Mount Holly	PSS	1P, 2L, 4L, 10L	B	Yes	T-MH-S15	7812	Yes	III	Narrow PSS wetland parallel to road; saturated to the surface; hydrologically connected by intermittent stream S15.
43	T-MH-W4	145.10	Mount Holly	PSS	1L, 2L, 4L, 10P	b	Yes	T-MH-S-10	414	Yes	II	Drainage patterns present; borders Branch Brook.
43	T-MH-AW-60	145.30	Mount Holly	PSS	1P,2P,3P,4P	NA	No	No	3694	Yes	II	floodplain of Stream T-MH-S10
43	T-MH-AW-5	145.0	Mount Holly	PSS	1P, 2L	NA	Yes	No	5912	Yes	II	PSS area adjacent to Branch Brook; connects to VSWI wetland.
43	T-MH-AW-4	145.10	Mount Holly	PSS	1L, 2L, 4L, 10P	B	Yes	T-MH-S-10	164	Yes	II	Drainage patterns present; borders Branch Brook.
44	T-MH-AW-1	145.80	Mount Holly	PFO	1L, 2L, 4L	b	No	T-MH-S-3	660	No	III	small floodplain of Stream T-MH-AS-3

TDI New England Clean Power Link (NECPL)												
Natural Resource Map Series Page Number	Wetland ID a/	Mile Post b/	Town	Cowardin Classification c/	VWR Section 5 Functional Criteria (Functions and Values) d/	VWR Section 4.6 Presumptions	Contiguous / Overlaps VSWI (Y/N)	Associated Streams	Mapped Area (Sq Ft)	Functionally Significant (Y/N)	Recommended VWR Classification	Comments
44	T-MH-W2	145.90	Mount Holly	PEM	2L, 4L	NA	No	No	342	No	III	Very small PEM wetland on a hillslope between highway and railroad tracks.
44	T-MH-AW-2	145.90	Mount Holly	PFO	2L, 4L	NA	No	No	1501	No	III	Small isolated wetland
44	T-MH-W3	146.00	Mount Holly	PEM	1L, 2L, 4L	NA	No	No	439	No	III	PEM wetland; saturated to surface; sulfur odor; drains to roadside ditch
44	T-MH-AW-3	146.00	Mount Holly	PFO	1L, 2L, 4L	NA	No	No	3955	No	III	Small isolated wetland
44	T-MH-AW-57	146.00	Mount Holly	PFO	1L,2L,10L	NA	No	No	1522	No	III	Small isolated wetland swale
44	T-LU-W16	146.30	Ludlow	PEM	2P, 4L	c	No	T-MH-AS1	453	Yes	II	Small PEM wetland; narrow wetland swale; drains to Branch Brook.
44	T-LU-AW-16	146.30	Ludlow	PEM	2P, 4L	c	No	T-MH-AS1	376	Yes	II	Small PEM wetland; narrow wetland swale; drains to Branch Brook.
44	T-LU-W14	146.50	Ludlow	PEM	2L, 4L	NA	No	No	676	No	III	PEM wetland; groundwater seep; drains to field.
44	T-LU-AW-14	146.50	Ludlow	PEM	2L, 4L	NA	No	No	2113	No	III	PEM wetland; groundwater seep; drains to field.
45	T-LU-W15	146.90	Ludlow	PEM	1L, 2P, 4L	NA	No	No	899	No	III	Saturated to the surface; below transmission lines on steep slope.
45	T-LU-AW-15	146.90	Ludlow	PSS	1L, 2P, 4L	NA	No	No	7069	No	III	Small wetland under transmission corridor
45	T-LU-W17	147.20	Ludlow	PEM	1L, 2P, 4L	NA	No	No	204	No	III	Very small isolated PEM wetland.
45	T-LU-W18	147.20	Ludlow	PEM/PSS	1L, 2P, 4L	NA	No	No	3678	No	III	Wetland receives water from a slope seep and dissipates before reaching the culvert at the highway.
45	T-LU-AW17	147.20	Ludlow	PEM	1L, 2P, 4L	NA	No	No	1733	No	III	Very small isolated PEM wetland.
45	T-LU-AW-18	147.20	Ludlow	PEM/PSS	1L, 2P, 4L	NA	No	No	3816	No	III	Wetland receives water from a slope seep and dissipates before reaching the culvert at the highway.
45	T-LU-W13	147.60	Ludlow	PEM	1H, 2P, 3P, 4L	c	No	T-LU-S3	11137	Yes	II	Large PEM wetland; saturated to the surface; intermittent stream present; complex connected through culverts.
45	T-LU-AW-13	147.60	Ludlow	PEM	1H, 2P, 3P, 4L	NA	No	No	11060	Yes	II	Large PEM wetland; saturated to the surface; intermittent stream present; complex connected through culverts.
45	T-LU-W1	148.10	Ludlow	PEM	2L	NA	No	No	136	No	III	Small; isolated seep in a residential lawn; mowed downslope.
45	T-LU-AW-1	148.10	Ludlow	PEM	2L	NA	No	No	164	No	III	Small; isolated seep in a residential lawn; mowed downslope.
47	T-LU-W12	149.00	Ludlow	PEM	2P, 3P, 4L	c	No	T-LU-S28	419	Yes	II	PEM wetlands; saturated to the surface; drain to jurisdictional ditch; ephemeral stream captured in ditch.
47	T-LU-AW-12	149.00	Ludlow	PEM	2P, 3P, 4L	NA	No	No	897	Yes	II	PEM wetlands; saturated to the surface; drain to jurisdictional ditch; ephemeral stream captured in ditch.
47	T-LU-W11	149.30	Ludlow	PFO	1L, 2L, 4L	NA	No	No	1194	No	III	Wetland on both sides of road; saturated to surface; manmade drainage pattern on west side disperses flow.
47	T-LU-AW-11	149.30	Ludlow	PFO	1L, 2L, 4L	NA	No	No	860	No	III	manmade drainage pattern on west side disperses flow.
47	T-LU-AW-26	149.40	Ludlow	PSS	1P, 2P, 4P, 5P	g	No	No	1053	Yes	II	Wetland drains into Lake Rescue under VELCO ROW
47	T-LU-AW-25	149.50	Ludlow	PFO	1P, 2P, 3P, 4P, 5P	b g	No	T-LU-AS26	94	Yes	II	Drains into large PFO complex
47	T-LU-W10	149.60	Ludlow	PEM	1P, 2P, 4L	NA	No	T-LU-DITCH3	374	Yes	II	Depressional wetland; located on a side slope; drains to jurisdictional ditch on east side.
47	T-LU-AW-10	149.60	Ludlow	PFO	1P, 2P, 4L	NA	No	No	12672	Yes	II	Large, isolated forested wetland
48	T-LU-W9	150.50	Ludlow	PSS/PEM	1H, 2P, 3P, 4P	b	Yes	T-LU-S19	3103	Yes	II	Primarily a PSS wetland bordering an intermittent stream which flows out of a VSWI wetland; saturated to surface.
48	T-LU-AW-9	150.50	Ludlow	PSS/PEM	1H, 2P, 3P, 4P	b	Yes	T-LU-S19	27358	Yes	II	Primarily a PSS wetland bordering an intermittent stream which flows out of a VSWI wetland; saturated to surface.
48	T-LU-W8	150.80	Ludlow	PSS/PEM	1H, 2P, 3P, 4H	NA	Yes	No	1412	Yes	II	Large PSS/PEM wetlands on both sides of road; downstream from VSWI wetland; saturated to the surface with ephemeral stream flow.
48	T-LU-AW-8	150.80	Ludlow	PSS/PEM	1H, 2P, 3P, 4H	NA	Yes	No	17636	Yes	II	Large PSS/PEM wetlands on both sides of road; downstream from VSWI wetland; saturated to the surface with ephemeral stream flow.
48	T-LU-W7	151.10	Ludlow	PEM	1L, 2L, 3P, 4H	NA	No	No	506	No	III	Depressional wetland; saturated to surface; drains to jurisdictional roadside ditch.
48	T-LU-AW-7	151.10	Ludlow	PEM	1L, 2L, 3P, 4H	NA	No	No	6032	Yes	II	Depressional wetland; saturated to surface; drains to jurisdictional roadside ditch.
48	T-LU-W6	151.30	Ludlow	PEM/PSS	1L, 2L, 4H	NA	No	No	1086	No	III	PEM/PSS wetland; saturated to surface; sloped meadow; large ruts associated with skidder/logging road.
49	T-LU-W5	151.70	Ludlow	PEM	0	NA	No	No	632	No	III	Isolated wetland; marginal; saturated to the surface; near large field (east).
49	T-LU-W4	151.80	Ludlow	PSS	1H, 2P, 3P, 4H, 9P	b	Yes	T-LU-S11	11550	Yes	II	Large wetlands on both sides of road; intermittent stream present; in VSWI wetland complex.
49	T-LU-AW-4	151.80	Ludlow	PSS/PFO	1H, 2P, 3P, 4H, 9P	b	Yes	T-LU-S11	84045	Yes	II	Large wetlands on both sides of road; intermittent stream present; in VSWI wetland complex.
49	T-LU-AW-5	151.7	Ludlow	PEM	0	NA	No	No	169	No	III	Isolated wetland; marginal; saturated to the surface; near large field (east).
49	T-LU-AW-6	151.30	Ludlow	PEM/PSS	1L, 2L, 4H	NA	No	No	1784	Yes	II	Drains into large PEM wetland
50	T-LU-W3	152.50	Ludlow	PEM	2L, 4L	NA	No	No	110	No	III	Very small PEM wetland in residential area with fields and forests; connects to larger off-ROW wetland.
50	T-LU-AW-3	152.50	Ludlow	PFO	2L, 4L	NA	No	No	1522	No	III	small isolated wetland
50	T-LU-W2	152.70	Ludlow	PEM	1L, 2L, 4L	NA	No	T-LU-DITCH1	702	No	III	PEM wetland fed by groundwater discharge; water exits wetland as jurisdictional ditch.
50	T-LU-AW-2	152.70	Ludlow	PFO	1L, 2L, 4L	NA	No	No	660	No	III	small isolated wetland
50	T-LU-AW-23	152.80	Ludlow	PEM/PSS	1P,2P,3P,4P,5P	g	No	No	1638	Yes	II	Old field
50	T-LU-AW-20	152.90	Ludlow	PEM/PSS	1P,2P,3P,4P,5P	g	No	No	7093	Yes	II	large wetland complex extends upslope under VELCO ROW
50	T-LU-W19	153.00	Ludlow	PEM	0	NA	No	No	369	No	III	Small isolated PEM wetland near transmission line ROW; forests and fields present.
50	T-LU-AW-24	152.20	Ludlow	PFO	1L,2L,3L,4P,5L	c g	No	T-LU-S-10	3031	No	III	small isolated wetland
51	V-AL-W-1	0.10	Alburgh	PEM	1L, 2L	NA	No	No	2292	No	III	Located in active pasture outside of ROW
51	V-AL-W-2	0.50	Alburgh	PEM/ PFO	1P, 2P, 10P	b	No	No	17397	Yes	II	Contiguous with Lake Champlain

a/ Listed in order from west to east.

b/ Mile post data from TRC 10/31/2014

c/ Cowardin Classifications (Cowardin, L.M., V. Carter, F.C. Golet, and E.T. LaRoe. 1979. Classification of Wetlands and Deepwater Habitat of the United States.)

d/ Functions and Values numbers refer to the Vermont Functions and Values, designated in the 2010 Vermont Wetland Rules (under 10 V.S.A. § 905(7)), and were determined using the Vermont Wetland Evaluation Form.

**Vermont Functions and Values**

- 1 - Water storage for flood water and storm runoff
- 2 - Surface and ground water protection
- 3 - Fish habitat
- 4 - Wildlife habitat
- 5 - Exemplary wetland natural community
- 6 - Rare, threatened, and endangered species habitat
- 7 - Education and research in natural sciences
- 8 - Recreational value and economic benefit
- 9 - Open space and aesthetics
- 10 - Erosion control through binding and stabilizing the soil

**Equivalent or Similar Federal Functions and Values**

- Floodflow Alteration (Storage and Desynchronization)
- Groundwater Recharge/Discharge, Sediment/Toxicant Retention, Nutrient Removal/Retention/Transformation
- Fish and Shellfish Habitat
- Wildlife Habitat, Production Export (Nutrient)
- Endangered Species, Uniqueness/Heritage
- Endangered Species
- Educational/Scientific Value, Uniqueness/Heritage
- Recreation (Consumptive & Non-consumptive), Production Export (Nutrient)
- Visual Quality/Aesthetics, Uniqueness/Heritage
- Sediment/Shoreline Stabilization

P - Function is Present

L - Provides Function at a Lower Level

H - Provides Function at a Higher Level

# **ATTACHMENT 4**



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-AL-W1A

Project Site: NECPL City/County: Grand Isle State: Vermont Sampling Point: V-AL-W1A
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Alburgh
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 45°0'33.03"N Long: 73°19'48.385"W Datum: NAD 83
Soil Map Unit: Amenia silt loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: within pasture, just outside of study area

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of May was 3.89"(departure from normal value is not available) ; 0.02" in the 5 days prior in Plattsburg, NY (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-8 10YR 3/1
8-12+ 2.5Y 5/1 10YR 5/6 5 C M SILT LOAM
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-AL-W1B

Project Site: NECPL City/County: Grand Isle State: Vermont Sampling Point: V-AL-W1B
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Alburgh
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 45°0'25.123"N Long: 73°19'55.513"W Datum: NAD 83
Soil Map Unit: Kendaia silt loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of May was 3.89" (departure from normal value is not available); 0.02" in the 5 days prior in Plattsburg, NY (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-12 10YR 3/2 SILT LOAM
12-16+ 2.5Y 5/3 Water at 16"
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: <span style="float:right">Multiply By:</span> OBL _____ x 1 = _____ FACW <u>63</u> x 2 = <u>126</u> FAC _____ x 3 = _____ FACU <u>45</u> x 4 = <u>180</u> UPL _____ x 5 = _____ Sum: <u>108</u> (A) <span style="float:right"><u>306</u> (B)</span>  Prevalence Index = B/A = <u>2.83</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Herb Stratum (Plot size: <u>5' RADIUS</u> )					
1.	<u>Phalaris arundinacea</u>	<u>63</u>	<u>X</u>	<u>FACW</u>	
2.	<u>Galium mollugo</u>	<u>15</u>		<u>FACU</u>	
3.	<u>Dactylis glomerata</u>	<u>15</u>		<u>FACU</u>	
4.	<u>Cirsium vulgare</u>	<u>15</u>		<u>FACU</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>108</u> = Total Cover					
Woody Vines (Plot size: _____ )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Hydrophytic Vegetation Indicators:

Dominance Test is > 50%

Prevalence Index is <= 3.0

\_\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (explain)

\_\_\_\_\_ Rapid Test for Hydrophytic Vegetation

\_\_\_\_\_ Morphological Adaptations

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Definitions of Vegetation Strata:

Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).

Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.

Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.

Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.

Woody vine - All woody vines, regardless of height.

Hydrophytic Vegetation Present? YES

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W2A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W2A
Applicant/Owner: TDI Section, Township, Range: Benson
Investigator(s): ARC Local relief (concave, convex, none): concave Slope (%): 25-50%
Landform (hillslope, terrace, etc.): hillslope Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°43'59.97"N Long: 73°21'57.029"W
Soil Map Unit: Vergennes Clay NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: near flag #2

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Surface Water (A1) [X] Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B13)
Water Marks (B1) Hydrogen Sulfide Odor (C1)
[X] Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3)
[X] 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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Color (moist), %, Redox Features, Type, Loc, Texture, Remarks.
0-4 10YR 4/1 10YR 3/3 C M SILTY CLAY
4-14 5Y 3/1 5YR 4/6 C M CLAY

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

Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
Stratified Layers (A5) Depleted Below Dark Surface (A11) [X] Depleted Matrix (F3)
Thick Dark Surface (A12) [X] Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:







WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W2B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W2B
Applicant/Owner: TDI Section, Township, Range: Benson
Investigator(s): ARC Local relief (concave, convex, none): convex Slope (%): 25-50%
Landform (hillslope, terrace, etc.): hillslope Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°43'59.951"N Long: 73°21'57.682"W
Soil Map Unit: Vergennes Clay NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks: near flag #3

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations: Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? NO

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Color (moist), %, Redox Features (Color (moist), %, Type, Loc), Texture, Remarks.
Rows: 0-3 (10YR 4/4, CLAY), 3-10 (10YR 5/4, CLAY), 10-12+ (10YR 5/6, CLAY, Saturated past 12")

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)
Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
Stratified Layers (A5) Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed): Type: Depth (inches):
Hydric Soil Present? NO

Remarks:





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-5A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-5A
Applicant/Owner: TDI Section, Township, Range: Benson
Investigator(s): CMM Local relief (concave, convex, none): concave Slope (%): 5-25%
Landform (hillslope, terrace, etc.): terrace Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°43'43.774"N Long: 73°20'29.985"W
Soil Map Unit: Farmington-Galway-Galoo complex NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Surface Water (A1)
X High Water Table (A2)
X Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.00" in the 5 days prior

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Matrix, Color (moist), %, Redox Features, Type, Loc, Texture, Remarks. Row 1: 16-0, MUCK.

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:
X Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-5B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-5B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5-25%
Subregion (LRR or MLRA): LRR R Lat: 43°43'43.608"N Long: 73°20'29.723"W Datum: NAD 83
Soil Map Unit: Farmington-Galway-Galoo complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.00" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 4/3 SILT LOAM
6-14 10YR 5/3 SILT LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status	
Tree Stratum (Plot size: <u>30' RADIUS</u> )				Dominance Test Worksheet:
1. <u>Rhus aromatica</u>	<u>38</u>	<u>X</u>	<u>UPL</u>	# Dominants OBL, FACW, FAC: <u>2</u> (A)
2. _____				# Dominants across all strata: <u>5</u> (B)
3. _____				% Dominants OBL, FACW, FAC: <u>40%</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
	<u>38</u>	= Total Cover		Prevalence Index Worksheet:
Sapling Stratum (Plot size: <u>30' RADIUS</u> )				Total % Cover of: <u>        </u> Multiply By: <u>        </u>
1. _____				OBL <u>        </u> x 1 = <u>        </u>
2. _____				FACW <u>        </u> x 2 = <u>        </u>
3. _____				FAC <u>53</u> x 3 = <u>159</u>
4. _____				FACU <u>56</u> x 4 = <u>224</u>
5. _____				UPL <u>38</u> x 5 = <u>190</u>
6. _____				Sum: <u>147</u> (A) <u>573</u> (B)
7. _____				Prevalence Index = B/A = <u>3.90</u>
				Hydrophytic Vegetation Indicators:
Shrub Stratum (Plot size: <u>15' RADIUS</u> )				<input type="checkbox"/> Dominance Test is > 50%
1. <u>Lonicera morrowii</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	<input type="checkbox"/> Prevalence Index is <= 3.0
2. <u>Rubus idaeus</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain)
3. _____				<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation
4. _____				<input type="checkbox"/> Morphological Adaptations
5. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____				Definitions of Vegetation Strata:
7. _____				Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).
	<u>53</u>	= Total Cover		Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.
Herb Stratum (Plot size: <u>5' RADIUS</u> )				Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.
1. <u>Equisetum arvense</u>	<u>38</u>	<u>X</u>	<u>FAC</u>	Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.
2. <u>Toxicodendron radicans</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	
3. <u>Taraxacum officinale</u>	<u>3</u>		<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u>56</u>	= Total Cover		Woody vine - All woody vines, regardless of height.
Woody Vines (Plot size: _____)				Hydrophytic Vegetation Present? <u>NO</u>
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-11A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-11A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 8-25%
Subregion (LRR or MLRA): LRR R Lat: 43°43'8.667"N Long: 73°19'56.719"W Datum: NAD 83
Soil Map Unit: Taconic-Macomber complex NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2) X
Saturation (A3) X
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): 6
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.00" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Matrix, Redox Features (Color (moist), %, Type, Loc), Texture, Remarks.
0-8: 10YR 2/1, SILT LOAM
8-15: 10YR 6/2, 10YR 6/6, C, M, SILTY CLAY LOAM

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

Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
X Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





Tree Stratum (Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. <b>Acer rubrum</b>	<b>15</b>	<b>X</b>	<b>FAC</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>5</u> (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>15</b>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: <span style="float:right;">Multiply By:</span> OBL _____ x 1 = _____ FACW <u>155</u> x 2 = <u>310</u> FAC <u>15</u> x 3 = <u>45</u> FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>170</u> (A) <span style="float:right;"><u>355</u> (B)</span>  Prevalence Index = B/A = <u>2.09</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Shrub Stratum (Plot size: <u>15' RADIUS</u> )				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
1. <b>Spiraea alba</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
2. <b>Salix bebbiana</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>30</b>	= Total Cover		
Herb Stratum (Plot size: <u>5' RADIUS</u> )				Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1. <b>Onoclea sensibilis</b>	<b>87</b>	<b>X</b>	<b>FACW</b>	
2. <b>Impatiens capensis</b>	<b>38</b>	<b>X</b>	<b>FACW</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<b>125</b>	= Total Cover		
Woody Vines (Plot size: _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		Hydrophytic Vegetation Present? <u>YES</u>

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-11B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-11B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 8-25%
Subregion (LRR or MLRA): LRR R Lat: 43°43'8.469"N Long: 73°19'56.692"W Datum: NAD 83
Soil Map Unit: Taconic-Macomber complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) High Water Table (A2) Saturation (A3) Water Marks (B1) Sediment Deposits (B2) Drift Deposits (B3) Algal Mat or Crust (B4) Iron Deposits (B5) Inundation Visible on Aerial (B7) Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9) Aquatic Fauna (B13) Marl Deposits (B13) Hydrogen Sulfide Odor (C1) Oxidized Rhizospheres on Living Roots (C3) Presence of Reduced Iron (C4) Recent Iron Reduction in Tilled Soils (C6) Thin Muck Surface (C7) Other (Explain in Remarks)
Surface Soil Cracks (B6) Drainage Patterns (B10) Moss Trim Lines (B16) Dry-Season Water Table (C2) Crayfish Burrows (C8) Saturation Visible on Aerial (C9) Stunted or Stressed Plants (D1) Geomorphic Position (D2) Shallow Aquitard (D3) Microtopographic Relief (D4) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Depth (inches): Water Table Present? Depth (inches): Saturation Present? Depth (inches): Wetland Hydrology Present? NO
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.00" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-6 10YR 5/3
6-14 10YR 5/4
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Histic Epipedon (A2) Black Histic (A3) Hydrogen Sulfide (A4) Stratified Layers (A5) Depleted Below Dark Surface (A11) Thick Dark Surface (A12) Sandy Mucky Mineral (S1) Sandy Gleyed Matrix (S4) Sandy Redox (S5) Stripped Matrix (S6) Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B) Thin Dark Surface (S9) (LRR R, MLRA 149B) Loamy Mucky Mineral (F1) (LRR K, L) Loamy Gleyed Matrix (F2) Depleted Matrix (F3) Redox Dark Surface (F6) Depleted Dark Surface (F7) Redox Depressions (F8)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R) Dark Surface (S9) (LRR K, L, M) Polyvalue Below Surface (S8) (LRR K, L) Thin Dark Surface (S9) (LRR K, L) Iron-Manganese Masses (F12) (LRR K, L, R) Piedmont Floodplain Soils (F19) (MLRA 149B) Mesic Spodic (TA6) (MLRA 144A, 145, 149B) Red Parent Material (F21) Very Shallow Dark Surface (TF12) Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum (Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. <b>Rhus aromatica</b>	<b>38</b>	<b>X</b>	<b>UPL</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>6</u> (B)  % Dominants OBL, FACW, FAC: <u>17%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>38</b>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: <span style="float:right;">Multiply By:</span> OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC _____ x 3 = _____ FACU <u>68</u> x 4 = <u>272</u> UPL <u>76</u> x 5 = <u>380</u> Sum: <u>159</u> (A) <span style="float:right;"><u>682</u> (B)</span>  Prevalence Index = B/A = <u>4.29</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )				
1. <b>Rhus aromatica</b>	<b>38</b>	<b>X</b>	<b>UPL</b>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>38</b>	= Total Cover		
Shrub Stratum (Plot size: <u>15' RADIUS</u> )				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is <= 3.0 <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain) <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <b>Lonicera morrowii</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	
2. <b>Rubus idaeus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>53</b>	= Total Cover		
Herb Stratum (Plot size: <u>5' RADIUS</u> )				Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1. <b>Phalaris arundinacea</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
2. <b>Taraxacum officinale</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
3. <b>Toxicodendron radicans</b>			<b>FAC</b>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<b>30</b>	= Total Cover		
Woody Vines (Plot size: _____ )				Hydrophytic Vegetation Present? <u>NO</u>
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-14A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-14A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): N/A
Subregion (LRR or MLRA): LRR R Lat: 43°42'50.028"N Long: 73°19'19.09"W Datum: NAD 83
Soil Map Unit: Linwood muck NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): 3
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available); 0.00" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
16-0 MUCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: OBL <u>30</u> x 1 = <u>30</u> FACW <u>143</u> x 2 = <u>286</u> FAC _____ x 3 = _____ FACU <u>15</u> x 4 = <u>60</u> UPL _____ x 5 = _____ Sum: <u>188</u> (A) _____ (B)  Prevalence Index = B/A = <u>2.00</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Salix bebbiana</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
2.	<u>Cornus sericea</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
3.					
4.					
5.					
6.					
		<u>30</u> = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<u>Onoclea sensibilis</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	
2.	<u>Equisetum fluviatile</u>	<u>15</u>		<u>OBL</u>	
3.	<u>Carex vulpinoidea</u>	<u>15</u>		<u>OBL</u>	
4.	<u>Impatiens capensis</u>	<u>15</u>		<u>FACW</u>	
5.	<u>Tiarella cordifolia</u>	<u>15</u>		<u>FACU</u>	
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>158</u> = Total Cover			
Woody Vines (Plot size: _____ )					Hydrophytic Vegetation Present? <u>YES</u>
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W-14B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W-14B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 8-25%
Subregion (LRR or MLRA): LRR R Lat: 43°42'50.802"N Long: 73°19'20.169"W Datum: NAD 83
Soil Map Unit: Taconic-Macomber complex NWI Class:
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.00" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 4/4 CLAY LOAM
6+ BEDROCK
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Bedrock Hydric Soil Present? NO
Depth (inches): 6
Remarks:





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W107A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W107A
Applicant/Owner: TDI Section, Township, Range: Benson
Investigator(s): PBW Local relief (concave, convex, none): concave Slope (%): 3-8%
Landform (hillslope, terrace, etc.): terrace Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°41'11.628"N Long: 73°17'24.065"W
Soil Map Unit: Kingsbury silty clay loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: adjacent to hay field

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Color (moist), %, Redox Features (Color (moist), %, Type, Loc), Texture, Remarks.
0-8: 2.5Y 3/2, SILT LOAM
8-16: 2.5Y 5/1, 10YR 4/6, 7, C, M, CLAY LOAM

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

Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:





	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u> 30' RADIUS </u> )				<b>Dominance Test Worksheet:</b>
1. _____				# Dominants OBL, FACW, FAC: <u> 2 </u> (A)
2. _____				# Dominants across all strata: <u> 2 </u> (B)
3. _____				% Dominants OBL, FACW, FAC: <u> 100% </u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		<b>Prevalence Index Worksheet:</b>
<b>Sapling Stratum</b> (Plot size: <u> 30' RADIUS </u> )				<b>Total % Cover of:</b>
1. _____				OBL <u> 41 </u> x 1 = <u> 41 </u>
2. _____				FACW <u> 86 </u> x 2 = <u> 172 </u>
3. _____				FAC _____ x 3 = _____
4. _____				FACU _____ x 4 = _____
5. _____				UPL _____ x 5 = _____
6. _____				Sum: <u> 127 </u> (A) <u> 213 </u> (B)
7. _____				Prevalence Index = B/A = <u> 1.68 </u>
		= Total Cover		<b>Hydrophytic Vegetation Indicators:</b>
<b>Shrub Stratum</b> (Plot size: <u> 15' RADIUS </u> )				<input checked="" type="checkbox"/> Dominance Test is > 50%
1. _____				<input checked="" type="checkbox"/> Prevalence Index is <= 3.0
2. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain)
3. _____				<input type="checkbox"/> Rapid Test for Hydrophytic Vegetation
4. _____				<input type="checkbox"/> Morphological Adaptations
5. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____				
7. _____				<b>Definitions of Vegetation Strata:</b>
		= Total Cover		<b>Tree</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).
<b>Herb Stratum</b> (Plot size: <u> 5' RADIUS </u> )				<b>Sapling</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.
1. <u> Phalaris arundinacea </u>	<u> 83 </u>	<u> X </u>	<u> FACW </u>	<b>Shrub</b> - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.
2. <u> Typha angustifolia </u>	<u> 38 </u>	<u> X </u>	<u> OBL </u>	<b>Herb</b> - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.
3. <u> Lythrum salicaria </u>	<u> 3 </u>		<u> OBL </u>	
4. <u> Onoclea sensibilis </u>	<u> 3 </u>		<u> FACW </u>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<u> 127 </u>	= Total Cover		<b>Woody vine</b> - All woody vines, regardless of height.
<b>Woody Vines</b> (Plot size: _____)				
1. _____				<b>Hydrophytic Vegetation Present?</b> <u> YES </u>
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W107B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W107B
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°41'11.617"N Long: 73°17'24.356"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks: adjacent to hay field

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-4 10YR 3/1 SANDY LOAM
4+ FILL Sandy/ gravelly roadside fill material
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: <span style="float:right">Multiply By:</span> OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC _____ x 3 = _____ FACU <u>68</u> x 4 = <u>272</u> UPL _____ x 5 = _____ Sum: <u>83</u> (A) <span style="float:right"><u>302</u> (B)</span>  Prevalence Index = B/A = <u>3.64</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.  Hydrophytic Vegetation Present? <u>NO</u>
1.	<b>Dactylis glomerata</b>	<b>65</b>	<b>X</b>	<b>FACU</b>	
2.	<b>Phalaris arundinacea</b>	<b>15</b>		<b>FACW</b>	
3.	<b>Galium mollugo</b>	<b>3</b>		<b>FACU</b>	
4.	<b>Pastinaca sativa</b>	<b>3</b>		<b>NI</b>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<b>86</b> = Total Cover			
Woody Vines (Plot size: _____)					
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).

**Unknown goldenrod (Solidago sp.) at 38%**



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W111A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W111A
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°40'29.387"N Long: 73°17'20.035"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) X Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? X Depth (inches): 6
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Table with 8 columns: Depth, Matrix, Redox Features, Type, Loc, Texture, Remarks. Rows show soil profile data for depths 0-6 and 6-14 inches.

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

Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>101</u> x 2 = <u>202</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>101</u> (A) _____ <u>202</u> (B)  Prevalence Index = B/A = <u>2.00</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Phalaris arundinacea</b>	<b>98</b>	<b>X</b>	<b>FACW</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<b>Impatiens capensis</b>	<b>3</b>		<b>FACW</b>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<b>101</b> = Total Cover					
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? <u>YES</u>
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).

**Unknown sedge (Carex sp.) at 15%**



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-BE-W111B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-BE-W111B
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Benson
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°40'29.449"N Long: 73°17'20.358"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 3/2 10YR 5/6 2 C M SILTY CLAY LOAM
6-14 10YR 4/4 CLAY
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC <u>15</u> x 3 = <u>45</u> FACU <u>95</u> x 4 = <u>380</u> UPL _____ x 5 = _____ Sum: <u>125</u> (A) _____ <u>455</u> (B)  Prevalence Index = B/A = <u>3.64</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Dactylis glomerata</b>	<b>65</b>	<b>X</b>	<b>FACU</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.   Hydrophytic Vegetation Present? <u>NO</u>
2.	<b>Taraxacum officinale</b>	<b>15</b>		<b>FACU</b>	
3.	<b>Ranunculus acris</b>	<b>15</b>		<b>FAC</b>	
4.	<b>Trifolium pratense</b>	<b>15</b>		<b>FACU</b>	
5.	<b>Phalaris arundinacea</b>	<b>15</b>		<b>FACW</b>	
6.	<b>Vicia cracca tenuifolia</b>	<b>3</b>		<b>NI</b>	
7.					
8.					
9.					
10.					
11.					
12.					
		<b>128</b> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W103A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W103A
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°40'7.283"N Long: 73°17'23.239"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: in old pasture

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
[X] Surface Water (A1) Water-Stained Leaves (B9) [X] Drainage Patterns (B10)
[X] High Water Table (A2) Aquatic Fauna (B13) Moss Trim Lines (B16)
[X] Saturation (A3) Marl Deposits (B13) Dry-Season Water Table (C2)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Crayfish Burrows (C8)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Saturation Visible on Aerial (C9)
Drift Deposits (B3) Presence of Reduced Iron (C4) Stunted or Stressed Plants (D1)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Geomorphic Position (D2)
Iron Deposits (B5) Thin Muck Surface (C7) Shallow Aquitard (D3)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Microtopographic Relief (D4)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? [X] Depth (inches): Surface
Saturation Present? [X] Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Matrix, Redox Features (Color (moist), %, Type, Loc), Texture, Remarks.
0-8: 2.5Y 3/2, SILT LOAM
8-16: 2.5Y 5/1, 10YR 5/6, 5, C, M, SILT LOAM

Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) [X] Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>80</u> x 1 = <u>80</u> FACW <u>15</u> x 2 = <u>30</u> FAC <u>3</u> x 3 = <u>9</u> FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>98</u> (A) <u>119</u> (B)  Prevalence Index = B/A = <u>1.21</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )				
1.	_____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Herb Stratum	(Plot size: <u>5' RADIUS</u> )				
1.	<u>Acorus americanus</u>	<u>65</u>	<u>X</u>	<u>OBL</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<u>Phalaris arundinacea</u>	<u>15</u>		<u>FACW</u>	
3.	<u>Typha latifolia</u>	<u>15</u>		<u>OBL</u>	
4.	<u>Equisetum arvense</u>	<u>3</u>		<u>FAC</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>98</u> = Total Cover					
Woody Vines	(Plot size: _____ )				
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? <u>YES</u>
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W103B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W103B
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°40'7.304"N Long: 73°17'23.301"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? Depth (inches): Wetland Hydrology Present? NO
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 3/2 SILT LOAM
6-14 2.5Y 5/3 CLAY LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>84</u> x 4 = <u>336</u> UPL <u>18</u> x 5 = <u>90</u> Sum: <u>102</u> (A) _____ <u>426</u> (B)  Prevalence Index = B/A = <u>4.18</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Dactylis glomerata</b>	<b>63</b>	<b>X</b>	<b>FACU</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<b>Pastinaca sativa</b>	<b>15</b>		<b>NI</b>	
3.	<b>Taraxacum officinale</b>	<b>15</b>		<b>FACU</b>	
4.	<b>Daucus carota</b>	<b>15</b>		<b>UPL</b>	
5.	<b>Achillea millefolium</b>	<b>3</b>		<b>FACU</b>	
6.	<b>Asclepias syriaca</b>	<b>3</b>		<b>UPL</b>	
7.	<b>Arctium minus</b>	<b>3</b>		<b>FACU</b>	
8.					
9.					
10.					
11.					
12.					
		<b>117</b> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Present? <u>NO</u>
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W-5A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W-5A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°39'21.083"N Long: 73°17'35.747"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-6 10YR 2/1
6-14 10YR 6/2 10YR 5/6 C M CLAY LOAM CLAY LOAM

Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>15</u> x 1 = <u>15</u> FACW <u>98</u> x 2 = <u>196</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>113</u> (A) <u>211</u> (B)  Prevalence Index = B/A = <u>1.87</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.  Hydrophytic Vegetation Present? <u>YES</u>
2.	<u>Typha latifolia</u>	<u>15</u>		<u>OBL</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>113</u> = Total Cover					
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W-5B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W-5B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°39'20.948"N Long: 73°17'35.896"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-4 2.5Y 4/3
4-14 10YR 5/4
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: <u>20%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC _____ x 3 = _____ FACU <u>53</u> x 4 = <u>212</u> UPL <u>15</u> x 5 = <u>75</u> Sum: <u>83</u> (A) _____ <u>317</u> (B)  Prevalence Index = B/A = <u>3.82</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Cirsium arvense</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.   Hydrophytic Vegetation Present? <u>NO</u>
2.	<b>Pastinaca sativa</b>	<b>15</b>	<b>X</b>	<b>NI</b>	
3.	<b>Phalaris arundinacea</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
4.	<b>Phleum pratense</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
5.	<b>Asclepias syriaca</b>	<b>15</b>	<b>X</b>	<b>UPL</b>	
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<b>98</b> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W-13A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W-13A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°38'16.9"N Long: 73°17'50.794"W Datum: NAD 83
Soil Map Unit: Vergennes clay NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No
Are Vegetation, Soil, or Hydrology naturally problematic? No

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)
Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(0-8) 10YR 2/1
(8-14) 10YR 5/1
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.
Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
X Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>53</u> x 1 = <u>53</u> FACW <u>91</u> x 2 = <u>182</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>144</u> (A) <u>235</u> (B)  Prevalence Index = B/A = <u>1.63</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<u>Acorus americanus</u>	<u>38</u>	<u>X</u>	<u>OBL</u>	
2.	<u>Phalaris arundinacea</u>	<u>38</u>	<u>X</u>	<u>FACW</u>	
3.	<u>Impatiens capensis</u>	<u>38</u>	<u>X</u>	<u>FACW</u>	
4.	<u>Typha latifolia</u>	<u>15</u>		<u>OBL</u>	
5.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>144</u> = Total Cover					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					Hydrophytic Vegetation Present? <u>YES</u>

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WH-W-13B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WH-W-13B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: West Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°38'16.862"N Long: 73°17'50.932"W Datum: NAD 83
Soil Map Unit: Vergennes clay NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 4/3 FILL
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Fill
Depth (inches): 6
Hydric Soil Present? NO
Remarks:

VEGETATION - Use scientific names of plants.



Sampling Point: V-WH-W-13B

Tree Stratum	Absolute % Cover	Dom. Sp?	Indicator Status	
(Plot size: <b>30' RADIUS</b> )				
1. _____	_____	_____	_____	<b>Dominance Test Worksheet:</b> # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>  <b>1</b>  </u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				<b>Prevalence Index Worksheet:</b> Total % Cover of: <b>Multiply By:</b> OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>  <b>45</b>  </u> x 4 = <u>  <b>180</b>  </u> UPL _____ x 5 = _____ Sum: <u>  <b>45</b>  </u> (A) <u>  <b>180</b>  </u> (B)  Prevalence Index = B/A = <u>  <b>4.00</b>  </u>
(Plot size: <b>30' RADIUS</b> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
(Plot size: <b>15' RADIUS</b> )				<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
(Plot size: <b>5' RADIUS</b> )				<b>Definitions of Vegetation Strata:</b>  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.   Hydrophytic Vegetation Present? <u>  <b>NO</b>  </u>
1. <b>Pastinaca sativa</b>	<b>63</b>	<b>X</b>	<b>NI</b>	
2. <b>Trifolium pratense</b>	<b>15</b>		<b>FACU</b>	
3. <b>Taraxacum officinale</b>	<b>15</b>		<b>FACU</b>	
4. <b>Cirsium arvense</b>	<b>15</b>		<b>FACU</b>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<b>108</b> = Total Cover				
(Plot size: _____ )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-25A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-25A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 15-25%
Subregion (LRR or MLRA): LRR R Lat: 43°37'12.554"N Long: 73°17'49.856"W Datum: NAD 83
Soil Map Unit: Dutches silt loam NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
16-0 MUCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6) Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>5</u> (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: OBL <u>74</u> x 1 = <u>74</u> FACW <u>33</u> x 2 = <u>66</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>107</u> (A) <u>140</u> (B)  Prevalence Index = B/A = <u>1.31</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<b>Cornus sericea</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
		<b>15</b> = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<b>Carex crinita</b>	<b>38</b>	<b>X</b>	<b>OBL</b>	
2.	<b>Juncus effusus</b>	<b>15</b>	<b>X</b>	<b>OBL</b>	
3.	<b>Typha latifolia</b>	<b>15</b>	<b>X</b>	<b>OBL</b>	
4.	<b>Onoclea sensibilis</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
5.	<b>Caltha palustris</b>	<b>3</b>		<b>OBL</b>	
6.	<b>Impatiens capensis</b>	<b>3</b>		<b>FACW</b>	
7.	<b>Equisetum fluviatile</b>	<b>3</b>		<b>OBL</b>	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
		<b>92</b> = Total Cover			
Woody Vines (Plot size: _____)					Hydrophytic Vegetation Present? <u>YES</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-25B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-25B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 15-25%
Subregion (LRR or MLRA): LRR R Lat: 43°37'12.386"N Long: 73°17'49.547"W Datum: NAD 83
Soil Map Unit: Dutches silt loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-4 10YR 4/3 CLAY LOAM
4-14 2.5Y 5/6 CLAY LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>2</u> (A)  # Dominants across all strata: <u>4</u> (B)  % Dominants OBL, FACW, FAC: <u>50%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC <u>15</u> x 3 = <u>45</u> FACU <u>41</u> x 4 = <u>164</u> UPL <u>15</u> x 5 = <u>75</u> Sum: <u>86</u> (A) _____ <u>314</u> (B)  Prevalence Index = B/A = <u>3.65</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Spiraea alba</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
2.					
3.					
4.					
5.					
6.					
7.					
		<u>15</u> = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<u>Solidago canadensis</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	
2.	<u>Equisetum arvense</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	
3.	<u>Daucus carota</u>	<u>15</u>	<u>X</u>	<u>UPL</u>	
4.	<u>Taraxacum officinale</u>	<u>3</u>		<u>FACU</u>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>71</u> = Total Cover			
Woody Vines (Plot size: _____ )					
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			
Hydrophytic Vegetation Present? <u>NO</u>					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-20A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-20A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 15-25%
Subregion (LRR or MLRA): LRR R Lat: 43°36'46.744"N Long: 73°17'13.251"W Datum: NAD 83
Soil Map Unit: Vergennes Clay NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:
Open feature along stream bank/on both sides of road

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)
Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
16-0 MUCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
X Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: OBL <u>113</u> x 1 = <u>113</u> FACW <u>30</u> x 2 = <u>60</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>143</u> (A) <u>173</u> (B)  Prevalence Index = B/A = <u>1.21</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )				
1.					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )				
1.	<u>Typha latifolia</u>	<u>98</u>	<u>X</u>	<u>OBL</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<u>Phalaris arundinacea</u>	<u>15</u>		<u>FACW</u>	
3.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
4.	<u>Caltha palustris</u>	<u>15</u>		<u>OBL</u>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>143</u> = Total Cover			
Woody Vines	(Plot size: _____ )				
1.					Hydrophytic Vegetation Present? <u>YES</u>
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-20B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-20B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 15-25%
Subregion (LRR or MLRA): LRR R Lat: 43°36'47.03"N Long: 73°17'12.917"W Datum: NAD 83
Soil Map Unit: Vergennes Clay NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-4 10YR 4/3 CLAY LOAM
4-14 10YR 4/6 CLAY LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		_____ = Total Cover		
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status
1.				
2.				
3.				
4.				
5.				
6.				
7.				
		_____ = Total Cover		
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status
1.	<b>Cornus racemosa</b>	<b>38</b>	<b>X</b>	<b>FAC</b>
2.	<b>Lonicera morrowii</b>	<b>15</b>	<b>X</b>	<b>FACU</b>
3.				
4.				
5.				
6.				
7.				
		<b>53</b> = Total Cover		
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status
1.	<b>Solidago canadensis</b>	<b>63</b>	<b>X</b>	<b>FACU</b>
2.	<b>Tussilago farfara</b>	<b>15</b>		<b>FACU</b>
3.	<b>Onoclea sensibilis</b>	<b>3</b>		<b>FACW</b>
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
		<b>81</b> = Total Cover		
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status
1.				
2.				
3.				
4.				
5.				
		_____ = Total Cover		

Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A) # Dominants across all strata: <u>3</u> (B) % Dominants OBL, FACW, FAC: <u>33%</u> (A/B)																									
Prevalence Index Worksheet: Total % Cover of: <table style="width: 100%; border-collapse: collapse;"> <tr> <td>OBL</td> <td>_____</td> <td>x 1 =</td> <td>_____</td> </tr> <tr> <td>FACW</td> <td><b>3</b></td> <td>x 2 =</td> <td><b>6</b></td> </tr> <tr> <td>FAC</td> <td><b>38</b></td> <td>x 3 =</td> <td><b>114</b></td> </tr> <tr> <td>FACU</td> <td><b>93</b></td> <td>x 4 =</td> <td><b>372</b></td> </tr> <tr> <td>UPL</td> <td>_____</td> <td>x 5 =</td> <td>_____</td> </tr> <tr> <td>Sum:</td> <td><b>134</b> (A)</td> <td></td> <td><b>492</b> (B)</td> </tr> </table> Prevalence Index = B/A = <u>3.67</u>		OBL	_____	x 1 =	_____	FACW	<b>3</b>	x 2 =	<b>6</b>	FAC	<b>38</b>	x 3 =	<b>114</b>	FACU	<b>93</b>	x 4 =	<b>372</b>	UPL	_____	x 5 =	_____	Sum:	<b>134</b> (A)		<b>492</b> (B)
OBL	_____	x 1 =	_____																						
FACW	<b>3</b>	x 2 =	<b>6</b>																						
FAC	<b>38</b>	x 3 =	<b>114</b>																						
FACU	<b>93</b>	x 4 =	<b>372</b>																						
UPL	_____	x 5 =	_____																						
Sum:	<b>134</b> (A)		<b>492</b> (B)																						
Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>																									
Definitions of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height. Woody vine - All woody vines, regardless of height.																									
Hydrophytic Vegetation Present? <u>NO</u>																									

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-15A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-15A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°36'25.324"N Long: 73°16'43.569"W Datum: NAD 83
Soil Map Unit: Limerick silt loam NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
16-0 MUCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>35</u> x 1 = <u>35</u> FACW <u>143</u> x 2 = <u>286</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>178</u> (A) <u>321</u> (B)  Prevalence Index = B/A = <u>1.80</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Alnus incana</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	<u>Spiraea alba</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
<u>30</u> = Total Cover					
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<u>Onoclea sensibilis</u>	<u>15</u>	_____	<u>FACW</u>	
3.	<u>Typha latifolia</u>	<u>15</u>	_____	<u>OBL</u>	
4.	<u>Carex stricta</u>	<u>15</u>	_____	<u>OBL</u>	
5.	_____	_____	_____	_____	
6.	<u>Equisetum fluviatile</u>	<u>5</u>	_____	<u>OBL</u>	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>148</u> = Total Cover					
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Hydrophytic Vegetation Present? <u>YES</u>
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W-15B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W-15B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°36'25.135"N Long: 73°16'43.902"W Datum: NAD 83
Soil Map Unit: Limerick silt loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-9 10YR 6/2 FILL
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Fill
Depth (inches): 9
Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Pinus strobus</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>106</u> x 4 = <u>424</u> UPL _____ x 5 = _____ Sum: <u>106</u> (A) _____ <u>424</u> (B)  Prevalence Index = B/A = <u>4.00</u>
2.					
3.					
4.					
5.					
6.					
7.					
		<u>38</u> = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Lonicera morrowii</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		<u>38</u> = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Pastinaca sativa</u>	<u>15</u>	<u>X</u>	<u>NI</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<u>Taraxacum officinale</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	
3.	<u>Tussilago farfara</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>45</u> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Present? <u>NO</u>
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W1A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W1A
Applicant/Owner: TDI Section, Township, Range: Fair Haven
Investigator(s): RMS Local relief (concave, convex, none): concave Slope (%): 0-4%
Landform (hillslope, terrace, etc.): terrace Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°36'19.978"N Long: 73°16'28.536"W
Soil Map Unit: Deerfield loamy sand NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
[X] Surface Water (A1) Water-Stained Leaves (B9)
[X] High Water Table (A2) Aquatic Fauna (B13)
[X] Saturation (A3) Marl Deposits (B13)
Water Marks (B1) [X] Hydrogen Sulfide Odor (C1)
Sediment Deposits (B2) [X] 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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? [X] Depth (inches): 1
Water Table Present? [X] Depth (inches): Surface
Saturation Present? [X] Depth (inches): Surface
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Matrix, Color (moist), %, Redox Features, Type, Loc, Texture, Remarks.
Rows: 2-0 (MUCK), 0-10 (2.5Y 3/1, PL, FINE SANDY LOAM), 10-16+ (2.5Y 5/2, SAND)

1Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

2Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Black Histic (A3) Loamy Mucky Mineral (F1) (LRR K, L)
[X] Hydrogen Sulfide (A4) Loamy Gleyed Matrix (F2)
Stratified Layers (A5) Depleted Below Dark Surface (A11)
Depleted Below Dark Surface (A11) Redox Dark Surface (F6)
Thick Dark Surface (A12) Depleted Dark Surface (F7)
Sandy Mucky Mineral (S1) Redox Depressions (F8)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:





	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				<b>Dominance Test Worksheet:</b>
1. _____	_____	_____	_____	# Dominants OBL, FACW, FAC: <u>1</u> (A)
2. _____	_____	_____	_____	# Dominants across all strata: <u>1</u> (B)
3. _____	_____	_____	_____	% Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
			_____ = Total Cover	<b>Prevalence Index Worksheet:</b>
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )				<b>Total % Cover of:</b>
1. _____	_____	_____	_____	OBL <u>3</u> x 1 = <u>3</u>
2. _____	_____	_____	_____	FACW <u>98</u> x 2 = <u>196</u>
3. _____	_____	_____	_____	FAC _____ x 3 = _____
4. _____	_____	_____	_____	FACU _____ x 4 = _____
5. _____	_____	_____	_____	UPL <u>3</u> x 5 = <u>15</u>
6. _____	_____	_____	_____	Sum: <u>104</u> (A) <u>214</u> (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = <u>2.06</u>
			_____ = Total Cover	<b>Hydrophytic Vegetation Indicators:</b>
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				<input checked="checked" type="checkbox"/> Dominance Test is > 50%
1. _____	_____	_____	_____	<input checked="checked" type="checkbox"/> Prevalence Index is <= 3.0
2. _____	_____	_____	_____	_____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain)
3. _____	_____	_____	_____	_____ Rapid Test for Hydrophytic Vegetation
4. _____	_____	_____	_____	_____ Morphological Adaptations
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>
7. _____	_____	_____	_____	<b>Tree</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).
			_____ = Total Cover	<b>Sapling</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				<b>Shrub</b> - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.
1. <u>Phalaris arundinacea</u>	<u>83</u>	<u>X</u>	<u>FACW</u>	<b>Herb</b> - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.
2. <u>Oncoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
3. <u>Lythrum salicaria</u>	<u>3</u>		<u>OBL</u>	
4. <u>Pastinaca sativa</u>	<u>3</u>		<u>UPL</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
			<u>104</u> = Total Cover	<b>Woody vine</b> - All woody vines, regardless of height.
<b>Woody Vines</b> (Plot size: _____)				<b>Hydrophytic Vegetation Present?</b> <u>YES</u>
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
			_____ = Total Cover	
Remarks: (If observed, list morphological adaptations below).				



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W1B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W1B
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°36'20.345"N Long: 73°16'28.636"W Datum: NAD 83
Soil Map Unit: Kingsbury silty clay loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks: Part of mowed lawn

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value not available); 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 3/3 FINE SANDY LOAM
6-16+ 10YR 4/3 SILTY CLAY
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <b>Pinus strobus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>4</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<b>15</b>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>3</u> x 2 = <u>6</u> FAC _____ x 3 = _____ FACU <u>51</u> x 4 = <u>204</u> UPL _____ x 5 = _____ Sum: <u>54</u> (A) _____ <u>210</u> (B)  Prevalence Index = B/A = <u>3.89</u>	
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <b>Populus tremuloides</b>	<b>3</b>	<b>X</b>	<b>FACU</b>		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<b>3</b>	= Total Cover			
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
		= Total Cover		Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.	
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )					
1. <b>Taraxacum officinale</b>	<b>15</b>	<b>X</b>	<b>FACU</b>		
2. <b>Solidago canadensis</b>	<b>15</b>	<b>X</b>	<b>FACU</b>		
3. <b>Phalaris arundinacea</b>	<b>3</b>		<b>FACW</b>		
4. <b>Trifolium pratense</b>	<b>3</b>		<b>FACU</b>		
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<b>36</b>	= Total Cover			
<b>Woody Vines</b> (Plot size: _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
		= Total Cover		Hydrophytic Vegetation Present? <u>NO</u>	

Remarks: (If observed, list morphological adaptations below).  
**Mowed lawn, unknown grasses present at 83%**



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W10A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W10A
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'15.587"N Long: 73°14'50.929"W Datum: NAD 83
Soil Map Unit: Windsor loamy sand NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: South side of RT. 4

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Field Observations: Surface Water Present? X Depth (inches): 1
Water Table Present? X Depth (inches): SURFACE
Saturation Present? X Depth (inches): SURFACE
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
18-0 MUCK
Hydric Soil Indicators: X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
X Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Indicators for Problematic Hydric Soils: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? YES



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: OBL <u>15</u> x 1 = <u>15</u> FACW <u>83</u> x 2 = <u>166</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL <u>3</u> x 5 = <u>15</u> Sum: <u>101</u> (A) <u>196</u> (B)  Prevalence Index = B/A = <u>1.94</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<b>Phalaris arundinacea</b>	<b>83</b>	<b>X</b>	<b>FACW</b>	
2.	<b>Carex aquatilis</b>	<b>15</b>		<b>OBL</b>	
3.	<b>Pastinaca sativa</b>	<b>3</b>		<b>UPL</b>	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<b>101</b> = Total Cover			
Woody Vines (Plot size: _____)					
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			
Hydrophytic Vegetation Present? <u>YES</u>					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-FH-W10B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-FH-W10B
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Fair Haven
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'15.313"N Long: 73°14'50.125"W Datum: NAD 83
Soil Map Unit: Windsor loamy sand NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations: Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-8 10YR 3/3 FINE SANDY LOAM
8-16+ 10YR 5/8 FINE SANDY LOAM
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? NO
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <u>Pinus strobus</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)	
2. <u>Acer saccharum</u>	<u>38</u>	<u>X</u>	<u>FACU</u>		
3. <u>Quercus rubra</u>	<u>15</u>		<u>FACU</u>		
4. _____					
5. _____					
6. _____					
7. _____					
	<u>91</u>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>147</u> x 4 = <u>588</u> UPL _____ x 5 = _____ Sum: <u>147</u> (A) _____ <u>588</u> (B)  Prevalence Index = B/A = <u>4.00</u>	
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <u>Fagus grandifolia</u>	<u>15</u>	<u>X</u>	<u>FACU</u>		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>15</u>	= Total Cover			
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )					
1. <u>Lonicera morrowii</u>	<u>3</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>3</u>	= Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )					
1. <u>Maianthemum canadense</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>38</u>	= Total Cover			
<b>Woody Vines</b> (Plot size: _____ )					
1. _____				Hydrophytic Vegetation Present? <u>NO</u>	
2. _____					
3. _____					
4. _____					
5. _____					
		= Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W101A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W101A
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-4%
Subregion (LRR or MLRA): LRR R Lat: 43°36'41.377"N Long: 73°13'45.582"W Datum: NAD 83
Soil Map Unit: Deerfield loamy sand NWI Class: PEM, PSS, PFO, OW
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
X Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations:
Surface Water Present? X Depth (inches): 10
Water Table Present? X Depth (inches): SURFACE
Saturation Present? X Depth (inches): SURFACE
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
16-0 10YR 2/1 MUCK
Hydric Soil Indicators:
X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>6</u> (A) # Dominants across all strata: <u>8</u> (B) % Dominants OBL, FACW, FAC: <u>75%</u> (A/B)
1. <u>Acer rubrum</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	Prevalence Index Worksheet: Total % Cover of:                      Multiply By: OBL <u>30</u> x 1 = <u>30</u> FACW <u>3</u> x 2 = <u>6</u> FAC <u>33</u> x 3 = <u>99</u> FACU <u>18</u> x 4 = <u>72</u> UPL _____                      x 5 = _____ Sum: <u>84</u> (A) <u>207</u> (B) Prevalence Index = B/A = <u>2.46</u>
2. <u>Pinus strobus</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>30</u> = Total Cover				
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. <u>Acer rubrum</u>	<u>3</u>	<u>X</u>	<u>FAC</u>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
2. <u>Ulmus americana</u>	<u>3</u>	<u>X</u>	<u>FACW</u>	
3. <u>Pinus strobus</u>	<u>3</u>	<u>X</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<u>9</u> = Total Cover				
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				
1. <u>Viburnum dentatum</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>15</u> = Total Cover				
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				
1. <u>Symplocarpus foetidus</u>	<u>15</u>	<u>X</u>	<u>OBL</u>	Hydrophytic Vegetation Present? <u>YES</u>
2. <u>Typha latifolia</u>	<u>15</u>	<u>X</u>	<u>OBL</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>30</u> = Total Cover				
<b>Woody Vines</b> (Plot size: _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
_____ = Total Cover				

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W101B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W101B
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 0-4%
Subregion (LRR or MLRA): LRR R Lat: 43°36'41.105"N Long: 73°13'45.705"W Datum: NAD 83
Soil Map Unit: Deerfield loamy sand NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-7 10YR 3/3 FINE SANDY LOAM
7-16+ 10YR 5/8 FINE SANDY LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:
1" layer of duff



	Absolute % Cover	Dom. Sp?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <b>Pinus strobus</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A) # Dominants across all strata: <u>6</u> (B) % Dominants OBL, FACW, FAC: <u>17%</u> (A/B)	
2. <b>Tsuga canadensis</b>	<b>15</b>	<b>X</b>	<b>FACU</b>		
3. <b>Prunus serotina</b>	<b>15</b>	<b>X</b>	<b>FACU</b>		
4. _____					
5. _____					
6. _____					
7. _____					
	<b>68</b>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: <u>        </u> Multiply By: <u>        </u> OBL <u>        </u> x 1 = <u>        </u> FACW <u>10.5</u> x 2 = <u>21</u> FAC <u>        </u> x 3 = <u>        </u> FACU <u>103.5</u> x 4 = <u>414</u> UPL <u>        </u> x 5 = <u>        </u> Sum: <u>114</u> (A) <u>        </u> (B) Prevalence Index = B/A = <u>3.82</u>	
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <b>Pinus strobus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>		
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<b>15</b>	= Total Cover			
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )					
1. _____				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is <= 3.0 <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain) <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Morphological Adaptations <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>	
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )					
1. <b>Maianthemum canadense</b>	<b>20.5</b>	<b>X</b>	<b>FACU</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.	
2. <b>Osmunda cinnamomea</b>	<b>10.5</b>	<b>X</b>	<b>FACW</b>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<b>31</b>	= Total Cover			
<b>Woody Vines</b> (Plot size: _____ )					
1. _____				Hydrophytic Vegetation Present? <u>NO</u>	
2. _____					
3. _____					
4. _____					
5. _____					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W102A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W102A
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): N/A
Subregion (LRR or MLRA): LRR R Lat: 43°36'49.2"N Long: 73°13'25.833"W Datum: NAD 83
Soil Map Unit: Limerick silt loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
Water Marks (B1) X 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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
1-0 MUCK
0-3 10YR 2/2 7.5YR 5/8 C M SILT LOAM
3-8 2.5Y 4/2 5YR 3/4 C M SILT LOAM
8-16+ 10YR 2/1 SILT LOAM
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
X Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. <u>Fraxinus pennsylvanica</u>	<b>38</b>	<b>X</b>	<b>FACW</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A) # Dominants across all strata: <u>3</u> (B) % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>38</b>	= Total Cover		
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. _____				Prevalence Index Worksheet: Total % Cover of: <span style="margin-left: 100px;">Multiply By:</span> OBL <u>68</u> x 1 = <u>68</u> FACW <u>58.5</u> x 2 = <u>117</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>126.5</u> (A) <span style="margin-left: 100px;"><u>185</u> (B)</span> Prevalence Index = B/A = <u>1.46</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				
1. _____				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				
1. <u>Symplocarpus foetidus</u>	<b>63</b>	<b>X</b>	<b>OBL</b>	Definitions of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2. <u>Onoclea sensibilis</u>	<b>20.5</b>	<b>X</b>	<b>FACW</b>	
3. <u>Equisetum fluviatile</u>	<b>5</b>		<b>OBL</b>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<b>88.5</b>	= Total Cover		
<b>Woody Vines</b> (Plot size: _____ )				
1. _____				Hydrophytic Vegetation Present? <u>YES</u>
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W102B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W102B
Applicant/Owner: TDI
Investigator(s): RMS Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'49.595"N Long: 73°13'25.546"W Datum: NAD 83
Soil Map Unit: Windsor loamy sand NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply) Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.61" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-3 10YR 3/4 FINE SANDY LOAM
3-16 10YR 4/4 FINE SANDY LOAM
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches): Hydric Soil Present? NO
Remarks: 1" layer of duff



		Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: _____ (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					<b>Hydrophytic Vegetation Indicators:</b> _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  <b>Sapling</b> - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  <b>Shrub</b> - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  <b>Herb</b> - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  <b>Woody vine</b> - All woody vines, regardless of height.
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
_____ = Total Cover					<b>Hydrophytic Vegetation Present?</b> <u>NO</u>
<b>Woody Vines</b> (Plot size: _____ )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).



# WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-10A

Project Site: NECPL City/County: Rutland State: Vermont Samp. Date: 5/7/2014  
 Applicant/Owner: TDI State: Vermont Sampling Point: V-CN-W-10A  
 Investigator(s): CMM Section, Township, Range: Castleton  
 Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-2%  
 Subregion (LRR or MLRA): LRR R Lat: 43°37'25.044"N Long: 73°11'26.18"W Datum: NAD 83  
 Soil Map Unit: Pinnebog Muck NWI Class: PEM/PSS  
 Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)  
 Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes  
 Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

## SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? <u>YES</u>	Is This Sample Area Within a Wetland? <u>YES</u>
Hydric Soil Present? <u>YES</u>	
Wetland Hydrology Present? <u>YES</u>	
Remarks:	

## HYDROLOGY

Wetland Hydrology Indicators:

Primary Indicators (minimum of one is required; check all that apply)		Secondary Indicators (minimum of two required)	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B13)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	

Field Observations:

Surface Water Present? <u>                    </u>	Depth (inches): <u>                    </u>	Wetland Hydrology Present? <u>YES</u>
Water Table Present? <u>X</u>	Depth (inches): <u>Surface</u>	
Saturation Present? <u>X</u>	Depth (inches): <u>Surface</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
**Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.24" in the 5 days prior**

Remarks:

## SOIL

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

Depth (in)	Matrix		Redox Features				Texture	Remarks
	Color (moist)	%	Color (moist)	%	Type <sup>1</sup>	Loc <sup>2</sup>		
<b>16-0</b>							<b>MUCK</b>	

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

Hydric Soil Indicators:

<input checked="" type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S9) (LRR K, L, M)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)

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

Restrictive Layer (if observed): Type: <u>                    </u> Depth (inches): <u>                    </u>	Hydric Soil Present? <u>YES</u>
Remarks:	





Tree Stratum	Absolute % Cover	Dom. Sp?	Indicator Status	
(Plot size: <u>30' RADIUS</u> )				
1. _____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>4</u> (A)  # Dominants across all strata: <u>4</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index Worksheet: Total % Cover of: OBL <u>96</u> x 1 = <u>96</u> FACW <u>15</u> x 2 = <u>30</u> FAC <u>53</u> x 3 = <u>159</u> FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>164</u> (A) <u>285</u> (B)  Prevalence Index = B/A = <u>1.74</u>
Sapling Stratum				
(Plot size: <u>30' RADIUS</u> )				
1. <u>Acer rubrum</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>15</u> = Total Cover				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Shrub Stratum				
(Plot size: <u>15' RADIUS</u> )				
1. <u>Cornus racemosa</u>	<u>38</u>	<u>X</u>	<u>FAC</u>	
2. <u>Alnus incana</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>53</u> = Total Cover				Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
Herb Stratum				
(Plot size: <u>5' RADIUS</u> )				
1. <u>Typha latifolia</u>	<u>93</u>	<u>X</u>	<u>OBL</u>	
2. <u>Caltha palustris</u>	<u>3</u>		<u>OBL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>96</u> = Total Cover				
Woody Vines				
(Plot size: _____ )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? <u>YES</u>

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-10B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-10B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 8-25%
Subregion (LRR or MLRA): LRR R Lat: 43°37'24.883"N Long: 73°11'26.196"W Datum: NAD 83
Soil Map Unit: Taconic-Macomber complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks: side slope/mowed

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.24" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 5/6 GRAVELLY LOAM
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>82</u> x 4 = <u>328</u> UPL _____ x 5 = _____ Sum: <u>82</u> (A) _____ <u>328</u> (B)  Prevalence Index = B/A = <u>4.00</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
		_____ = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<u>Solidago canadensis</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	
2.	<u>Pastinaca sativa</u>	<u>38</u>	<u>X</u>	<u>NI</u>	
3.	<u>Dactylis glomerata</u>	<u>38</u>	<u>X</u>	<u>FACU</u>	
4.	<u>Trifolium pratense</u>	<u>3</u>		<u>FACU</u>	
5.	<u>Taraxacum officinale</u>	<u>3</u>		<u>FACU</u>	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
		<u>120</u> = Total Cover			
Woody Vines (Plot size: _____)					Hydrophytic Vegetation Present? <u>NO</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).

#REF!



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-18A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-18A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): N/A
Subregion (LRR or MLRA): LRR R Lat: 43°37'0.905"N Long: 73°10'5.127"W Datum: NAD 83
Soil Map Unit: Udorthents loamy NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No
Are Vegetation, Soil, or Hydrology naturally problematic? No

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)
Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.24" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
12-0 Bedrock at 12"
Hydric Soil Indicators:
X Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Bedrock
Depth (inches): 12
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>2</u> (A)  # Dominants across all strata: <u>2</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: OBL <u>63</u> x 1 = <u>63</u> FACW <u>68</u> x 2 = <u>136</u> FAC <u>3</u> x 3 = <u>9</u> FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>134</u> (A) <u>208</u> (B)  Prevalence Index = B/A = <u>1.55</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<u>Salix bebbiana</u>	<u>38</u>	<u>X</u>	<u>FACW</u>	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
		<u>38</u> = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<u>Caltha palustris</u>	<u>63</u>	<u>X</u>	<u>OBL</u>	
2.	<u>Phalaris arundinacea</u>	<u>15</u>		<u>FACW</u>	
3.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
4.	<u>Heracleum mantegazzianum</u>	<u>3</u>		<u>FAC</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
		<u>96</u> = Total Cover			
Woody Vines (Plot size: _____)					Hydrophytic Vegetation Present? <u>YES</u>
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-18B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-18B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): N/A
Subregion (LRR or MLRA): LRR R Lat: 43°37'0.781"N Long: 73°10'5.064"W Datum: NAD 83
Soil Map Unit: Udorthents loamy NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 0.24" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-4 10YR 4/1 SANDY LOAM
4-14 10YR 6/2 GRAVELLY LOAM
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:



Tree Stratum	Absolute % Cover	Dom. Sp?	Indicator Status	
(Plot size: <u>30' RADIUS</u> )				
1. <b>Rhus aromatica</b>	<b>38</b>	<b>X</b>	<b>UPL</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2. <b>Pinus strobus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>53</b>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC <u>3</u> x 3 = <u>9</u> FACU <u>108</u> x 4 = <u>432</u> UPL <u>38</u> x 5 = <u>190</u> Sum: <u>149</u> (A) <u>631</u> (B)  Prevalence Index = B/A = <u>4.23</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Shrub Stratum (Plot size: <u>15' RADIUS</u> )				Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
Herb Stratum (Plot size: <u>5' RADIUS</u> )				Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1. <b>Solidago canadensis</b>	<b>63</b>	<b>X</b>	<b>FACU</b>	
2. <b>Trifolium pratense</b>	<b>15</b>		<b>FACU</b>	
3. <b>Taraxacum officinale</b>	<b>15</b>		<b>FACU</b>	
4. <b>Equisetum arvense</b>	<b>3</b>		<b>FAC</b>	
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<b>96</b>	= Total Cover		
Woody Vines (Plot size: _____ )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		
Hydrophytic Vegetation Present? <u>NO</u>				

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-2A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-2A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'58.91"N Long: 73°9'12.984"W Datum: NAD 83
Soil Map Unit: Warwick-Quonset complex NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): 1
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth, Matrix, Redox Features, Type, Loc, Texture, Remarks

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

Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>1</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: <u>113</u> Multiply By: OBL _____ x 1 = _____ FACW <u>113</u> x 2 = <u>226</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>113</u> (A) <u>226</u> (B)  Prevalence Index = B/A = <u>2.00</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )				
1.	_____	_____	_____	_____	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )				
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.  Hydrophytic Vegetation Present? <u>YES</u>
2.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
		<u>113</u> = Total Cover			
Woody Vines	(Plot size: _____ )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-2B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-2B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'58.938"N Long: 73°9'13.233"W Datum: NAD 83
Soil Map Unit: Warwick-Quonset complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? NO
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-4 10YR 3/3 SILT LOAM
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Gravel
Depth (inches): 4
Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>4</u> (B)  % Dominants OBL, FACW, FAC: <u>25%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC _____ x 3 = _____ FACU <u>15</u> x 4 = <u>60</u> UPL _____ x 5 = _____ Sum: <u>30</u> (A) _____ <u>90</u> (B)  Prevalence Index = B/A = <u>3.00</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<u>Pastinaca sativa</u>	<u>38</u>	<u>X</u>	<u>NI</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<u>Phalaris arundinacea</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
3.	<u>Trifolium pratense</u>	<u>15</u>	<u>X</u>	<u>FACU</u>	
4.	<u>Vicia cracca tenuifolia</u>	<u>15</u>	<u>X</u>	<u>NI</u>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>83</u> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Present? <u>YES</u>
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-8A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-8A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'54.237"N Long: 73°8'25.313"W Datum: NAD 83
Soil Map Unit: Warwick-Quonset complex NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.24" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-6 10YR 3/2
6-14 10YR 5/2 10YR 5/6 C M SILT LOAM
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) X Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. <b>Acer rubrum</b>	<b>15</b>	<b>X</b>	<b>FAC</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>5</u> (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			<b>15</b>	= Total Cover
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. _____				Prevalence Index Worksheet: Total % Cover of: OBL <u>15</u> x 1 = <u>15</u> FACW <u>146</u> x 2 = <u>292</u> FAC <u>53</u> x 3 = <u>159</u> FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>214</u> (A) <u>466</u> (B)  Prevalence Index = B/A = <u>2.18</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
				= Total Cover
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				
1. <b>Cornus sericea</b>	<b>38</b>	<b>X</b>	<b>FACW</b>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <b>Salix discolor</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			<b>53</b>	= Total Cover
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				
1. <b>Phalaris arundinacea</b>	<b>63</b>	<b>X</b>	<b>FACW</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.   Hydrophytic Vegetation Present? <u>YES</u>
2. <b>Matteuccia struthiopteris</b>	<b>38</b>	<b>X</b>	<b>FAC</b>	
3. <b>Onoclea sensibilis</b>	<b>15</b>		<b>FACW</b>	
4. <b>Glyceria grandis</b>	<b>15</b>		<b>OBL</b>	
5. <b>Equisetum pratense</b>	<b>15</b>		<b>FACW</b>	
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
			<b>146</b>	= Total Cover
<b>Woody Vines</b> (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
				= Total Cover

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-8B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-8B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°36'54.419"N Long: 73°8'25.235"W Datum: NAD 83
Soil Map Unit: Warwick-Quonset complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks: mowed slope along edge of ROW

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
High Water Table (A2) Aquatic Fauna (B13)
Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Wetland Hydrology Present? NO
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.24" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-8 10YR 5/4
8-14 10YR 6/4
Hydric Soil Indicators: Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3: 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Gravel
Depth (inches): 14
Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: _____ (A)  # Dominants across all strata: <u>5</u> (B)  % Dominants OBL, FACW, FAC: _____ (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW _____ x 2 = _____ FAC _____ x 3 = _____ FACU <u>45</u> x 4 = <u>180</u> UPL _____ x 5 = _____ Sum: <u>45</u> (A) _____ <u>180</u> (B)  Prevalence Index = B/A = <u>4.00</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Pastinaca sativa</b>	<b>38</b>	<b>X</b>	<b>NI</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2.	<b>Trifolium pratense</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
3.	<b>Taraxacum officinale</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
4.	<b>Vicia cracca tenuifolia</b>	<b>15</b>	<b>X</b>	<b>NI</b>	
5.	<b>Phleum pratense</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<b>98</b> = Total Cover			
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Hydrophytic Vegetation Present? <u>NO</u>
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-1A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-1A
Applicant/Owner: TDI Section, Township, Range: Castleton
Investigator(s): CMM Local relief (concave, convex, none): concave Slope (%): 25-80%
Landform (hillslope, terrace, etc.): terrace Datum: NAD 83
Subregion (LRR or MLRA): LRR R Lat: 43°37'0.067"N Long: 73°8'6.159"W NWI Class: PEM/PSS
Soil Map Unit: Macomber-Taconic complex
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Secondary Indicators (minimum of two required)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available); 0.61" in the 5 days prior

Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Color (moist), %, Color (moist), %, Type, Loc, Texture, Remarks.
0-6 10YR 5/1 10YR 5/6 C M SILT LOAM
6-12 10YR 6/1 10YR 5/8 C M CLAY LOAM

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

Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES

Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			= Total Cover		
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )				
1.					
2.					
3.					
4.					
5.					
6.					
7.					
			= Total Cover		
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )				
1.	<u>Spiraea alba</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
2.					
3.					
4.					
5.					
6.					
7.					
		<u>15</u>	= Total Cover		
Herb Stratum	(Plot size: <u>5' RADIUS</u> )				
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	
2.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
3.	<u>Veratrum viride</u>	<u>15</u>		<u>FACW</u>	
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>128</u>	= Total Cover		
Woody Vines	(Plot size: _____)				
1.					
2.					
3.					
4.					
5.					
			= Total Cover		

**Dominance Test Worksheet:**

# Dominants OBL, FACW, FAC: 2 (A)

# Dominants across all strata: 2 (B)

% Dominants OBL, FACW, FAC: 100% (A/B)

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**Prevalence Index Worksheet:**

Total % Cover of:          Multiply By:         

OBL          x 1 =         

FACW 143 x 2 = 286

FAC          x 3 =         

FACU          x 4 =         

UPL          x 5 =         

Sum: 143 (A) 286 (B)

Prevalence Index = B/A = 2.00

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**Hydrophytic Vegetation Indicators:**

Dominance Test is > 50%

Prevalence Index is <= 3.0

Problematic Hydrophytic Vegetation<sup>1</sup> (explain)

Rapid Test for Hydrophytic Vegetation

Morphological Adaptations

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Vegetation Strata:**

**Tree** - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).

**Sapling** - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.

**Shrub** - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.

**Herb** - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.

**Woody vine** - All woody vines, regardless of height.

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**Hydrophytic Vegetation Present?** YES

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-CN-W-1B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-CN-W-1B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Castleton
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Slope (%): 25-80%
Subregion (LRR or MLRA): LRR R Lat: 43°37'0.435"N Long: 73°8'6.163"W Datum: NAD 83
Soil Map Unit: Macomber-Taconic complex NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.61" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-7 10YR 5/4 CLAY LOAM
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Gravel
Depth (inches): 7
Hydric Soil Present? NO
Remarks:



Tree Stratum (Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. <b>Carpinus caroliniana</b>	<b>38</b>	<b>X</b>	<b>FAC</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>2</u> (A) # Dominants across all strata: <u>5</u> (B) % Dominants OBL, FACW, FAC: <u>40%</u> (A/B)
2. <b>Pinus strobus</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	
3. <b>Acer saccharinum</b>	<b>15</b>		<b>FACW</b>	
4. _____				
5. _____				
6. _____				
7. _____				
			<b>91</b>	= Total Cover
Sapling Stratum (Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. <b>Carpinus caroliniana</b>	<b>15</b>	<b>X</b>	<b>FAC</b>	Prevalence Index Worksheet: Total % Cover of: <u>        </u> Multiply By: <u>        </u> OBL <u>        </u> x 1 = <u>        </u> FACW <u>15</u> x 2 = <u>30</u> FAC <u>53</u> x 3 = <u>159</u> FACU <u>91</u> x 4 = <u>364</u> UPL <u>        </u> x 5 = <u>        </u> Sum: <u>159</u> (A) <u>553</u> (B) Prevalence Index = B/A = <u>3.48</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			<b>15</b>	= Total Cover
Shrub Stratum (Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. _____				Hydrophytic Vegetation Indicators: <input type="checkbox"/> Dominance Test is > 50% <input type="checkbox"/> Prevalence Index is <= 3.0 <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain) <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Morphological Adaptations <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			<u>        </u>	= Total Cover
Herb Stratum (Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. <b>Erythronium rostratum</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	Definitions of Vegetation Strata: Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH). Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH. Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height. Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height. Woody vine - All woody vines, regardless of height.
2. <b>Fragaria virginiana</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
			<b>53</b>	= Total Cover
Woody Vines (Plot size: <u>        </u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1. _____				Hydrophytic Vegetation Present? <u>NO</u>
2. _____				
3. _____				
4. _____				
5. _____				
			<u>        </u>	= Total Cover

Remarks: (If observed, list morphological adaptations below).

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDI City/Country: Ira Sampling Date: 3/15/14  
 Applicant/Owner: TDE State: VT Sampling Point: T-D-W-A  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.):  floodplain Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.612981 Long: -73.079307 Datum: NAD83  
 Soil Map Unit Name: 22 NWI classification: pSS  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		

Remarks: (Explain alternative procedures here or in a separate report.)

Restricted by railroad

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		___ Surface Soil Cracks (B6)	
___ Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	___ Drainage Patterns (B10)	
___ High Water Table (A2)	___ Aquatic Fauna (B13)	___ Moss Trim Lines (B16)	
<input checked="" type="checkbox"/> Saturation (A3)	___ Marl Deposits (B15)	___ Dry-Season Water Table (C2)	
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Crayfish Burrows (C8)	
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Saturation Visible on Aerial Imagery (C9)	
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Stunted or Stressed Plants (D1)	
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Geomorphic Position (D2)	
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Shallow Aquitard (D3)	
___ Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Microtopographic Relief (D4)	
___ Sparsely Vegetated Concave Surface (B8)		___ FAC-Neutral Test (D5)	
<b>Field Observations:</b>		Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____		
Saturation Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>		
(includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants.

tirwIA  
Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Corylus amara</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Prevalence Index worksheet:
2. <u>Salix nigra</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Total % Cover of: _____ Multiply by: _____
3. _____				OBL species _____ x 1 = _____
4. _____				FACW species _____ x 2 = _____
5. _____				FAC species _____ x 3 = _____
6. _____				FACU species _____ x 4 = _____
7. _____				UPL species _____ x 5 = _____
_____ = Total Cover				Column Totals: _____ (A) _____ (B)
_____ = Total Cover				Prevalence Index = B/A = _____
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1. <u>Lythrum salicaria</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is $\leq 3.0$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ____ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Scirpus cyperinus</u>	<u>15</u>			
3. <u>Phalaris arundinacea</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. _____				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
5. _____				Definitions of Vegetation Strata:
6. _____				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
7. _____				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
8. _____				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
9. _____				Woody vines - All woody vines greater than 3.28 ft in height.
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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OIL

Sampling Point: *firw1A*

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	Loc <sup>1</sup>		
0-6	2.5Y 5/1	90	2.5Y 6/6	10	C	M	S:Lo	
6-16	2.5Y 5/1	80	2.5Y 6/6	20	C	M	S:Lo	

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

## Hydric Soil Indicators:

- Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, MLRA 1498)  
 Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 1498)  
 Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  
 Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  
 Stratified Layers (A5)  Depleted Matrix (F3)  
 Depleted Below Dark Surface (A11)  Redox Dark Surface (F6)  
 Thick Dark Surface (A12)  Depleted Dark Surface (F7)  
 Sandy Mucky Mineral (S1)  Redox Depressions (F8)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 1498)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 1498)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F19) (MLRA 1498)  
 Mesic Spodic (TA8) (MLRA 144A, 145, 1498)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TPI City/County: Ira Sampling Date: 5/15/14  
 Applicant/Owner: TPI State: VT Sampling Point: F-60-W1-B  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Tree Slope Local relief (concave, convex, none): Convex Slope (%): 5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.612901 Long: -73.079307 Datum: NAD 83  
 Soil Map Unit Name: AFC NWI classification: \_\_\_\_\_

Are climatic/hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: (Explain alternative procedures here or in a separate report.)

Regularly mowed

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present? (includes capillary fringe)	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: trw18

Tree Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
1. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
Sapling/Shrub Stratum (Plot size: <u>      </u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5</u> )				
1. <u>Arnica sp.</u>	<u>90</u>	<input checked="" type="checkbox"/>	<u>-</u>	
2. <u>Vicia caracca</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. <u>Solidago canadensis</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				Hydrophytic Vegetation Indicators: <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> 2 - Dominance Test is >50% <input type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$ <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)  Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
Woody Vine Stratum (Plot size: <u>      </u> )				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: *firWB*

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	Loc <sup>2</sup>		
0-5	10YR 3/8	100					Silo	
5+	Restrictive							

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

## Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S8)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A18) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TAG) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: *Stony refusal*Depth (Inches): *5+*Hydric Soil Present? Yes  No 

## Remarks:

*Edge of highway fill*

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDF City/County: West Rutland Sampling Unit: S14/14  
 Applicant/Owner: TDF State: VT Sampling Point: FWRWUA  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Floodplain Local relief (concave, convex, none): flat/ground Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.605976 Long: -73.069823 Datum: NAD83  
 Soil Map Unit Name: qlo NWI classification: p3s  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes _____ No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		

Remarks: (Explain alternative procedures here or in a separate report.)

Floodplain of Castleton R. between Rt. 4 and RR.

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		_____ Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)	
<input checked="" type="checkbox"/> High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B16)	
<input checked="" type="checkbox"/> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C8)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible on Aerial Imagery (C9)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)	
_____ Iron Deposits (B5)	<input checked="" type="checkbox"/> Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)	
_____ Sparsely Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>		
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>		
Saturation Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
<i>(Includes capillary fringe)</i>			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants.

Sampling Point: turn 11  
turn 11  
turn 11

Tree Stratum (Plot size: <u>    </u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____	_____	_____	_____	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				Prevalence Index worksheet:
Sapling/Shrub Stratum (Plot size: <u>15</u> )				Total % Cover of: _____ Multiply by: _____
1. <u>Salix nigra</u>	<u>33</u>	<u>✓</u>	<u>OBL</u>	OBL species _____ x 1 = _____
2. <u>Viburnum dentatum</u>	<u>30</u>	<u>✓</u>	<u>FAC</u>	FACW species _____ x 2 = _____
3. <u>Cornus stolonifera</u>	<u>50</u>	<u>✓</u>	<u>FACW</u>	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
6. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = _____
_____ = Total Cover				Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>5</u> )				<u>1</u> - Rapid Test for Hydrophytic Vegetation
1. <u>Typha latifolia</u>	<u>2</u>		<u>0</u>	<u>2</u> - Dominance Test is >50%
2. <u>Equisetum hyemale</u>	<u>5</u>			<u>3</u> - Prevalence Index is ≤3.0'
3. <u>Carex stricta</u>	<u>66</u>	<u>✓</u>	<u>OBL</u>	<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Phragmites australis</u>	<u>5</u>			Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. <u>Carex stricta</u>	<u>10</u>			
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	_____	_____	Definitions of Vegetation Strata:
8. _____	_____	_____	_____	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
9. _____	_____	_____	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10. _____	_____	_____	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
12. _____	_____	_____	_____	
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No _____
Woody Vine Stratum (Plot size: <u>30</u> )				
1. <u>Vitis riparia</u>	<u>10</u>			
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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## OIL

Sampling Point: twrwell A

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	2.5Y 2/1	100					Sapric	
10-13	2.5Y 5/1	90	2.5Y 6/1	10	D	M	Gr Salo	
13+	Restrictive							

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

## Hydric Soil Indicators:

- Histosol (A1)  
 Histic Epipedon (A2)  
 Black Histic (A3)  
 Hydrogen Sulfide (A4)  
 Stratified Layers (A5)  
 Depleted Below Dark Surface (A11)  
 Thick Dark Surface (A12)  
 Sandy Mucky Mineral (S1)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Loamy Mucky Mineral (F1) (LRR K, L)  
 Loamy Gleyed Matrix (F2)  
 Depleted Matrix (F3)  
 Redox Dark Surface (F6)  
 Depleted Dark Surface (F7)  
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Radox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Solis (F10) (MLRA 149B)  
 Mesis Spodic (TA5) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: stony refusalDepth (Inches): 13+Hydric Soil Present? Yes  No 

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDI City/Country: West Rutland Sampling Date: 5/16/14  
 Applicant/Owner: TDI State: VT Sampling Point: two wells  
 Investigator(s): AFSC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): panose shoulder Local relief (concave, convex, none): convex Slope (%): 4.5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.605976 Long: -73.069823 Datum: NAD83  
 Soil Map Unit Name: 96 NW1 classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: (Explain alternative procedures here or in a separate report.)

Steep road shoulder off Hwy

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>	_____ Surface Soil Cracks (B8)
_____ Surface Water (A1)	_____ Drainage Patterns (B10)
_____ High Water Table (A2)	_____ Moss Trim Lines (B16)
_____ Saturation (A3)	_____ Dry-Season Water Table (C2)
_____ Water Marks (B1)	_____ Crayfish Burrows (C8)
_____ 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)	_____ Stunted or Stressed Plants (D1)
	_____ Geomorphic Position (D2)
	_____ Shallow Aquitard (D3)
	_____ Microtopographic Relief (D4)
	_____ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	

(includes capillary fringe)

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:



OIL

Sampling Point:

turwMB

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)	%	%	Type <sup>1</sup>	Loc <sup>2</sup>	%			
0-9 gr	10YR 3/2 Restrictive	100						Loam	

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

## Hydric Soil Indicators:

- \_\_\_ Histosol (A1)
- \_\_\_ Histic Epipedon (A2)
- \_\_\_ Black Histic (A3)
- \_\_\_ Hydrogen Sulfide (A4)
- \_\_\_ Stratified Layers (A5)
- \_\_\_ Depleted Below Dark Surface (A11)
- \_\_\_ Thick Dark Surface (A12)
- \_\_\_ Sandy Mucky Mineral (S1)
- \_\_\_ Sandy Gleyed Matrix (S4)
- \_\_\_ Sandy Redox (S5)
- \_\_\_ Stripped Matrix (S6)
- \_\_\_ Dark Surface (S7) (LRR R, MLRA 149B)

- \_\_\_ Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- \_\_\_ Thin Dark Surface (S8) (LRR R, MLRA 149B)
- \_\_\_ Loamy Mucky Mineral (F1) (LRR K, L)
- \_\_\_ Loamy Gleyed Matrix (F2)
- \_\_\_ Depleted Matrix (F3)
- \_\_\_ Redox Dark Surface (F6)
- \_\_\_ Depleted Dark Surface (F7)
- \_\_\_ Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- \_\_\_ 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- \_\_\_ Coast Prairie Redox (A18) (LRR K, L, R)
- \_\_\_ 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- \_\_\_ Dark Surface (S7) (LRR K, L)
- \_\_\_ Polyvalue Below Surface (S8) (LRR K, L)
- \_\_\_ Thin Dark Surface (S9) (LRR K, L)
- \_\_\_ Iron-Manganese Masses (F12) (LRR K, L, R)
- \_\_\_ Piedmont Floodplain Soils (F19) (MLRA 149B)
- \_\_\_ Mesic Spodic (TAS) (MLRA 144A, 145, 149B)
- \_\_\_ Red Parent Material (F21)
- \_\_\_ Very Shallow Dark Surface (TF12)
- \_\_\_ Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: Stony rebsalDepth (inches): grHydric Soil Present? Yes  No 

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDI City/Country: West Rutland Sampling Date: 5/13/14  
 Applicant/Owner: TDI State: VT Sampling Point: TDRWSA  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Swale Slope (%): 10  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.597636 Long: -73.057029 Datum: NAD 83  
 Soil Map Unit Name: 42c NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No  Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No  (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		
Remarks: (Explain alternative procedures here or in a separate report.)			
<u>Top of blasted cliff</u>			

## HYDROLOGY

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

Tom the Rain



VEGETATION - Use scientific names of plants.

Sampling Point: TWR05A

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>8</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>9</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>89</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				Prevalence Index worksheet:
Seedling/Shrub Stratum (Plot size: <u>15</u> )				Total % Cover of: _____ Multiply by: _____
1. <u>Spirea alba</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	OBL species _____ x 1 = _____
2. <u>Fraxinus pennsylvanica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	FACW species _____ x 2 = _____
3. <u>Cornus stolonifera</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	FAC species _____ x 3 = _____
4. <u>Carpinus caroliniana</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	FACU species _____ x 4 = _____
5. <u>Prunus virginiana</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	UPL species _____ x 5 = _____
6. _____				Column Totals: _____ (A) _____ (B)
7. _____				Prevalence Index = B/A = _____
_____ = Total Cover				Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>5</u> )				<input checked="" type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Onoclea sensibilis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
2. <u>Arisaema triphyllum</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0'
3. <u>Equisetum arvense</u>	<u>1</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Osmunda claytonia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FAL</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____				Definitions of Vegetation Strata:
7. _____				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____				Woody vines - All woody vines greater than 3.28 ft in height.
11. _____				
12. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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OIL

Sampling Point: TWKUSA

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

Depth (inches)	Matrix		Redox Features			Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%					
0-2	2.5Y3/2	100						Muck	
2-8	2.5Y4/1	90	2.5Y6/1	10	D	M		Silt	
8	Resistive L								

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

## Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<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) (LRR R, MLRA 149B)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<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"/> Dark Surface (S7) (LRR K, L)
<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 (TAS) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: stony refusalDepth (inches): 8Hydric Soil Present? Yes  No 

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

5/12/14

Project/Site: TDI City/County: West Rutland Sampling Date: JUN 15 2014  
 Applicant/Owner: TDE State: VT Sampling Point: →  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): undulating Slope (%): 15  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.597636 Long: -73.05782 Datum: NAD 83  
 Soil Map Unit Name: 42C NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No  Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No  (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 <input checked="" type="checkbox"/>	Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Remarks: (Explain alternative procedures here or in a separate report.)			If yes, optional Wetland Site ID: _____

**HYDROLOGY**

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

to in the Return

VEGETATION - Use scientific names of plants.

TWRW 5B  
Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30A</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
1. <u>Betula lenta</u>	<u>25</u>	<u>✓</u>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B) Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (AB)	
2. <u>Betula papyifera</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>		
3. <u>Fraxinus americana</u>	<u>10</u>	<u>✓</u>	<u>FACU</u>		
4. <u>Acer saccharum</u>	<u>10</u>	<u>✓</u>	<u>FACU</u>		
5. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B) Prevalence Index = B/A = _____	
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
_____ = Total Cover					
Sapling/Shrub Stratum (Plot size: <u>1</u> )	Absolute % Cover	Dominant Species?	Indicator Status		Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is <3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
1. <u>Corylus rostrata</u>	<u>20</u>	<u>✓</u>	<u>FACU</u>		
2. <u>Carpinus caroliniana</u>	<u>25</u>	<u>✓</u>	<u>FAC</u>		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
_____ = Total Cover					
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.  Hydrophytic Vegetation Present? Yes _____ No <u>✓</u>	
1. <u>Alysicium acrostichoides</u>	<u>3?</u>	<u>✓</u>	<u>FACU</u>		
2. <u>Asterida clausonia</u>	<u>10</u>	<u>✓</u>	<u>FAC</u>		
3. <u>Erythronium</u>	<u>2</u>	<u>✓</u>	<u>NI</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
8. _____	_____	_____	_____		
9. _____	_____	_____	_____		
10. _____	_____	_____	_____		
11. _____	_____	_____	_____		
12. _____	_____	_____	_____		
_____ = Total Cover					
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Remarks: (Include photo numbers here or on a separate sheet.)	
1: _____	_____	_____	_____		
2: _____	_____	_____	_____		
3: _____	_____	_____	_____		
4: _____	_____	_____	_____		
_____ = Total Cover					

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OIL

Sampling Point: TWRWSB

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	Loc <sup>2</sup>		
0-8 0+	10YR4/4	100					GrSals	
	Restrictive							

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

## Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S8) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: Stony refusalDepth (Inches): 8Hydric Soil Present? Yes  No 

Remarks:

2010-09-10  
 10:00 AM  
 10/10/2010

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/Country: West Rutland Sampling Date: 5/8/14  
 Applicant/Owner: TDE State: VT Sampling Point: TWRW2A  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): Dit/mound Slope (%): 8  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.590812 Long: -73.024781 Datum: NAD83  
 Soil Map Unit Name: 67C NWI classification: PFO

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		

Remarks: (Explain alternative procedures here or in a separate report.)

*Forested seep channelizing into 3 intermittent streams*

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>	___ Surface Soil Cracks (B6)
___ Surface Water (A1)	<input checked="" type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> High Water Table (A2)	___ Moss Trim Lines (B15)
<input checked="" type="checkbox"/> Saturation (A3)	___ Dry-Season Water Table (C2)
___ Water Marks (B1)	___ Crayfish Burrows (C8)
___ Sediment Deposits (B2)	___ Stunted or Stressed Plants (D1)
___ Drift Deposits (B3)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	<input checked="" type="checkbox"/> Geomorphic Position (D2)
___ Inundation Visible on Aerial Imagery (B7)	___ Shallow Aquitard (D3)
___ Sparsely Vegetated Concave Surface (B8)	___ Microtopographic Relief (D4)
	___ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>6</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

*Seep*

VEGETATION - Use scientific names of plants.

TWRWZA

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:	
1. <i>Betula lenta</i>	10	<input checked="" type="checkbox"/>	FACU	Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)	
2. <i>Betula alleghaniensis</i>	5	<input checked="" type="checkbox"/>	FACU		
3. <i>Acer rubrum</i>	20	<input checked="" type="checkbox"/>	FACU	Total Number of Dominant Species Across All Strata: <u>7</u> (B)	
4. <i>Pinus strobus</i>	20	<input checked="" type="checkbox"/>	FACU	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>57</u> (A/B)	
5. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____	
6. _____	_____	_____	_____		OBL species _____ x 1 = _____
7. _____	_____	_____	_____		FACW species _____ x 2 = _____
_____ = Total Cover				FAC species _____ x 3 = _____	
_____ = Total Cover				FACU species _____ x 4 = _____	
_____ = Total Cover				UPL species _____ x 5 = _____	
_____ = Total Cover				Column Totals: _____ (A) _____ (B)	
_____ = Total Cover				Prevalence Index = B/A = _____	
_____ = Total Cover				Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% 3 - Prevalence Index is $\leq 3.0^1$ 4 - Morphological Adaptations <sup>2</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>3</sup> (Explain)	
_____ = Total Cover					
_____ = Total Cover					
_____ = Total Cover					
_____ = Total Cover				Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
_____ = Total Cover					
_____ = Total Cover				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.	
_____ = Total Cover					
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____	
_____ = Total Cover					
Remarks: (Include photo numbers here or on a separate sheet.)					

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OIL

TWRWZA  
Sampling Point:

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	Loc		
0-8	2.5Y3/2	100					Solo	
8-12	2.5Y4/2	85	2.5Y6/1	15	D	M	Solo	
12+								restrictive layer

Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Mashed Sand Grains.

Location: PL=Pore Lining, M=Matrix.

## Hydric Soil Indicators:

- Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)  
 Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)  
 Stratified Layers (A5)  Depleted Matrix (F3)  
 Depleted Below Dark Surface (A11)  Redox Dark Surface (F8)  
 Thick Dark Surface (A12)  Depleted Dark Surface (F7)  
 Sandy Mucky Mineral (S1)  Redox Depressions (F8)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)

Indicators for Problematic Hydric Soils<sup>2</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F10) (MLRA 149B)  
 Mosaic Spodic (TA6) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: rockyDepth (inches): 12Hydric Soil Present? Yes  No 

Remarks:



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: TOI City/County: West Rutland Sampling Date: 5/8/14  
 Applicant/Owner: IDE State: \_\_\_\_\_ Sampling Point: TWR2B  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): pit/mound Slope (%): 8  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.598812 Long: -73.024751 Datum: NAD83  
 Soil Map Unit Name: 67C NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		
Remarks: (Explain alternative procedures here or in a separate report.)			

## HYDROLOGY

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

VEGETATION - Use scientific names of plants.

TWRWAB  
Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Acer rubrum</u>	<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. <u>Pinus strobus</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. <u>Betula lenta</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>17</u> (AB)
4. _____	_____	_____	_____	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____  Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation ___ 2 - Dominance Test is >50% ___ 3 - Prevalence Index is <3.0' ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15</u> )				
1. <u>Fagus grandifolia</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
2. <u>Sorbus thiburgii</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>5</u> )				
1. <u>Polystichum acrostichoides</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	1Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  Definitions of Vegetation Strata:  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.
2. <u>Erythronium americanum</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>NI</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>MA</u> )				
1. _____	_____	_____	_____	Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TD2 City/County: Rutland Sampling Date: 5/9/14  
 Applicant/Owner: TD2 State: VT Sampling Point: TRUWA  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): hills to rd. Local relief (concave, convex, none): pit/mound Slope (%): 2  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.592170 Long: -73.010934 Datum: NAD83  
 Soil Map Unit Name: 67B NWI classification: PFO/PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? YES Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes _____ No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		

Remarks: (Explain alternative procedures here or in a separate report.)

Forested seep into frag. stand, adjacent to Hwy.

## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C6)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Presence of Reduced Iron (C4)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Thin Muck Surface (C7)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Other (Explain in Remarks)
	<input type="checkbox"/> FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (Inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (Inches): <u>3"</u>	
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No _____	Depth (Inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

TRUUSA  
Sampling Point:

Tree Stratum (Plot size: <u>30</u> )				Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
1.	<i>Acer rubrum</i>			<u>15</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2.	<i>Fraxinus pennsylvanica</i>			<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3.	<i>Betula lenta</i>			<u>85</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
4.	<i>Ostrya virginiana</i>			<u>90</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
5.							
6.							
7.							
				_____ = Total Cover			
Shrub Stratum (Plot size: <u>15</u> )				Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by: _____
1.	<i>Fraxinus nigra</i>			<u>10</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2.	<i>Rubus alaginensis</i>			<u>15</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3.	<i>Fraxinus pennsylvanica</i>			<u>5</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Prevalence Index = B/A = _____
4.							
5.							
6.							
7.							
				_____ = Total Cover			
Herb Stratum (Plot size: <u>5</u> )				Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: <input checked="" 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' <input type="checkbox"/> 4 - Morphological Adaptations (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation (Explain)
1.	<i>Equisetum fluventale</i>			<u>3</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2.	<i>Oenothera sensibilis</i>			<u>35</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
3.	<i>Impatiens capensis</i>			<u>40</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Definitions of Vegetation Strata:  Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vines - All woody vines greater than 3.28 ft in height.
4.	<i>Heterocleum maximum</i>			<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
5.							Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
6.							
7.							
8.							
9.							
10.							
11.							
12.							
				_____ = Total Cover			
Woody Vine Stratum (Plot size: _____)							
1.							
2.							
3.							
4.							
				_____ = Total Cover			
Remarks: (Include photo numbers here or on a separate sheet.)							

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OIL

Sampling Point: TRW8A

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>		
0-9	2.5/2	100					Sapric	
9+	5/4/2	100					Lo. VFS	

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

## Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
<input checked="" type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<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) (LRR R, MLRA 149B)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Coast Prairie Redox (A18) (LRR K, L, R)
<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<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 (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

## Remarks:

WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/County: Rutland Sampling Date: 5/9/14
Applicant/Owner: TDI State: VT Sampling Point: PK0008B
Investigator(s): AFSC Section, Township, Range:
Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Convex Slope (%): 5
Subregion (LRR or MLRA): Lat: 43.572178 Long: -73.010934 Datum: NAD83
Soil Map Unit Name: G7B NWI classification:

Are climatic / hydrologic conditions on the site typical for this time of year? Yes [checked] No
Are Vegetation, Soil, or Hydrology significantly disturbed? No Are "Normal Circumstances" present? Yes [checked] No
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

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

Table with 2 columns: Hydrophytic Vegetation Present?, Hydric Soil Present?, Wetland Hydrology Present? and Is the Sampled Area within a Wetland? Yes/No with checkboxes.

Remarks: (Explain alternative procedures here or in a separate report.)

HYDROLOGY

Table with 2 columns: Primary Indicators (minimum of one is required; check all that apply) and Secondary Indicators (minimum of two required). Lists various indicators like Surface Water, Water-Stained Leaves, etc.

Field Observations: Surface Water Present? Water Table Present? Saturation Present? (includes capillary fringe) Depth (inches): Wetland Hydrology Present? Yes/No with checkboxes.

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

It's in the Rain...

VEGETATION - Use scientific names of plants.

TRWFB  
Sampling Point:

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <i>Acer Rubrum</i>	30	✓	FAC	Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. <i>Fagus grandifolia</i>	15		FACU	
3. <i>Fraxinus americana</i>	10		FACU	
4. <i>Betula alleghaniensis</i>	25	✓	FAC <sup>33</sup>	
5. _____				Total Number of Dominant Species Across All Strata: <u>6</u> (B)
6. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
7. _____				
_____ = Total Cover				Prevalence Index worksheet:
Sandlot/Shrub Stratum (Plot size: <u>15</u> )				Total % Cover of: _____ Multiply by: _____
1. <i>Fagus grandifolia</i>	25	✓	FACU	OBL species <u>0</u> x1 = <u>0</u>
2. <i>Rubus thibetensis</i>	2	✓	FACU	FACW species <u>0</u> x2 = <u>0</u>
3. _____				FAC species <u>56</u> x3 = <u>168</u>
4. _____				FACU species <u>54</u> x4 = <u>216</u>
5. _____				UPL species <u>0</u> x5 = <u>0</u>
6. _____				Column Totals: <u>110</u> (A) <u>384</u> (B)
7. _____				Prevalence Index = B/A = <u>3.5</u>
_____ = Total Cover				Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>5</u> )				1 - Rapid Test for Hydrophytic Vegetation
1. <i>Erythronium americanum</i>	15	✓	UPL	2 - Dominance Test is >50%
2. <i>Polygonum adrochoides</i>	2	✓	FACU	3 - Prevalence Index is <3.0'
3. <i>Equisetum arvense</i>	1	✓	FAC	4 - Morphological Adaptations* (Provide supporting data in Remarks or on a separate sheet)
4. _____				Problematic Hydrophytic Vegetation* (Explain)
5. _____				*Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____				Definitions of Vegetation Strata:
7. _____				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____				Woody vines - All woody vines greater than 3.28 ft in height.
11. _____				
12. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

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## OIL

Sampling Point: TRW88

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>		
0-5	10YR 3/2	100					Loam	
5-12	10YR 4/4						Loam	
12-19	10YR 5/4	100					Silt	

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

## Hydric Soil Indicators:

<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (SB) (LRR R, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (SB) (LRR R, MLRA 149B)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)
<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) (LRR R, MLRA 149B)	

Indicators for Problematic Hydric Soils<sup>3</sup>:

<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"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Polyvalue Below Surface (SB) (LRR K, L)
<input type="checkbox"/> Thin Dark Surface (SB) (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"/> Mesc Spodic (TA8) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: N/A

Depth (Inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No 

## Remarks:

2/27/08

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/County: Rutland Sampling Date: 7/1/14  
 Applicant/Owner: TDE State: VT Sampling Point: TRUW3 A  
 Investigator(s): AF SL Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Field Area Local relief (concave, convex, none): concave Slope (%): 10  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.592689 Long: -72.981225 Datum: NAD83  
 Soil Map Unit Name: 22 NWI classification: PP0

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

RE Flood plain of other creek backwater

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		
<input checked="" type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B6)	___ Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input checked="" type="checkbox"/> Aquatic Fauna (B13)	___ Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	___ Marl Deposits (B15)	___ Moss Trim Lines (B16)
___ Water Marks (B1)	___ Hydrogen Sulfide Odor (C1)	___ Dry-Season Water Table (C2)
___ Sediment Deposits (B2)	___ Oxidized Rhizospheres on Living Roots (C3)	___ Crayfish Burrows (C8)
___ Drift Deposits (B3)	___ Presence of Reduced Iron (C4)	___ Saturation Visible on Aerial Imagery (C9)
___ Algal Mat or Crust (B4)	___ Recent Iron Reduction in Tilled Soils (C6)	___ Stunted or Stressed Plants (D1)
___ Iron Deposits (B5)	___ Thin Muck Surface (C7)	___ Geomorphic Position (D2)
<input checked="" type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	___ Other (Explain in Remarks)	___ Shallow Aquitard (D3)
___ Sparingly Vegetated Concave Surface (B8)		___ Microtopographic Relief (D4)
		___ FAC-Neutral Test (D5)

## Field Observations:

Surface Water Present? Yes  No \_\_\_\_\_ Depth (inches): 18  
 Water Table Present? Yes  No \_\_\_\_\_ Depth (inches): 0  
 Saturation Present? Yes  No \_\_\_\_\_ Depth (inches): 0  
 (includes capillary fringe)

Wetland Hydrology Present? Yes  No \_\_\_\_\_

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

TRUWJ

VEGETATION - Use scientific names of plants.

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Acer rubrum</i>	25	✓	FAC
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Dominance Test worksheet:**  
 Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)  
 Total Number of Dominant Species Across All Strata: 5 (B)  
 Percent of Dominant Species That Are OBL, FACW, or FAC: 80 (A/B)

Shrub/Strub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Cornus stolonifera</i>	15	✓	FACW
2. <i>Lonicera tatarica</i>	5	✓	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Prevalence Index worksheet:**  
 Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_  
 OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_  
 FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_  
 FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_  
 FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_  
 UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_  
 Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)  
 Prevalence Index = B/A = \_\_\_\_\_

Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Chamaecrista canadensis</i>	50	✓	OBL
2. <i>Oxalis sp.</i>	25	✓	FACW
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
8. _____			
9. _____			
10. _____			
11. _____			
12. _____			

**Hydrophytic Vegetation Indicators:**  
 \_\_\_ 1 - Rapid Test for Hydrophytic Vegetation  
 ✓ 2 - Dominance Test is >50%  
 \_\_\_ 3 - Prevalence Index is  $\leq 3.0^1$   
 \_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  
 \_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**  
 Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  
 Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  
 Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  
 Woody vines - All woody vines greater than 3.28 ft in height.

Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. _____			
3. _____			
4. _____			
_____			
_____			

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

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SOIL

Sampling Point: **TRW3**

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>		
0-8	2.5Y 5/2	100					Loam	
8-16	2.5Y 5/2	75	10YR 5/6	25	C	M	SLo	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

Indicators for Problematic Hydric Soils<sup>3</sup>:

- |   |  |  |
|---|--|--|
| <input type="checkbox"/> Histosol (A1)                        | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)       |
| <input type="checkbox"/> Histic Epipedon (A2)                 | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)       | <input type="checkbox"/> Coast Prairie Redox (A18) (LRR K, L, R)     |
| <input type="checkbox"/> Black Histic (A3)                    | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        | <input type="checkbox"/> Dark Surface (S7) (LRR K, L)                |
| <input type="checkbox"/> Stratified Layers (A5)               | <input checked="" type="checkbox"/> Depleted Matrix (F3)                 | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)    | <input type="checkbox"/> Redox Dark Surface (F8)                         | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)           |
| <input type="checkbox"/> Thick Dark Surface (A12)             | <input type="checkbox"/> Depleted Dark Surface (F7)                      | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)             | <input type="checkbox"/> Redox Depressions (F8)                          | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)             |  | <input type="checkbox"/> Mesic Spodic (TAB) (MLRA 144A, 145, 149B)   |
| <input type="checkbox"/> Sandy Redox (S5)                     |  | <input type="checkbox"/> Red Parent Material (F21)                   |
| <input type="checkbox"/> Stripped Matrix (S8)                 |  | <input type="checkbox"/> Very Shallow Dark Surface (TF12)            |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) |  | <input type="checkbox"/> Other (Explain in Remarks)                  |

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

Restrictive Layer (if observed):

Type: None  
Depth (Inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

From the River...

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/County: Rutland Sampling Date: 5/7/14  
 Investigator/Owner: TDE State: VT Sampling Point: TRW 38B  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Road shoulder Local relief (concave, convex, none): none Slope (%): 15  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.582689 Long: -72.981289 Datum: NAD83  
 Soil Map Unit Name: 22 NWI classification: \_\_\_\_\_

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	if yes, optional Wetland Site ID: _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Route 4 shoulder

## HYDROLOGY

## Wetland Hydrology Indicators:

## Primary indicators (minimum of one is required; check all that apply)

\_\_\_\_ Surface Water (A1)  
 \_\_\_\_ High Water Table (A2)  
 \_\_\_\_ Saturation (A3)  
 \_\_\_\_ Water Marks (B1)  
 \_\_\_\_ Sediment Deposits (B2)  
 \_\_\_\_ Drift Deposits (B3)  
 \_\_\_\_ Algal Mat or Crust (B4)  
 \_\_\_\_ Iron Deposits (B5)  
 \_\_\_\_ Inundation Visible on Aerial Imagery (B7)  
 \_\_\_\_ Sparsely Vegetated Concave Surface (B8)

\_\_\_\_ Water-Stained Leaves (B9)  
 \_\_\_\_ Aquatic Fauna (B13)  
 \_\_\_\_ Marl Deposits (B15)  
 \_\_\_\_ Hydrogen Sulfide Odor (C1)  
 \_\_\_\_ Oxidized Rhizospheres on Living Roots (C3)  
 \_\_\_\_ Presence of Reduced Iron (C4)  
 \_\_\_\_ Recent Iron Reduction in Tilled Soils (C6)  
 \_\_\_\_ Thin Muck Surface (C7)  
 \_\_\_\_ Other (Explain in Remarks)

## Secondary indicators (minimum of two required)

\_\_\_\_ 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)

## Field Observations:

Surface Water Present? Yes \_\_\_\_\_ No  Depth (Inches): \_\_\_\_\_  
 Water Table Present? Yes \_\_\_\_\_ No  Depth (Inches): \_\_\_\_\_  
 Saturation Present? Yes \_\_\_\_\_ No  Depth (Inches): \_\_\_\_\_  
 (includes capillary fringe)

Wetland Hydrology Present? Yes \_\_\_\_\_ No 

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

TROWER

## VEGETATION - Use scientific names of plants.

Sampling Point: 8

Tree Stratum (Plot size: <u>      </u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>20</u> (AB)
4. _____				
5. _____				
6. _____				
7. _____				
= Total Cover				Prevalence Index worksheet:
				Total % Cover of: _____ Multiply by:
				OBL species _____ x 1 = _____
				FACW species _____ x 2 = _____
				FAC species _____ x 3 = _____
				FACU species _____ x 4 = _____
				UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
				Hydrophytic Vegetation Indicators:
				<input type="checkbox"/> 1 - Rapid plants 3 in. (7.6 cm) or more in diameter at breast height (DBH)
				<input 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.
				Definitions of Vegetation Strata:
				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
				Woody vines - All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

Remarks: (Include photo numbers here or on a separate sheet.)

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OIL

Sampling Point: **TRW3B**

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>		
0-5	10YR 3/4	100					S&Lo	fill
5-12	10YR 4/3	100					Lo Ss	fill
12+	10YR 4/4	100					Lo Ss	fill

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

## Hydric Soil Indicators:

Histosol (A1)  
 Histic Epipedon (A2)  
 Black Histic (A3)  
 Hydrogen Sulfide (A4)  
 Stratified Layers (A5)  
 Depleted Below Dark Surface (A11)  
 Thick Dark Surface (A12)  
 Sandy Mucky Mineral (S1)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)

Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Loamy Mucky Mineral (F1) (LRR K, L)  
 Loamy Gleyed Matrix (F2)  
 Depleted Matrix (F3)  
 Redox Dark Surface (F6)  
 Depleted Dark Surface (F7)  
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F19) (MLRA 149B)  
 Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF-12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: W10

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No 

Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/Country: Rutland Sampling Date: 5/17/04  
 Applicant/Owner: TDE State: VT Sampling Point: T-CU-W1-A  
 Investigator(s): AE SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): CONCAVE Slope (%): 0-5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.577061 Long: -72.966057 Datum: NAD83  
 Soil Map Unit Name: 66B NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____		

Remarks: (Explain alternative procedures here or in a separate report.)  
*Dominated by Phragmites*

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>		_____ Surface Soil Cracks (B6)	
_____ Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	_____ Drainage Patterns (B10)	
_____ High Water Table (A2)	_____ Aquatic Fauna (B13)	_____ Moss Trim Lines (B18)	
<input checked="" type="checkbox"/> Saturation (A3)	_____ Marl Deposits (B15)	_____ Dry-Season Water Table (C2)	
_____ Water Marks (B1)	_____ Hydrogen Sulfide Odor (C1)	_____ Crayfish Burrows (C6)	
_____ Sediment Deposits (B2)	_____ Oxidized Rhizospheres on Living Roots (C3)	_____ Saturation Visible on Aerial Imagery (C8)	
_____ Drift Deposits (B3)	_____ Presence of Reduced Iron (C4)	_____ Stunted or Stressed Plants (D1)	
_____ Algal Mat or Crust (B4)	_____ Recent Iron Reduction in Tilled Soils (C6)	_____ Geomorphic Position (D2)	
_____ Iron Deposits (B5)	_____ Thin Muck Surface (C7)	_____ Shallow Aquitard (D3)	
_____ Inundation Visible on Aerial Imagery (B7)	_____ Other (Explain in Remarks)	_____ Microtopographic Relief (D4)	
_____ Sparsely Vegetated Concave Surface (B8)		_____ FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes _____ No _____	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	
Saturation Present?	Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0</u>	
(Includes capillary fringe)			
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			



VEGETATION - Use scientific names of plants.

Sampling Point: 1-rv-4h

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet: Number of Dominant Species That Are OBL, FACW, or FAC:
1. _____				<u>1</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>2</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet: Total % Cover of: _____ Multiply by:
1. _____				OBL species <u>100</u> x 1 = <u>100</u>
2. _____				FACW species _____ x 2 = _____
3. _____				FAC species <u>5</u> x 3 = <u>15</u>
4. _____				FACU species _____ x 4 = _____
5. _____				UPL species _____ x 5 = _____
6. _____				Column Totals: <u>105</u> (A) <u>115</u> (B)
7. _____				Prevalence Index = B/A = <u>1.1</u>
_____ = Total Cover				
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators: 1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is $\geq 3.0$ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>2</sup> (Explain)
1. <u>Phragmites australis</u>	<u>100</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input checked="" type="checkbox"/> 3 - Prevalence Index is $\geq 3.0$
2. _____				1 - Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
3. _____				Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____
1. <u>Vitis labrusca</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: KU-01-A

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	2.5Y 3/2	100					ESL	
6-15	5Y 5/3	90	10YR 5/8	10	C	M	LFS	
15+	5Y 6/2	90	10YR 5/8	10	C	M	LFS	

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

## Hydric Soil Indicators:

- Histosol (A1)  
 Histic Epipedon (A2)  
 Black Histic (A3)  
 Hydrogen Sulfide (A4)  
 Stratified Layers (A5)  
 Depleted Below Dark Surface (A11)  
 Thick Dark Surface (A12)  
 Sandy Mucky Mineral (S1)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Loamy Mucky Mineral (F1) (LRR K, L)  
 Loamy Gleyed Matrix (F2)  
 Depleted Matrix (F3)  
 Redox Dark Surface (F6)  
 Depleted Dark Surface (F7)  
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F19) (MLRA 149B)  
 Mesic Spodic (TA8) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: NO

Depth (Inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

## Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDI City/County: Rutland Sampling Date: 7-ru-01-B  
 Applicant/Owner: TDI State: VT Sampling Point: 5/7/14  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Toeslope Local relief (concave, convex, none): none Slope (%): 5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.577061 Long: -72.966059 Datum: NAD83  
 Soil Map Unit Name: 66B NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: (Explain alternative procedures here or in a separate report.)

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## HYDROLOGY

Wetland Hydrology Indicators:	Secondary Indicators (minimum of two required)
<b>Primary Indicators (minimum of one is required; check all that apply)</b>	___ Surface Soil Cracks (B6)
___ 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)	___ Drainage Patterns (B10)
	___ Moss Trim Lines (B18)
	___ 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)

## Field Observations:

Surface Water Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Water Table Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____
Saturation Present?	Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____

Wetland Hydrology Present? Yes \_\_\_\_\_ No 

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

+RV-W1-B  
Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Pinus strobus</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2. <u>Pinus serotina</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Acer platanoides</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>UPL</u>	Total Number of Dominant Species Across All Strata: <u>8</u> (B)
4. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25</u> (AB)
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
= Total Cover				
Shrub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Rhamnus cathartica</u>	<u>2</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Total % Cover of: _____ Multiply by: _____
2. <u>Lonicera tatarica</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	
3. <u>Syringa vulgaris</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>NI</u>	OBL species _____ x 1 = _____
4. <u>Elaeagnus umbellata</u>	<u>5</u>	<input checked="" type="checkbox"/>	<u>NI</u>	FACW species _____ x 2 = _____
5. _____	_____	_____	_____	FAC species _____ x 3 = _____
6. _____	_____	_____	_____	FACU species _____ x 4 = _____
7. _____	_____	_____	_____	UPL species _____ x 5 = _____
= Total Cover				Column Totals: _____ (A) _____ (B)
				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Solidago canadensis</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FAW</u>	1 - Rapid Test for Hydrophytic Vegetation 2 - Dominance Test is >50% 3 - Prevalence Index is ≤3.0 <sup>1</sup> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
2. <u>Sagittaria maxima</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>—</u>	
3. <u>Agrostis sp.</u>	<u>80</u>	<input checked="" type="checkbox"/>	<u>—</u>	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	Definitions of Vegetation Strata:
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8. _____	_____	_____	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9. _____	_____	_____	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
= Total Cover				
Woody Vine Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Present?
1. <u>Vitis riparia</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	Yes _____ No <input checked="" type="checkbox"/>
2. <u>Celastrus orbiculatus</u>	<u>10</u>	<input checked="" type="checkbox"/>	<u>UPL</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
= Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: E-10-W-1-B

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>		
0-9	10 YR 3/2	100					SoLo	
9-11	10 YR 4/3	100					LoSa	
11 +								Stony refusal

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

## Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (SS)
- Stripped Matrix (S8)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F10) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: StonyDepth (Inches): 11Hydric Soil Present? Yes  No 

## Remarks:

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TPI City/Country: Clarendon Sampling Date: 5/6/19  
 Applicant/Owner: TPI State: VT Sampling Point: TCLW7A  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): undulating Local relief (concave, convex, none): Spoke Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.558418 Long: -72.964231 Datum: \_\_\_\_\_  
 Soil Map Unit Name: CBA NWI classification: PP61REM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? no (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No _____		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID:	

Remarks: (Explain alternative procedures here or in a separate report.)

Drains through chart under RT 4

## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>			
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparingly Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes _____ No _____ Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Water Table Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>		
Saturation Present?	Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

VEGETATION - Use scientific names of plants.

Sampling Point: TRWZA

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Salix (weeping)</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>5</u> (A)
2. _____	_____	_____	_____	Total Number of Dominant Species Across All Strata: <u>5</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (AB)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Shrub/Small Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Prevalence Index worksheet:
1. <u>Cornus stolonifera</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	Total % Cover of: _____ Multiply by: _____
2. _____	_____	_____	_____	OBL species _____ x 1 = _____
3. _____	_____	_____	_____	FACW species _____ x 2 = _____
4. _____	_____	_____	_____	FAC species _____ x 3 = _____
5. _____	_____	_____	_____	FACU species _____ x 4 = _____
6. _____	_____	_____	_____	UPL species _____ x 5 = _____
7. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
_____ = Total Cover				Prevalence Index = B/A = _____
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Hydrophytic Vegetation Indicators:
1. <u>Typha latifolia</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
2. <u>Callinectes canadensis</u>	<u>40</u>	<input checked="" type="checkbox"/>	<u>OBL</u>	<input checked="" type="checkbox"/> 2 - Dominance Test is >50%
3. <u>Impatiens Capensis</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	<input type="checkbox"/> 3 - Prevalence Index is <3.0'
4. _____	_____	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
5. _____	_____	_____	_____	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
6. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Definitions of Vegetation Strata:
1. _____	_____	_____	_____	Tree - Woody plants 3 in. (7.8 cm) or more in diameter at breast height (DBH), regardless of height.
2. _____	_____	_____	_____	Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
3. _____	_____	_____	_____	Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
4. _____	_____	_____	_____	Woody vines - All woody vines greater than 3.28 ft in height.
_____ = Total Cover				
				Hydrophytic Vegetation Present? Yes _____ No _____
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: TCL 7A

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	2.5Y 2/1	100					FSL	
6-16	2.5Y 5/2	100					VFSL	

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

## Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: N/A

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

Remarks:



Flac 12

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDE City/County: Clarendon Sampling Date: 5/1/14  
 Applicant/Owner: TDE State: VT Sampling Point: TLW37  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): Undulating Local relief (concave, convex, none): Spike Slope (%): 0-5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.558418 Long: -72.464231 Datum: \_\_\_\_\_  
 Soil Map Unit Name: 68A NW1 classification: P  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>		
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	

Remarks: (Explain alternative procedures here or in a separate report.)

Toe of highway fill

## HYDROLOGY

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

VEGETATION - Use scientific names of plants.

Sampling Point: TCLW7B

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Rhus typhina</u>	<u>70</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)
2.				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50</u> (A/B)
4.				
5.				
6.				
7.				
= Total Cover				Prevalence Index worksheet:
				Total % Cover of: <u>70</u> Multiply by:
Shrub/Strawb Stratum (Plot size: <u>15</u> )				OBL species <u>0</u> x 1 = <u>0</u>
1. <u>Lonicera morrowii</u>	<u>10</u>		<u>FACU</u>	FACW species <u>86</u> x 2 = <u>172</u>
2. <u>Cornus amomum</u>	<u>66</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	FAC species <u>15</u> x 3 = <u>45</u>
3. <u>Rhamnus cathartica</u>	<u>15</u>		<u>FAC</u>	FACU species <u>60</u> x 4 = <u>240</u>
4.				UPL species <u>0</u> x 5 = <u>0</u>
5.				Column Totals: <u>151</u> (A) <u>317</u> (B)
6.				Prevalence Index = B/A = <u>2.1</u>
7.				
= Total Cover				Hydrophytic Vegetation Indicators:
Herb Stratum (Plot size: <u>5</u> )				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Oenothera biennis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
2. <u>Solidago canadensis</u>	<u>20</u>	<input checked="" type="checkbox"/>	<u>FACU</u>	<input checked="" type="checkbox"/> 3 - Prevalence Index is $\leq 3.0^1$
3.				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4.				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5.				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6.				Definitions of Vegetation Strata:
7.				Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
8.				Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
9.				Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
10.				Woody vines - All woody vines greater than 3.28 ft in height.
11.				
12.				
= Total Cover				
Woody Vine Stratum (Plot size: _____)				
1.				
2.				
3.				
4.				
= Total Cover				Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: TGL W7 B

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

Depth (inches)	Matrix		Redox Features		Type	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-5	10YR 3/2	100					FSL	
5-14	10YR 4/3	100					S:lo	
14-20	2.5Y 4/2	75	10YR 4/6	25	C	m	S:lo	

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

## Hydric Soil Indicators:

- Histosol (A1)  
 Histic Epipedon (A2)  
 Black Histic (A3)  
 Hydrogen Sulfide (A4)  
 Stratified Layers (A5)  
 Depleted Below Dark Surface (A11)  
 Thick Dark Surface (A12)  
 Sandy Mucky Mineral (S1)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Loamy Mucky Mineral (F1) (LRR K, L)  
 Loamy Gleyed Matrix (F2)  
 Depleted Matrix (F3)  
 Redox Dark Surface (F8)  
 Depleted Dark Surface (F7)  
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F19) (MLRA 149B)  
 Mesic Spodic (TA6) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: W/B

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

Remarks:

TCLWI

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TDI City/County: Chamondon Sampling Date: 5/6/84  
 Applicant/Owner: TDI State: VT Sampling Point: TCLWIA  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): undulating Local relief (concave, convex, none): Swale Slope (%): 5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.545186 Long: -72.959131 Datum: NAD83  
 Soil Map Unit Name: 67B NWI classification: P5M

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No  (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No  Are "Normal Circumstances" present? Yes  No   
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No  (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 <input checked="" type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Hydric Soil Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>		
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, optional Wetland Site ID: _____	

Remarks: (Explain alternative procedures here or in a separate report.)

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## HYDROLOGY

Wetland Hydrology Indicators:		Secondary Indicators (minimum of two required)	
<b>Primary Indicators (minimum of one is required; check all that apply)</b>			
<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input type="checkbox"/> High Water Tables (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drill Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
		<input type="checkbox"/> FAC-Neutral Test (D5)	
<b>Field Observations:</b>			
Surface Water Present?	Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____		
Water Table Present?	Yes <input type="checkbox"/> No <input type="checkbox"/> Depth (inches): _____		
Saturation Present? (includes capillary fringe)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0'</u>	Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: TCLW1A

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Spiraea latifolia</u>	<u>33</u>	<input checked="" type="checkbox"/>	<u>FAC</u>	
2. <u>Lonicera Morrowii</u>	<u>5</u>			
3. <u>Salix nigra</u>	<u>15</u>			
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
<b>Herb Stratum (Plot size: _____)</b>				
1. <u>Onoclea sensibilis</u>	<u>25</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
2. <u>Solidago canadensis</u>	<u>10</u>			
3. <u>Phalaris arundinacea</u>	<u>50</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. <u>Ranunculus sp.</u>	<u>1</u>			
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Prevalence Index worksheet: Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____				
Hydrophytic Vegetation Indicators: ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is $\leq 3.0$ ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)				
<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.				
Definitions of Vegetation Strata: Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.				
Hydrophytic Vegetation Present? Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

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## SOIL

Sampling Point: TCLW 1A

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	Loc <sup>a</sup>		
0-7	2.5 Y 3/2	100					FSL	
7-18	2.5 Y 4/2	75	10R 4/2	25	C	M	FSL	

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

## Hydric Soil Indicators:

- Histosol (A1)  
 Histic Epipedon (A2)  
 Black Histic (A3)  
 Hydrogen Sulfide (A4)  
 Stratified Layers (A5)  
 Depleted Below Dark Surface (A11)  
 Thick Dark Surface (A12)  
 Sandy Mucky Mineral (S1)  
 Sandy Gleyed Matrix (S4)  
 Sandy Redox (S5)  
 Stripped Matrix (S6)  
 Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)  
 Thin Dark Surface (S9) (LRR R, MLRA 149B)  
 Loamy Mucky Mineral (F1) (LRR K, L)  
 Loamy Gleyed Matrix (F2)  
 Depleted Matrix (F3)  
 Redox Dark Surface (F8)  
 Depleted Dark Surface (F7)  
 Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>c</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)  
 Coast Prairie Redox (A16) (LRR K, L, R)  
 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  
 Dark Surface (S7) (LRR K, L)  
 Polyvalue Below Surface (S8) (LRR K, L)  
 Thin Dark Surface (S9) (LRR K, L)  
 Iron-Manganese Masses (F12) (LRR K, L, R)  
 Piedmont Floodplain Soils (F19) (MLRA 149B)  
 Mesic Spodic (TA8) (MLRA 144A, 145, 149B)  
 Red Parent Material (F21)  
 Very Shallow Dark Surface (TF12)  
 Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: N/D

Depth (Inches): \_\_\_\_\_

Hydric Soil Present? Yes  No 

Remarks:

2 in the Rain

TCLWI

## WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

Project/Site: TPI City/County: Clarendon Sampling Date: 5/6/14  
 Applicant/Owner: TDB State: VT Sampling Point: TCLWI B  
 Investigator(s): AF SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillside, terrace, etc.): undulating Local relief (concave, convex, none): Road shoulder Slope (%): 5  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: 43.545186 Long: -72.959131 Datum: NAD83  
 Soil Map Unit Name: 67B NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ significantly disturbed? No  Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_ Soil \_\_\_\_\_ or Hydrology \_\_\_\_\_ naturally problematic? No  (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland?	Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present?	Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____	
Wetland Hydrology Present?	Yes _____ No <input checked="" type="checkbox"/>		

Remarks: (Explain alternative procedures here or in a separate report.)

Road Shoulder - fill

## HYDROLOGY

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

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION - Use scientific names of plants.

Sampling Point: TCLW1D

Tree Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>1</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
Shrub/Strub Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5</u> )				
1. <u>Gallium Sp.</u>	<u>10</u>			
2. <u>Phlox aridnorum</u>	<u>10</u>			
3. <u>Phlox pratensis</u>	<u>75</u>	<input checked="" type="checkbox"/>	<u>FACW</u>	
4. <u>Helianthus maximum</u>	<u>5</u>			
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)				
1. _____				
2. _____				
3. _____				
4. _____				
_____ = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiplied by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
				<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 $\leq 3.0^1$ <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> Tree - Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub - Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb - All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines - All woody vines greater than 3.28 ft in height.
				Hydrophytic Vegetation Present? Yes _____ No <input checked="" type="checkbox"/>

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## SOIL

Sampling Point: TELW18

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>		
0-8	10YR 3/2	100					FSL	
8-16	10YR 4/3	100					FSL	

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

## Hydric Soil Indicators:

- Histosol (A1)  Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Histic Epipedon (A2)  Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Black Histic (A3)  Loamy Mucky Mineral (F1) (LRR K, L)
- Hydrogen Sulfide (A4)  Loamy Gleyed Matrix (F2)
- Stratified Layers (A5)  Depleted Matrix (F3)
- Depleted Below Dark Surface (A11)  Redox Dark Surface (F8)
- Thick Dark Surface (A12)  Depleted Dark Surface (F7)
- Sandy Mucky Mineral (S1)  Redox Depressions (F8)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A18) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesc Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

## Restrictive Layer (if observed):

Type: MoDepth (Inches):  Hydric Soil Present? Yes  No 

Remarks:

Fin the Review



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-SH-W-5A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-SH-W-5A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Shrewsbury
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°30'4.05"N Long: 72°53'54.323"W Datum: NAD 83
Soil Map Unit: Sudbury fine sandy loam NWI Class: PEM
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 1.23" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
(8-0) Color (moist) % Color (moist) % Type1 Loc2 MUCK
(0+) BEDROCK

Hydric Soil Indicators:
X Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type: Bedrock
Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>2</u> (A)  # Dominants across all strata: <u>2</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>53</u> x 1 = <u>53</u> FACW <u>113</u> x 2 = <u>226</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>166</u> (A) <u>279</u> (B)  Prevalence Index = B/A = <u>1.68</u>
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
_____ = Total Cover					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.   Hydrophytic Vegetation Present? <u>YES</u>
Herb Stratum	(Plot size: <u>5' RADIUS</u> )				
1.	<u>Phalaris arundinacea</u>	<u>98</u>	<u>X</u>	<u>FACW</u>	
2.	<u>Typha latifolia</u>	<u>38</u>	<u>X</u>	<u>OBL</u>	
3.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>	
4.	<u>Acorus americanus</u>	<u>15</u>		<u>OBL</u>	
5.	_____	_____	_____	_____	
6.	_____	_____	_____	_____	
7.	_____	_____	_____	_____	
8.	_____	_____	_____	_____	
9.	_____	_____	_____	_____	
10.	_____	_____	_____	_____	
11.	_____	_____	_____	_____	
12.	_____	_____	_____	_____	
<u>166</u> = Total Cover					
Woody Vines	(Plot size: _____ )				
1.	_____	_____	_____	_____	
2.	_____	_____	_____	_____	
3.	_____	_____	_____	_____	
4.	_____	_____	_____	_____	
5.	_____	_____	_____	_____	
_____ = Total Cover					

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-SH-W-5B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-SH-W-5B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Shrewsbury
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°30'3.971"N Long: 72°53'54.458"W Datum: NAD 83
Soil Map Unit: Sudbury fine sandy loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 1.23" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-8 10YR 4/3 SILT LOAM
8+ BEDROCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Bedrock
Depth (inches): 8
Hydric Soil Present? NO
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>1</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>33%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>15</u> x 2 = <u>30</u> FAC _____ x 3 = _____ FACU <u>53</u> x 4 = <u>212</u> UPL _____ x 5 = _____ Sum: <u>68</u> (A) _____ <u>242</u> (B)  Prevalence Index = B/A = <u>3.56</u>
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Rubus idaeus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.	<b>Solidago canadensis</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	
2.	<b>Phalaris arundinacea</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
3.					
4.					
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<b>53</b> = Total Cover			Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			Hydrophytic Vegetation Present? <u>NO</u>

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-SH-W-2A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-SH-W-2A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Shrewsbury
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-4%
Subregion (LRR or MLRA): LRR R Lat: 43°29'25.88"N Long: 72°53'5.386"W Datum: NAD 83
Soil Map Unit: Deerfield loamy sand NWI Class: PEM/PFO
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No
Are Vegetation, Soil, or Hydrology naturally problematic? No

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1)
High Water Table (A2)
Saturation (A3)
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present?
Water Table Present? X
Saturation Present? X
Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 1.23" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth (in), Matrix (Color (moist), %), Redox Features (Color (moist), %, Type1, Loc2), Texture (MUCK), Remarks

Hydric Soil Indicators:
X Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. <u>Acer saccharinum</u>	<b>38</b>	<b>X</b>	<b>FACW</b>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>38</b>	= Total Cover		
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )				
1. _____				Prevalence Index Worksheet: Total % Cover of: <u>        </u> Multiply By: <u>        </u> OBL <u>        </u> x 1 = <u>        </u> FACW <u>131</u> x 2 = <u>262</u> FAC <u>15</u> x 3 = <u>45</u> FACU <u>        </u> x 4 = <u>        </u> UPL <u>        </u> x 5 = <u>        </u> Sum: <u>146</u> (A) <u>307</u> (B)  Prevalence Index = B/A = <u>2.10</u>
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
		= Total Cover		
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				
1. <u>Spiraea alba</u>	<b>15</b>	<b>X</b>	<b>FACW</b>	Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (explain) <input type="checkbox"/> Rapid Test for Hydrophytic Vegetation <input type="checkbox"/> Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<b>15</b>	= Total Cover		
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				
1. <u>Onoclea sensibilis</u>	<b>63</b>	<b>X</b>	<b>FACW</b>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
2. <u>Impatiens capensis</u>	<b>15</b>		<b>FACW</b>	
3. <u>Matteuccia struthiopteris</u>	<b>15</b>		<b>FAC</b>	
4. _____				
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
	<b>93</b>	= Total Cover		
<b>Woody Vines</b> (Plot size: _____ )				
1. _____				Hydrophytic Vegetation Present? <u>YES</u>
2. _____				
3. _____				
4. _____				
5. _____				
		= Total Cover		

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-SH-W-2B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-SH-W-2B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Shrewsbury
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 0-4%
Subregion (LRR or MLRA): LRR R Lat: 43°29'25.932"N Long: 72°53'5.581"W Datum: NAD 83
Soil Map Unit: Deerfield loamy sand NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36"(departure from normal value is not available) ; 1.23" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10YR 4/3 SILT LOAM
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type: Depth (inches): Hydric Soil Present? NO
Remarks:





Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status	
1.					Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>2</u> (A)  # Dominants across all strata: <u>4</u> (B)  % Dominants OBL, FACW, FAC: <u>50%</u> (A/B)
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>33</u> x 2 = <u>66</u> FAC _____ x 3 = _____ FACU <u>53</u> x 4 = <u>212</u> UPL _____ x 5 = _____ Sum: <u>86</u> (A) _____ <u>278</u> (B)  Prevalence Index = B/A = <u>3.23</u>
Sapling Stratum (Plot size: <u>30' RADIUS</u> )					
1.					
2.					
3.					
4.					
5.					
6.					
7.					
		_____ = Total Cover			
Shrub Stratum (Plot size: <u>15' RADIUS</u> )					Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1.	<b>Rubus idaeus</b>	<b>15</b>	<b>X</b>	<b>FACU</b>	
2.					
3.					
4.					
5.					
6.					
7.					
		<u>15</u> = Total Cover			
Herb Stratum (Plot size: <u>5' RADIUS</u> )					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.
1.	<b>Solidago canadensis</b>	<b>38</b>	<b>X</b>	<b>FACU</b>	
2.	<b>Symphotrichum novae-angliae</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
3.	<b>Phalaris arundinacea</b>	<b>15</b>	<b>X</b>	<b>FACW</b>	
4.	<b>Onoclea sensibilis</b>	<b>3</b>		<b>FACW</b>	
5.					
6.					
7.					
8.					
9.					
10.					
11.					
12.					
		<u>71</u> = Total Cover			
Woody Vines (Plot size: _____ )					Hydrophytic Vegetation Present? <u>NO</u>
1.					
2.					
3.					
4.					
5.					
		_____ = Total Cover			

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WA-W-3A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WA-W-3A
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Wallingford
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°28'30.185"N Long: 72°52'31.5"W Datum: NAD 83
Soil Map Unit: Sudbury fine sandy loam NWI Class: PEM/PSS
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks: Mapped VSWI

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9)
X High Water Table (A2) Aquatic Fauna (B13)
X Saturation (A3) Marl Deposits (B13)
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 (B7) Other (Explain in Remarks)
Sparsely Vegetated Concave Surface (B8)
Field Observations: Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features
(in) Color (moist) % Color (moist) % Type1 Loc2 Texture Remarks
0-18 MUCK
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators: X Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Histic Epipedon (A2) MLRA 149B)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L)
Stratified Layers (A5) Loamy Gleyed Matrix (F2)
Depleted Below Dark Surface (A11) Depleted Matrix (F3)
Thick Dark Surface (A12) Redox Dark Surface (F6)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7)
Sandy Gleyed Matrix (S4) Redox Depressions (F8)
Sandy Redox (S5)
Stripped Matrix (S6) 3Indicators of hydrophytic vegetation and wetland hydrology must be present, unless disturbed or problematic.
Dark Surface (S7) (LRR R, MLRA 149B)
Indicators for Problematic Hydric Soils3:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)
Restrictive Layer (if observed): Type: Depth (inches):
Hydric Soil Present? YES
Remarks:



Tree Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status		
1.	_____	_____	_____	_____	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>3</u> (B)  % Dominants OBL, FACW, FAC: <u>100%</u> (A/B)	
2.	_____	_____	_____	_____		
3.	_____	_____	_____	_____		
4.	_____	_____	_____	_____		
5.	_____	_____	_____	_____		
6.	_____	_____	_____	_____		
7.	_____	_____	_____	_____		
_____ = Total Cover					Prevalence Index Worksheet: Total % Cover of: OBL <u>116</u> x 1 = <u>116</u> FACW <u>30</u> x 2 = <u>60</u> FAC _____ x 3 = _____ FACU _____ x 4 = _____ UPL _____ x 5 = _____ Sum: <u>146</u> (A) <u>176</u> (B)  Prevalence Index = B/A = <u>1.21</u>	
Sapling Stratum	(Plot size: <u>30' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status		
1.	_____	_____	_____	_____		
2.	_____	_____	_____	_____		
3.	_____	_____	_____	_____		
4.	_____	_____	_____	_____		
5.	_____	_____	_____	_____		
6.	_____	_____	_____	_____		
7.	_____	_____	_____	_____		
_____ = Total Cover					Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
Shrub Stratum	(Plot size: <u>15' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status		
1.	<u>Salix bebbiana</u>	<u>15</u>	<u>X</u>	<u>FACW</u>		
2.	_____	_____	_____	_____		
3.	_____	_____	_____	_____		
4.	_____	_____	_____	_____		
5.	_____	_____	_____	_____		
6.	_____	_____	_____	_____		
7.	_____	_____	_____	_____		
<u>15</u> = Total Cover					Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.	
Herb Stratum	(Plot size: <u>5' RADIUS</u> )	Absolute % Cover	Dom. Sp?	Indicator Status		
1.	<u>Acorus americanus</u>	<u>63</u>	<u>X</u>	<u>OBL</u>		
2.	<u>Typha latifolia</u>	<u>38</u>	<u>X</u>	<u>OBL</u>		
3.	<u>Onoclea sensibilis</u>	<u>15</u>		<u>FACW</u>		
4.	<u>Carex aquatilis</u>	<u>15</u>		<u>OBL</u>		
5.	_____	_____	_____	_____		
6.	_____	_____	_____	_____		
7.	_____	_____	_____	_____		
8.	_____	_____	_____	_____		
9.	_____	_____	_____	_____		
10.	_____	_____	_____	_____		
11.	_____	_____	_____	_____		
12.	_____	_____	_____	_____		
<u>131</u> = Total Cover						
Woody Vines	(Plot size: _____ )	Absolute % Cover	Dom. Sp?	Indicator Status		
1.	_____	_____	_____	_____		
2.	_____	_____	_____	_____		
3.	_____	_____	_____	_____		
4.	_____	_____	_____	_____		
5.	_____	_____	_____	_____		
_____ = Total Cover					Hydrophytic Vegetation Present? <u>YES</u>	

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WA-W-3B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WA-W-3B
Applicant/Owner: TDI
Investigator(s): CMM Section, Township, Range: Wallingford
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 3-8%
Subregion (LRR or MLRA): LRR R Lat: 43°28'30.198"N Long: 72°52'31.357"W Datum: NAD 83
Soil Map Unit: Sudbury fine sandy loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches): Wetland Hydrology Present? NO
Water Table Present? Depth (inches):
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-6 10R 3/3
6-14 10YR 5/3
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? NO
Remarks:





WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WA-W100A

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WA-W100A
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Wallingford
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): concave Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°27'6.614"N Long: 72°52'25.918"W Datum: NAD 83
Soil Map Unit: Castile gravelly fine sandy loam NWI Class: PEM/PFO
Are climatic/hydrologic conditions on the site typical for this time of year? Yes
Are Vegetation, Soil, or Hydrology significantly disturbed? No
Are Vegetation, Soil, or Hydrology naturally problematic? No

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? YES
Hydric Soil Present? YES
Wetland Hydrology Present? YES
Is This Sample Area Within a Wetland? YES
Remarks:

HYDROLOGY

Wetland Hydrology Indicators:
Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) X
High Water Table (A2) X
Saturation (A3) X
Water Marks (B1)
Sediment Deposits (B2)
Drift Deposits (B3)
Algal Mat or Crust (B4)
Iron Deposits (B5)
Inundation Visible on Aerial (B7)
Sparsely Vegetated Concave Surface (B8)
Water-Stained Leaves (B9)
Aquatic Fauna (B13)
Marl Deposits (B13)
Hydrogen Sulfide Odor (C1)
Oxidized Rhizospheres on Living Roots (C3)
Presence of Reduced Iron (C4)
Recent Iron Reduction in Tilled Soils (C6)
Thin Muck Surface (C7)
Other (Explain in Remarks)
Surface Soil Cracks (B6)
Drainage Patterns (B10)
Moss Trim Lines (B16)
Dry-Season Water Table (C2)
Crayfish Burrows (C8)
Saturation Visible on Aerial (C9)
Stunted or Stressed Plants (D1)
Geomorphic Position (D2)
Shallow Aquitard (D3)
Microtopographic Relief (D4)
FAC-Neutral Test (D5)

Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? X Depth (inches): Surface
Saturation Present? X Depth (inches): Surface
Wetland Hydrology Present? YES
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Table with columns: Depth, Matrix, Redox Features, Type, Loc, Texture, Remarks.
0-10 10YR 2/1
10-16+ 2.5Y 5/1 10YR 4/6 7 C M MUCKY LOAM SANDY CLAY LOAM

Hydric Soil Indicators:
Histosol (A1)
Histic Epipedon (A2)
Black Histic (A3)
Hydrogen Sulfide (A4)
Stratified Layers (A5)
X Depleted Below Dark Surface (A11)
Thick Dark Surface (A12)
Sandy Mucky Mineral (S1)
Sandy Gleyed Matrix (S4)
Sandy Redox (S5)
Stripped Matrix (S6)
Dark Surface (S7) (LRR R, MLRA 149B)
Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
Thin Dark Surface (S9) (LRR R, MLRA 149B)
Loamy Mucky Mineral (F1) (LRR K, L)
Loamy Gleyed Matrix (F2)
Depleted Matrix (F3)
Redox Dark Surface (F6)
Depleted Dark Surface (F7)
Redox Depressions (F8)
Indicators for Problematic Hydric Soils:
2 cm Muck (A10) (LRR K, L, MLRA 149B)
Coast Prairie Redox (A16) (LRR K, L, R)
5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Dark Surface (S9) (LRR K, L, M)
Polyvalue Below Surface (S8) (LRR K, L)
Thin Dark Surface (S9) (LRR K, L)
Iron-Manganese Masses (F12) (LRR K, L, R)
Piedmont Floodplain Soils (F19) (MLRA 149B)
Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Red Parent Material (F21)
Very Shallow Dark Surface (TF12)
Other (Explain in Remarks)

Restrictive Layer (if observed):
Type:
Depth (inches):
Hydric Soil Present? YES
Remarks:



	Absolute % Cover	Dom. Sp?	Indicator Status																						
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )				Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>7</u> (A)  # Dominants across all strata: <u>9</u> (B)  % Dominants OBL, FACW, FAC: <u>78%</u> (A/B)																					
1. <u>Betula alleghaniensis</u>	<u>15</u>	<u>X</u>	<u>FAC</u>																						
2. <u>Populus tremuloides</u>	<u>15</u>	<u>X</u>	<u>FACU</u>																						
3. _____																									
4. _____																									
5. _____																									
6. _____																									
7. _____																									
<u>30</u> = Total Cover				Prevalence Index Worksheet: Total % Cover of: <table style="width:100%; border:none;"> <tr> <td style="width:30%;"></td> <td style="width:30%;"></td> <td style="width:30%; text-align:right;">Multiply By:</td> </tr> <tr> <td>OBL <u>71</u></td> <td>x 1 =</td> <td><u>71</u></td> </tr> <tr> <td>FACW <u>33</u></td> <td>x 2 =</td> <td><u>66</u></td> </tr> <tr> <td>FAC <u>30</u></td> <td>x 3 =</td> <td><u>90</u></td> </tr> <tr> <td>FACU <u>33</u></td> <td>x 4 =</td> <td><u>132</u></td> </tr> <tr> <td>UPL _____</td> <td>x 5 =</td> <td>_____</td> </tr> <tr> <td>Sum: <u>167</u> (A)</td> <td></td> <td><u>359</u> (B)</td> </tr> </table> Prevalence Index = B/A = <u>2.15</u>			Multiply By:	OBL <u>71</u>	x 1 =	<u>71</u>	FACW <u>33</u>	x 2 =	<u>66</u>	FAC <u>30</u>	x 3 =	<u>90</u>	FACU <u>33</u>	x 4 =	<u>132</u>	UPL _____	x 5 =	_____	Sum: <u>167</u> (A)		<u>359</u> (B)
		Multiply By:																							
OBL <u>71</u>	x 1 =	<u>71</u>																							
FACW <u>33</u>	x 2 =	<u>66</u>																							
FAC <u>30</u>	x 3 =	<u>90</u>																							
FACU <u>33</u>	x 4 =	<u>132</u>																							
UPL _____	x 5 =	_____																							
Sum: <u>167</u> (A)		<u>359</u> (B)																							
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )																									
1. <u>Acer rubrum</u>	<u>15</u>	<u>X</u>	<u>FAC</u>																						
2. <u>Prunus pensylvanica</u>	<u>3</u>		<u>FACU</u>																						
3. _____																									
4. _____																									
5. _____																									
6. _____																									
7. _____																									
<u>18</u> = Total Cover																									
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )				Hydrophytic Vegetation Indicators: <input checked="" type="checkbox"/> Dominance Test is > 50% <input checked="" type="checkbox"/> Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <small><sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.</small>																					
1. <u>Alnus incana</u>	<u>15</u>	<u>X</u>	<u>FACW</u>																						
2. <u>Sambucus racemosa</u>	<u>15</u>	<u>X</u>	<u>FACU</u>																						
3. _____																									
4. _____																									
5. _____																									
6. _____																									
7. _____																									
<u>30</u> = Total Cover																									
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )				Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.																					
1. <u>Myosotis scorpioides</u>	<u>38</u>	<u>X</u>	<u>OBL</u>																						
2. <u>Caltha palustris</u>	<u>15</u>	<u>X</u>	<u>OBL</u>																						
3. <u>Chrysosplenium americanum</u>	<u>15</u>	<u>X</u>	<u>OBL</u>																						
4. <u>Onoclea sensibilis</u>	<u>15</u>	<u>X</u>	<u>FACW</u>																						
5. <u>Impatiens capensis</u>	<u>3</u>		<u>FACW</u>																						
6. <u>Galium palustre</u>	<u>3</u>		<u>OBL</u>																						
7. _____																									
8. _____																									
9. _____																									
10. _____																									
11. _____																									
12. _____																									
<u>89</u> = Total Cover																									
<b>Woody Vines</b> (Plot size: _____ )																									
1. _____																									
2. _____																									
3. _____																									
4. _____																									
5. _____																									
_____ = Total Cover																									
Hydrophytic Vegetation Present? <u>YES</u>																									

Remarks: (If observed, list morphological adaptations below).



WETLAND DETERMINATION DATA FORM - Northcentral and Northeast Region

V-WA-W100B

Project Site: NECPL City/County: Rutland State: Vermont Sampling Point: V-WA-W100B
Applicant/Owner: TDI
Investigator(s): PBW Section, Township, Range: Wallingford
Landform (hillslope, terrace, etc.): terrace Local relief (concave, convex, none): convex Slope (%): 0-3%
Subregion (LRR or MLRA): LRR R Lat: 43°27'6.715"N Long: 72°52'25.583"W Datum: NAD 83
Soil Map Unit: Castile gravelly fine sandy loam NWI Class: Upland
Are climatic/hydrologic conditions on the site typical for this time of year? Yes (If no, explain in Remarks.)
Are Vegetation, Soil, or Hydrology significantly disturbed? No Normal Circumstances? Yes
Are Vegetation, Soil, or Hydrology naturally problematic? No (If needed, explain any answers in Remarks.)

SUMMARY OF FINDINGS - Attach site map showing sample point locations, transects, important features, etc.

Hydrophytic Vegetation Present? NO
Hydric Soil Present? NO
Wetland Hydrology Present? NO
Is This Sample Area Within a Wetland? NO
Remarks:

HYDROLOGY

Wetland Hydrology Indicators: Primary Indicators (minimum of one is required; check all that apply)
Secondary Indicators (minimum of two required)
Surface Water (A1) Water-Stained Leaves (B9) Surface Soil Cracks (B6)
High Water Table (A2) Aquatic Fauna (B13) Drainage Patterns (B10)
Saturation (A3) Marl Deposits (B13) Moss Trim Lines (B16)
Water Marks (B1) Hydrogen Sulfide Odor (C1) Dry-Season Water Table (C2)
Sediment Deposits (B2) Oxidized Rhizospheres on Living Roots (C3) Crayfish Burrows (C8)
Drift Deposits (B3) Presence of Reduced Iron (C4) Saturation Visible on Aerial (C9)
Algal Mat or Crust (B4) Recent Iron Reduction in Tilled Soils (C6) Stunted or Stressed Plants (D1)
Iron Deposits (B5) Thin Muck Surface (C7) Geomorphic Position (D2)
Inundation Visible on Aerial (B7) Other (Explain in Remarks) Shallow Aquitard (D3)
Sparsely Vegetated Concave Surface (B8) FAC-Neutral Test (D5)
Field Observations:
Surface Water Present? Depth (inches):
Water Table Present? Depth (inches): Wetland Hydrology Present? NO
Saturation Present? Depth (inches):
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:
Rainfall for the month of April was 2.36" (departure from normal value is not available) ; 0.59" in the 5 days prior in Rutland, VT (NWS 2014)
Remarks:

SOIL

Profile Description: (Describe to the depth needed to document the indicator or confirm the absence of indicators.)
Depth Matrix Redox Features Texture Remarks
0-8 10YR 3/3
8-14 2.5YR 5/3
Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains. Location: PL=Pore Lining, M=Matrix.
Hydric Soil Indicators:
Histosol (A1) Polyvalue Below Surface (S8) (LRR R, MLRA 149B) 2 cm Muck (A10) (LRR K, L, MLRA 149B)
Histic Epipedon (A2) MLRA 149B) Coast Prairie Redox (A16) (LRR K, L, R)
Black Histic (A3) Thin Dark Surface (S9) (LRR R, MLRA 149B) 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
Hydrogen Sulfide (A4) Loamy Mucky Mineral (F1) (LRR K, L) Dark Surface (S9) (LRR K, L, M)
Stratified Layers (A5) Loamy Gleyed Matrix (F2) Polyvalue Below Surface (S8) (LRR K, L)
Depleted Below Dark Surface (A11) Depleted Matrix (F3) Thin Dark Surface (S9) (LRR K, L)
Thick Dark Surface (A12) Redox Dark Surface (F6) Iron-Manganese Masses (F12) (LRR K, L, R)
Sandy Mucky Mineral (S1) Depleted Dark Surface (F7) Piedmont Floodplain Soils (F19) (MLRA 149B)
Sandy Gleyed Matrix (S4) Redox Depressions (F8) Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
Sandy Redox (S5) Red Parent Material (F21)
Stripped Matrix (S6) Very Shallow Dark Surface (TF12)
Dark Surface (S7) (LRR R, MLRA 149B) Other (Explain in Remarks)
Restrictive Layer (if observed):
Type:
Depth (inches): Hydric Soil Present? NO
Remarks:





	Absolute % Cover	Dom. Sp?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <u><i>Acer saccharum</i></u>	<u>38</u>	<u>X</u>	<u>FACU</u>	Dominance Test Worksheet: # Dominants OBL, FACW, FAC: <u>3</u> (A)  # Dominants across all strata: <u>11</u> (B)  % Dominants OBL, FACW, FAC: <u>27%</u> (A/B)	
2. <u><i>Fraxinus americana</i></u>	<u>15</u>	<u>X</u>	<u>FACU</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>53</u>	= Total Cover		Prevalence Index Worksheet: Total % Cover of: _____ Multiply By: _____ OBL _____ x 1 = _____ FACW <u>3</u> x 2 = <u>6</u> FAC <u>18</u> x 3 = <u>54</u> FACU <u>118</u> x 4 = <u>472</u> UPL _____ x 5 = _____ Sum: <u>139</u> (A) _____ <u>532</u> (B)  Prevalence Index = B/A = <u>3.83</u>	
<b>Sapling Stratum</b> (Plot size: <u>30' RADIUS</u> )					
1. <u><i>Prunus pensylvanica</i></u>	<u>38</u>	<u>X</u>	<u>FACU</u>		
2. <u><i>Acer saccharum</i></u>	<u>15</u>	<u>X</u>	<u>FACU</u>		
3. <u><i>Abies balsamea</i></u>	<u>15</u>	<u>X</u>	<u>FAC</u>		
4. _____					
5. _____					
6. _____					
7. _____					
	<u>68</u>	= Total Cover			
<b>Shrub Stratum</b> (Plot size: <u>15' RADIUS</u> )					
1. <u><i>Sambucus racemosa</i></u>	<u>3</u>	<u>X</u>	<u>FACU</u>	Hydrophytic Vegetation Indicators: _____ Dominance Test is > 50% _____ Prevalence Index is <= 3.0 _____ Problematic Hydrophytic Vegetation <sup>1</sup> (explain) _____ Rapid Test for Hydrophytic Vegetation _____ Morphological Adaptations  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
2. <u><i>Cornus racemosa</i></u>	<u>3</u>	<u>X</u>	<u>FAC</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>6</u>	= Total Cover			
<b>Herb Stratum</b> (Plot size: <u>5' RADIUS</u> )					
1. <u><i>Maianthemum canadense</i></u>	<u>3</u>	<u>X</u>	<u>FACU</u>	Definitions of Vegetation Strata:  Tree - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and 3in (7.6cm) or larger in diameter at breast height (DBH).  Sapling - Woody plants, excluding woody vines, approximately 20ft (6m) or more in height and less than 3in (7.6cm) DBH.  Shrub - Woody plants, excluding woody vines, approximately 3 to 20ft (1 to 6m) in height.  Herb - All herbaceous (non-woody) plants, including herbaceous vines, regardless of size. Includes woody plants, except woody vines, less than approximately 3ft (1m) in height.  Woody vine - All woody vines, regardless of height.	
2. <u><i>Potentilla argentea</i></u>	<u>3</u>	<u>X</u>	<u>FACU</u>		
3. <u><i>Fragaria virginiana</i></u>	<u>3</u>	<u>X</u>	<u>FACU</u>		
4. <u><i>Osmunda cinnamomea</i></u>	<u>3</u>	<u>X</u>	<u>FACW</u>		
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>12</u>	= Total Cover			
<b>Woody Vines</b> (Plot size: _____ )					
1. _____					
2. _____					
3. _____					
4. _____					
5. _____					
		= Total Cover		Hydrophytic Vegetation Present? <u>NO</u>	

Remarks: (If observed, list morphological adaptations below).  
**Unknown goldenrod (*Solidago* sp.) at 15%; Unknown aster (*Symphotrichum* sp.) at 15%**

T W55A

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: ME CPL City/County: Mount Holly Sampling Date: 6/5/14  
Applicant/Owner: TDI State: VT Sampling Point: FMH-W55A  
Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): valley/Flat Terrace Local relief (concave, convex, none): Concave Slope (%): \_\_\_\_\_  
Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
Soil Map Unit Name: FIA NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  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 <input type="checkbox"/> No <input type="checkbox"/>	Hydic Soil Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Wetland Hydrology Present? Yes <input type="checkbox"/> No <input type="checkbox"/>	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Remarks: (Explain alternative procedures here or in a separate report.)			If yes, optional Wetland Site ID: _____
<p><i>Class II lower wetland complex deminate with Phrag. outside ROW.</i></p>			

HYDROLOGY

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Surface Soil Cracks (B6)
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Drainage Patterns (B10)
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Moss Trim Lines (B16)
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Dry-Season Water Table (C2)
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Crayfish Burrows (C8)
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Stunted or Stressed Plants (D1)
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Geomorphic Position (D2)
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Shallow Aquitard (D3)
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Microtopographic Relief (D4)
<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Aquatic Fauna (B13)	
<input type="checkbox"/> Marl Deposits (B15)	
<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	
<input checked="" type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	
<input type="checkbox"/> Presence of Reduced Iron (C4)	
<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	
<input type="checkbox"/> Thin Muck Surface (C7)	
<input type="checkbox"/> Other (Explain in Remarks)	

<b>Field Observations:</b>	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____
Surface Water Present? Yes _____ No _____ Depth (inches): _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>12"</u>	
Saturation Present? (includes capillary fringe) Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u>	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

VEGETATION – Use scientific names of plants.

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>NONE</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</u> (A)
2.				Total Number of Dominant Species Across All Strata: <u>4</u> (B)
3.				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4.				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
5.				
6.				
7.				
<u>0</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>Spruce latifolia</u>	<u>10</u>	<u>X</u>	<u>FACW</u>	
2.				
3.				
4.				
5.				
6.				
7.				
<u>10</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Typha latifolia</u>	<u>20</u>	<u>X</u>	<u>OBL</u>	
2. <u>Spike rush (Eleocharis palustris)</u>	<u>20</u>	<u>X</u>	<u>OBL</u>	
3. <u>Onoclea sensibilis</u>	<u>50</u>	<u>X</u>	<u>FACW</u>	
4. <u>Pickering's radish (Lactuca serriola)</u>	<u>5</u>		<u>FAC</u>	
5. <u>Swamp dock (Rumex verticillatus)</u>	<u>5</u>		<u>OBL</u>	
6.				
7.				
8.				
9.				
10.				
11.				
12.				
<u>100</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: _____)</b>				
1.				
2.				
3.				
4.				
_____ = Total Cover				

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

There are no trees located in wetland. Upland trees have been excluded to best represent wetland



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

Project/Site: NCCPL City/County: Mont Holly Sampling Date: 6/5/14  
 Applicant/Owner: TDE State: VT Sampling Point: 4-mh-WSSB  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Road shoulder Local relief (concave, convex, none): convex Slope (%): 5-10%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: FIA NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes  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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> 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 _____ Depth (inches): _____ Water Table Present? Yes _____ No _____ Depth (inches): _____ Saturation Present? Yes _____ No _____ Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

*No hydrology in Rd. Shoulder*

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

Sampling Point: t-mh-w 55B

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Malus sp</u>	<u>10</u>	<u>X</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>10</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Pinus (chote) virginiana</u>	<u>30</u>	<u>X</u>	<u>FACU</u>		<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input 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)
2. <u>Populus tremuloides</u>	<u>5</u>	_____	<u>FAC</u>		
3. <u>Spirea latifolia</u>	<u>2</u>	_____	<u>FACW</u>		
4. _____	_____	_____	_____		
5. _____	_____	_____	_____		
6. _____	_____	_____	_____		
7. _____	_____	_____	_____		
<u>37</u> = Total Cover				<b>Definitions of Vegetation Strata:</b>  Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  Woody vines – All woody vines greater than 3.28 ft in height.	
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Solidago canadensis</u>	<u>10</u>	_____	<u>FACU</u>		<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
2. <u>Sweet Vernal Grass (Anthoxanthum)</u>	_____	_____	<u>FACU</u>		
3. <u>Cr. Red Fescue (Festuca rubra)</u>	<u>15</u>	<u>X</u>	<u>FACU</u>		
4. <u>Solidago gigantea</u>	<u>15</u>	<u>X</u>	<u>FACW</u>		
5. <u>Orchard grass (Dactylis glomerata)</u>	<u>10</u>	_____	<u>FACU</u>		
6. <u>Yarrow (Achillea millefolium)</u>	<u>10</u>	_____	<u>FACU</u>		
7. <u>Marsh Fern (Thelypteris palustris)</u>	<u>5</u>	_____	<u>FACW</u>		
8. <u>Equisetum arvense</u>	<u>5</u>	_____	<u>FAC</u>		
<u>80</u> = Total Cover				<b>Remarks:</b> (Include photo numbers here or on a separate sheet.)   _____ = Total Cover	
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status		
1. _____	_____	_____	_____		
2. _____	_____	_____	_____		
3. _____	_____	_____	_____		
4. _____	_____	_____	_____		

**SOIL**

Sampling Point: t-mh-WSSB

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>		
0-2	10YR 2/2	100	—	—			Salto	
2-15+	2.5Y 5/4	100	—	—			LoSa	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

**Remarks:**

*Plot taken in road shoulder. Road fill.*

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

Project/Site: NECPL City/County: Mont Holly Sampling Date: 6/4/14  
 Applicant/Owner: TDE State: VT Sampling Point: T-MH-50A  
 Investigator(s): JG. SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): \_\_\_\_\_ Local relief (concave, convex, none): Concave Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: 4D NWI classification: PEM  
 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? NO Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>T-MH-50A</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required: check all that apply)</u></p> <input checked="" type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input checked="" type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<p><u>Secondary Indicators (minimum of two required)</u></p> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes <u>X</u> No _____ Depth (inches): <u>2'</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:  <p align="center"><i>NO culvert to drain wetland. Hydrology drains via ditch towards stream located west.</i></p>	



VEGETATION – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>NONE</u>				Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)
2. _____				Total Number of Dominant Species Across All Strata: <u>3</u> (B)
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
5. _____				
6. _____				
7. _____				
<u>0</u> = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15'</u>)</b>				
1. <u>NONE</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>0</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5'</u>)</b>				
1. <u>Scirpus microcarpis</u>	<u>25</u>	<u>X</u>	<u>OBL</u>	
2. <u>Onoclea sensibilis</u>	<u>35</u>	<u>X</u>	<u>FACW</u>	
3. <u>Spik rush (slender not grass)</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	
4. <u>Nightshade (Solanum sp.)</u>	<u>10</u>			
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. <u>Eleocharis tenuis</u>				
12. _____				
<u>95</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____				
2. <u>None</u>				
3. _____				
4. _____				
<u>0</u> = 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 <input checked="" type="checkbox"/> No				
Remarks: (Include photo numbers here or on a separate sheet.)  <p style="text-align: center;"><i>Ruts located in wetland plot. likely car went off road.</i></p>				

T-MH-50  
 Sampling Point: A

**SOIL**

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

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-8	10YR2/1	-	-	-	-	-	SL	mucky
8-16+	10Y6/1	85	2.5YR5/4	75%	-	-	FSL	

<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>   | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>              |
| <input type="checkbox"/> Histosol (A1)                                   | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2)                            | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)       |
| <input type="checkbox"/> Black Histic (A3)                               | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                           | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        |
| <input type="checkbox"/> Stratified Layers (A5)                          | <input type="checkbox"/> Depleted Matrix (F3)                            |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)               | <input type="checkbox"/> Redox Dark Surface (F6)                         |
| <input type="checkbox"/> Thick Dark Surface (A12)                        | <input type="checkbox"/> Depleted Dark Surface (F7)                      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                        | <input type="checkbox"/> Redox Depressions (F8)                          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                        | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)           |
| <input type="checkbox"/> Sandy Redox (S5)                                | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)         |
| <input type="checkbox"/> Stripped Matrix (S6)                            | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)      |
| <input checked="" type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) | <input type="checkbox"/> Dark Surface (S7) (LRR K, L, M)                 |
|  | <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 (TF12)                |
|  | <input type="checkbox"/> Other (Explain in Remarks)                      |

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ None observed

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:

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

Project/Site: NECPL City/County: Mant Holly. Sampling Date: 6/4/14  
 Applicant/Owner: TDE State: VT Sampling Point: T-MH-50B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): CONVEX Slope (%): 5%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: 4D NWI classification: NIA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? N<sup>O</sup> Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? N<sup>O</sup> (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 <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/>
Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/>	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	

Remarks: (Explain alternative procedures here or in a separate report.)

*upland plot on Road shoulder*

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b>	<b>Secondary Indicators (minimum of two required)</b>
<u>Primary Indicators (minimum of one is required; check all that apply)</u>	
<input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)

<b>Field Observations:</b>	<b>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></b>
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	
Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:

T-MH-50

Sampling Point: B

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>NONE</u>				<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A)  Total Number of Dominant Species Across All Strata: <u>1</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0</u> (A/B)
2.				
3.				
4.				
5.				
6.				
7.				
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>NONE</u>				
2.				
3.				
4.				
5.				
6.				
7.				
<u>0</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Creeping red Fescue (Festuca rubra)</u> <u>88</u>		<u>X</u>	<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input 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.
2. <u>Marsh Fern (Thelypteris palustris)</u> <u>10</u>				
3. <u>Equisetum arvense</u> <u>2</u>				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
<u>100</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</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.
2.				
3.				
4.				
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <u>X</u>
Remarks: (Include photo numbers here or on a separate sheet.)				



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

Project/Site: NECPL City/County: Mount Holly Sampling Date: 6/3/14  
 Applicant/Owner: TDT State: VT Sampling Point: MH-WH-11A  
 Investigator(s): JL, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): Concave Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: 12zB NWI classification: DEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ 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 _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center"><i>plot taken adjacent to road-side ditch, in DEM WETLAND</i></p>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <u>X</u> 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)                           ___ 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 <u>X</u> No _____ Depth (inches): <u>12"</u> Saturation Present? (includes capillary fringe) Yes <u>X</u> No _____ Depth (inches): <u>0</u>	Wetland Hydrology Present? Yes <u>X</u> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

MH-41-A

VEGETATION – Use scientific names of plants.

Sampling Point: \_\_\_\_\_

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	Dominance Test worksheet:
1. <u>Abies balsamea</u>	<u>5%</u>	<u>X</u>	<u>FAC</u>	Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)
2. <u>Ulmus americana</u>	<u>2%</u>	<u>X</u>	<u>FACW</u>	Total Number of Dominant Species Across All Strata: <u>6</u> (B)
3. _____	_____	_____	_____	Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>7</u> = Total Cover				<b>Prevalence Index worksheet:</b>
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				Total % Cover of: _____ Multiply by: _____
1. <u>Rubus idaeus</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	OBL species _____ x 1 = _____
2. <u>Spiraea latifolia</u>	<u>5</u>	<u>X</u>	<u>FACW</u>	FACW species _____ x 2 = _____
3. _____	_____	_____	_____	FAC species _____ x 3 = _____
4. _____	_____	_____	_____	FACU species _____ x 4 = _____
5. _____	_____	_____	_____	UPL species _____ x 5 = _____
6. _____	_____	_____	_____	Column Totals: _____ (A) _____ (B)
7. _____	_____	_____	_____	Prevalence Index = B/A = _____
<u>10</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b>
Herb Stratum (Plot size: <u>5'</u> )				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation
1. <u>Equisetum arvense</u>	<u>25</u>	<u>X</u>	<u>FAC</u>	<input type="checkbox"/> 2 - Dominance Test is >50%
2. <u>Juncus effusus</u>	<u>50</u>	<u>X</u>	<u>FACW</u>	<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>
3. <u>Typha latifolia</u>	<u>10</u>	_____	_____	<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
4. <u>Onoclea sensibilis</u>	<u>5</u>	_____	<u>FACW</u>	<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)
5. _____	_____	_____	_____	<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	<b>Definitions of Vegetation Strata:</b>
8. _____	_____	_____	_____	<b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.
9. _____	_____	_____	_____	<b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.
10. _____	_____	_____	_____	<b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.
11. _____	_____	_____	_____	<b>Woody vines</b> – All woody vines greater than 3.28 ft in height.
12. _____	_____	_____	_____	
<u>90</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )				
1. <u>NONE</u>	_____	_____	_____	<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				
Remarks: (Include photo numbers here or on a separate sheet.)				
<u>10% open mud from ditch.</u>				

SOIL

Sampling Point: \_\_\_\_\_

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>		
6-8	10YR 2/1	—	—	—	—	—	SL	Mucky
8-12	10YR 5/3	—	7.5YR 4/4	10%	m	C	SL	
12+	10Y 6/1	—	10YR 4/4	5%	m	PL	LS	
			7.5YR 4/4	10%	m	C		

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

Hydric Soil Indicators:

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

Indicators for Problematic Hydric Soils<sup>3</sup>:

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L, M)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

Restrictive Layer (if observed):

Type: \_\_\_\_\_

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

Remarks:



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

Project/Site: NECPL City/County: Mount Holly Sampling Date: 6/3/14  
 Applicant/Owner: TDI State: \_\_\_\_\_ Sampling Point: MH-41B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Flat roadside Local relief (concave, convex, none): concave Slope (%): 3-5%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: 122B NWI classification: 12M  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? Are "Normal Circumstances" present? Yes \_\_\_\_\_ 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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center"><i>Plot located on Road shoulder.</i></p>	

**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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:  <p align="center"><i>No hydrology along Hill Rd. Shoulder.</i></p>	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Abies balsamea</u>	<u>5%</u>	<u>X</u>	<u>FAC</u>	<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%</u> (A/B)
2. <u>Ulmus americana</u>	<u>1%</u>		<u>FACW</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>6</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix spp.</u>	<u>5</u>	<u>X</u>	<u>FACW</u>	
2. <u>Larix laricina</u>	<u>2</u>		<u>FACW</u>	
3. <u>Spiraea latifolia</u>	<u>15</u>	<u>X</u>	<u>FACW</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<u>22</u> = Total Cover				
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>White wood Aster. (Eurybia divaricata)</u>	<u>5</u>		<u>UPL</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input 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.
2. <u>Aster umb (Doellingeria umbellata)</u>	<u>5</u>		<u>FACW</u>	
3. <u>Creeping Reed Grass (Festuca rubra)</u>	<u>45</u>	<u>X</u>	<u>FACU</u>	
4. <u>Low Vetch (Vicia cracca)</u>	<u>5</u>		<u>UPL</u>	
5. <u>Yarrow. (Achillea millefolium)</u>	<u>25</u>	<u>X</u>	<u>FACU</u>	
6. <u>Dandelion (Taraxacum officinale)</u>	<u>5</u>		<u>FACW</u>	
7. <u>Madder (Galium mollugo)</u>	<u>5</u>		<u>FACU</u>	
8. <u>Marsh Fern (Thelypteris palustris)</u>	<u>2</u>		<u>FACU</u>	
9. <u>Solidago canadensis</u>	<u>5</u>		<u>FACU</u>	
10. _____				
11. _____				
12. _____				
_____ = Total Cover				
Woody Vine Stratum (Plot size: _____)	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				<b>Definitions of Vegetation Strata:</b> Tree – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. Sapling/shrub – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. Herb – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. Woody vines – All woody vines greater than 3.28 ft in height.
2. _____				
3. _____				
4. _____				
_____ = Total Cover				Hydrophytic Vegetation Present? Yes <u>X</u> No _____

Remarks: (Include photo numbers here or on a separate sheet.)

herb layer would create upland plant dominance if Prevalence Index method is used.

114-41-

Sampling Point: B

**SOIL**

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

Depth (inches)	Matrix		Redox Features		Type <sup>1</sup>	Loc <sup>2</sup>	Texture	Remarks
	Color (moist)	%	Color (moist)	%				
0-6	10YR3/3	-	-	-			SL	
6-16 <sup>+</sup>	2.5Y 5/4	85	10YR 4/6	15%			SL	

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

Hydric Soil Indicators:	Indicators for Problematic Hydric Soils <sup>3</sup> :
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L, M)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Red Parent Material (F21)
<input type="checkbox"/> Stripped Matrix (S6)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)	<input type="checkbox"/> Other (Explain in Remarks)
<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"/> 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)	

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

**Restrictive Layer (if observed):**  
 Type: NONE  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No X

Remarks:  
 Road fill + natural soils

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NFCPL City/County: Mt Holly Sampling Date: 5/30/2014  
 Applicant/Owner: ID/VTRANS State: VT Sampling Point: T-MH-W28A  
 Investigator(s): JW/SCC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR or MLRA): LRR R Lat: 43°26'54.26"N Long: 72°49'11.47"W Datum: NAD1983  
 Soil Map Unit Name: Peabody muck, 0 to 8 percent slopes NWI classification: PEM  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No. Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>T-MH-W28A</u>
Remarks: (Explain alternative procedures here or in a separate report.) <p style="text-align: center; font-style: italic;">W28 is mapped as a class two wetland. Majority is located in a field that appears to be previously mowed. Several upland islands are present that may be associated with agricultural A11.</p>	

### HYDROLOGY

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1) _____ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) _____ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) _____ Shallow Aquitard (D3) _____ Microtopographic Relief (D4) _____ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	

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

Sampling Point: T-MH-28A

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15</u> )				
1. <u>Salix nigra</u>	<u>5%</u>	<u>YES</u>	<u>DBL</u>	
2. <u>Sp. alba</u>	<u>5%</u>	<u>YES</u>	<u>FACW</u>	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>10</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u> )				
1. <u>Equisetum arvense</u>	<u>50%</u>	<u>YES</u>	<u>FAC</u>	
2. <u>Carex lupulina</u>	<u>15%</u>	<u>NO</u>	<u>DBL</u>	
3. <u>Cattha palustris</u>	<u>15%</u>	<u>NO</u>	<u>DBL</u>	
4. <u>Sagittaria arifolia</u>	<u>15%</u>	<u>NO</u>	<u>DBL</u>	
5. <u>Anoda sp.</u>	<u>5%</u>	<u>NO</u>	<u>FACW</u>	
6. <u>Typha latifolia</u>	<u>5%</u>	<u>NO</u>	<u>DBL</u>	
7. <u>Iris pseudacorus</u>	<u>5%</u>	<u>NO</u>	<u>DBL</u>	
8. <u>Rough grass</u>	<u>5%</u>	<u>NO</u>	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>115</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 3 (A)

Total Number of Dominant Species Across All Strata: 3 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: T-071-W28A

**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>		
0-12	10YR2/1	100	—				muck	
12-18+	10YR3/1	95	10YR4/6	5	C	M	VFSL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No

**Remarks:**

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

Project/Site: NFCPL City/County: Mount Holly Sampling Date: 5/30/14  
 Applicant/Owner: TDI/UTROS State: VT Sampling Point: T-wh-1028B  
 Investigator(s): TWJSC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 50  
 Subregion (LRR or MLRA): LRRR Lat: 43°26'54.19" N Long: 72°49'11.56" W Datum: NAD 1983  
 Soil Map Unit Name: Peabody silt, 0 to 8 percent slopes NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>adj. TO T-wh-1028A</u>
Remarks: (Explain alternative procedures here or in a separate report.) <u>Grassy sloped bank. Narrow strip between wetland 28 and Route 103.</u>	

**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)	<b>Secondary Indicators (minimum of two required)</b> ___ 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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:	

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

Sampling Point: J-mh-w218

<u>Tree Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	_____ = Total Cover			
<u>Sapling/Shrub Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
	_____ = Total Cover			
<u>Herb Stratum</u> (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Carex sp</u>	<u>T</u>	<u>NO</u>	<u>-</u>	
2. <u>Juncus tenuis</u>	<u>90</u>	<u>YES</u>	<u>FAC</u>	
3. <u>Securigera varia</u>	<u>T</u>	<u>NO</u>	<u>NK</u>	
4. <u>Solidago canadensis</u>	<u>2</u>	<u>NO</u>	<u>FACU</u>	
5. <u>Equisetum arvense</u>	<u>T</u>	<u>NO</u>	<u>FAC</u>	
6. <u>Plantago major</u>	<u>2</u>	<u>NO</u>	<u>FACU</u>	
7. <u>Spirea alba</u>	<u>T</u>	<u>NO</u>	<u>FACU</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
	<u>98</u> = Total Cover			
<u>Woody Vine Stratum</u> (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
	_____ = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species _____	x 1 = _____
FACW species _____	x 2 = _____
FAC species _____	x 3 = _____
FACU species _____	x 4 = _____
UPL species _____	x 5 = _____
Column Totals: _____ (A)	_____ (B)

Prevalence Index = B/A = \_\_\_\_\_

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)





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

Project/Site: NECPL City/County: Mt. Holly Sampling Date: 5/29/2014  
 Applicant/Owner: TDI/UTRANS State: VT Sampling Point: T-MH-W20A  
 Investigator(s): BULSC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0-2%  
 Subregion (LRR or MLRA): LRR R Lat: 43° 27' 21.89" N Long: 72° 47' 51.39" W Datum: NAD 1983  
 Soil Map Unit Name: Walpole Fine Sandy loam, 0 to 5 percent slopes NWI classification: P6M  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes Y No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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>Y</u> No _____ Hydric Soil Present? Yes <u>Y</u> No _____ Wetland Hydrology Present? Yes <u>X</u> No _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>T-MH-W20A</u>
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) <u>X</u> Saturation (A3)                                      ___ Marl Deposits (B15) ___ Water Marks (B1)                                      ___ Hydrogen Sulfide Odor (C1) ___ Sediment Deposits (B2) <u>X</u> 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) <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) <u>X</u> 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 <u>X</u> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? 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: JMH-204

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Larix laricina</u>	<u>5</u>	<u>Yes</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100%</u> (A/B)
2. <u>Acer rubrum</u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>	
3. <u>Salix nigra</u>	<u>5</u>	<u>Yes</u>	<u>OBL</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>20</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Salix nigra</u>	<u>25</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Populus balsamifera</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	
3. <u>Spirea alba</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>55</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1. <u>Anaxea sensiblis</u>	<u>5</u>	<u>NO</u>	<u>FACW</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 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)
2. <u>Eleocharis foellata</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
3. <u>Plantago major</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
4. <u>Trifolium repens</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
5. <u>Paltha palustris</u>	<u>10</u>	<u>NO</u>	<u>OBL</u>	
6. <u>Scirpus atrovirens</u>	<u>20</u>	<u>Yes</u>	<u>OBL</u>	
7. <u>Rubus hispidus</u>	<u>15</u>	<u>NO</u>	<u>FACW</u>	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>70</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>				
1. _____	_____	_____	_____	<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.
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				
<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: 1-mb-20A

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>		
0-8	10YR 3/2	85	7.5YR 4/6	15	C/PL	M	FSaLo	
8-12	10YR 4/1	75	10YR 4/6	5	C	M	FSaLo	
			10YR 5/6	10	C	M		
			10YR 5/4	10	D	M		
12+	Restrictive							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)
- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: Stony refusal  
 Depth (inches): 12"

Hydric Soil Present? Yes  No

Remarks:

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

Project/Site: NEPAL City/County: Mt. Holly Sampling Date: 5/29/04  
 Applicant/Owner: TDIVISIONS State: VT Sampling Point: TMH-1020B  
 Investigator(s): AJL/SC Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): HILL Local relief (concave, convex, none): CONVEX Slope (%): 3%

Subregion (LRR or MLRA): LRR R Lat: 43°27'22.16" N Long: 72°47'50.67" W Datum: NAD83

Soil Map Unit Name: Adams Inimyb. Snd. 8 to 15 percent slopes 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? No Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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>	Is the Sampled Area within a Wetland? Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>Adj. to TMH-1020A</u>
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? (includes capillary fringe) Yes _____ No <u>X</u> Depth (inches): _____	Wetland Hydrology Present? 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: T-mnt-40208

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
Herb Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Daucus carota</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Trifolium repens</u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>	
3. <u>Tamoxifen officinale</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
4. <u>Solidago rigida</u>	<u>10</u>	<u>No</u>	<u>NL</u>	
5. <u>Fragaria virginiana</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
6. <u>Solidago rigida</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
7. <u>Thalictrum aquilegifolium</u>	<u>10</u>	<u>No</u>	<u>FACU</u>	
8. <u>Achillea millefolium</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>95</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>10</u>	x 2 = <u>20</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>65</u>	x 4 = <u>260</u>
UPL species <u>10</u>	x 5 = <u>50</u>
Column Totals: <u>95</u> (A)	<u>300</u> (B)

Prevalence Index = B/A = 3.79

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)



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

Project/Site: NFCR City/County: Mt. Holly Sampling Date: 5/28/2014  
 Applicant/Owner: DOI Wetlands State: VT Sampling Point: T.MH-WRA  
 Investigator(s): OWSC Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): depression Local relief (concave, convex, none): concave Slope (%): 0%  
 Subregion (LRR or MLRA): LRR R Lat: 43°26'35.15" N Long: 72°40'18.16" W Datum: NAD1983  
 Soil Map Unit Name: mlow fine sandy loam, 8 to 15% slopes NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes Y No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>T.MH-WRA</u>
Remarks: (Explain alternative procedures here or in a separate report.)	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ 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)        ___ 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)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ 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) <u>X</u> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <u>X</u> Depth (inches): <u>—</u> Water Table Present? Yes <u>X</u> No _____ Depth (inches): <u>1"</u> Saturation Present? Yes <u>X</u> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? 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: T MH 8A

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				_____ = Total Cover
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15</u> )				
1. <u>Schinus molle</u>	<u>50</u>	<u>Yes</u>	<u>DBL</u>	
2. <u>Spi. alba</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	
3. <u>Acacia robusta</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
4. <u>Dasiphora frutescens</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
				<u>85</u> = Total Cover
<b>Herb Stratum</b> (Plot size: <u>5</u> )				
1. <u>A. canaliculatus</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>E. arvensis</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
3. <u>Scirpus atrovirens</u>	<u>25</u>	<u>Yes</u>	<u>DBL</u>	
4. <u>Thalassia palustris</u>	<u>5</u>	<u>No</u>	<u>FACW</u>	
5. <u>J. effusus</u>	<u>10</u>	<u>No</u>	<u>DBL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
				<u>60</u> = Total Cover
<b>Woody Vine Stratum</b> (Plot size: <u>30</u> )				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
				_____ = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 4 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

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**Hydrophytic Vegetation Indicators:**

\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

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**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: 12h-W8A

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 2/1	100	—				Mucky Silo	
6-13 <sup>+</sup>	10YR 4/1	90	10YR 6/8	5	C	M	Silo	
			10YR 6/6	5	C	M	Silo	

<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 type="checkbox"/> Hydrogen Sulfide (A4)</p> <p><input type="checkbox"/> Stratified Layers (A5)</p> <p><input checked="" 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 type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)</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"/> Loamy Mucky Mineral (F1) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input checked="" 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><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"/> Dark Surface (S7) (LRR K, L)</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 (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p>
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<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:

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

Project/Site: NECPL City/County: MT. HOLLY Sampling Date: 5/28/2014  
 Applicant/Owner: TRIVITTAS State: VT Sampling Point: T-MH-88  
 Investigator(s): SWISC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 10%  
 Subregion (LRR or MLRA): LRR R Lat: 43°26'35.81"N Long: 72°46'08.01"W Datum: NAD1983  
 Soil Map Unit Name: Marlow fine sandy loam, 8 to 15 percent slope NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>adj to T-MH-88</u>
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> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

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

Sampling Point: T-MH-98

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
				_____ = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15</u> )				
1. <u>Fagus grandifolia</u>	<u>5</u>	<u>yes</u>	<u>FACU</u>	
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
				_____ = Total Cover
Herb Stratum (Plot size: <u>5</u> )				
1. <u>Spiraea alba</u>	<u>T</u>	<u>No</u>	<u>FACU</u>	
2. <u>Daucus carota</u>	<u>15</u>	<u>yes</u>	<u>UPL</u>	
3. <u>Securigera varia</u>	<u>15</u>	<u>yes</u>	<u>NIL</u>	
4. <u>Aster rubrum</u>	<u>T</u>	<u>No</u>	<u>FAC</u>	
5. <u>Prunus serotina</u>	<u>T</u>	<u>No</u>	<u>FACU</u>	
6. <u>Betula triflorum</u>	<u>15</u>	<u>yes</u>	<u>FACU</u>	
7. <u>Solidago rigida</u>	<u>10</u>	<u>No</u>	<u>FAC</u>	
8. <u>Achillea millefolium</u>	<u>15</u>	<u>yes</u>	<u>FACU</u>	
9. <u>Plantago major</u>	<u>5</u>	<u>No</u>	<u>FACU</u>	
10. <u>Oxalis stricta</u>	<u>T</u>	<u>No</u>	<u>FACU</u>	
11. _____				
12. _____				
				_____ = Total Cover
Woody Vine Stratum (Plot size: <u>30</u> )				
1. _____				
2. _____				
3. _____				
4. _____				
				_____ = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0% (A/B)

  

**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>0</u>	x 1 = <u>0</u>
FACW species <u>0</u>	x 2 = <u>0</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>40</u>	x 4 = <u>160</u>
UPL species <u>30</u>	x 5 = <u>150</u>
<b>Column Totals:</b> <u>80</u> (A)	<u>340</u> (B)

Prevalence Index = B/A = 4.25

  

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

  

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

  

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 4-mb-618R

**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>		
0-8	10YR 3/2	100	—				S <sub>o</sub> L <sub>o</sub>	
8-15	10YR 4/3	100	—				S <sub>o</sub> L <sub>o</sub>	
15+	Postacidic							

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: Sandy Refusal  
 Depth (inches): 15+

Hydric Soil Present? Yes  No

**Remarks:**

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

Project/Site: NECP City/County: Mount Holly Sampling Date: 5/27/14  
 Applicant/Owner: TDI/VTRANS State: VT Sampling Point: T-MH-WYA  
 Investigator(s): JW, SC Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): open Local relief (concave, convex, none): slight concave Slope (%): 0-10%

Subregion (LRR or MLRA): LRR R Lat: 43°26'15.00" N Long: 73°45'12.41" Datum: NAD1983

Soil Map Unit Name: UDOLLOMOTS and FUNDQUOTS, nearly level NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (if no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>T-MH-WYA</u>
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators</u> (minimum of one is required; check all that apply)</p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input checked="" type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input checked="" type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input checked="" type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p><u>Secondary Indicators</u> (minimum of two required)</p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Soil Cracks (B6)</td> </tr> <tr> <td><input checked="" type="checkbox"/> Drainage Patterns (B10)</td> </tr> <tr> <td><input type="checkbox"/> Moss Trim Lines (B16)</td> </tr> <tr> <td><input type="checkbox"/> Dry-Season Water Table (C2)</td> </tr> <tr> <td><input type="checkbox"/> Crayfish Burrows (C8)</td> </tr> <tr> <td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td> </tr> <tr> <td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td> </tr> <tr> <td><input type="checkbox"/> Geomorphic Position (D2)</td> </tr> <tr> <td><input type="checkbox"/> Shallow Aquitard (D3)</td> </tr> <tr> <td><input type="checkbox"/> Microtopographic Relief (D4)</td> </tr> <tr> <td><input type="checkbox"/> FAC-Neutral Test (D5)</td> </tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input checked="" type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
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<p><b>Field Observations:</b></p> <table style="width:100%;"> <tr> <td>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/></td> <td>Depth (inches): _____</td> </tr> <tr> <td>Water Table Present? Yes <input checked="" type="checkbox"/> No _____</td> <td>Depth (inches): <u>1 1/2"</u></td> </tr> <tr> <td>Saturation Present? Yes <input checked="" type="checkbox"/> No _____</td> <td>Depth (inches): <u>1"</u></td> </tr> </table> <p>(includes capillary fringe)</p>	Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Water Table Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1 1/2"</u>	Saturation Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1"</u>	<p><b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No _____</p>																									
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____																															
Water Table Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1 1/2"</u>																															
Saturation Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>1"</u>																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  																																
Remarks: <u>T-MH-WYA represents wetland fringe adjacent to Branch BK (T-MH-S10).</u>																																

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

Sampling Point: 1-mh-WYA

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Salix nigra</u>	<u>25</u>	<u>YES</u>	<u>OBL</u>	
2. <u>Spiraea alba</u>	<u>25</u>	<u>YES</u>	<u>FACW</u>	
3. <u>Salix fragilis</u>	<u>40</u>	<u>YES</u>	<u>FAC</u>	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
_____ = Total Cover				
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1. <u>Dracopis sensibilis</u>	<u>10</u>	<u>YES</u>	<u>FACW</u>	
2. <u>Achillea asperifolia</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>	
3. <u>Solidago rigida</u>	<u>15</u>	<u>YES</u>	<u>FACW</u>	
4. <u>Equisetum arvense</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
5. <u>Impatiens</u>	<u>5</u>	<u>NO</u>	<u>OBL</u>	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
_____ = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>				
1. _____	_____	_____	_____	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
_____ = Total Cover				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 5 (A)

Total Number of Dominant Species Across All Strata: 5 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

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**Hydrophytic Vegetation Indicators:**

\_\_\_\_ 1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

\_\_\_\_ 3 - Prevalence Index is ≤3.0<sup>1</sup>

\_\_\_\_ 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

\_\_\_\_ Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

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**Hydrophytic Vegetation Present?** Yes  No \_\_\_\_\_

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: 1mh WPA

**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>		
0-1	10YR 4/2	100					SaLo	
1-15	10YR 2/2	95	7.5YR 4/6	5	C	M	SaLo	
15-18	2.5Y 3/2	100					Gra Sa	

<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>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<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"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Red Parent Material (F21)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)		
<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) (LRR R, MLRA 149B)			

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

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

Remarks:



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

Project/Site: NECPL City/County: Mount Holly Sampling Date: 5/27/14  
 Applicant/Owner: TDI/VTRANS State: VT Sampling Point: T-mh-W4B  
 Investigator(s): JW, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 10%  
 Subregion (LRR or MLRA): LRR R Lat: 43°26'15.03" N Long: 72°45'12.91" W Datum: NAD1983  
 Soil Map Unit Name: UDIPunkBTS acid Fluvisols, nearly level NWI classification: N/A  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 _____ Hydric Soil Present? Yes _____ No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>adj. to T-mh-4A</u>
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)	<b>Secondary Indicators (minimum of two required)</b> ___ 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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:   	

VEGETATION – Use scientific names of plants.

Sampling Point: J-mh-W4B

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>—</u>				
2. <u>—</u>				
3. <u>—</u>				
4. <u>—</u>				
5. <u>—</u>				
6. <u>—</u>				
7. <u>—</u>				
_____ = Total Cover				
Sapling/Shrub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix nigra</u>	<u>15</u>	<u>Yes</u>	<u>OBL</u>	
2. <u>Fragaria americana</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
3. <u>Spiraea alba</u>	<u>15</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>—</u>				
5. <u>—</u>				
6. <u>—</u>				
7. <u>—</u>				
_____ = Total Cover				
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Rubus allaganiensis</u>	<u>20</u>	<u>Yes</u>	<u>FACW</u>	
2. <u>Solidago rigida</u>	<u>5</u>	<u>NO</u>	<u>FAC</u>	
3. <u>Prunus virginiana</u>	<u>25</u>	<u>Yes</u>	<u>FACW</u>	
4. <u>Cirsium americanum</u>	<u>10</u>	<u>NO</u>	<u>FACW</u>	
5. <u>Galium triflorum</u>	<u>5</u>	<u>NO</u>	<u>FACW</u>	
6. <u>Equisetum arvense</u>	<u>5</u>	<u>No</u>	<u>FAC</u>	
7. <u>—</u>				
8. <u>—</u>				
9. <u>—</u>				
10. <u>—</u>				
11. <u>—</u>				
12. <u>—</u>				
_____ = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>—</u>				
2. <u>—</u>				
3. <u>—</u>				
4. <u>—</u>				
_____ = Total Cover				

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 50% (A/B)

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**Prevalence Index worksheet:**

Total % Cover of:	Multiply by:
OBL species <u>15</u>	x 1 = <u>15</u>
FACW species <u>15</u>	x 2 = <u>30</u>
FAC species <u>10</u>	x 3 = <u>30</u>
FACU species <u>105</u>	x 4 = <u>420</u>
UPL species <u>0</u>	x 5 = <u>0</u>
Column Totals: <u>145</u> (A)	<u>335</u> (B)

Prevalence Index = B/A = 3.19

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**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

---

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

---

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

**SOIL**

Sampling Point: trah-wy6

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	2.5Y 4/3	100					LoSa	
6+	Rocky Restrictive							

<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) (LRR R, MLRA 149B)	<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"/> 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)	<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"/> Dark Surface (S7) (LRR K, L) <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 (TF12) <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: <u>Rocky</u> Depth (inches): <u>6"</u>	Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
--	--

Remarks:

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

Project/Site: NECPL City/County: Ludlow/Windsor Sampling Date: 5/22/14  
 Applicant/Owner: TDE State: VT Sampling Point: T-LU-W14A  
 Investigator(s): JG SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillside Local relief (concave, convex, none): concave Slope (%): 0-3%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 04B NWI classification: PEM

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? NO Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 _____	Is the Sampled Area within a Wetland? Yes <u>X</u> No _____ If yes, optional Wetland Site ID: <u>T-LU-W14</u>
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)      ___ 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 <u>X</u> No _____ Depth (inches): <u>10"</u> Saturation Present? (includes capillary fringe) Yes <u>X</u> No _____ Depth (inches): <u>0"</u>	Wetland Hydrology Present? 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.**

T-LU-W14 A  
Sampling Point: \_\_\_\_\_

	Absolute % Cover	Dominant Species?	Indicator Status		
<b>Tree Stratum</b> (Plot size: <u>30'</u> )				<b>Dominance Test worksheet:</b>	
1. _____				Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)	
2. <u>None</u>				Total Number of Dominant Species Across All Strata: <u>2</u> (B)	
3. _____				Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)	
4. _____				<b>Prevalence Index worksheet:</b>	
5. _____					Total % Cover of: _____ Multiply by: _____
6. _____					OBL species _____ x 1 = _____
7. _____					FACW species _____ x 2 = _____
	<u>0</u> = Total Cover				FAC species _____ x 3 = _____
					FACU species _____ x 4 = _____
					UPL species _____ x 5 = _____
				Column Totals: _____ (A) _____ (B)	
				Prevalence Index = B/A = _____	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15'</u> )				<b>Hydrophytic Vegetation Indicators:</b>	
1. _____				<input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation	
2. <u>None</u>				<input type="checkbox"/> 2 - Dominance Test is >50%	
3. _____				<input type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup>	
4. _____				<input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)	
5. _____				<input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)	
6. _____				<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.	
7. _____				<b>Definitions of Vegetation Strata:</b>	
	<u>0</u> = Total Cover				<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>Herb Stratum</b> (Plot size: <u>5'</u> )					<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____
1. <u>Impatiens capensis</u>	<u>70</u>	<u>X</u>	<u>FACW</u>		
2. <u>Onoclea sensibilis</u>	<u>30</u>	<u>X</u>	<u>FACW</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>100</u> = Total Cover				
<b>Woody Vine Stratum</b> (Plot size: <u>30'</u> )					
1. _____					
2. <u>None</u>					
3. _____					
4. _____					
	<u>0</u> = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)



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

Project/Site: NECPL City/County: Ludlow/Windsor Sampling Date: 5/22/17  
 Applicant/Owner: TDI State: VT Sampling Point: T-LU-W14B  
 Investigator(s): JIS SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Convex/slope Slope (%): 5%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 64B NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?  Are "Normal Circumstances" present? Yes  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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center" style="font-size: 1.2em;">Plot located on side slope</p>	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <table style="width:100%;"> <tr> <td><input type="checkbox"/> Surface Water (A1)</td> <td><input type="checkbox"/> Water-Stained Leaves (B9)</td> </tr> <tr> <td><input type="checkbox"/> High Water Table (A2)</td> <td><input type="checkbox"/> Aquatic Fauna (B13)</td> </tr> <tr> <td><input type="checkbox"/> Saturation (A3)</td> <td><input type="checkbox"/> Marl Deposits (B15)</td> </tr> <tr> <td><input type="checkbox"/> Water Marks (B1)</td> <td><input type="checkbox"/> Hydrogen Sulfide Odor (C1)</td> </tr> <tr> <td><input type="checkbox"/> Sediment Deposits (B2)</td> <td><input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)</td> </tr> <tr> <td><input type="checkbox"/> Drift Deposits (B3)</td> <td><input type="checkbox"/> Presence of Reduced Iron (C4)</td> </tr> <tr> <td><input type="checkbox"/> Algal Mat or Crust (B4)</td> <td><input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)</td> </tr> <tr> <td><input type="checkbox"/> Iron Deposits (B5)</td> <td><input type="checkbox"/> Thin Muck Surface (C7)</td> </tr> <tr> <td><input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)</td> <td><input type="checkbox"/> Other (Explain in Remarks)</td> </tr> <tr> <td><input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)</td> <td></td> </tr> </table>	<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<p><u>Secondary Indicators (minimum of two required)</u></p> <table style="width:100%;"> <tr><td><input type="checkbox"/> Surface Soil Cracks (B6)</td></tr> <tr><td><input type="checkbox"/> Drainage Patterns (B10)</td></tr> <tr><td><input type="checkbox"/> Moss Trim Lines (B16)</td></tr> <tr><td><input type="checkbox"/> Dry-Season Water Table (C2)</td></tr> <tr><td><input type="checkbox"/> Crayfish Burrows (C8)</td></tr> <tr><td><input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)</td></tr> <tr><td><input type="checkbox"/> Stunted or Stressed Plants (D1)</td></tr> <tr><td><input type="checkbox"/> Geomorphic Position (D2)</td></tr> <tr><td><input type="checkbox"/> Shallow Aquitard (D3)</td></tr> <tr><td><input type="checkbox"/> Microtopographic Relief (D4)</td></tr> <tr><td><input type="checkbox"/> FAC-Neutral Test (D5)</td></tr> </table>	<input type="checkbox"/> Surface Soil Cracks (B6)	<input type="checkbox"/> Drainage Patterns (B10)	<input type="checkbox"/> Moss Trim Lines (B16)	<input type="checkbox"/> Dry-Season Water Table (C2)	<input type="checkbox"/> Crayfish Burrows (C8)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	<input type="checkbox"/> Geomorphic Position (D2)	<input type="checkbox"/> Shallow Aquitard (D3)	<input type="checkbox"/> Microtopographic Relief (D4)	<input type="checkbox"/> FAC-Neutral Test (D5)
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)																															
<input type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)																															
<input type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)																															
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)																															
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)																															
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)																															
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)																															
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)																															
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)																															
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)																																
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<p><b>Field Observations:</b></p> <table style="width:100%;"> <tr> <td>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/></td> <td>Depth (inches): _____</td> </tr> <tr> <td>Water Table Present? Yes _____ No <input checked="" type="checkbox"/></td> <td>Depth (inches): _____</td> </tr> <tr> <td>Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/></td> <td>Depth (inches): _____</td> </tr> </table>	Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	<p><b>Wetland Hydrology Present?</b> Yes _____ No <input checked="" type="checkbox"/></p>																									
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____																															
Water Table Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____																															
Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____																															
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:																																
Remarks:																																

T-LV-W14

Sampling Point: B

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Picea (white) glauca</u>	<u>40</u>	<u>X</u>	<u>UPL</u>
2. <u>Populus tremuloides</u>	<u>5</u>		
3. <u>Acer rubrum</u>	<u>3</u>		
4. <u>Fraxinus americana</u>	<u>5</u>		
5. _____			
6. _____			
7. _____			
<u>53</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer saccharum</u>	<u>5%</u>	<u>X</u>	<u>FACU</u>
2. _____			
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			
<u>5</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Xmas fern. Polystichum acrostichoides</u>	<u>5</u>	<u>X</u>	<u>FACU</u>
2. <u>Prunus virginia.</u>	<u>5</u>		
3. <u>Dryopteris sp.</u>	<u>10</u>	<u>X</u>	<u>NI</u>
4. <u>Cornus Florida.</u>	<u>3</u>		
5. <u>Amalanchier barttramiana</u>	<u>1</u>		
6. <u>Acer saccharum.</u>	<u>1</u>		
7. <u>wild Geranium (Geranium maculatum)</u>	<u>5</u>		
8. <u>onoclea sensibilis.</u>	<u>5</u>		
9. <u>Smilacina racemosa</u>	<u>1</u>		
10. _____			
11. _____			
12. _____			
<u>46</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. <u>None</u>			
3. _____			
4. _____			
<u>0</u> = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No

Remarks: (Include photo numbers here or on a separate sheet.)



T-LV-W14

B.

**SOIL**

Sampling Point: \_\_\_\_\_

**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>		
0-4	2.5Y 3/3	100%	—	—	—	—	SL	
4-12 <sup>+</sup>	10YR 3/4	100%	—	—	—	—	SL	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, MS=Masked Sand Grains.

<sup>2</sup>Location: PL=Pore Lining, M=Matrix.

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ *None observed.*  
 Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

**Remarks:**

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

Project/Site: NECPD City/County: Ludlow/Windsor Sampling Date: 5/22/13  
 Applicant/Owner: TRF State: VT Sampling Point: T-10-W13A  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): concave Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 64D NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center"><i>Wetland W13 is a complex connected by culverts. The ppt is taken on the western portion of the wetland.</i></p>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> <input checked="" type="checkbox"/> Surface Water (A1)      ___ Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) ___ FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:	
Remarks:  <p align="center"><i>ground water / spring located in Boulder along steep slope</i></p>	

T-LV-W13A

Sampling Point: \_\_\_\_\_

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>None</u>				
2.				
3.				
4.				
5.				
6.				
7.				
				<u>0</u> = Total Cover
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Salix discolor</u>	<u>15%</u>	<u>X</u>	<u>FACW</u>	
2.				
3.				
4.				
5.				
6.				
7.				
				<u>15</u> = Total Cover
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Phalaris arundinacea</u>	<u>90</u>	<u>X</u>	<u>FACW</u>	
2. <u>Amaranthus sensibilibis</u>	<u>10</u>			
3.				
4.				
5.				
6.				
7.				
8.				
9.				
10.				
11.				
12.				
				<u>100</u> = Total Cover
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1.				
2. <u>None</u>				
3.				
4.				
				<u>0</u> = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

SOIL

Sampling Point: \_\_\_\_\_

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>		
4-0	10YR 2/1						Muck	organic Sapric
0-10 <sup>+</sup>	10Y 4/1	90	2.5Y 4/3	10%	C	M	SL	gley gravelly

<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>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input checked="" type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<input type="checkbox"/> Other (Explain in Remarks)	

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ None observed.

Depth (inches): \_\_\_\_\_

**Hydric Soil Present?** Yes  No

Remarks:

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

Project/Site: NECPL City/County: Ludlow Sampling Date: 5/22/13  
 Applicant/Owner: TDI State: VJ Sampling Point: T-LV-W13B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Valley Local relief (concave, convex, none): Slope/convex Slope (%): 15%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil U4D NWI classification: NA

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center" style="font-size: 1.2em;"><i>upland plot taken on forested side slope</i></p>	

**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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>

Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
  
*None*

T-LU-W13

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

Sampling Point: B

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer saccharum</u>	<u>40</u>	<u>X</u>	<u>FACU</u>
2. <u>Fraxinus americana</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>50</u> = Total Cover			
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Broken hazelnut - Corylus cornuta</u>	<u>15</u>	<u>X</u>	<u>FACU</u>
2. <u>Mountain maple (Acer spicatum)</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
3. <u>Brunia serotina</u>	<u>15</u>	<u>X</u>	<u>FACU</u>
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
<u>40</u> = Total Cover			
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Trillium erectum</u>	<u>20</u>	<u>X</u>	<u>FACU</u>
2. <u>Dryopteris intermedia</u>	<u>15</u>	<u>X</u>	<u>UPL</u>
3. <u>Virgin's Bower</u>	<u>10</u>	_____	_____
4. <u>Jack n palmet</u>	<u>2</u>	_____	_____
5. <u>False Solomon Seal</u>	<u>5</u>	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____
8. _____	_____	_____	_____
9. _____	_____	_____	_____
10. _____	_____	_____	_____
11. _____	_____	_____	_____
12. _____	_____	_____	_____
<u>52</u> = Total Cover			
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. <u>None</u>	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
<u>0</u> = Total Cover			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 7 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

T-LV-W13

Sampling Point: B

**SOIL**

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	100					FSL	
6-10	10YR 3/4	100					FSL	
R								Boulders

<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>		<b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>	
<input type="checkbox"/> Histosol (A1)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)	<input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)	
<input type="checkbox"/> Histic Epipedon (A2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)	<input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)	
<input type="checkbox"/> Black Histic (A3)	<input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)	
<input type="checkbox"/> Hydrogen Sulfide (A4)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Dark Surface (S7) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)		<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Redox (S5)		<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)		<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>		Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
Type: <u>Boulders</u>	Depth (inches): <u>10"</u>	

Remarks:

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

Project/Site: NECPL City/County: Ludlow | Windsor Sampling Date: 5/21/2014  
 Applicant/Owner: TDI State: VT Sampling Point: F-10-W/1A  
 Investigator(s): JG SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): flat bottomland Local relief (concave, convex, none): none Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 68C NWI classification: \_\_\_\_\_  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center"><i>Plot near Stone wall adjacent to road PFO mixed with some Pss.</i></p>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> Primary Indicators (minimum of one is required; check all that apply) <input type="checkbox"/> Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input checked="" type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<b>Secondary Indicators (minimum of two required)</b> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	



7-10-11-1

Sampling Point: \_\_\_\_\_

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

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus pennsylvanica</u>	<u>5</u>	<u>X</u>	<u>FACW</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>6</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100</u> (A/B)
2. <u>Acer rubrum</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	
3. <u>Ulmus americana</u>	<u>5</u>	<u>X</u>	<u>FACW</u>	
4. <u>Betula allaghenensis</u>	<u>2</u>			
5. _____				
6. _____				
7. _____				
<u>22</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Cornus amomum</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
2. <u>Amelanchier alnifolia</u>	<u>1</u>			
3. <u>Ulmus americana</u>	<u>2</u>			
4. <u>Elder B.</u>	<u>5</u>			
5. _____				
<u>28</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1. <u>Oxycoccus sensibilis</u>	<u>2</u>			
2. <u>Equisetum arvense</u>	<u>15</u>	<u>X</u>	<u>FAC</u>	
3. <u>Elder B.</u>	<u>5</u>			
4. <u>Impatiens carpensis</u>	<u>10</u>	<u>X</u>	<u>FACW</u>	
5. <u>Viburnum dentatum</u>	<u>2</u>			
6. <u>Unknown herb</u>	<u>2</u>			
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>36</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30</u>)</b>				
1. _____				
2. <u>None</u>				
3. _____				
4. _____				
<u>0</u> = 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 <input checked="" type="checkbox"/> No _____				
Remarks: (Include photo numbers here or on a separate sheet.)				

**SOIL**

Sampling Point: J-10-W11-A

**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>		
0-8	10YR 4/1	90	5YR 3/4	10	C	M	SL	
8-16+	10YR 5/1	70	5YR 3/4	15	C	M	LFS	
			10YR 4/4	15	C	M		10YR 4/1 - streaking - in horizon 10%

<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> <ul style="list-style-type: none"> <li><input type="checkbox"/> Histosol (A1)</li> <li><input type="checkbox"/> Histic Epipedon (A2)</li> <li><input type="checkbox"/> Black Histic (A3)</li> <li><input type="checkbox"/> Hydrogen Sulfide (A4)</li> <li><input type="checkbox"/> Stratified Layers (A5)</li> <li><input type="checkbox"/> Depleted Below Dark Surface (A11)</li> <li><input checked="" type="checkbox"/> Thick Dark Surface (A12)</li> <li><input type="checkbox"/> Sandy Mucky Mineral (S1)</li> <li><input type="checkbox"/> Sandy Gleyed Matrix (S4)</li> <li><input type="checkbox"/> Sandy Redox (S5)</li> <li><input type="checkbox"/> Stripped Matrix (S6)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</li> <li><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</li> <li><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</li> <li><input type="checkbox"/> Loamy Gleyed Matrix (F2)</li> <li><input checked="" type="checkbox"/> Depleted Matrix (F3)</li> <li><input type="checkbox"/> Redox Dark Surface (F6)</li> <li><input type="checkbox"/> Depleted Dark Surface (F7)</li> <li><input type="checkbox"/> Redox Depressions (F8)</li> </ul> | <p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <ul style="list-style-type: none"> <li><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</li> <li><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</li> <li><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</li> <li><input type="checkbox"/> Dark Surface (S7) (LRR K, L)</li> <li><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</li> <li><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</li> <li><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</li> <li><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</li> <li><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</li> <li><input type="checkbox"/> Red Parent Material (F21)</li> <li><input type="checkbox"/> Very Shallow Dark Surface (TF12)</li> <li><input type="checkbox"/> Other (Explain in Remarks)</li> </ul> |
|---|---|---|

<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: _____ <u>None observed</u></p> <p>Depth (inches): _____</p>	<p>Hydric Soil Present?    Yes <input checked="" type="checkbox"/>    No <input type="checkbox"/></p>
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Remarks:

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

Project/Site: NEC 01 City/County: Ludlow/Windsor Sampling Date: 5/21/2014

Applicant/Owner: TDI State: VT Sampling Point: t-10-w11B

Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_

Landform (hillslope, terrace, etc.): Flat Bottomland Local relief (concave, convex, none): convex Slope (%): 3

Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_

Soil Map Unit Name: Soil 08C NWI classification: \_\_\_\_\_

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

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

Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <div style="border: 1px solid black; height: 60px; width: 100%;"></div>	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> <p>___ 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)</p>	<p><u>Secondary Indicators (minimum of two required)</u></p> <p>___ 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)</p>
<p><b>Field Observations:</b></p> <p>Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                  Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____                  Saturation Present? (includes capillary fringe) Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____</p>	<p><b>Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/></b></p>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  <div style="border: 1px solid black; height: 40px; width: 100%;"></div>	
Remarks:  <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	

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

Sampling Point: t-10-W11B

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fagus grandifolia</u>	<u>5</u>			<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>2</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33</u> (A/B)
2. <u>Vinus americana</u>	<u>2</u>			
3. <u>Acer saccharum</u>	<u>20</u>	<u>X</u>	<u>FACU</u>	
4. <u>Betula allagheniensis</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	
5. <u>Pinus strobus</u>	<u>2</u>			
6. _____				
7. _____				
<u>39</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
<b>Sapling/Shrub Stratum (Plot size: <u>15</u>)</b>				
1. <u>Vinus americana</u>	<u>2</u>			
2. <u>Acer pensyl... ?</u>	<u>2</u>			
3. <u>Amelanchier bartramiana</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	
4. <u>Fraxinus americana</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	
5. <u>Acer saccharum</u>	<u>2</u>			
<u>16</u> = Total Cover				
<b>Herb Stratum (Plot size: <u>5</u>)</b>				
1. <u>Trillium erectum</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	
2. <u>Fulse Sol. Seal Mammthemum racemosum</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	
3. <u>Sack m Pulpit</u>	<u>1</u>			
4. <u>Pinus serotina</u>	<u>2</u>			
5. _____				
6. _____				
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>13</u> = Total Cover				
<b>Woody Vine Stratum (Plot size: <u>30'</u>)</b>				
1. _____				
2. <u>None</u>				
3. _____				
4. _____				
<u>0</u> = Total Cover				
<b>Remarks: (Include photo numbers here or on a separate sheet.)</b>    				

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NECPL City/County: Ludlow Sampling Date: 5/20/14  
 Applicant/Owner: \_\_\_\_\_ State: VT Sampling Point: T-LU-W9A  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Bottom land Local relief (concave, convex, none): CONCAVE Slope (%): 0-1%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 17B NWI classification: PSS  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes \_\_\_\_\_ No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? no Are "Normal Circumstances" present? Yes X No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? no (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <div style="height: 100px;"></div>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) ___ High Water Table (A2)                  ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>15"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  <div style="height: 100px;"></div>	
Remarks:  <div style="height: 100px;"></div>	

T-LV-99-A

Sampling Point: \_\_\_\_\_

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Acer rubrum</u>	<u>5</u>	<u>X</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>4</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>80</u> (A/B)	
2. <u>Malus spp.</u>	<u>3</u>	<u>X</u>	<u>NI</u>		
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
	<u>8</u>				<b>Prevalence Index worksheet:</b>
Sapling/Shrub Stratum (Plot size: <u>15'</u> )				Total % Cover of: _____ Multiply by: _____	
1. <u>Betula populifolia</u>	<u>3</u>			OBL species _____ x 1 = _____	
2. <u>Acer rubrum</u>	<u>2</u>			FACW species _____ x 2 = _____	
3. <u>Malus spp.</u>	<u>2</u>			FAC species _____ x 3 = _____	
4. <u>Amelanchier bartramiana</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	FACU species _____ x 4 = _____	
5. <u>Salix nigra</u>	<u>10</u>	<u>X</u>	<u>OBL</u>	UPL species _____ x 5 = _____	
6. <u>Prunus virginiana</u>	<u>1</u>			Column Totals: _____ (A) _____ (B)	
7. <u>Spiraea latifolia</u>	<u>5</u>			Prevalence Index = B/A = _____	
	<u>33</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 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)	
Herb Stratum (Plot size: <u>5'</u> )					<sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
1. <u>Turkey head</u>	<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.
2. <u>Dandelion</u>	<u>2</u>				
3. <u>Osmunda claytonia</u>	<u>15</u>	<u>X</u>	<u>FAC</u>		
4. <u>Onoclea sensibilis</u>	<u>5</u>				
5. <u>Impatiens capensis</u>	<u>5</u>				
6. <u>Acer rubrum</u>	<u>3</u>				
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
	<u>35</u>			<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____	
Woody Vine Stratum (Plot size: <u>30'</u> )					
1. <u>NONE</u>					
2. _____					
3. _____					
4. _____					
	<u>0</u>				

Remarks: (Include photo numbers here or on a separate sheet.)

T-LU-W9

Sampling Point:   A  

**SOIL**

**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>		
0-8	10YR 3/2		7.5YR 4/6	5%	C	P	SL	
8-16"	5YR 3/3						LCS	gravelly Iron rich Bhs horizon likely Mesic Concentration

<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>  | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>              |
| <input type="checkbox"/> Histosol (A1)                                | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) |
| <input type="checkbox"/> Histic Epipedon (A2)                         | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)       |
| <input type="checkbox"/> Black Histic (A3)                            | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                        | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        |
| <input type="checkbox"/> Stratified Layers (A5)                       | <input type="checkbox"/> Depleted Matrix (F3)                            |
| <input checked="" type="checkbox"/> Depleted Below Dark Surface (A11) | <input type="checkbox"/> Redox Dark Surface (F6)                         |
| <input type="checkbox"/> Thick Dark Surface (A12)                     | <input type="checkbox"/> Depleted Dark Surface (F7)                      |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)                     | <input type="checkbox"/> Redox Depressions (F8)                          |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)                     | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)           |
| <input type="checkbox"/> Sandy Redox (S5)                             | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)         |
| <input type="checkbox"/> Stripped Matrix (S6)                         | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)      |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B)         | <input type="checkbox"/> Dark Surface (S7) (LRR K, L)                    |
|   | <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 (TF12)                |
|   | <input type="checkbox"/> Other (Explain in Remarks)                      |

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ None Observed

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes  No \_\_\_\_\_

Remarks:



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

Project/Site: NECPL City/County: Ludlow/Windsor Sampling Date: 5/20/14  
 Applicant/Owner: TDI State: VT Sampling Point: T-LU-209-B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Small Valley Local relief (concave, convex, none): Convex Slope (%): 0  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 17B NWI classification: NIA  
 Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center" style="font-size: 1.2em; color: gray;">Along rd and adjacent to stonewall.</p>	

**HYDROLOGY**

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

T-LV-W9  
B  
Sampling Point: \_\_\_\_\_

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>NONE</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>	= Total Cover		
Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>NONE</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
	<u>0</u>	= Total Cover		
Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Festuca spp.</u>	<u>45</u>	<u>X</u>	<u>FACU</u>	
2. <u>Aster spp.</u>	<u>15</u>			
3. <u>Onoclea sensibilis</u>	<u>2</u>			
4. <u>Lady Fern. (Athyrium filix-femina)</u>	<u>5</u>			
5. <u>Burdock. (Rumex obtusifolia)</u>	<u>5</u>			
6. <u>Knotweed (Polygonum cuspidatum)</u>	<u>10</u>			
7. <u>Dandelions. (Taraxacum officinale)</u>	<u>5</u>			
8. <u>Cow Vetch (Vicia cracca)</u>	<u>1</u>			
9. <u>Epipactis atrorubens</u>	<u>1</u>			
10. _____				
11. _____				
12. _____				
	<u>89</u>	= Total Cover		
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____				
2. <u>None</u>				
3. _____				
4. _____				
	<u>0</u>	= Total Cover		

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 0 (A)

Total Number of Dominant Species Across All Strata: 1 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 0 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)

- FESCUE located in uplands without hydric soil, or wetland hydrology. presumed FACU

- Aster assumed to be FAC/FACW

SOIL

Sampling Point: \_\_\_\_\_

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	10YR 2/1	100	—	—	—	—	SL	Plow layer
10-14 <sup>+</sup>	10YR 3/2	100	—	—	—	—	SL	gravelly

<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>                                |  | <b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b>          |
| <input type="checkbox"/> Histosol (A1)                        | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B) | <input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)       |
| <input type="checkbox"/> Histic Epipedon (A2)                 | <input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)       | <input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)     |
| <input type="checkbox"/> Black Histic (A3)                    | <input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)             | <input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)  |
| <input type="checkbox"/> Hydrogen Sulfide (A4)                | <input type="checkbox"/> Loamy Gleyed Matrix (F2)                        | <input type="checkbox"/> Dark Surface (S7) (LRR K, L)                |
| <input type="checkbox"/> Stratified Layers (A5)               | <input type="checkbox"/> Depleted Matrix (F3)                            | <input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)     |
| <input type="checkbox"/> Depleted Below Dark Surface (A11)    | <input type="checkbox"/> Redox Dark Surface (F6)                         | <input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)           |
| <input type="checkbox"/> Thick Dark Surface (A12)             | <input type="checkbox"/> Depleted Dark Surface (F7)                      | <input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)   |
| <input type="checkbox"/> Sandy Mucky Mineral (S1)             | <input type="checkbox"/> Redox Depressions (F8)                          | <input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B) |
| <input type="checkbox"/> Sandy Gleyed Matrix (S4)             |  | <input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)   |
| <input type="checkbox"/> Sandy Redox (S5)                     |  | <input type="checkbox"/> Red Parent Material (F21)                   |
| <input type="checkbox"/> Stripped Matrix (S6)                 |  | <input type="checkbox"/> Very Shallow Dark Surface (TF12)            |
| <input type="checkbox"/> Dark Surface (S7) (LRR R, MLRA 149B) |  | <input type="checkbox"/> Other (Explain in Remarks)                  |

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_ None observed.

Depth (inches): \_\_\_\_\_

Hydric Soil Present? Yes \_\_\_\_\_ No

Remarks:

No Redox Deep Black soil in Farm area Re-peat @ Rocky horizon.

T-LU-W6A

WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: NECPD City/County: Lucas/Windsor Sampling Date: 5/20/14  
Applicant/Owner: TDI State: OH Sampling Point: T-LU-W6A  
Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): CONCAVE Slope (%): 0-2  
Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
Soil Map Unit Name: Soil 17C NWI classification: PSS

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____
Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____	If yes, optional Wetland Site ID: _____
Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Remarks: (Explain alternative procedures here or in a separate report.) <u>Side SEEP wetland. drains in ditch. Ruts located in wetland</u>	

HYDROLOGY

<b>Wetland Hydrology Indicators:</b>		<b>Secondary Indicators (minimum of two required)</b>	
<u>Primary Indicators (minimum of one is required; check all that apply)</u>			
<input type="checkbox"/> Surface Water (A1)	<input type="checkbox"/> Water-Stained Leaves (B9)	<input type="checkbox"/> Surface Soil Cracks (B6)	
<input checked="" type="checkbox"/> High Water Table (A2)	<input type="checkbox"/> Aquatic Fauna (B13)	<input type="checkbox"/> Drainage Patterns (B10)	
<input checked="" type="checkbox"/> Saturation (A3)	<input type="checkbox"/> Marl Deposits (B15)	<input type="checkbox"/> Moss Trim Lines (B16)	
<input type="checkbox"/> Water Marks (B1)	<input type="checkbox"/> Hydrogen Sulfide Odor (C1)	<input type="checkbox"/> Dry-Season Water Table (C2)	
<input type="checkbox"/> Sediment Deposits (B2)	<input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3)	<input type="checkbox"/> Crayfish Burrows (C8)	
<input type="checkbox"/> Drift Deposits (B3)	<input type="checkbox"/> Presence of Reduced Iron (C4)	<input type="checkbox"/> Saturation Visible on Aerial Imagery (C9)	
<input type="checkbox"/> Algal Mat or Crust (B4)	<input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6)	<input type="checkbox"/> Stunted or Stressed Plants (D1)	
<input type="checkbox"/> Iron Deposits (B5)	<input type="checkbox"/> Thin Muck Surface (C7)	<input type="checkbox"/> Geomorphic Position (D2)	
<input type="checkbox"/> Inundation Visible on Aerial Imagery (B7)	<input type="checkbox"/> Other (Explain in Remarks)	<input type="checkbox"/> Shallow Aquitard (D3)	
<input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)		<input type="checkbox"/> Microtopographic Relief (D4)	
<input type="checkbox"/> FAC-Neutral Test (D5)			
<b>Field Observations:</b>			
Surface Water Present? Yes _____ No <input checked="" type="checkbox"/>	Depth (inches): _____	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	
Water Table Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>8"</u>		
Saturation Present? Yes <input checked="" type="checkbox"/> No _____	Depth (inches): <u>0"</u>		
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:			
Remarks:			

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

Tree Stratum (Plot size: <u>N/A</u> ) 30'	Absolute % Cover	Dominant Species?	Indicator Status
1. _____	_____	_____	_____
2. <u>None</u>	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Spirea latifolia</u>	<u>40</u>	<u>X</u>	<u>FAC</u>
2. <u>Pinus strobus</u>	<u>5</u>	_____	_____
3. <u>Prunus virginiana</u>	<u>1</u>	_____	_____
4. _____	_____	_____	_____
5. _____	_____	_____	_____
6. _____	_____	_____	_____
7. _____	_____	_____	_____

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Carex crinita</u>	<u>30</u>	<u>X</u>	<u>OBL</u>
2. <u>Onclea sensibilis</u>	<u>5</u>	_____	_____
3. <u>Osmunda cinnamomea</u>	<u>2</u>	_____	_____
4. <u>Juncus effusus</u>	<u>1</u>	_____	_____
5. <u>Fragaria virginiana</u>	<u>1</u>	_____	_____
6. <u>Aster spp.</u>	<u>1</u>	_____	_____
7. <u>Field horst Equisetum arvense</u>	<u>1</u>	_____	_____
8. <u>Impatiens capensis</u>	<u>5</u>	_____	_____
9. <u>Jack paper (Arisaema tr. phyllum)</u>	<u>1</u>	_____	_____
10. <u>Northen willow herb.</u>	<u>1</u>	_____	_____
11. <u>Epilobium ciliatum</u>	_____	_____	_____
12. _____	_____	_____	_____

Woody Vine Stratum (Plot size: <u>130'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>NONE</u>	_____	_____	_____
2. _____	_____	_____	_____
3. _____	_____	_____	_____
4. _____	_____	_____	_____

0 = Total Cover

46 = Total Cover

48 = Total Cover

0 = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 2 (A)

Total Number of Dominant Species Across All Strata: 2 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 100 (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = 2

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes  No

Remarks: (Include photo numbers here or on a separate sheet.)

No tree located with wetland. where hydric soils and wetland hydrology are present. therefore not indicative to wetland.

**SOIL**

T-LU-Web A  
Sampling Point: \_\_\_\_\_

**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>		
0-4	10YR 2/2	100%					SL	Mucky
4-8	10YR 3/2	85	5YR 4/6	15%			SL	
8+	10YR 4/2	85	↓	↓			SL	gravelly

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

**Hydric Soil Indicators:**

- Histosol (A1)
- Histic Epipedon (A2)
- Black Histic (A3)
- Hydrogen Sulfide (A4)
- Stratified Layers (A5)
- Depleted Below Dark Surface (A11)
- Thick Dark Surface (A12)
- Sandy Mucky Mineral (S1)
- Sandy Gleyed Matrix (S4)
- Sandy Redox (S5)
- Stripped Matrix (S6)
- Dark Surface (S7) (LRR R, MLRA 149B)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- Loamy Mucky Mineral (F1) (LRR K, L)
- Loamy Gleyed Matrix (F2)
- Depleted Matrix (F3)
- Redox Dark Surface (F6)
- Depleted Dark Surface (F7)
- Redox Depressions (F8)

**Indicators for Problematic Hydric Soils<sup>3</sup>:**

- 2 cm Muck (A10) (LRR K, L, MLRA 149B)
- Coast Prairie Redox (A16) (LRR K, L, R)
- 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)
- Dark Surface (S7) (LRR K, L)
- Polyvalue Below Surface (S8) (LRR K, L)
- Thin Dark Surface (S9) (LRR K, L)
- Iron-Manganese Masses (F12) (LRR K, L, R)
- Piedmont Floodplain Soils (F19) (MLRA 149B)
- Mesic Spodic (TA6) (MLRA 144A, 145, 149B)
- Red Parent Material (F21)
- Very Shallow Dark Surface (TF12)
- Other (Explain in Remarks)

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

**Restrictive Layer (if observed):**

Type: \_\_\_\_\_  
Depth (inches): \_\_\_\_\_ None observed

Hydric Soil Present? Yes  No

**Remarks:**

T-LU-W6B

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

Project/Site: NECPL City/County: Ludlow / Windsor Sampling Date: 5/20/14  
 Applicant/Owner: TDT State: VT Sampling Point: T-LU-W6B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hillslope Local relief (concave, convex, none): convex Slope (%): 15%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 17C100 NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> 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> <input type="checkbox"/> Surface Water (A1) <input type="checkbox"/> Water-Stained Leaves (B9) <input type="checkbox"/> High Water Table (A2) <input type="checkbox"/> Aquatic Fauna (B13) <input type="checkbox"/> Saturation (A3) <input type="checkbox"/> Marl Deposits (B15) <input type="checkbox"/> Water Marks (B1) <input type="checkbox"/> Hydrogen Sulfide Odor (C1) <input type="checkbox"/> Sediment Deposits (B2) <input type="checkbox"/> Oxidized Rhizospheres on Living Roots (C3) <input type="checkbox"/> Drift Deposits (B3) <input type="checkbox"/> Presence of Reduced Iron (C4) <input type="checkbox"/> Algal Mat or Crust (B4) <input type="checkbox"/> Recent Iron Reduction in Tilled Soils (C6) <input type="checkbox"/> Iron Deposits (B5) <input type="checkbox"/> Thin Muck Surface (C7) <input type="checkbox"/> Inundation Visible on Aerial Imagery (B7) <input type="checkbox"/> Other (Explain in Remarks) <input type="checkbox"/> Sparsely Vegetated Concave Surface (B8)	<u>Secondary Indicators (minimum of two required)</u> <input type="checkbox"/> Surface Soil Cracks (B6) <input type="checkbox"/> Drainage Patterns (B10) <input type="checkbox"/> Moss Trim Lines (B16) <input type="checkbox"/> Dry-Season Water Table (C2) <input type="checkbox"/> Crayfish Burrows (C8) <input type="checkbox"/> Saturation Visible on Aerial Imagery (C9) <input type="checkbox"/> Stunted or Stressed Plants (D1) <input type="checkbox"/> Geomorphic Position (D2) <input type="checkbox"/> Shallow Aquitard (D3) <input type="checkbox"/> Microtopographic Relief (D4) <input type="checkbox"/> FAC-Neutral Test (D5)
<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:    	

T-LV-W6

Sampling Point: B

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Tsuga Canadensis</i>	10	X	FACU
2. <i>Fagus grandifolia</i>	5	X	
3. <i>Betula papyrifera</i>	2		
4. <i>Fraxinus americana</i>	5	X	
5. _____			
6. _____			
7. _____			

22 = Total Cover

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Quercus rubra</i>	2		
2. <i>Acer</i> (striped)	2		
3. <i>Abies balsamica</i>	1		
4. <i>Prunus virginiana</i>	2		
5. <i>Spiraea latifolia</i>	15	X	FAC
6. <i>Rubus allegheniensis</i>	2		
7. <i>Fagus grandifolia</i>	10	X	FACU

34 = Total Cover

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <i>Aster</i> spp.	3		
2. <i>Solidago canadensis</i>	2		
3. <i>Onclea sensibilis</i>	5	X	
4. <i>Carex</i> spp.	2		
5. <i>Strawberry</i> <i>Fragaria virginiana</i>	8	X	
6. <i>Broad leaf fern</i>	1		
7. <i>Acer saccharum</i>	2		
8. <i>Fern Flower</i> ( <i>Tiarella cordifolia</i> )	1		
9. <i>X-fern</i> ( <i>Polystichum acrostichoides</i> )			
10. _____			
11. _____			
12. <i>Phlegopteris hexagonoptera</i>			

25 = Total Cover

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. <u>None</u>			
3. _____			
4. _____			

0 = Total Cover

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_ (A)

Total Number of Dominant Species Across All Strata: \_\_\_\_\_ (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: \_\_\_\_\_ (A/B)

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

- Hydrophytic Vegetation Indicators:**
- 1 - Rapid Test for Hydrophytic Vegetation
  - 2 - Dominance Test is >50%
  - 3 - Prevalence Index is ≤3.0<sup>1</sup>
  - 4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
  - Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)
- <sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)





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

Project/Site: NECDL City/County: Ludlow, Windsor Sampling Date: 5/19/14  
 Applicant/Owner: TDI State: VT Sampling Point: T-LU-W3  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hill slope Local relief (concave, convex, none): Concave Slope (%): 5%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 54C NWI classification: PEM

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? NO (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.) <p align="center" style="font-size: 1.2em;">Wetland drains through field in to culvert and via culvert into                  T-LU-57 (PEM)</p>	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)                      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ Surface Soil Cracks (B6) <input checked="" type="checkbox"/> 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)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>2"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  Remarks:	

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status		
1. <u>Acer rubrum</u>	<u>10</u>	<u>X</u>	<u>FAC</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: _____ (A)  Total Number of Dominant Species Across All Strata: _____ (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: _____ (A/B)	
2. <u>Fraxinus Americana</u>	<u>15</u>	<u>X</u>	<u>FACU</u>		
3. <u>Pinus strobus</u>	<u>5</u>				
4. <u>Acer saccharum</u>	<u>5</u>				
5. <u>Ulmus americana</u>	<u>5</u>				
6. _____					
7. _____					
<u>40</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____	
Sapling/Shrub Stratum (Plot size: <u>15'</u> )					
1. <u>NONE</u>					<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input 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)
2. _____					
3. _____					
4. _____					
5. _____					
6. _____					
7. _____					
_____ = Total Cover				<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.	
Herb Stratum (Plot size: <u>5'</u> )					
1. <u>Impatiens capensis</u>	<u>70</u>	<u>X</u>	<u>FACW</u>		<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.
2. <u>Suaeda sensibilis</u>	<u>15</u>				
3. <u>Lysomachia nummularia (Creeping Jimmy)</u>	<u>5</u>				
4. _____					
5. _____					
6. _____					
7. _____					
8. _____					
9. _____					
10. _____					
11. _____					
12. _____					
<u>90</u> = Total Cover					
Woody Vine Stratum (Plot size: <u>30'</u> )					
1. _____				Hydrophytic Vegetation Present? Yes <u>X</u> No _____	
2. <u>None</u>					
3. _____					
4. _____					
<u>0</u> = Total Cover					

Remarks: (Include photo numbers here or on a separate sheet.)



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

Project/Site: NECPL City/County: Lucdow., Windsor Sampling Date: 5/19/14  
 Applicant/Owner: TDF State: VT Sampling Point: T-LU-W3 <sup>B</sup>  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): Hill slope Local relief (concave, convex, none): convex Slope (%): 2%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 54C NWI classification: \_\_\_\_\_

*upland*

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed?  No \_\_\_\_\_ Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic?  No \_\_\_\_\_ (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)  <p align="center"><i>Plot taking in upland ditch @ utility pole</i></p>	

**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 <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

T-LW-W3

Sampling Point: B

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

Tree Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Acer saccharum</u>	<u>20</u>	<u>X</u>	<u>FACU</u>
2. <u>Pinus strobus</u>	<u>2</u>		
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Dominance Test worksheet:**

Number of Dominant Species That Are OBL, FACW, or FAC: 1 (A)

Total Number of Dominant Species Across All Strata: 4 (B)

Percent of Dominant Species That Are OBL, FACW, or FAC: 25 (A/B)

Sapling/Shrub Stratum (Plot size: <u>15'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Prunus serotina</u>	<u>10</u>	<u>X</u>	<u>FACU</u>
2. <u>Fraxinus americana</u>	<u>2</u>		
3. _____			
4. _____			
5. _____			
6. _____			
7. _____			

**Prevalence Index worksheet:**

Total % Cover of: \_\_\_\_\_ Multiply by: \_\_\_\_\_

OBL species \_\_\_\_\_ x 1 = \_\_\_\_\_

FACW species \_\_\_\_\_ x 2 = \_\_\_\_\_

FAC species \_\_\_\_\_ x 3 = \_\_\_\_\_

FACU species \_\_\_\_\_ x 4 = \_\_\_\_\_

UPL species \_\_\_\_\_ x 5 = \_\_\_\_\_

Column Totals: \_\_\_\_\_ (A) \_\_\_\_\_ (B)

Prevalence Index = B/A = \_\_\_\_\_

Herb Stratum (Plot size: <u>5'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. <u>Lysimachia nummularia</u>	<u>30</u>	<u>X</u>	<u>FACW</u>
2. <u>Int. Fern. (Osmunda claytoniana)</u>	<u>10%</u>		
3. <u>Trout Lilly (Erythronium rostratum)</u>	<u>10%</u>		
4. <u>Field horsetail (Equisetum arvense)</u>	<u>10%</u>		
5. <u>Dandelion (Taraxacum officinale)</u>	<u>5%</u>		
6. <u>Oxalis sensibilis</u>	<u>5%</u>		
7. <u>Garlic mustard (Alliaria petiolata)</u>	<u>20%</u>	<u>X</u>	<u>FACU</u>
8. <u>Hop Scented Fern (Dennstaedtia punctilobula)</u>	<u>10%</u>		
9. _____			
10. _____			
11. _____			
12. _____			

**Hydrophytic Vegetation Indicators:**

1 - Rapid Test for Hydrophytic Vegetation

2 - Dominance Test is >50%

3 - Prevalence Index is ≤3.0<sup>1</sup>

4 - Morphological Adaptations<sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)

Problematic Hydrophytic Vegetation<sup>1</sup> (Explain)

<sup>1</sup>Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.

Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status
1. _____			
2. <u>None</u>			
3. _____			
4. _____			

**Definitions of Vegetation Strata:**

**Tree** – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.

**Sapling/shrub** – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.

**Herb** – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.

**Woody vines** – All woody vines greater than 3.28 ft in height.

**Hydrophytic Vegetation Present?** Yes \_\_\_\_\_ No X

Remarks: (Include photo numbers here or on a separate sheet.)



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

Project/Site: NECPL City/County: Ludlow / Windsor Sampling Date: 5/19/14  
 Applicant/Owner: TDI State: VT Sampling Point: 1-6-W2-A  
 Investigator(s): JLB, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): concave Slope (%): 0-2  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 31B NWI classification: PEM1

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? No Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> No _____ Hydric Soil Present? Yes <input checked="" type="checkbox"/> No _____ Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____	Is the Sampled Area within a Wetland? Yes <input checked="" type="checkbox"/> No _____ If yes, optional Wetland Site ID: <u>T-LU-W2</u>
Remarks: (Explain alternative procedures here or in a separate report.) <i>wetland seeps feeding into ditch                  Ditch is a stream on east side of road</i>	

**HYDROLOGY**

<b>Wetland Hydrology Indicators:</b> <u>Primary Indicators (minimum of one is required; check all that apply)</u> ___ Surface Water (A1) <input checked="" type="checkbox"/> Water-Stained Leaves (B9) <input checked="" type="checkbox"/> High Water Table (A2)                      ___ Aquatic Fauna (B13) <input checked="" type="checkbox"/> 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) <input checked="" type="checkbox"/> 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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>1"</u> Saturation Present? Yes <input checked="" type="checkbox"/> No _____ Depth (inches): <u>0"</u> (includes capillary fringe)	Wetland Hydrology Present? Yes <input checked="" type="checkbox"/> No _____
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:

Remarks:  
*Groundwater seep from the west*



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

Sampling Point: T-CU-W2-A

Tree Stratum (Plot size: _____ )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	<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>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>75</u> (A/B)
2. <u>None</u>	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fagus grandifolia</u>	<u>2</u>	<u>X</u>	<u>FACU</u>	
2. _____	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
5. _____	_____	_____	_____	
6. _____	_____	_____	_____	
7. _____	_____	_____	_____	
<u>2</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Prunus serotina</u>	<u>1</u>	_____	_____	
2. <u>Trait 1. (Erythronium americanum)</u>	<u>20</u>	<u>X</u>	<u>FAC</u>	
3. <u>Impatiens capensis</u>	<u>20</u>	<u>X</u>	<u>FACW</u>	
4. <u>Onoclea sensibilis</u>	<u>25</u>	<u>X</u>	<u>FACW</u>	
5. <u>Glyceria striata</u>	<u>10</u>	_____	_____	
6. <u>Phalaris arundacea</u>	<u>5</u>	_____	_____	
7. <u>Osmunda claytoniana</u>	<u>10</u>	_____	_____	
8. _____	_____	_____	_____	
9. _____	_____	_____	_____	
10. _____	_____	_____	_____	
11. _____	_____	_____	_____	
12. _____	_____	_____	_____	
<u>91</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. _____	_____	_____	_____	
2. <u>None</u>	_____	_____	_____	
3. _____	_____	_____	_____	
4. _____	_____	_____	_____	
<u>0</u> = Total Cover				<b>Hydrophytic Vegetation Indicators:</b> ___ 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% ___ 3 - Prevalence Index is ≤3.0 <sup>1</sup> ___ 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) ___ 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>Remarks: (Include photo numbers here or on a separate sheet.)</b> <u>No trees included in plot - no trees along road shoulder</u>				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No _____



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

Project/Site: NECPL City/County: Ludlow/Windsor Sampling Date: 5/19/14  
 Applicant/Owner: TDI State: VT Sampling Point: 7-10-w2B  
 Investigator(s): JG, SC Section, Township, Range: \_\_\_\_\_  
 Landform (hillslope, terrace, etc.): hillslope Local relief (concave, convex, none): convex Slope (%): 5%  
 Subregion (LRR or MLRA): \_\_\_\_\_ Lat: \_\_\_\_\_ Long: \_\_\_\_\_ Datum: \_\_\_\_\_  
 Soil Map Unit Name: Soil 31B NWI classification: N/A

Are climatic / hydrologic conditions on the site typical for this time of year? Yes  No \_\_\_\_\_ (If no, explain in Remarks.)  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ significantly disturbed? NO Are "Normal Circumstances" present? Yes  No \_\_\_\_\_  
 Are Vegetation \_\_\_\_\_, Soil \_\_\_\_\_, or Hydrology \_\_\_\_\_ naturally problematic? No (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 <input checked="" type="checkbox"/> Hydric Soil Present? Yes _____ No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>	Is the Sampled Area within a Wetland? Yes _____ No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Remarks: (Explain alternative procedures here or in a separate report.)   	

**HYDROLOGY**

<p><b>Wetland Hydrology Indicators:</b></p> <p><u>Primary Indicators (minimum of one is required; check all that apply)</u></p> ___ 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)	<p><u>Secondary Indicators (minimum of two required)</u></p> ___ 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)
<p><b>Field Observations:</b></p> Surface Water Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes _____ No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	Wetland Hydrology Present? Yes _____ No <input checked="" type="checkbox"/>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  	
Remarks:	

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

Sampling Point: 1-10-w2-B

Tree Stratum (Plot size: <u>30</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Fraxinus americana</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>1</u> (A)  Total Number of Dominant Species Across All Strata: <u>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>16</u> (A/B)
2. <u>Acer Saccharum</u>	<u>7</u>	<u>X</u>	<u>FACU</u>	
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
<u>12</u> = Total Cover				<b>Prevalence Index worksheet:</b> Total % Cover of: _____ Multiply by: _____ OBL species _____ x 1 = _____ FACW species _____ x 2 = _____ FAC species _____ x 3 = _____ FACU species _____ x 4 = _____ UPL species _____ x 5 = _____ Column Totals: _____ (A) _____ (B)  Prevalence Index = B/A = _____
Sapling/Shrub Stratum (Plot size: <u>15</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Pinus Serotina</u>	<u>2</u>	<u>X</u>	<u>FACU</u>	
2. <u>Fraxinus americana</u>	<u>2</u>	<u>X</u>	<u>FACU</u>	
3. <u>Rubus idaeus</u>	<u>5</u>	<u>X</u>	<u>FACU</u>	
4. _____				
5. _____				
6. _____				
7. _____				
<u>9</u> = Total Cover				
Herb Stratum (Plot size: <u>5</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>Osmunda Claytoniana</u>	<u>40</u>	<u>X</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input 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.
2. <u>Impatiens Carpensis</u>	<u>10</u>		<u>FACW</u>	
3. <u>Trou L. (Erythronium americanum)</u>	<u>15</u>		<u>FAC</u>	
4. <u>Christmas fern (Polystichum acrostichoides)</u>	<u>30</u>	<u>X</u>	<u>FACU</u>	
5. <u>Alliaria petiolata</u>	<u>1</u>			
6. <u>Dennstaedtia punctilobula</u>	<u>15</u>			
7. _____				
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
<u>111</u> = Total Cover				
Woody Vine Stratum (Plot size: <u>30'</u> )	Absolute % Cover	Dominant Species?	Indicator Status	
1. <u>NONE</u>				<b>Hydrophytic Vegetation Present?</b> Yes _____ No <input checked="" type="checkbox"/>
2. _____				
3. _____				
4. _____				
_____ = Total Cover				

Remarks: (Include photo numbers here or on a separate sheet.)

