

# 404 US Army Corps of Engineers Application

For



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THE HERMITAGE

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*Club*

AT HAYSTACK MOUNTAIN

**Prepared for:**

US Army Corps of Engineers  
Marty Abair & Mike Adams

**August 2015**

Owner & Applicant: Hermitage Inn Real Estate Holding Company, LLC  
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(Bob Rubin)

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(Bob Harrington)

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**Exhibit List #**  
**Hermitage Club – Haystack Mountain**  
Wilmington & Dover, Vermont

No.	Date Admitted	By	Subject
1	8-5-2015	HEI	Cover Letter – Dated: 8-5-2015 From Harrington Engineering, Inc.
1a	8-5-2015	HEI	Additional Information Hermitage Club
2	8-5-2015	HEI	Application
3	8-5-2015	HEI	Abutters List
4	8-5-2015	HEI	Project Purpose, Avoidance, Minimization and Compensations 8-05-2015
5a	7-15-2015	Matthew Trokel	Letter from Matthew Trokel - 07-15-2015
5b	6-23-2015	Ben Joyce	Cold Brook Properties Map
5c	6-23-2015	Ben Joyce	Brook bound EC Map 06-23-15
6	8-18-2015	Arrowwood	Wetland Field Data Forms
7	5-7-2014	Arrowwood	Vernal Pool Protocol Haystack (5-7-14)
8	9-22-2014	Arrowwood	Wetland and Vernal Pool Inventory Report (9-22-14)
9	10-12-2014	Arrowwood	Haystack Fish Sample Memo (10-12-14)
9a	7-1-2015	Arrowwood	Biomonitoring Site Visit Memo 07-01-15
9b	7-2-2015	Arrowwood	Hermitage WQ Locations Map 07-02-2015
10	5-8-2015	Arrowwood	Stream Buffer Analysis (05-08-15)
11	6-9-2015	Arrowwood	RTE Plant Species Report (06-09-15)
12	5-7-2015	HEI	Stormwater Treatment & Detention Table
12a	8-14-2015	-	Stormwater Correspondence 08-14-2015
13	12-5-2014	VHB	NAA Analysis (12-5-2014)
14	08-2014	Hartgen	Archeological Resource Assessment-August 2014
15	10-16-2014	Hartgen	Email from Hartgen re Sensitive Areas (10-16-14)

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**Hermitage Club – Haystack Mountain**  
Wilmington & Dover, Vermont

No.	Date Admitted	By	Subject
15a	8-7-2015	Hartgen	High Country Homes IB EOF
15b	8-7-2015	Hartgen	Siegel Pond IB EOF
16	4-6-2015	Conley Associates	Transportation Executive Summary (4-6-15)
17	9-2014	Conley Associates	Transportation Master Plan-9-2014
18	12-15-2014	Conley Associates	Addendum to Traffic Study-prop roadway and TDM (12-15-14)
19	8-19-2015	HEI	Wetlands ACOE Plans
19a	7-13-2015	TECHNICON	Withdrawal Plans
20	7-20-2015	Arrowwood	Ski Tunnel - Riparian Mgmt Plan 07-20-15
21	8-19-2015	HEI/ Arrowwood	401 Application

# HARRINGTON ENGINEERING, INC.

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## *Celebrating 33 Years*

August 5, 2015

US Army Corps of Engineers  
Attn.: Ms. Marty Abair  
11 Lincoln Street, Room 210  
Essex Junction, Vermont 05452

Re: The Hermitage Club – Haystack Mountain; 404 Application

Dear Ms. Abair:

Enclosed is the U.S. Army Corp of Engineers Permit Application for the Hermitage Club Development at Haystack Mountain. During the past two years we have come a long way with the review and design of this development. The project includes a year-round recreational resort in Southern Vermont including a ski-in/out residential development, a club house, restaurants and commercial facilities, as well as snowmaking facilities.

We have developed a design that allows the establishment of a one-of-a-kind resort, enhances the tourism in Dover and Wilmington VT, and minimally impacts the natural resources of the State of Vermont. I believe that you will find that the enclosed plans and materials complete and you can approve the proposed development.

We are asking that this development is phased into 2 components:

- Residential and commercial development
- Snowmaking facilities: Mirror Lake expansion and brook withdrawals.

We are looking forward to hearing back from you.

Sincerely,

*Desislava Pomeroy*  
Desislava Pomeroy, EIT

*Robert S. Harrington*  
Robert S. Harrington, PE

Cc: James Barnes  
Robert Rubin  
Robert Fisher  
Jay Kenlan  
Beth Afalat

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***Celebrating 33 Years***

August 5, 2015

US Army Corps of Engineers  
Attn.: Ms. Marty Abair  
11 Lincoln Street, Room 210  
Essex Junction, Vermont 05452

Re: Hermitage; Additional Information Request June 26, 2015

- Please clarify that there will be no work in any of the identified archaeologically sensitive areas.

OK. Exhibit 14A.

- Please provide mailing labels for the abutters. From my review of the plans, I only need the following:
  - o Town of Wilmington
  - o Town of Dover
  - o USFS - Green Mountain National Forest
  - o Rushing Creek LLC
  - o Stratfield Assoc LP
  - o Cold Brook Fire District
  - o Jacob Brown & Elizabeth O'Brien
  - o Robert Mannarino
  - o Mount Snow LTD
  - o Joseph Willen
  - o Green Mountain Power Corp.

Please double-check that there are no other property owners that abut the wetlands or streams that are being impacted. I'll let you know if there are any others that I think should be included. Double-check to be sure these are good addresses.

OK. Mailing labels provided.

- Block 1 of Application Form – Just one individual should be designated as agent.  
Block 1 has been modified.
- Block 22 of the Application Form – This totals 2.13 acres of impact. There are discrepancies between the summary in attachment 6 and the full scale plans. Break out wetland and stream impacts in this block, and break out direct, secondary and indirect impacts for both streams and wetlands.
- I will need a copy of your application for water quality certification before I can consider the Corps application complete.

401 Water Quality Certification is attached as Exhibit 20.

- The functions and values summary is using VTDEC functions and values. The Corps uses a different suite of categories: Groundwater recharge, Groundwater discharge, Floodflow alteration, Finfish habitat, Sediment, toxicant/pathogen retention, Nutrient removal/retention/transformation, Production export, Sediment/shoreline stabilization, Recreation, Wildlife habitat, Educational/scientific value, Uniqueness/heritage, Visual quality/aesthetics, and Endangered species habitat. Please modify the summary to reflect these functions and values.

Dori fixed that.

- Wetland 121 is missing from Wetland Summary Tables – Locational data.

Dori fixed that.

- Clean up Table 3 – Wetland Hydrologic Summary Data. Wetlands 535-708 are included on both pages.

Dori fixed that.

- Wetlands 708 and A14 are missing from Wetland Characterization Summary Data.

Dori fixed that.

- Table 5 – Wetlands Impact Summary Table –

- o Break out direct, secondary and indirect impacts. Provide a total for each type of impact and a grand total.
- o Wetland 124 – 8½” x 11” plans and full-scale plans indicate 493 sq. ft. of impact; this indicates 964 sq. ft.

Dori fixed that.

- Stream Summary Table – Siegel Pond – CW100 Plan indicates 281 sq. ft. of impact; this table indicates 140 sq. ft.

Fixed

- I will need a brief alternatives discussion to touch on the alternative of providing the residential components elsewhere on other lands owned by Hermitage.

The Wilmington Town Plan and Zoning ordinance have zones the Haystack Mountain and Hermitage Inn Lands for high density residential development, as proposed. These lands (subject to this 404 application) as zoned by Wilmington as residential Resort and Commercial Resort properties. The Hermitage Club has designed the Mountain Master plan with approximately 450 units, as was previously agreed through zoning as appropriate number of units for this resort area. The applicant owns no other lands suitable for this type of residential development. Other lands are environmentally restricted (by wetlands, streams, and wildlife), already developed to their maximum potential.

- Please expand on your narrative describing the avoidance and minimization that has taken place. Include the progression of impact reduction over the last several years.

Please see Exhibit 4.

- Fish Sampling –

- o It would be informative to have a plan showing where the sampling locations were. Plan has been attached. AN initial site recon was performed in late June by Arrowwood Environmental plus VT Fish and Game to identify appropriate fish sampling locations. The initial six sampling points have been identified on Oak Brook, Cold Brook and Haystack Brook. HIREHC LLC has agreed in writing to allow this sampling by VT Fish and Game to proceed.

- Would Hermitage be willing to do some remedial work at the Oak Brook culvert(s) as a piece of the mitigation?  
HIREHC LLC has agreed to do some remedial replacement of existing perched culvert on Oak Brook. This is being reviewed by VT Fish and Game and VT Rivers Management Division. One such culvert is on Chamonix trail leading from the Base Lodge north over Oak Brook and present maintenance area. This is planned for construction in year 2016. Additionally round culvert SC\_\_ and SC\_\_ (south and West of existing maintenance facility) are being replaced with open channel arch or box culvert as part of this 404 application. Based on discussions with VT Fish and Game these remedial replacements should give fish passage to the cooler waters upstream on Haystack Mountain.
- NAA Modeling – You will need to modify the NAA to evaluate the potential of a withdrawal downstream of the confluence of Haystack Brook with Cold Brook.  
Due to third party ownership this is not a viable alternative. Please see Exhibit 25.

## PLANS

- General
  - Darken the property lines on all sheets.  
Done
  - What is “Unknown Stream” in the legend on each sheet?  
The label has been changed to unassessed stream.
  - Provide a typical section of a culverted crossing and of a bridge crossing.
- Legend Sheet –
  - All of the different grays become pretty indistinguishable and you can't use color.  
Adjusted the colors and patterns.
  - Where is the VT Land Trust Conservation Easement?  
Taken off of plan & legend.
  - Darken the property line graphic, both here and on the plan sheets.  
Done.
- Sheet #1
  - What is the outlined area in the lower left of the sheet?  
Restricted Bear Habitat.
- Sheet #2
  - SC #1 crossing – You indicate that OHW width of this stream is 15', yet you're proposing a 6' wide bridge. Are you sure your OHW width is correct?
  - SC #2 crossing – You indicate that OHW width of this stream is 20', yet you're proposing a 6' wide culvert. Are you sure your OHW width is correct?
  - SC #3 crossing – You indicate that OHW width of this stream is 15', yet you're proposing a 6' wide culvert. Are you sure your OHW width is correct?  
Corrected.
- Sheet #4
  - The notes for the SC#5 crossing came out as WingDings.  
Fixed.
- Sheet #5
  - SC #4 crossing – If the OHW width of this stream is 40', how is a 10' wide bridge going to provide an adequate hydraulic opening?



Corrected.

- Sheet #7
  - o SC#6 – What is this crossing? Culvert/Bridge size?  
The crossing is labeled, enlarged the label.
  
- Sheet #9
  - o SC #9 crossing – You indicate that OHW width of this stream is 6', yet you're proposing a 3' wide culvert. Are you sure your OHW width is correct?
  - o SC #8 crossing – You indicate that OHW width of this stream is 10', yet you're proposing a 3' wide culvert. Are you sure your OHW width is correct?
  - o SC #10 crossing – You indicate that OHW width of this stream is 9', yet you're proposing a 6' wide culvert. Are you sure your OHW width is correct?
  - o SC#10 – Note says a 10 sq. ft. impact; table indicates 810 sq. ft. of impact.  
Corrected.
  
- Sheet #11
  - o Wetland 124 – Summary table indicates 964 sq. ft. of impact.  
493 sq.ft. is correct.
  - o Please provide a separate plan view and sections for the Cold Brook withdrawal.  
OK
  
- Sheet #13
  - o Please provide a separate plan view and sections for the Haystack Brook withdrawal.  
OK

I don't think your proposal to take the four ponds near the Hermitage offline will provide much benefit.

This proposal has been withdrawn.



17. DIRECTIONS TO THE SITE

Route 9 to Wilmington, Route 100 north 3 miles, Cold Brook Road on left, 2 miles, 10 Gate House Road on left, Haystack.

18. Nature of Activity (Description of project, include all features)

Year round recreational resort, private/public family resort with ski, golf, hiking, ATV's, snowmobiles, restaurants, and residential community.

19. Project Purpose (Describe the reason or purpose of the project, see instructions)

Please see Exhibit 4.

USE BLOCKS 20-23 IF DREDGED AND/OR FILL MATERIAL IS TO BE DISCHARGED

20. Reason(s) for Discharge

See attached engineering plan set for impact tables.

21. Type(s) of Material Being Discharged and the Amount of Each Type in Cubic Yards:

Type Amount in Cubic Yards	Type Amount in Cubic Yards	Type Amount in Cubic Yards
NA	NA	NA

22. Surface Area in Acres of Wetlands or Other Waters Filled (see instructions)

Acres Primary Impact = 1.50 acres, Secondary Impact = 0.18 acres, Stream Impact = 0.55 acres

or  
Linear Feet

23. Description of Avoidance, Minimization, and Compensation (see instructions)

Please see Exhibit 4.

24. Is Any Portion of the Work Already Complete?  Yes  No IF YES, DESCRIBE THE COMPLETED WORK

16 inch snow-making line lower mountain installed along side existing 12 inch line as emergency repair to keep ski area open in fall/winter of 2011/12.

25. Addresses of Adjoining Property Owners, Lessees, Etc., Whose Property Adjoins the Waterbody (if more than can be entered here, please attach a supplemental list).

a. Address-

Please See Exhibit 3: Abutters List

City - State - Zip -

b. Address-

City - State - Zip -

c. Address-

City - State - Zip -

d. Address-

City - State - Zip -

e. Address-

City - State - Zip -

26. List of Other Certificates or Approvals/Denials received from other Federal, State, or Local Agencies for Work Described in This Application.

AGENCY	TYPE APPROVAL*	IDENTIFICATION NUMBER	DATE APPLIED	DATE APPROVED	DATE DENIED
VT ANR	Act 250 (Master Plan)	700002-25	05-01-2015		
Wilmington DRB	Zoning - Mountain	2014-113		04-09-2015	
VT DEC	404 WDC		08-19-2015		

\* Would include but is not restricted to zoning, building, and flood plain permits

27. Application is hereby made for permit or permits to authorize the work described in this application. I certify that this information in this application is complete and accurate. I further certify that I possess the authority to undertake the work described herein or am acting as the duly authorized agent of the applicant.

SIGNATURE OF APPLICANT

DATE

  
SIGNATURE OF AGENT

08/07/2015  
DATE

The Application must be signed by the person who desires to undertake the proposed activity (applicant) or it may be signed by a duly authorized agent if the statement in block 11 has been filled out and signed.

18 U.S.C. Section 1001 provides that: Whoever, in any manner within the jurisdiction of any department or agency of the United States knowingly and willfully falsifies, conceals, or covers up any trick, scheme, or disguises a material fact or makes any false, fictitious or fraudulent statements or representations or makes or uses any false writing or document knowing same to contain any false, fictitious or fraudulent statements or entry, shall be fined not more than \$10,000 or imprisoned not more than five years or both.

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# HARRINGTON ENGINEERING, INC.

CIVIL•ENVIRONMENTAL•DEVELOPMENT•PERMITS

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*Celebrating 35 Years*

## **19. Project Purpose**

The purpose of this project is to rehabilitate the existing ski area at Haystack Mountain and Hermitage Inn lands into a year-round resort, which will include ski lifts, adequate snow-making facilities, new maintenance facilities, recreational trails, approximately 550 residential homes, and a new Club House and amenities. The project will bring vitality to the Deerfield Valley and surrounding areas and create economic growth; thus, serving the region as a job-creator, local business booster and revenue creator for the local municipalities. Approximately 550 ski-in/ski-out residential units are proposed to offer residence to the members of the Hermitage Club, and allowing for an open recreational area supporting green lifestyle and minimizing motor vehicle commuting. The outdoor recreational activities include ski, snowmobiling, snowshoeing, skating, sleigh rides, and tubing, as well as summer activities: hiking, biking, boating, and ATV and UTV riding. All facilities are open to the public with limitations, since this is a private resort with 1,500 memberships. Hermitage Club is a family orientated all-year recreational resort which will include multiple facilities; please see below Table for Phasing of Construction, detailed description of proposed development.

## The Hermitage Club Master Plan Improvements & Development Projects

Project	Description	(Estimated)	
		Year Start	Year End
Club House w/ parking (Base Lodge) <i>(700002-19 Final)</i>	The Club House serves as the main restaurant and gathering place for the resort. It also contains a gym, spa and small retail stores for outdoor gear. It is located between the upper and the lower mountain in the heart of the resort.	2012	2014
		<b>Completed</b>	
Club House Enclosure/Expansion for Retail Area <i>(700002-19G)</i>	Expansion of the Hermitage Base Lodge, including: enclosing existing porches and patio on basement level.	2015	2015
		<b>Completed</b>	
CBFD Water System Upgrade	This upgrade involves putting Well #9 online in order to increase the water capacity from 30,000 gpd to 150,000 gpd in order to adequately fulfill the commercial and residential water supply needs and fire safety requirements over the next 10 years.	2017	2019
CBFD Phase I Wastewater Upgrade <i>(2W0204-7)</i>	At the Base Area Wastewater Treatment Plant, the lagoon was expanded; a new blower and a channel grinder are installed. This increases the capacity by 30,000 gpd.	2014	2014
		<b>Completed</b>	
CBFD Phase II Wastewater Upgrade	The second phase of the wastewater treatment plan will allow for a total capacity of the plant of 350,000 gpd. The upgrade includes tertiary treatment with de-nitrification and phosphorus removal.	2017	2019
GMP Substation <b>(Needs PSB approval under Section 248; therefore Act 250 exempt)</b>	Most of the available power supply from the high voltage transmission line between Wilmington and Mount Snow is already utilized. A new substation will provide the needed voltage for the Hermitage Club development, as well as provide regional capacity.	2017	2019
Stag's Leap Phase I (6 SFD's & Chapel) <i>(700002-20)</i>	This residential development consists of a total of 14 single family homes plus a chapel that would be owned by members of the Hermitage Club.	2014	2020
		<b>Construction in Progress</b>	
Stag's Leap Phase I (Remaining 8 Homes) <i>(700002-20A)</i>	Construction of the remaining 8 homes on Stag Leap Lane in Phase I of Stag's Leap. The main utility lines and roads for these units were constructed previously under LUP 700002-20 along with the first 6 homes.	2015	2018
		<b>Construction in Progress</b>	
Windmill Power Generator @ Summit <i>(700002-19B &amp; 700002-19B-A)</i>	Windmill will be used to supply power for Summit Building at Haystack Ski Area.	2020	2022
Tage Ski Lift <i>(700002-19 Final)</i>	This lift connects the existing Haystack Ski area with the Hermitage Inn creating an integrated Ski Resort.	2013	2013
		<b>Completed</b>	

## The Hermitage Club Master Plan Improvements & Development Projects

Project	Description	(Estimated)		
		Year Start	Year End	
Tage Ski Trail <i>(700002-19 Final)</i>	The trail connects the existing Haystack ski area with the Hermitage Inn.	2013	2013	
		<b>Completed</b>		
Upper Parking Lot & Road <i>(700002-19 Final)</i>	This parking lot is used by guests for the Club House and surrounding attractions. (Will be requesting construction extension completion date.)	2013	2020	
		<b>Construction in Progress</b>		
Chamonix Trail Bridge & Chamonix Trail <i>(700002-19E – Pending)</i> Fannie Hill Rd Loop <i>(700002-26 – Pending)</i>	The loop is needed to provide a second access point to the heart of the resort; thus providing safety in case of emergency. (Rolled into Hermitage Hotel 700002-26).	2017	2019	
<i>Chamonix Trail and Fannie Hill Road Improvement (700002-26A – Pending)</i>	In accordance with Hearing Recess Memo (8/12/15), we submitted an amendment application to include all improvements needed for completion of the Chamonix Trail and Fannie Hill Road (rolled into Hermitage Hotel 700002-26).	2016	2018	
<i>Chamonix Trail Ski Tunnel (700002-19E – Pending)</i>	Finish the Chamonix Trail ski tunnel bridge (rolled into 700002-26).	2017	2017	
Snowmaking Withdrawals & Mirror Lake	The existing skiable terrain covered by the snowmaking system is to expand from 127.4 acres to 193.3 acres. First step will include coverage of 154.4 acres of ski terrain and Mt Snow ceasing the usage of Mirror Lake, this will involve some structural changes to the Cold Brook withdrawal. Next, the current water storage capacity for Mirror Lake of 14.6 Mgal may increase to 28.4 Mgal. With this expansion, it is unclear if the Hermitage Club will have the needed water storage; thus a second pond, Siegel Pond, may be proposed for an additional 22 Mgal of storage.	2019	2023	
Ski Trails	Jennifer's Run <i>(700002-26 – Pending)</i>	The bottom portions of existing Jennifer's Run and Outcast Trails will be regraded in the area of the Hermitage Hotel.	2013	2022
	Outcast <i>(700002-26 – Pending)</i>			
	Inn Chute Trail	The Hermitage Hotel (93 units) with Duplex Villas (14 units), McGovern lots (7 SFD's) and the Inn Home SFD will make use of this trail system as a ski-in/ski-out access. Together with the Tage Lift, the trail system brings together the Haystack Mountain development and the Hermitage Inn site, creating an integrated ski resort.		

## The Hermitage Club Master Plan Improvements & Development Projects

Project	Description	(Estimated)	
		Year Start	Year End
Mountain Cabins (4) <i>(700002-20 – MC#1 &amp; MC#2 – only)</i>	The Mountain cabins will be mini-restaurants for social events such as birthday parties or family gatherings. One mountain cabin has been constructed.	2015	2024
		<b>Construction in Progress</b>	
Six Pac Lift – New 6 Passenger Bubble Chair Lift top/bottom (replaced Barnstormer) <i>(700033-2)</i>	This is the main lift connecting the summit with the heart of the resort and the Club House.	2015	2015
		<b>Completed</b>	
New Maintenance / Snowmaking Building	The site of the existing maintenance building will be used for the 93-unit Hermitage Hotel. Thus the new maintenance / snowmaking building and associated parking area will house snowmaking pump and controls as well as snow cats and groomers, and will be located near the CBFDT Treatment Plant.	2017	2020
Hermitage Hotel (93 units) <i>(700002-26 – Pending)</i>	This 93-unit condominium hotel with an underground parking garage will be located on the north side of the base area between Inn Chute Trail and Outcast Trail providing ski-in/ski-out access for guests of the hotel.	2017	2024
Condo Hotel (90 units)	This hotel will be located immediately south of the existing Club House and will provide residential accommodation to the Club members and guests. (MP-1 #21)	2017	2024
Condo Hotel (90units)	This hotel will be located to the south of the Club House in the southern end of the Upper Parking Lot, and it will provide residential accommodation to the Club members and guests. (MP-1 #22)	2020	2026
Hotel Villas (7 villas with 14 units)	The Villas will be located to the north of the Hermitage Hotel and will provide residential accommodation to the Club members and guests.	2017	2024
Chamonix Village Townhomes (13 townhomes; 52 total units) <i>(700002-18)</i>  <i>(700002-18K – 3, 5, 6 Garmisch Court Way)</i>  <i>(700002-18L – Grenoble Way - Pending)</i>	Residential development: 13 townhomes (52 units) that will be owned by members of the Hermitage Club.  a) Three of the townhomes have been constructed. <b><i>(Complete)</i></b>  b) Three townhomes are currently under construction <b><i>(3, 5 &amp; 6 Garmisch Court Way construction in progress)</i></b> .  c) Approval for units 8 & 13 is now pending approval of the Master Plan application, plus obtaining wetlands/401 approval.  The majority of the units will look out to the Beginner slope, and have easy ski-in/ski-out access.	2011	2026

## The Hermitage Club Master Plan Improvements & Development Projects

Project	Description	(Estimated)	
		Year Start	Year End
Stag's Leap Phase II Townhomes (28 units)	This residential development will consist of 7 townhomes (total of 28 units) that would be owned by members of the Hermitage Club.	2020	2026
Mountain Coaster	The coaster will offer scenic ride down the beautiful Haystack Mountain. It's essential for establishing the existing ski area as a four season year round resort.	2019	2020
Upper Mountain Trailside Homes (36)	The residential development will consist of 36 high-end single family homes that would be owned by members of the Hermitage Club. The majority of the units will have easy ski-in/ski-out access.	2019	2026
High Country SFD (7)	The residential development will consist of 7 high-end single family homes that will be owned by members of the Hermitage Club. The majority of the units will have easy ski in/ski out access.	2017	2020
Tage Tubing Chute <i>(700002-19 Altered)</i>	This is a small 300 foot long bermed chute for winter sliding on large plastic or rubber tubes, located just north of the Tage Lift.	2013	2013
		<b>Completed</b>	
Future Inn Units (10)	In order to better incorporate the Hermitage Inn Site and the rest of the resort, more residential units are proposed. These 2 buildings with 5 units each (10 units total), this expansion will provide accommodation for members next to the renowned Hermitage Inn restaurant.	2017	2022
Inn Homes SFD (1)	This single family house will provide accommodation for members next to the Hermitage Inn creating a balanced resort development, linking the Hermitage Inn to the larger Haystack resort to the south	2017	2019
Snowmobile Garages (14) <i>(700002-28 – Pending)</i>	The temporary location of these snowmobile garages is located in the future Hermitage Hotel Villas area. Permanent location of these snowmobile garages will be east of the Upper Mountain Trailside Homes.	2015	2017
Temporary Snowsports Tent <i>(700002-20C – Pending)</i>	This 70' X 90' tent is needed for ski school and all other snow recreational activities	2016	2019
Temporary Rescue Facility <i>(700002-19C; C-A; C-B; C-C) &amp; (700002-19C-D – Pending Extension)</i>	Rescue building, lavatory facility at base area used as temporary facility, to be also used as warming hut. Seeking three year extension.	2016	2019

**The Hermitage Club Master Plan  
Improvements & Development Projects**

Project	Description	(Estimated)	
		Year Start	Year End
Lower Mountain Transfer Lift <i>(700002-20)</i>	Construction of a Lower Mountain Transfer Lift from the bottom of the Mountain (near proposed Stag's Leap Phase II) up to the Six Pac Lift.	2014	2014
		<b>Completed</b>	
Putting Green @ Club House, ATV tours, Hiking Trails <i>(700002-22 – Pending)</i>	To add a small putting green and driving range adjacent to the new Base Lodge; provide guided ATV tours during holidays and weekends using existing work roads and trails on the mountain; add a designated pedestrian hiking trail for use from May to November only; and offer scenic day-time tours on all lifts, mostly on weekends and holidays from May to November.	2014	2017
Lot D West <i>(700002-23 – Permitted)</i>	Development of single-family home with driveway, and utilities on 2.05 acre lot.	2016	2016
		<b>Construction in Progress</b>	
Maintenance Building <i>(700002-27 – Withdrawn)</i>	Add a 20 x 20 foot addition onto an existing 50-foot by 80-foot Morton metal building (existing maintenance building)	2015	2015
Beginner Slope	The upper trail of the Beginner Slope was completed in 2015. The lower half of the Beginners Slope (west of Gate House Trail Road) will be constructed to allow skiers passage to the Lower Mountain.	2011	2018
Snowmobile / Cross-Country / Hiking Trail (See Exhibit 67)	These existing trails throughout the property can be used all year round and are essential for the resort recreational activities.	2013	2015
		<b>Completed</b>	

### **23. Description of Avoidance, Minimization, and Compensation (see instructions):**

During the design process we have modified the site layout and eliminated some of the proposed residential and commercial facilities in order to decrease the environmental footprint of the development.

#### **Off-Site Alternative:**

This resort is planned as a ski in/ski out development; thus eliminating the use of vehicles once the resort destination is reached by tourist. Although Hermitage Club Real Estate Holding Company, LLC owns land in surrounding areas, off-site development is not possible for any of the residential units, if the key concept of ski in/ski out resort is to be accomplished.

The ski-in/ski out concept is especial to making this development profitable. The integration of residential, commercial and recreational facilities is the selling point for this resort at sets it aside from other Vermont reports. Non-essential other venues such as the originally proposed Equestrian center were relocated to off-site locations with less environmental impact.

The concentration of the residential and commercial development of this ski resort on Haystack Mountain also follows the policy 7 of the Windham Regional Plan 2014: "Concentrate ski resort expansion and secondary growth to minimize the trend toward dispersed/sprawl development."

#### **On Site Plan Modifications:**

Through the course of this wetland impact permit application process there have been many changes in layout and location of the various parts of this overall project that is The Hermitage Club, as well as wetlands & stream mapping. Arrowwood Environmental provided first full update of wetlands mapping on 09/12/2013. Many efforts have been made to reduce and eliminate impacts as much as practicable while still making the most of the land available for development. The major part of the wetland impact is generated from the expansion of Mirror Lake, which accounts to approximately 55% of the primary impact for this development. Unfortunately, there is no viable alternatives to the design of Mirror Lake that could accommodate the snowmaking needs of this development, refer to Exhibit 13: NAA Analysis. Below is a summary of those efforts:

#### **Significant changes to plans 10/16/2013 (prior to & including) to 02/21/2014:**

These plans use Arrowwood Environmental wetlands / streams delineation updated on 01/17/2014:

- Upper Mountain Trailside – The development was laid out and impacts to wetland A19 was eliminating;
- Impacts to 337 & 338 was removed as trails are existing;
- High Country Homes / Old Powderhorn Village – number of homes was reduced from 32 down to 16, was well as the layout was changed to reduce stream crossings from 4 to 3;
- Equestrian Center – the layout was reworked to reduce number of wetlands impacted;
- Chamonix Village (now Grenoble Way) –building locations were shifted to reduce impacts to wetlands 118, 119 and 213;
- New England Village (now Chamonix Village) – the layout was changed to remove impacts to wetland 334;
- New England Village (now Stag's Leap Phase II) – the entrance drive was changed to eliminate wetland/stream crossing, layout was changed and the 24/30" stormwater pipe was relocating to remove impacts to wetland 304, and reduce impacts to wetlands 332, 120 & 121;
- McGovern Lots – the road was realigned to eliminate impacts to 515;
- Hermitage Inn Lots – the ski trail size was reduced crossing wetlands, realigned roadway farther from wetlands.



### **Significant changes to plans 02/21/2014 to 04/21/2014:**

- Chamonix Village (Grenoble Way) – The parking and building layout was changed to reduce impacts to wetland 118 & 213.

### **Significant changes to plans 04/21/2014 to 09/25/2014:**

These plans use Arrowwood Environmental wetlands/streams delineation updated on 07/16/2014 and 07/30/2014:

- Equestrian Center – this development was moved near airport to eliminate all impacts from proposed location;
- Stag's Leap Phase I – the building was moved out of wetland 302 eliminating impacts;
- Lot D West – crossing of Cold Brook was removed.

### **Significant changes to plans 09/25/2014 to 02/02/2015:**

These plans use Arrowwood Environmental wetlands/streams delineation updated on 12/03/2014 and 01/14/2015:

- High Country Homes / Old Powderhorn Village – one of the driveways was relocated to eliminate stream a crossing;
- Chamonix Village (Grenoble Way) – the layout was changed to eliminate impacts to wetland 213 and 118;
- Hermitage Inn Lots – the layout was changed to reduce impacts to wetlands, streams and buffers, the entrance location to the development was changed and up-sized bridge was proposed to clear the wetland in that area;
- Proposed Maintenance Building – the layout of building and parking was changed to eliminate impacts to wetland 215, eliminate stream impacts and reduce buffer impacts;
- Stag's Leap Phase II – the layout was changed to reduce impacts to wetland 121;
- Cold Brook Trail – the trail was removed completely eliminating wetland and stream impacts.

### **Significant changes to plans 02/02/2015 to 05/07/2015:**

These plans use Arrowwood Environmental wetlands / streams delineation updated on 04/30/2015 and 06/26/2015:

- Chamonix Village – Building 7 was reoriented to nearly eliminate impacts to wetland 335, interconnector ski trail was narrowed to reducing impacts to wetland 334;
- Hermitage Inn Lots – the driveways and building envelopes revised to further reduce impacts to stream and wetland buffers;
- Stag's Leap Phase I – the proposed stormwater pocket pond was moved to eliminate impacts to wetland 218.

### **Significant changes to plans 05/07/2015 to 10/01/2015:**

These plans use Arrowwood Environmental wetlands/streams delineation updated on 04/30/2015 and 06/26/2015:

- Chamonix Village – Eliminate Building 7 and Building 8 in order to minimize impacts to wetlands 336 and stream buffer impact to Oak Brook. The 8 units will be added to the Condo Hotel 146.
- Hermitage Inn Lots – House 1 and 2 are eliminated in order to minimize the impact to the perennial stream at that area. The 2 units will be added to the Condo Hotel 146.
- Haystack Withdrawal – This withdrawal is being eliminated from the plans for the next 5 years. Since this is a private resort with low terrain usage compare to other ski resorts the need for snowmaking capacity is hard to predict. Hermitage Club will observe the need for snowmaking water at Haystack Mountain during the next 5 years and might propose changes to the withdrawal structure as needed after that 5 years period.

**Significant changes to plans 10/01/2015 to 12/15/2015:**

These plans use Arrowwood Environmental wetlands/streams delineation updated on 04/30/2015 and 06/26/2015:

- Stream impact consolidation per ANR request. Stream buffer impact changes: proposed trees to restore stream buffers.

**Significant changes to plans 12/15/2015 to 11/14/2016:**

- Arrowwood Environmental wetlands / streams updates – 06/16/2016, 11/01/2016, 11/07/2016;
- 02/25/2016 – Stream impact changes @ SC#4, SC#6, SC#14, Siegel Pond – adjustment of impacts to better match design;.
- 03/18/2016 – Removed Mountain Coaster from 2 year project list removed impacts to Wetland 706; Added impacts to Wetland 707;
- 06/24/2016 – Streams – removed SC#2B, added impacts to SC#2A (Changed design of two shorter culverts to one long one). Wetlands – buffer Impacts to 118 reduced (Lower Mountain Lift), removed impacts to 332 (related to existing snowmaking line), adjusted buffer impacts to 359 to better match design, 707 to include buffer impacts;
- 07/11/2016 – Wetlands - removed all impacts to 118 (Lower Mountain Lift), changed notes to impacts to 332 (removed snowmaking line);
- 11/04/2016 – New Arrowwood wetland delineation study found Wetlands 343 & 344 to be one wetland, and reclassified it as such as 343. This increased the buffer impact to 343.

We ask that the mitigation for this development is accepted as in-lieu fee.

Matthew Trokel

9 saxon rd  
Newton, Ma 02461  
617 823 4898  
mtrokel@verizon.net

July 15, 2015

Robert Fisher  
114 Main St  
Brattleboro, VT 05302

Dear Mr Fisher,

Thank you for reaching out to me and explaining the current situation with water use and the Hermitage Holding co. My understanding is that the State is requesting that the Hermitage Co purchase some of my land in order to expand water flow into Mirror Lake for snowmaking purposes via a new wier. This request is due to a new needs analysis performed recently by the State.

Unfortunately, I am not interested in selling any land at this time. We use our land for various recreational activities and I have no desire to lessen my own access to the beautiful land surrounding our property. I am also not interested in having any new construction on our land or any new water pumping systems, so leasing or conveying land rights would also not be a reasonable alternative at this time.



Hopefully this situation can be resolved without resorting to using my land. Thank you for your time.

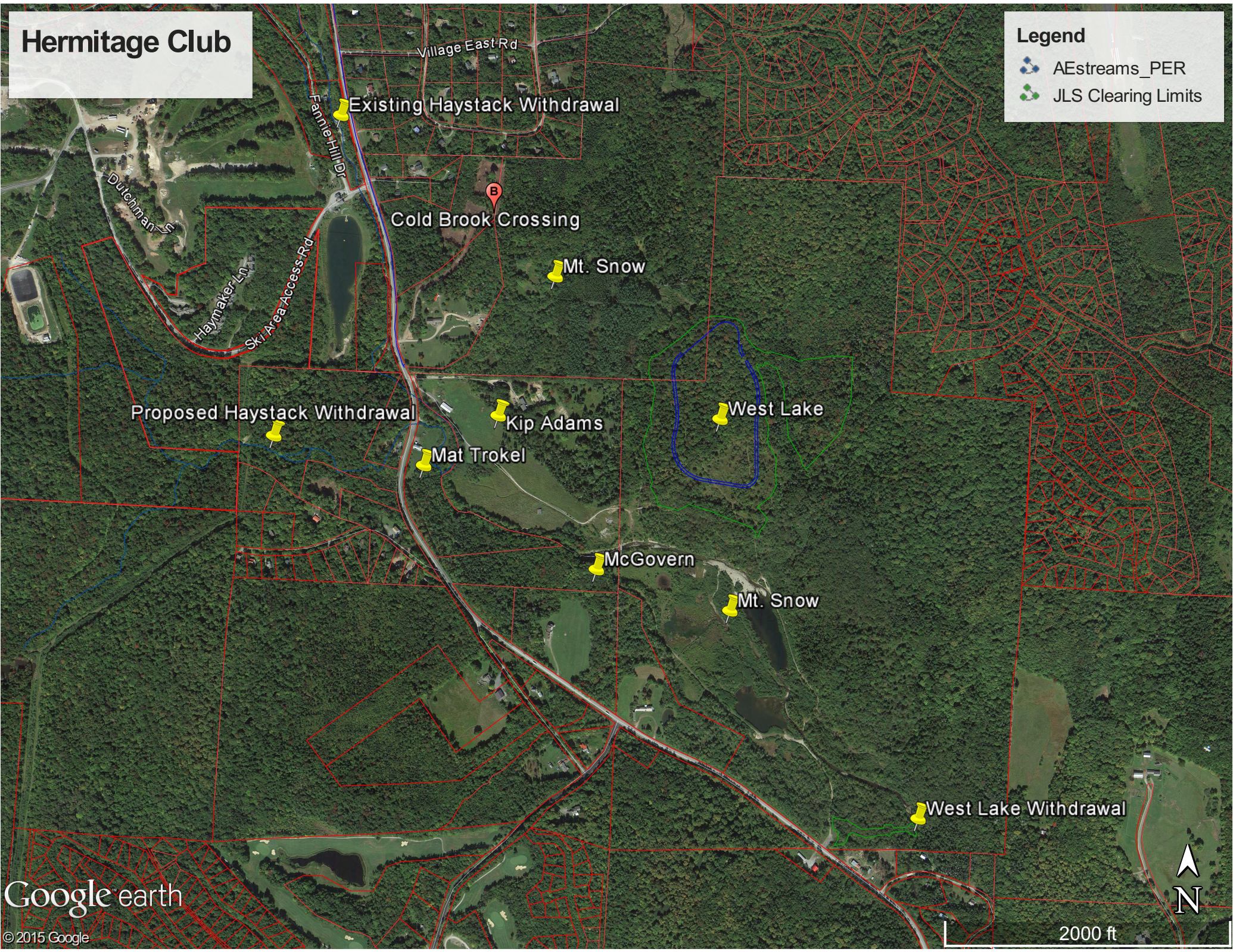
Sincerely yours,

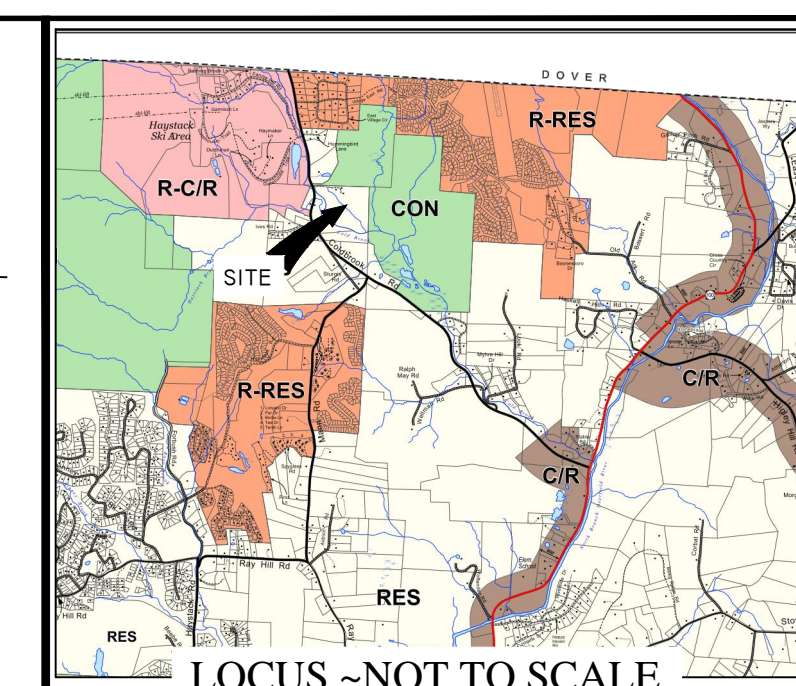
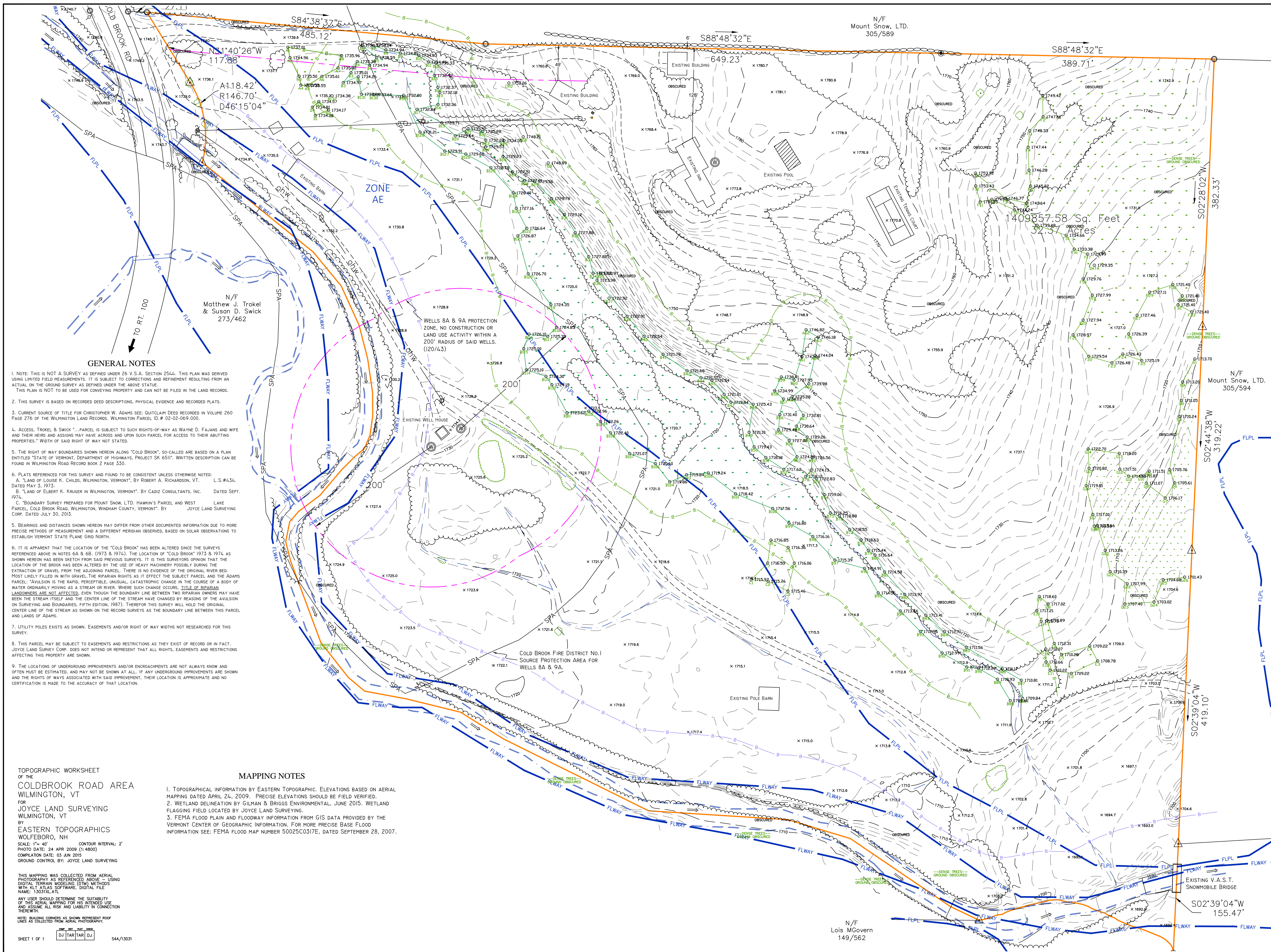
Matthew Trokel

# Hermitage Club

## Legend

-  AEstreams\_PER
-  JLS Clearing Limits





**EXISTING LEGEND**

- 2100 Existing Contours
- Wetland Boundary (Class II & III)
- Wetland Buffer (50' Class II, 25' Class III)
- River / Stream / Water Body
- Stream Buffer (75' unless field located)
- Intermittent Stream / Ditch
- Perennial Stream / Ditch
- Culvert
- Town Line
- Right-of-Way
- Property Line
- Heritage Owned Property
- Property Easement
- Zoning Setback
- Existing Lot Numbers
- Tree Line
- Building
- Road / Drive / Parking / Trail
- Fence
- Guardrail
- Well Shield
- Ski Trail Names
- Ski Lift
- Ski Lift Clearing Offset
- Underground Electric
- Overhead Power w/ Pole & Guy
- Water Line (size as indicated)
- 6" Fire Hydrant w/ Valve
- Snowmaking Line (size as indicated)
- Gas (LP) Line
- Gravity Sewer (size as indicated)
- Sewer Main (size as indicated)
- Pressure Sewer (size as indicated)

**PROPOSED LEGEND**

- Contours
- Building
- Road / Drive / Parking / Trail
- Treeline
- Limit of Disturbance
- Water Line w/ Valve (size as indicated)
- 6" Fire Hydrant w/ Valve
- Gravity Sewer Connection (PVC SDR 35) w/ Cleanout (Size as indicated)
- Gravity Sewer Line (PVC SDR 35) w/ Manhole (Size as indicated)
- Pressure Sewer Force Main (Size as indicated)
- Grass Ditch / Swale
- Stone Ditch / Swale

**REVISION BLOCK**

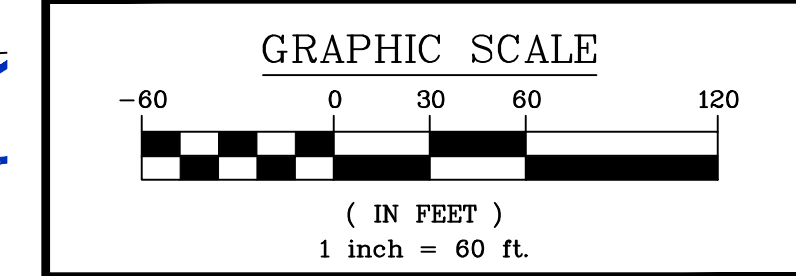
NO.	DATE	DESCRIPTION	BY

Preliminary Plot Plan prepared for  
 Christopher Adams  
 "THE BROOK BOUND LODGE"  
 441 Cold Brook Road  
 Wilmington, Vermont

JOYCE LAND SURVEYING CORP.  
 P.O. BOX 115  
 WILMINGTON, VERMONT 05363

**DRAFT**

VT. STATE PLANE GRID



PROJECT:	Brookbound 2014
ACAD NAME:	Brookbound Plot Plan 2014
DATE: 05/26/2015	SCALE: 1"=60'
DRAWN BY: BAJ	SHEET 1 OF 1

**GENERAL NOTES**

- NOTE: THIS IS NOT A SURVEY AS DEFINED UNDER 26 V.S.A. SECTION 2544. THIS PLAN WAS DERIVED USING LIMITED FIELD MEASUREMENTS. IT IS SUBJECT TO CORRECTIONS AND REFINEMENT RESULTING FROM AN ACTUAL ON THE GROUND SURVEY AS DEFINED UNDER THE ABOVE STATUTE. THIS PLAN IS NOT TO BE USED FOR CONVEYING PROPERTY AND CAN NOT BE FILED IN THE LAND RECORDS.
- THIS SURVEY IS BASED ON RECORDED DEED DESCRIPTIONS, PHYSICAL EVIDENCE AND RECORDED PLATS.
- CURRENT SOURCE OF TITLE FOR CHRISTOPHER W. ADAMS SEE: QUITCLAIM DEED RECORDED IN VOLUME 260 PAGE 276 OF THE WILMINGTON LAND RECORDS, WILMINGTON PARCEL ID. # 02-02-069.000.
- ACCESS, TROKEL & SWICK "... PARCEL IS SUBJECT TO SUCH RIGHTS-OF-WAY AS WAYNE D. FAJANS AND WIFE AND THEIR HEIRS AND ASSIGNS MAY HAVE ACROSS AND UPON SUCH PARCEL FOR ACCESS TO THEIR ADJUTING PROPERTIES." WIDTH OF SAID RIGHT OF WAY NOT STATED.
- THE RIGHT OF WAY BOUNDARIES SHOWN HEREON ALONG "COLD BROOK", SO-CALLED ARE BASED ON A PLAN ENTITLED "STATE OF VERMONT, DEPARTMENT OF HIGHWAYS, PROJECT SK 6511". WRITTEN DESCRIPTION CAN BE FOUND IN WILMINGTON ROAD RECORD BOOK 2 PAGE 330.
- PLATS REFERENCED FOR THIS SURVEY AND FOUND TO BE CONSISTENT UNLESS OTHERWISE NOTED:  
 A. "LAND OF LOUISE K. CHILDS, WILMINGTON, VERMONT", BY ROBERT A. RICHARDSON, VT. L.S.#424, DATED MAY 3, 1973.  
 B. "LAND OF ELBERT K. KRUGER IN WILMINGTON, VERMONT", BY CADIZ CONSULTANTS, INC. DATED SEPT. 1974.  
 C. "BOUNDARY SURVEY PREPARED FOR MOUNT SNOW, LTD., HAWKINS'S PARCEL AND WEST LAKE PARCEL, COLD BROOK ROAD, WILMINGTON, VERMONT", BY JOYCE LAND SURVEYING CORP. DATED JULY 30, 2013.
- BEARINGS AND DISTANCES SHOWN HEREON MAY DIFFER FROM OTHER DOCUMENTED INFORMATION DUE TO MORE PRECISE METHODS OF MEASUREMENT AND A DIFFERENT MERIDIAN OBSERVED, BASED ON SOLAR OBSERVATIONS TO ESTABLISH VERMONT STATE PLANE GRID NORTH.
- IT IS APPARENT THAT THE LOCATION OF THE "COLD BROOK" HAS BEEN ALTERED SINCE THE SURVEYS REFERENCED ABOVE IN NOTES 6A & 6B. (1973 & 1974). THE LOCATION OF "COLD BROOK" 1973 & 1974 AS SHOWN HEREON HAS BEEN SKETCH FROM SAID PREVIOUS SURVEYS. IT IS THE SURVEYORS OPINION THAT THE LOCATION OF THE BROOK HAS BEEN ALTERED BY THE USE OF HEAVY MACHINERY POSSIBLY DURING THE EXTRACTION OF GRAVEL FROM THE ADJOINING PARCEL. THERE IS NO EVIDENCE OF THE ORIGINAL RIVER BED. MOST LIKELY FILLED IN WITH GRAVEL. THE RIPARIAN RIGHTS AS IT EFFECT THE SUBJECT PARCEL AND THE ADAMS PARCEL. AVULSION IS THE RAPID, PERCEPTIBLE, INDIVIDUAL, CATASTROPHIC CHANGE IN THE COURSE OF A BODY OF WATER ORDINARILY MOVING AS A STREAM OR RIVER, WHERE SUCH CHANGE OCCURS, TITLE OF RIPARIAN LANDOWNERS ARE NOT AFFECTED, EVEN THOUGH THE BOUNDARY LINE BETWEEN TWO RIPARIAN OWNERS MAY HAVE BEEN THE STREAM ITSELF AND THE CENTER LINE OF THE STREAM HAD BEEN CHANGED BY REASONS OF THE AVULSION ON SURVEYS AND BOUNDARIES. (FIFTH EDITION, 1987). THEREFOR THIS SURVEY WILL HOLD THE ORIGINAL CENTER LINE OF THE STREAM AS SHOWN ON THE RECORD SURVEYS AS THE BOUNDARY LINE BETWEEN THIS PARCEL AND LANDS OF ADAMS.
- UTILITY POLES EXISTS AS SHOWN. EASEMENTS AND/OR RIGHT OF WAY WIDTHS NOT RESEARCHED FOR THIS SURVEY.
- THIS PARCEL MAY BE SUBJECT TO EASEMENTS AND RESTRICTIONS AS THEY EXIST OF RECORD OR IN FACT. JOYCE LAND SURVEY CORP. DOES NOT INTEND OR REPRESENT THAT ALL RIGHTS, EASEMENTS AND RESTRICTIONS AFFECTING THIS PROPERTY ARE SHOWN.
- THE LOCATIONS OF UNDERGROUND IMPROVEMENTS AND/OR ENCROACHMENTS ARE NOT ALWAYS KNOWN AND OFTEN MUST BE ESTIMATED, AND MAY NOT BE SHOWN AT ALL. IF ANY UNDERGROUND IMPROVEMENTS ARE SHOWN AND THE RIGHTS OF WAYS ASSOCIATED WITH SAID IMPROVEMENT, THEIR LOCATION IS APPROXIMATE AND NO CERTIFICATION IS MADE TO THE ACCURACY OF THAT LOCATION.

**TOPOGRAPHIC WORKSHEET OF THE COLD BROOK ROAD AREA WILMINGTON, VT FOR JOYCE LAND SURVEYING WILMINGTON, VT BY EASTERN TOPOGRAPHICS WOLFEBORO, NH**

**MAPPING NOTES**

- TOPOGRAPHICAL INFORMATION BY EASTERN TOPOGRAPHIC. ELEVATIONS BASED ON AERIAL MAPPING DATED APRIL 24, 2009. PRECISE ELEVATIONS SHOULD BE FIELD VERIFIED.
- WETLAND DELINEATION BY GILMAN & BRIGGS ENVIRONMENTAL, JUNE 2015. WETLAND FLAGGING FIELD LOCATED BY JOYCE LAND SURVEYING.
- FEMA FLOOD PLAIN AND FLOODWAY INFORMATION FROM GIS DATA PROVIDED BY THE VERMONT CENTER OF GEOGRAPHIC INFORMATION. FOR MORE PRECISE BASE FLOOD INFORMATION SEE: FEMA FLOOD MAP NUMBER 50025C0317E, DATED SEPTEMBER 28, 2007.

SCALE: 1"=40' CONTOUR INTERVAL: 2'  
 PHOTO DATE: 24 APR 2009 (1:4000)  
 COMPILED DATE: 03 JUN 2015  
 GROUND CONTROL BY: JOYCE LAND SURVEYING

THIS MAPPING WAS COLLECTED FROM AERIAL PHOTOGRAPHY AS REFERENCED ABOVE - USING DIGITAL TERRAIN MODELING (DTM) METHODS WITH KIT, ATLAS SOFTWARE. DIGITAL FILE NAME: 13031X1.ATL

ANY USER SHOULD DETERMINE THE SUITABILITY OF THIS AERIAL MAPPING FOR HIS INTENDED USE AND ASSUME ALL RISK AND LIABILITY IN CONNECTION THEREWITH.

NOTE: BUILDING CORNERS AS SHOWN REPRESENT ROOF LINES AS COLLECTED FROM AERIAL PHOTOGRAPHY.

SHEET 1 OF 1

Hermitage Club at Haystack Mountain  
 Mountain Master Plan Project  
 Wetland Summary Tables

Table 1: Functions and Values Summary

Wetland ID	Floodflow Alteration	Sediment/Toxicant Retention	Groundwater Recharge	Nutrient Removal Retention	Fish and Shellfish Habitat	Wildlife Habitat	Production Export	Unique/Heritage	RTE Species	Educational/Scientific Value	Recreation	Visual Aesthetics	Erosion Control
118	x	x		x		x							x
119		x											
120	x	x											
121	x	x											
124		x											
216		x											
305		x											
332		x							x				
334		x											
335		x	x	x									x
336		x											
346		x		x		x							x
356		x											
417		x	x	x									x
510		x	x										
514		x	x										
531		x	x										
535		x	x										
536		x											
706		x	x						x				
707		x		x									x
708		x											
A14	x	x	x										

Hermitage Club at Haystack Mountain  
Mountain Master Plan Project  
Wetland Summary Tables  
Table 2. Locational Data

Wetland ID	Wetland Classification	Latitude	Longitude	Site Visit w/ State District Ecologist
118	2	42.922209	-72.893538	9/12/2013
119	3	42.922178	-72.891967	9/12/2013
120	3	42.921944	-72.885925	NA
121	3	42.922884	-72.886353	NA
124	3	42.921664	-72.885283	10/29/2013
216	3	42.920918	-72.891972	10/29/2013
305	3	42.922624	-72.88691	10/29/2013
332	2	42.924307	-72.887712	10/29/2013
334	3	42.923432	-72.890076	10/29/2013
335	3	42.92322	-72.891385	10/29/2013
336	3	42.92302	-72.891739	NA
346	3	42.927061	-72.891611	9/12/2013
356	3	42.924948	-72.896686	10/29/2013
417	2	42.918581	-72.885594	8/21/2013
510	3	42.927265	-72.890528	9/25/2013
514	3	42.925536	-72.891864	9/12/2013
531	3	42.920164	-72.883929	9/12/2013
535	2	42.920406	-72.885434	8/21/2013
536	2	42.919741	-72.885403	8/21/2013
706	2	42.922535	-72.897747	NA
707	2	42.924656	-72.896737	NA
A14	3	42.922307	-72.885315	10/29/2013

Hermitage Club at Haystack Mountain  
Mountain Master Plan Project  
Wetland Summary Tables  
Table 3. Wetland Hydrologic Summary Data

Wetland ID	Size of Wetland Complex (sf)	Natural Community Types Present	Landscape Position	Wetland Hydroperiod	Direction of Flow	Influence of Hydrology on Wetland Complex	Surrounding Landuse	Pre-Project Cumulative Impacts to Wetland
118	12512.3922	Shallow emergent marsh	Terrace	Seasonal ponding	North to south	Surface water runoff is primary hydrologic input	Ski area	Clearing for lift line
119	2714.83344	Shallow emergent marsh	Terrace	Seasonal ponding	No streams	Surface water runoff is primary hydrologic input	Road/Forest	Roadside maintenance
120	48015.92664	Alder swamp	Terrace	Saturation, Seasonal ponding	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
121	25964.67852	Alder swamp/Shallow Emergent Marsh	Terrace	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
124	2229.05232	Shallow emergent marsh	Terrace	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
216	1108.42776	Shallow emergent marsh	Terrace	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Forest	NA
305	1756.29564	Wet Meadow	Terrace	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
332	9925.62516	Wet Meadow	Terrace	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
334	10549.92708	Wet Meadow	Terrace	Seasonal ponding	No streams	Surface water runoff is primary hydrologic input	Ski trails	Ski trail maintenance
335	11500.929	Seep	Headwaters	Saturation, Seasonal ponding	south to north	Groundwater discharge/surface water runoff	Road/Forest	Roadside maintenance
336	3331.55592	Shallow emergent marsh	Terrace	Seasonal ponding	No streams	Surface water runoff is primary hydrologic input	road/forest	Roadside maintenance
346	4406.70384	Seep	Hillslope	Saturation, Seasonal ponding	south to north	Groundwater discharge/surface water runoff	forest	NA
356	448.75512	Shallow emergent marsh	Terrace	Seasonal ponding	No streams	Surface water runoff is primary hydrologic input	Forest	Clearing
417	7329.44916	Seep	Hillslope	Saturation, Seasonal ponding	west to east	Groundwater discharge/surface water runoff	Forest/Mirror Lake	NA
510	1795.19472	Seep	Hillslope	Saturation	No streams	Groundwater discharge/surface water runoff	Forest	NA
514	3570.30828	Seep	Hillslope	Seasonal saturation	No streams	Groundwater discharge/surface water runoff	Forest/Residential	Residential clearing
531	924.25608	Seep	Hillslope	Seasonal saturation	No streams	Groundwater discharge/surface water runoff	Forest/Road	NA
535	6217.84152	Seep	Hillslope	Seasonal saturation	No streams	Groundwater discharge/surface water runoff	Forest/Mirror Lake	Clearing on shores of Mirror Lake
536	21354.4188	Alder swamp	Hillslope	Seasonal saturation	No streams	Surface water runoff is primary hydrologic input	Forest/Mirror Lake	Clearing on shores of Mirror Lake
706	27744.06096	Seep	Hillslope	Seasonal saturation	No streams	Groundwater discharge/surface water runoff	Ski trails	Ski trail maintenance
707	2318.9166	Wet Meadow	Hillslope	seasonal saturation;drain age patterns	North to south	Surface water runoff is primary hydrologic input	ski trails/forest	Ski trail maintenance



708	2248.04448	Wet Meadow	Hillslope	seasonal saturation	North to south	Surface water runoff is primary hydrologic input	ski trails/forest	Ski trail maintenance
A14	11415.50784	Seep	Terrace	Permanently saturated	No streams	Groundwater discharge/surface water runoff	Road/Forest	Roadside maintenance

Hermitage Club at Haystack Mountain  
Mountain Master Plan  
Wetland Summary Tables  
Table 4. Wetland Characterization Summary Data

Wetland ID	Description of Subject Wetland					Description of Surrounding Upland		
	Context of Wetland	General Landuse	Wetland Vegetation	Wetland Soils	Wetland Hydrology	General Landuse	Upland Vegetation	Upland Soils
118	Northern boundary	Naturally vegetated	<i>Doellingeria umbellata</i> , <i>Onoclea sensibilis</i>	Sandy redox	Oxidized rhizospheres, water stained leaves	Forest/Road	<i>Fagus grandifolia</i> , <i>Acer pensylvanicum</i> , <i>Dryopteris marginalis</i>	Worden
119	Overall wetland	Cleared roadside	<i>Onoclea sensibilis</i> , <i>Aster umbellatus</i> , <i>Solidago rugosa</i> , <i>Willow sp.</i>	Redox dark surface	Oxidized rhizospheres	Road	NA	Worden
120	Northern boundary	Ski trails	<i>Onoclea sensibilis</i> , <i>Carex sp.</i> , <i>Salix sp.</i> , <i>Betula alleghaniensis</i>	Depleted matrix, depleted below dark surface	Saturation	Ski trail	Mown ski trail	Worden
121	Western Boundary	Ski trails	<i>Carex crinita</i>	Redox dark surface	Oxidized rhizospheres	Ski trail	Mown ski trail	Sheepscot
124	Northern boundary	Forest/ski trails	<i>Onoclea sensibilis</i> , <i>Carex sp.</i> , <i>Salix sp.</i> , <i>Spiraea sp.</i>	Sandy redox	Oxidized rhizospheres	Ski trail	Mown ski trail	Sheepscot
216	Overall wetland	Naturally vegetated	<i>Onoclea sensibilis</i>	LoamGley	Oxidized rhizospheres, saturation	naturally vegetated	Red spruce northern hardwood forest	Worden
305	Southern boundary	Ski trails	<i>Carex gynandra</i> , <i>Onoclea sensibilis</i>	Redox dark surface	Oxidized rhizospheres	Ski trail	Mown ski trail	Worden
332	Overall wetland	Ski trails	<i>Onoclea sensibilis</i> , <i>Phalaris arundinacea</i>	Redox dark surface	oxidized rhizospheres	Ski trail	Mown ski trail	Houghtonville-Rawsonville
334	Overall wetland	Ski trails	<i>Onoclea sensibilis</i>	depleted matrix	Oxidized rhizospheres	Ski trail	Hemlock Northern Hardwood Forest	Houghtonville-Rawsonville
335	Western Boundary	Forest	<i>Betula alleghaniensis</i> , <i>Onoclea sensibilis</i>	Redox dark surface	Oxidized rhizospheres, Drainage patterns	Road/forest	<i>Fagus grandifolia</i> , <i>Acer pensylvanicum</i> , <i>Mitchella repens</i>	Houghtonville-Rawsonville
336	Overall wetland	Cleared roadside	<i>Onoclea sensibilis</i> , <i>Thyphasp.</i>	Depleted matrix	Oxidized rhizospheres	Road/forest	Red spruce northern hardwood forest	Houghtonville-Rawsonville
346	Western Boundary	Forest	<i>Osmundastrum cinnamomeum</i>	Depleted dark surface	Saturation	Forest	Hemlock Northern Hardwood Forest	Mundal
356	Northern boundary	Cleared/disturbed	<i>Carex gynandra</i> , <i>Spiraea alba</i>	Redox dark surface	Oxidized rhizospheres	Forest/clearing	Northern Hardwood Forest	Houghtonville-Rawsonville

417	Overall wetland	Forest	<i>Onoclea sensibilis</i> , <i>Carex crinita</i>	Histosol	Surface water, high water table, saturation	Forest/Mirror Lake	<i>Betula alleghaniensis</i> , <i>Acer saccharum</i> , <i>Fraxinus americana</i> , <i>Parathelypteris noveboracensis</i> , <i>Dryopteris intermedia</i>	Houghtonville-Rawsonville
510	Overall wetland	Forest	<i>Impatiens capensis</i> , <i>Onoclea sensibilis</i> , <i>Osmunda claytonia</i>	Redox dark surface	Saturation	Forest	<i>Hemlock Northern Hardwood Forest</i>	Mundal
514	Overall wetland	Forest/cleared	<i>Osmundastrum cinnamomeum</i> , <i>Onoclea sensibilis</i> , <i>Carex scabrata</i> , <i>Glyceria sp.</i> , <i>Impatiens capensis</i> , <i>Carex gynandra</i>	Depleted matrix	Saturation	Forest/Residential	<i>Hemlock Northern Hardwood Forest</i>	Rawsonville-hogback
531	Overall wetland	Forest	<i>Carex torta</i> , <i>Parathelypteris noveboracensis</i> , <i>Solidago rugosa</i> , <i>Carex scabrata</i> , <i>Glyceria striata</i> , <i>Onoclea sensibilis</i>	Sandy redox	Oxidized rhizospheres	Forest/Road/Mirror Lake	<i>Hemlock Northern Hardwood Forest</i>	Worden
535	Overall wetland	Forest/cleared	<i>Spiraea alba</i> , <i>Salix sp.</i> , <i>Carex pallenscens</i> , <i>Solidago gigantea</i> , <i>Zizia aurea</i> , <i>Onoclea sensibilis</i> ,	Depleted Matrix	Saturation	Forest/Road/Mirror Lake	<i>Hemlock Northern Hardwood Forest</i>	Sheepscot
536	Overall wetland	Forest/cleared	<i>Salix sp.</i> , <i>Onoclea sensibilis</i> , <i>Juncus canadensis</i>	Depleted matrix, depleted below dark surface	Saturation	Forest/Mirror Lake	<i>Betula populifolia</i> , <i>Populus tremuloides</i> , <i>Acer saccharum</i> , <i>Solidago canadensis</i>	Sheepscot
706	Overall wetland	Ski trails	<i>Onoclea sensibilis</i> , <i>Carex crinita</i>	Sandy redox	Oxidized rhizospheres	Ski trail	<i>Fagus grandifolia</i> , <i>Acer pensylvanicum</i> , <i>Dryopteris marginalis</i>	Rawsonville-hogback
707	Overall wetland	ski trails/forest	<i>Carex sp.</i>	Very shallow dark surface	Oxidized rhizospheres	ski trail/forest	<i>Northern Hardwood Forest</i>	Houghtonville-Rawsonville
708	Overall wetland	Ski trails	<i>Carex sp.</i>	Very shallow dark surface	Oxidized rhizospheres	ski trail/forest	<i>Northern Hardwood Forest</i>	Houghtonville-Rawsonville
A14	Southern boundary	Naturally vegetated	<i>Scrub shrub</i>	NA	NA	Road/forest	<i>Northern Hardwood Forest</i>	Sheepscot

**Hermitage Club at Haystack Mountain  
Mountain Master Plan Project  
Wetland Summary Tables  
Table 5. Wetlands Impact Summary Table**

<b>Wetland ID</b>	<b>PRIMARY-Grading (sf)</b>	<b>SECONDAR Y- Clearing (sf)</b>	<b>INDIRECT (sf)</b>	<b>IMPACT DESCRIPTION</b>
118		2,521	9,984	Tree Clearing for Lower MTN Lift
119	364		2,353	Roadway & Parking construction, grading
120	11,272		30,935	Roadway construction, Snowmaking Line
121	2,225		25,965	Snowmaking Line
122			1,561	Indirect only
124	493		1,736	Roadway construction
125			2,881	Indirect only
213			7,201	Indirect only
215			3,338	Indirect only
216	1,108			Maintenance Building construction, grading
217			1,096	Indirect only
218			728	Indirect only
302			4,219	Indirect only
304			2,825	Indirect only
305	125		1,632	Future Utilities
306			351	Indirect only
307			2,301	Indirect only
312			362	Indirect only
316			9,845	Indirect only
330			3,954	Indirect only
331			1,449	Indirect only
332	1,341		8,591	Snowmaking Line
334		2,174	8,376	Roadway construction, Future Trail - Tree Clearing
335	57		11,445	Roadway construction, retaining wall
336	3,332			Building #7 construction, grading
337			10,158	Indirect only
338			3,596	Indirect only
339			1,263	Indirect only
340			14,328	Indirect only
341			541	Indirect only
342			2,215	Indirect only
343			3,552	Indirect only
344			2,015	Indirect only
345			2,042	Indirect only
346		859	3,547	Future Trail - Tree Clearing
347			1,561	Indirect only

348			678	Indirect only
350			2,016	Indirect only
351			1,277	Indirect only
352			1,073	Indirect only
356	449			Grading - Fill
357			5,327	Indirect only
358			1,686	Indirect only
359			11,140	Indirect only
361			4,902	Indirect only
362			114	Indirect only
365			499	Indirect only
374			1,177	Indirect only
415			2,710	Indirect only
416			697	Indirect only
417	7,330			Mirror Lake Expansion
419			891	Indirect only
420			2,459	Indirect only
507			3,215	Indirect only
508			499	Indirect only
509			1,534	Indirect only
510		446	1,346	Indirect only
514	3,571			Roadway construction
515			4,476	Indirect only
530			262	Indirect only
531	925			Mirror Lake Expansion
532			4,360	Indirect only
533			30,777	Indirect only
534			718	Indirect only
535	6,218			Mirror Lake Expansion
536	21,355			Mirror Lake Expansion
700			19,314	Indirect only

701			898	Indirect only
705			20,649	Indirect only
706		1835	27,743	Tree Clearing for Mountain Coaster
707	2,319			Grading - Fill
708	2,248			Grading - Fill
781			582	Indirect only
782			1,245	Indirect only
783			2,001	Indirect only
784			667	Indirect only
785			2,204	Indirect only
786			1,683	Indirect only
312b			624	Indirect only
418a			889	Indirect only
800a			2,235	Indirect only
800b			1,912	Indirect only

A14	320		10,530	Roadway Fill, Utilities
A1			2,425	Indirect only
A2			6,075	Indirect only
A23			15,766	Indirect only
A24			1,534	Indirect only
A3			276	Indirect only
A5			6,116	Indirect only
A8			7,218	Indirect only
A9			1,826	Indirect only

Hermitage Club at Haystack Mountain  
Mountain Master Plan Project  
Stream Summary Table

STREAM ID (or LOCATION)		SHEET #	OHW (ft)	PRIMARY STREAM Grading LF	PRIMARY STREAM Grading SF	INDIRECT IMPACTS 100' DS	IMPACT NOTES	Stream	Structure Size	Project Description
SC#1	New Concrete Bridge w/ Open Bottom for roadway	CW-101B	8	120	1,800	1,500	New Open Bottom Arch Culvert for Roadway	OB-T7	6'x100'x4' Precast Concrete Bridge	Upper Mtn Trailside Road
SC#2	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway, Trails	CW-102A1	15	220	2,702	2,000	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway, Trails	Oak Brook	15' x 40' and 15' x 80' open bottom culverts	Upper Mtn Trailside Trail/Road Culvert Replacement
SC#3	Replace Ex. Culvert with Open Bottom Arch Culvert for Hotel fill & Trail	CW-102A1	15	75	901	2,000	Replace Ex. Culvert with Open Bottom Arch Culvert for Hotel fill & Trail	Oak Brook	15' x 50' open bottom culvert	Work Road Culvert Replacement
SC#4	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway	CW-102A1	30	105	1,279	4,000	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway	Oak Brook	30' x 60' open bottom culvert	Oak Brook/Fannie Hill Culvert Replacement
SC#5	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway	CW-102B	3	60	180	300	Replace Ex. Culvert with Open Bottom Arch Culvert for Roadway	CB-T6-S9	3'x40' Open Bottom Arch Culvert to Replace Culvert	High Country Road
SC#6	New Open Bottom Arch Culvert for Roadway	CW-102D	2	50	100	200	New Open Bottom Arch Culvert for Roadway	OB-T2	6'x40' Open Bottom Arch Culvert	Chamonix Village Road
SC#7	New Bridge Crossing for Hermitage Inn Lots	CW-102F	13	0	0	0	New Bridge Crossing for Hermitage Inn Lots	CB-T6	24'x40' Bridge	Hermitage Lots Road
SC#8	New Open Bottom Arch Culvert for Roadway	CW-102F	4	70	700	1,000	New Open Bottom Arch Culvert for Roadway	CB-T6	6'x50' Open Bottom Arch Culvert	Hermitage Lots Road
SC#9	New Open Bottom Arch Culvert for Proposed Ski Trail	CW-102F	4	50	300	600	New Open Bottom Arch Culvert for Proposed Ski Trail	CB-T6-S7-S1	4'x40' Open Bottom Arch Culvert	Inn Chute Ski Trail
SC#10	New Open Bottom Arch Culvert for Proposed Ski Trail	CW-102F	3	90	810	900	New Open Bottom Arch Culvert for Proposed Ski Trail	CB-T6	6'x60' Open Bottom Arch Culvert	Inn Chute Ski Trail
SC#11	New Bridge Crossing for the Ratheau Lot	CW-102G	30	0	0	0	New Bridge Crossing for the Ratheau Lot	Cold Brook	1-Span Bridge to replace snowmobile bridge	Kingsley Bridge
SC#12	Cold Brook Withdrawal upgrades	CW-102K	70	15	1,050	7,000	Cold Brook Withdrawal upgrades	Cold Brook	Upgrades to Cold Brook Withdrawal	Cold Brook Withdrawal
SC#13	Mirror Lake Expansion	CW-102M	6	70	420	600	Mirror Lake Expansion	CB-T3	Mirror Lake Outlet Structure	Mirror Lake Expansion
SC#14	Mirror Lake Expansion	CW-102M	6	365	2,190	600	Mirror Lake Expansion	Isolated- 1	4'x40' Open Bottom Arch Culvert (remove culvert DS)	Haystack Brook Withdrawal
SC#15	Proposed Haystack Brook Withdrawal	CW-102L	30	20	600	3,000	Proposed Haystack Brook Withdrawal	Haystack Brook	Haystack Brook Withdrawal	Mirror Lake Expansion
Lower MTN Lift	Tree Clearing for Lower MTN Lift	CW-102D	4	0	0	0	Tree Clearing for Lower MTN Lift	HB-T3	Lower Mountain Lift Clearing	Lower Mountain Lift
MTN Coaster	Mountain coaster clearing	CW-101C	4	0	0	0	Mountain coaster clearing	OB-T4-S2	Mountain Coaster Clearing	Mountain Coaster
Siegel Pond	Siegel pond construction	CW-102L	2	70	281	392	Proposed Siegel Pond	HB-T1	Siegel pond construction	Seigel Pond



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 15  
 Subregion (LRR or MLRA): LRR R Lat: 42.921643 Long: -72.893351 Datum: Upland  
 Soil Map Unit Name: Worden NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes <u>    </u> No <u>X</u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u> If yes, optional Wetland Site ID: <u>Wetland 213</u>
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest/shallow bedrock/bouldery	

**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)	<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)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>X</u>
--	---

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

Remarks:



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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u><i>Acer pensylvanicum</i></u>	25	Yes	FACU	<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>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u><i>Fagus grandifolia</i></u>	70	Yes	FACU																	
3. <u><i>Prunus serotina</i></u>	1	No	FACU																	
4. <u><i>Acer saccharum</i></u>	5	No	FACU																	
5. _____																				
6. _____																				
7. _____																				
	101	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>157</u></td> <td>x 4 = <u>628</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>158</u> (A)</td> <td><u>631</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.99</u></td> </tr> </table>	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>1</u>	x 3 = <u>3</u>	FACU species <u>157</u>	x 4 = <u>628</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>158</u> (A)	<u>631</u> (B)	Prevalence Index = B/A = <u>3.99</u>	
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>1</u>	x 3 = <u>3</u>																			
FACU species <u>157</u>	x 4 = <u>628</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>158</u> (A)	<u>631</u> (B)																			
Prevalence Index = B/A = <u>3.99</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Fagus grandifolia</i></u>	5	No	FACU																	
2. <u><i>Acer pensylvanicum</i></u>	35	Yes	FACU																	
3. <u><i>Acer rubrum</i></u>	1	No	FAC																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	41	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Dryopteris marginalis</i></u>	15	Yes	FACU	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u><i>Acer pensylvanicum</i></u>	1	No	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	16	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																
_____ =Total Cover																				

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): bowl/depression Local relief (concave, convex, none): concave Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.921604 Long: -72.893112 Datum: Wetland  
 Soil Map Unit Name: Worden NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 213</u>
Remarks: (Explain alternative procedures here or in a separate report.) Shallow Emergent Marsh	

### 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 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 type="checkbox"/> Sediment Deposits (B2) <input checked="" 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)	<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
--	---

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

Remarks:  
 Obvious Topo break

**SOIL**

Sampling Point: 1

**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>		
0-7	10yr 5/1	97	10yr 4/6	3	c	pl	sandy	moist

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- 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)
- Marl (F10) (LRR K, L)

**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)
- 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: till  
 Depth (inches): 7

Hydric Soil Present? Yes X No   

Remarks:

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</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>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
			=Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Fraxinus nigra</u>	5	Yes	FACW	<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>101</u></td> <td>x 2 = <u>202</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>101</u> (A)</td> <td><u>202</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.00</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>101</u>	x 2 = <u>202</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>101</u> (A)	<u>202</u> (B)	Prevalence Index = B/A = <u>2.00</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>101</u>	x 2 = <u>202</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>101</u> (A)	<u>202</u> (B)																			
Prevalence Index = B/A = <u>2.00</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	5		=Total Cover																	
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Onoclea sensibilis</u>	60	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u>Doellingeria umbellata</u>	30	Yes	FACW																	
3. <u>Impatiens capensis</u>	5	No	FACW																	
4. <u>Fraxinus nigra</u>	1	No	FACW																	
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	96		=Total Cover																	
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Not present</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. _____																				
			=Total Cover																	

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: \_\_\_\_\_  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): None Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.921220 Long: -72.888344 Datum: Upland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes _____ No <u>x</u> Hydric Soil Present? Yes _____ No <u>X</u> Wetland Hydrology Present? Yes _____ No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes _____ No <u>X</u> If yes, optional Wetland Site ID: <u>Wetland 302</u>
Remarks: (Explain alternative procedures here or in a separate report.) Mowed Ski Trail	

**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)
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<b>Field Observations:</b> Surface Water Present? Yes _____ No <u>x</u> Depth (inches): _____ Water Table Present? Yes _____ No <u>x</u> Depth (inches): _____ Saturation Present? Yes _____ No <u>x</u> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes _____ No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:





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

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

	Absolute % Cover	Dominant Species?	Indicator Status	
<b>Tree Stratum</b> (Plot size: <u>30' radius</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>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)
1. <u>Not present</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			=Total Cover	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )				
1. <u>Not present</u>				
2. _____				
3. _____				
4. _____				
5. _____				
6. _____				
7. _____				
			=Total Cover	
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )				
1. <u>Galium mollugo</u>	30	Yes	UPL	
2. <u>trifolium pratense</u>	20	Yes	UPI	
3. <u>Vicia cracca</u>	25	Yes	UPL	
4. <u>Onoclea sensibilis</u>	15	No	FACW	
5. <u>Salix sp.</u>	1	No	FAC	
6. <u>Bromus inermis</u>	1	No	UPL	
7. <u>Unknown grass</u>	5	No		
8. _____				
9. _____				
10. _____				
11. _____				
12. _____				
			97 =Total Cover	
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )				
1. <u>Not present</u>				
2. _____				
3. _____				
4. _____				
			=Total Cover	

	Total % Cover of:		Multiply by:	
OBL species	<u>0</u>		x 1 =	<u>0</u>
FACW species	<u>15</u>		x 2 =	<u>30</u>
FAC species	<u>1</u>		x 3 =	<u>3</u>
FACU species	<u>0</u>		x 4 =	<u>0</u>
UPL species	<u>76</u>		x 5 =	<u>380</u>
Column Totals:	<u>92</u>	(A)		<u>413</u> (B)
Prevalence Index = B/A =				<u>4.49</u>

<b>Hydrophytic Vegetation Indicators:</b>
<u>1</u> - Rapid Test for Hydrophytic Vegetation
<u>2</u> - Dominance Test is >50%
<u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>
<u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)
<u>    </u> 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>	<b>Yes</b>	<b>No</b>
_____	_____	_____

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): Concave Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.921160 Long: -72.888561 Datum: Wetland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 302</u>
Remarks: (Explain alternative procedures here or in a separate report.) Mowed Ski Trail	

### 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 checked="" 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)	<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:

**SOIL**

Sampling Point: 1

**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>		
0-7	10yr 3/2	100					loamy/clayey	Loose
7-11	2.5y 5/2	98	2.5y 5/4	2	c	pl	loamy/clayey	Distinct redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- High Chroma Sands (S11) (**LRR K, L**)
- 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)
- Marl (F10) (**LRR K, L**)

**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**)
- 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: Till  
 Depth (inches): 11

Hydric Soil Present?      Yes X      No   

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</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>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
			=Total Cover																	
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Salix sp.</u>	<u>5</u>	<u>Yes</u>	<u>FAC</u>	<b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>70</u></td> <td>x 2 = <u>140</u></td> </tr> <tr> <td>FAC species <u>6</u></td> <td>x 3 = <u>18</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>1</u></td> <td>x 5 = <u>5</u></td> </tr> <tr> <td>Column Totals: <u>77</u> (A)</td> <td><u>163</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>2.12</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>70</u>	x 2 = <u>140</u>	FAC species <u>6</u>	x 3 = <u>18</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>1</u>	x 5 = <u>5</u>	Column Totals: <u>77</u> (A)	<u>163</u> (B)	Prevalence Index = B/A = <u>2.12</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>70</u>	x 2 = <u>140</u>																			
FAC species <u>6</u>	x 3 = <u>18</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>1</u>	x 5 = <u>5</u>																			
Column Totals: <u>77</u> (A)	<u>163</u> (B)																			
Prevalence Index = B/A = <u>2.12</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
			=Total Cover																	
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Doellingeria umbellata</u>	<u>10</u>	<u>No</u>	<u>FACW</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. _____																				
3. <u>Bromus inermis</u>	<u>1</u>	<u>No</u>	<u>UPL</u>																	
4. <u>Onoclea sensibilis</u>	<u>60</u>	<u>Yes</u>	<u>FACW</u>																	
5. <u>Salix sp.</u>	<u>1</u>	<u>No</u>	<u>FAC</u>																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
			=Total Cover																	
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )																				
1. <u>Not present</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. _____																				
			=Total Cover																	
<table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:60%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width:20%; text-align: center;">Yes <u>X</u></td> <td style="width:20%; text-align: center;">No <u>  </u></td> </tr> </table>				<b>Hydrophytic Vegetation Present?</b>	Yes <u>X</u>	No <u>  </u>														
<b>Hydrophytic Vegetation Present?</b>	Yes <u>X</u>	No <u>  </u>																		

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 5  
 Subregion (LRR or MLRA): LRR R Lat: 42.923015 Long: -72.891371 Datum: Upland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 3

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 checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest			

### 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)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:

**SOIL**

Sampling Point: 2

**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 3/1	100					loamy/clayey	loose/pebbles
6-12	10yr 4/4	100					loamy/clayey	

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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"/> High Chroma Sands (S11) (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 Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input type="checkbox"/> Depleted Below Dark Surface (A11)	<input type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Marl (F10) (LRR K, L)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Dark Surface (S7)			

<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>na</u> Depth (inches): _____	<b>Hydric Soil Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Remarks:  
Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u><i>Tsuga canadensis</i></u>	<u>30</u>	<u>Yes</u>	<u>FACU</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>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u><i>Fraxinus americana</i></u>	<u>15</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u><i>Acer rubrum</i></u>	<u>10</u>	<u>No</u>	<u>FAC</u>																	
4. <u><i>Acer saccharum</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
5. _____																				
6. _____																				
7. _____																				
	<u>65</u>	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:right;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>16</u></td> <td>x 3 = <u>48</u></td> </tr> <tr> <td>FACU species <u>107</u></td> <td>x 4 = <u>428</u></td> </tr> <tr> <td>UPL species <u>1</u></td> <td>x 5 = <u>5</u></td> </tr> <tr> <td>Column Totals: <u>124</u></td> <td>(A) <u>481</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.88</u></td> </tr> </table>	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>16</u>	x 3 = <u>48</u>	FACU species <u>107</u>	x 4 = <u>428</u>	UPL species <u>1</u>	x 5 = <u>5</u>	Column Totals: <u>124</u>	(A) <u>481</u> (B)	Prevalence Index = B/A = <u>3.88</u>	
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>16</u>	x 3 = <u>48</u>																			
FACU species <u>107</u>	x 4 = <u>428</u>																			
UPL species <u>1</u>	x 5 = <u>5</u>																			
Column Totals: <u>124</u>	(A) <u>481</u> (B)																			
Prevalence Index = B/A = <u>3.88</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Acer saccharum</i></u>	<u>5</u>	<u>No</u>	<u>FACU</u>																	
2. <u><i>Fagus grandifolia</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
3. <u><i>Acer pensylvanicum</i></u>	<u>20</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u><i>Abies balsamea</i></u>	<u>5</u>	<u>No</u>	<u>FAC</u>																	
5. <u><i>Viburnum lantana</i></u>	<u>1</u>	<u>No</u>	<u>UPL</u>																	
6. _____																				
7. _____																				
	<u>51</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Acer rubrum</i></u>	<u>1</u>	<u>No</u>	<u>FAC</u>	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u><i>Acer pensylvanicum</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. <u><i>Fagus grandifolia</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
4. <u><i>Mitchella repens</i></u>	<u>5</u>	<u>Yes</u>	<u>FACU</u>																	
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>8</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>    </u> No <u>  X  </u>																
_____ =Total Cover																				

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.923140 Long: -72.891399 Datum: Wetland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 3

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 <input type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Wetland Hydrology Present?	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) Seep			

### 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 checked="" 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 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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:



**SOIL**

Sampling Point: 1

**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 3/1	96	7.5yr 4/6	4	c	pl	loamy/clayey	moist

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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 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)</p> | <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR R, MLRA 149B)</p> <p><input type="checkbox"/> High Chroma Sands (S11) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Mucky Mineral (F1) (LRR K, L)</p> <p><input type="checkbox"/> Loamy Gleyed Matrix (F2)</p> <p><input type="checkbox"/> Depleted Matrix (F3)</p> <p><input checked="" type="checkbox"/> Redox Dark Surface (F6)</p> <p><input type="checkbox"/> Depleted Dark Surface (F7)</p> <p><input type="checkbox"/> Redox Depressions (F8)</p> <p><input type="checkbox"/> Marl (F10) (LRR K, L)</p> | <p><b>Indicators for Problematic Hydric Soils<sup>3</sup>:</b></p> <p><input type="checkbox"/> 2 cm Muck (A10) (LRR K, L, MLRA 149B)</p> <p><input type="checkbox"/> Coast Prairie Redox (A16) (LRR K, L, R)</p> <p><input type="checkbox"/> 5 cm Mucky Peat or Peat (S3) (LRR K, L, R)</p> <p><input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)</p> <p><input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)</p> <p><input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)</p> <p><input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)</p> <p><input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)</p> <p><input type="checkbox"/> Red Parent Material (F21)</p> <p><input type="checkbox"/> Very Shallow Dark Surface (TF12)</p> <p><input type="checkbox"/> Other (Explain in Remarks)</p> |
|--|---|---|

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

<p><b>Restrictive Layer (if observed):</b></p> <p>Type: <u>till</u></p> <p>Depth (inches): <u>8</u></p>	<p><b>Hydric Soil Present?</b>      Yes <u>X</u>      No <u>  </u></p>
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Remarks:

Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Betula alleghaniensis</u>	25	Yes	FAC	<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>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Acer rubrum</u>	5	No	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>30</u>	=Total Cover		<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>5</u></td> <td>x 1 = <u>5</u></td> </tr> <tr> <td>FACW species <u>90</u></td> <td>x 2 = <u>180</u></td> </tr> <tr> <td>FAC species <u>45</u></td> <td>x 3 = <u>135</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>140</u></td> <td>(A) <u>320</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.29</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>5</u>	x 1 = <u>5</u>	FACW species <u>90</u>	x 2 = <u>180</u>	FAC species <u>45</u>	x 3 = <u>135</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>140</u>	(A) <u>320</u> (B)	Prevalence Index = B/A = <u>2.29</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>5</u>	x 1 = <u>5</u>																			
FACW species <u>90</u>	x 2 = <u>180</u>																			
FAC species <u>45</u>	x 3 = <u>135</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>140</u>	(A) <u>320</u> (B)																			
Prevalence Index = B/A = <u>2.29</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Betula alleghaniensis</u>	15	Yes	FAC																	
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>15</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Osmundastrum cinnamomeum</u>	10	No	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Onoclea sensibilis</u>	80	Yes	FACW																	
3. <u>Carex crinita</u>	5	No	OBL																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>95</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Not present</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. _____																				
	=Total Cover			<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.926651 Long: 42.891525 Datum: Upland  
 Soil Map Unit Name: Mundal NWI classification: 2

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 checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: _____
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest w/Red Spruce/Hemlock			

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

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

Remarks:



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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Prunus serotina</u>	10	No	FACU	<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>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>33.3%</u> (A/B)																
2. <u>Picea rubens</u>	30	Yes	FACU																	
3. <u>Acer rubrum</u>	20	Yes	FAC																	
4. <u>Tsuga canadensis</u>	10	No	FACU																	
5. _____																				
6. _____																				
7. _____																				
	70	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:center;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u></td> <td>(A) <u>500</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.85</u></td> </tr> </table>	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>20</u>	x 3 = <u>60</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u>	(A) <u>500</u> (B)	Prevalence Index = B/A = <u>3.85</u>	
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>20</u>	x 3 = <u>60</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u>	(A) <u>500</u> (B)																			
Prevalence Index = B/A = <u>3.85</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Picea rubens</u>	60	Yes	FACU																	
2. <u>Amelanchier</u>	1	No																		
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	61	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Not present</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> 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. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )																				
1. <u>Not present</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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.926580 Long: -72.891750 Datum: Wetland  
 Soil Map Unit Name: Mundal NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> 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.) Seep	

### 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) <input 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)	<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>1</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:



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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Not present</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>3</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>10</u></td> <td>x 1 = <u>10</u></td> </tr> <tr> <td>FACW species <u>60</u></td> <td>x 2 = <u>120</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>6</u></td> <td>x 4 = <u>24</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>96</u> (A)</td> <td><u>214</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.23</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>10</u>	x 1 = <u>10</u>	FACW species <u>60</u>	x 2 = <u>120</u>	FAC species <u>20</u>	x 3 = <u>60</u>	FACU species <u>6</u>	x 4 = <u>24</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>96</u> (A)	<u>214</u> (B)	Prevalence Index = B/A = <u>2.23</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>10</u>	x 1 = <u>10</u>																			
FACW species <u>60</u>	x 2 = <u>120</u>																			
FAC species <u>20</u>	x 3 = <u>60</u>																			
FACU species <u>6</u>	x 4 = <u>24</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>96</u> (A)	<u>214</u> (B)																			
Prevalence Index = B/A = <u>2.23</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
		=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Picea rubens</u>	<u>1</u>	No	FACU	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>1</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Osmundastrum cinnamomeum</u>	<u>30</u>	Yes	FACW	<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 <input type="checkbox"/>																
2. <u>Maianthemum canadense</u>	<u>5</u>	No	FACU																	
3. <u>Onoclea sensibilis</u>	<u>10</u>	No	FACW																	
4. <u>Glyceria striata</u>	<u>10</u>	No	OBL																	
5. <u>Parathelypteris noveboracensis</u>	<u>20</u>	Yes	FAC																	
6. <u>Impatiens capensis</u>	<u>20</u>	Yes	FACW																	
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>95</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )																				
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
		=Total Cover																		

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



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 10  
 Subregion (LRR or MLRA): LRR R Lat: 42.918821 Long: -72.886350 Datum: Upland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 415 416 417</u>
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest	

### 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)	<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)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:  
 Obvious Topo Break

**SOIL**

Sampling Point: 2

**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 3/1	100					loamy/clayey	loose/dry
2-5	7.5yr 4/3	100					sandy	loose/dry

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- High Chroma Sands (S11) (**LRR K, L**)
- 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)
- Marl (F10) (**LRR K, L**)

**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**)
- 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: Bedrock  
 Depth (inches): 5

Hydric Soil Present? Yes  No

Remarks:

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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u><i>Betula alleghaniensis</i></u>	10	Yes	FAC	<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>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>50.0%</u> (A/B)																
2. <u><i>Prunus serotina</i></u>	1	No	FACU																	
3. <u><i>Acer saccharum</i></u>	20	Yes	FACU																	
4. <u><i>Fraxinus americana</i></u>	10	Yes	FACU																	
5. _____																				
6. _____																				
7. _____																				
	41	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Acer saccharum</i></u>	45	Yes	FACU	<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>1</u></td> <td>x 2 = <u>2</u></td> </tr> <tr> <td>FAC species <u>75</u></td> <td>x 3 = <u>225</u></td> </tr> <tr> <td>FACU species <u>80</u></td> <td>x 4 = <u>320</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>156</u></td> <td>(A) <u>547</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.51</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>0</u>	x 1 = <u>0</u>	FACW species <u>1</u>	x 2 = <u>2</u>	FAC species <u>75</u>	x 3 = <u>225</u>	FACU species <u>80</u>	x 4 = <u>320</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>156</u>	(A) <u>547</u> (B)	Prevalence Index = B/A = <u>3.51</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>0</u>	x 1 = <u>0</u>																			
FACW species <u>1</u>	x 2 = <u>2</u>																			
FAC species <u>75</u>	x 3 = <u>225</u>																			
FACU species <u>80</u>	x 4 = <u>320</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>156</u>	(A) <u>547</u> (B)																			
Prevalence Index = B/A = <u>3.51</u>																				
2. <u><i>Abies balsamea</i></u>	5	No	FAC																	
3. <u><i>Picea rubens</i></u>	1	No	FACU																	
4. <u><i>Fagus grandifolia</i></u>	1	No	FACU																	
5. <u><i>Fraxinus americana</i></u>	1	No	FACU																	
6. <u><i>Betula alleghaniensis</i></u>	10	No	FAC																	
7. _____																				
	63	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Parathelypteris noveboracensis</i></u>	20	Yes	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is $\leq 3.0^1$ <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u><i>Maianthemum canadense</i></u>	1	No	FACU																	
3. <u><i>Carex grayi</i></u>	1	No	FACW																	
4. <u><i>Dryopteris intermedia</i></u>	30	Yes	FAC																	
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	52	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																
=Total Cover																				

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 10  
 Subregion (LRR or MLRA): LRR R Lat: 42.91886 Long: -72.886397 Datum: Wetland  
 Soil Map Unit Name: Houghtonville-Rawsonville NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 415 416 417</u>
Remarks: (Explain alternative procedures here or in a separate report.) Seep	

### 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) <input 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)	<u>Secondary Indicators (minimum of two required)</u> <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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>10 bgs</u> Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): <u>          </u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>gs</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:



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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Not present</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>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>20</u></td> <td>x 1 = <u>20</u></td> </tr> <tr> <td>FACW species <u>35</u></td> <td>x 2 = <u>70</u></td> </tr> <tr> <td>FAC species <u>0</u></td> <td>x 3 = <u>0</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>55</u> (A)</td> <td><u>90</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.64</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>20</u>	x 1 = <u>20</u>	FACW species <u>35</u>	x 2 = <u>70</u>	FAC species <u>0</u>	x 3 = <u>0</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>55</u> (A)	<u>90</u> (B)	Prevalence Index = B/A = <u>1.64</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>20</u>	x 1 = <u>20</u>																			
FACW species <u>35</u>	x 2 = <u>70</u>																			
FAC species <u>0</u>	x 3 = <u>0</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>55</u> (A)	<u>90</u> (B)																			
Prevalence Index = B/A = <u>1.64</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	=Total Cover																			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Not present</u>				<b>Hydrophytic Vegetation Indicators:</b>  <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	=Total Cover																			
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Onoclea sensibilis</u>	30	Yes	FACW	<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																
2. <u>Carex crinita</u>	20	Yes	OBL																	
3. <u>Impatiens capensis</u>	5	No	FACW																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	55 =Total Cover																			
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
	=Total Cover																			

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

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

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 6  
 Subregion (LRR or MLRA): LRR R Lat: 42.925386 Long: -72.891727 Datum: Upland  
 Soil Map Unit Name: Mundal NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes <u>    </u> No <u>X</u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u> If yes, optional Wetland Site ID: <u>Wetland 515</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 <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>X</u>
Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available: NA	
Remarks:	

**SOIL**

Sampling Point: 1

**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	10yr 3/2	100					loamy/clayey	loose/dry

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (**LRR R, MLRA 149B**)
- Thin Dark Surface (S9) (**LRR R, MLRA 149B**)
- High Chroma Sands (S11) (**LRR K, L**)
- 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)
- Marl (F10) (**LRR K, L**)

**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**)
- 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: Bedrock  
 Depth (inches): 9

**Hydric Soil Present?** Yes  No

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)



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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Fagus grandifolia</u>	25	Yes	FACU	<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>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>14.3%</u> (A/B)  <b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>21</u></td> <td>x 3 = <u>63</u></td> </tr> <tr> <td>FACU species <u>112</u></td> <td>x 4 = <u>448</u></td> </tr> <tr> <td>UPL species <u>21</u></td> <td>x 5 = <u>105</u></td> </tr> <tr> <td>Column Totals: <u>154</u> (A)</td> <td><u>616</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>4.00</u></td> </tr> </table>	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>21</u>	x 3 = <u>63</u>	FACU species <u>112</u>	x 4 = <u>448</u>	UPL species <u>21</u>	x 5 = <u>105</u>	Column Totals: <u>154</u> (A)	<u>616</u> (B)	Prevalence Index = B/A = <u>4.00</u>	
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>21</u>	x 3 = <u>63</u>																			
FACU species <u>112</u>	x 4 = <u>448</u>																			
UPL species <u>21</u>	x 5 = <u>105</u>																			
Column Totals: <u>154</u> (A)	<u>616</u> (B)																			
Prevalence Index = B/A = <u>4.00</u>																				
2. <u>Acer saccharum</u>	10	Yes	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	35	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Viburnum lantana</u>	20	Yes	UPL	<b>Hydrophytic Vegetation Indicators:</b>  <u>1</u> - Rapid Test for Hydrophytic Vegetation  <u>2</u> - Dominance Test is >50%  <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup>  <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <u>  </u> 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>Fagus grandifolia</u>	35	Yes	FACU																	
3. <u>Picea rubens</u>	1	No	FACU																	
4. <u>Acer pensylvanicum</u>	15	Yes	FACU																	
5. _____																				
6. _____																				
7. _____																				
	71	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Parathelypteris noveboracensis</u>	20	Yes	FAC																	
2. <u>Fagus grandifolia</u>	20	Yes	FACU																	
3. <u>Picea rubens</u>	1	No	FACU																	
4. <u>Viburnum lantana</u>	1	No	UPL																	
5. <u>Dryopteris intermedia</u>	1	No	FAC																	
6. <u>Aralia nudicaulis</u>	5	No	FACU																	
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	48	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )																				
1. <u>Not present</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.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																
2. _____																				
3. _____																				
4. _____																				
			=Total Cover																	

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.925317 Long: -72.891631 Datum: Wetland  
 Soil Map Unit Name: Mundal NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes <u>x</u> No <u>    </u> Hydric Soil Present? Yes <u>x</u> No <u>    </u> Wetland Hydrology Present? Yes <u>x</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>x</u> No <u>    </u> If yes, optional Wetland Site ID: <u>Wetland 515</u>
Remarks: (Explain alternative procedures here or in a separate report.) Seep	

**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)                                      ___ 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)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>x</u> No <u>    </u> Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
---	---

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

Remarks:



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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Betula alleghaniensis</u>	<u>20</u>	Yes	FAC	<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>6</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>66.7%</u> (A/B)																
2. <u>Tsuga canadensis</u>	<u>25</u>	Yes	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>45</u>	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>25</u></td> <td>x 1 = <u>25</u></td> </tr> <tr> <td>FACW species <u>40</u></td> <td>x 2 = <u>80</u></td> </tr> <tr> <td>FAC species <u>35</u></td> <td>x 3 = <u>105</u></td> </tr> <tr> <td>FACU species <u>46</u></td> <td>x 4 = <u>184</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>146</u> (A)</td> <td><u>394</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>2.70</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>25</u>	x 1 = <u>25</u>	FACW species <u>40</u>	x 2 = <u>80</u>	FAC species <u>35</u>	x 3 = <u>105</u>	FACU species <u>46</u>	x 4 = <u>184</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>146</u> (A)	<u>394</u> (B)	Prevalence Index = B/A = <u>2.70</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>25</u>	x 1 = <u>25</u>																			
FACW species <u>40</u>	x 2 = <u>80</u>																			
FAC species <u>35</u>	x 3 = <u>105</u>																			
FACU species <u>46</u>	x 4 = <u>184</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>146</u> (A)	<u>394</u> (B)																			
Prevalence Index = B/A = <u>2.70</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Abies balsamea</u>	<u>15</u>	Yes	FAC																	
2. <u>Tsuga canadensis</u>	<u>10</u>	Yes	FACU																	
3. <u>Picea rubens</u>	<u>1</u>	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>26</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Osmundastrum cinnamomeum</u>	<u>40</u>	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Carex crinita</u>	<u>25</u>	Yes	OBL																	
3. <u>Tiarella cordifolia</u>	<u>10</u>	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>75</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30 x 30</u> )																				
1. <u>Not present</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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 3  
 Subregion (LRR or MLRA): LRR R Lat: 42.919945 Long: -72.885567 Datum: Upland  
 Soil Map Unit Name: Sheepscot NWI classification: 2

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 checked="" type="checkbox"/> Hydric Soil Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Wetland Hydrology Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 536/537</u>
Remarks: (Explain alternative procedures here or in a separate report.) Seep	

### 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)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 Na

Remarks:



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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</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>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>25.0%</u> (A/B)																
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
_____ =Total Cover				<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>20</u></td> <td>x 3 = <u>60</u></td> </tr> <tr> <td>FACU species <u>110</u></td> <td>x 4 = <u>440</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>500</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.85</u></td> </tr> </table>	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>20</u>	x 3 = <u>60</u>	FACU species <u>110</u>	x 4 = <u>440</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>500</u> (B)	Prevalence Index = B/A = <u>3.85</u>	
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>20</u>	x 3 = <u>60</u>																			
FACU species <u>110</u>	x 4 = <u>440</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u> (A)	<u>500</u> (B)																			
Prevalence Index = B/A = <u>3.85</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Betula populifolia</u>	20	Yes	FAC																	
2. <u>Populus tremuloides</u>	10	Yes	FACU																	
3. <u>Acer saccharum</u>	10	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
_____ =Total Cover																				
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>   </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
1. <u>Solidago canadensis</u>	60	Yes	FACU																	
2. <u>Potentilla simplex</u>	15	No	FACU																	
3. <u>Fragaria virginiana</u>	15	No	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
_____ =Total Cover																				
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )				<b>Definitions of Vegetation Strata:</b>  <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height.  <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall.  <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall.  <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.																
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
_____ =Total Cover																				
<table style="width:100%; border:none;"> <tr> <td style="width:60%;"><b>Hydrophytic Vegetation Present?</b></td> <td style="width:20%; text-align:center;">Yes <u>   </u></td> <td style="width:20%; text-align:center;">No <u> X </u></td> </tr> </table>				<b>Hydrophytic Vegetation Present?</b>	Yes <u>   </u>	No <u> X </u>														
<b>Hydrophytic Vegetation Present?</b>	Yes <u>   </u>	No <u> X </u>																		

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Terrace Local relief (concave, convex, none): none Slope (%): 1  
 Subregion (LRR or MLRA): LRR R Lat: 42.919460 Long: -72.885414 Datum: Wetland  
 Soil Map Unit Name: Sheepscot NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes <u>x</u> No <u>    </u> Hydric Soil Present? Yes <u>x</u> No <u>    </u> Wetland Hydrology Present? Yes <u>x</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> If yes, optional Wetland Site ID: <u>Wetland 536/537</u>
Remarks: (Explain alternative procedures here or in a separate report.) Seep	

**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)                                      ___ 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) <u>X</u> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>x</u> No <u>    </u> Depth (inches): <u>0</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 Na

Remarks:



**SOIL**

Sampling Point: 1

**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>		
0-3	10yr 3/1	100					loamy/clayey	wet
3-9	10yr 5/1	97	7.5yr 4/6	3	c	pl	loamy/clayey	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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"/> High Chroma Sands (S11) (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 Mucky Mineral (F1) (LRR K, L)	<input type="checkbox"/> Polyvalue Below Surface (S8) (LRR K, L)	
<input type="checkbox"/> Stratified Layers (A5)	<input type="checkbox"/> Loamy Gleyed Matrix (F2)	<input type="checkbox"/> Thin Dark Surface (S9) (LRR K, L)	
<input checked="" type="checkbox"/> Depleted Below Dark Surface (A11)	<input checked="" type="checkbox"/> Depleted Matrix (F3)	<input type="checkbox"/> Iron-Manganese Masses (F12) (LRR K, L, R)	
<input type="checkbox"/> Thick Dark Surface (A12)	<input type="checkbox"/> Redox Dark Surface (F6)	<input type="checkbox"/> Piedmont Floodplain Soils (F19) (MLRA 149B)	
<input type="checkbox"/> Sandy Mucky Mineral (S1)	<input type="checkbox"/> Depleted Dark Surface (F7)	<input type="checkbox"/> Mesic Spodic (TA6) (MLRA 144A, 145, 149B)	
<input type="checkbox"/> Sandy Gleyed Matrix (S4)	<input type="checkbox"/> Redox Depressions (F8)	<input type="checkbox"/> Red Parent Material (F21)	
<input type="checkbox"/> Sandy Redox (S5)	<input type="checkbox"/> Marl (F10) (LRR K, L)	<input type="checkbox"/> Very Shallow Dark Surface (TF12)	
<input type="checkbox"/> Stripped Matrix (S6)		<input type="checkbox"/> Other (Explain in Remarks)	
<input type="checkbox"/> Dark Surface (S7)			

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

<b>Restrictive Layer (if observed):</b>		<b>Hydric Soil Present?    Yes <u>X</u>    No <u>    </u></b>
Type: <u>Rock</u>	Depth (inches): <u>9</u>	

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Not present</u>				<b>Dominance Test worksheet:</b>  Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>56</u></td> <td>x 1 = <u>56</u></td> </tr> <tr> <td>FACW species <u>80</u></td> <td>x 2 = <u>160</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>137</u> (A)</td> <td><u>219</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.60</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>56</u>	x 1 = <u>56</u>	FACW species <u>80</u>	x 2 = <u>160</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>137</u> (A)	<u>219</u> (B)	Prevalence Index = B/A = <u>1.60</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>56</u>	x 1 = <u>56</u>																			
FACW species <u>80</u>	x 2 = <u>160</u>																			
FAC species <u>1</u>	x 3 = <u>3</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>137</u> (A)	<u>219</u> (B)																			
Prevalence Index = B/A = <u>1.60</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
		=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Salix bebbiana</u>	10	Yes	FACW	<b>Hydrophytic Vegetation Indicators:</b>  <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet)  <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Salix discolor</u>	10	Yes	FACW																	
3. <u>Salix eriocephala</u>	10	Yes	FACW																	
4. <u>Spiraea alba</u>	10	Yes	FACW																	
5. _____																				
6. _____																				
7. _____																				
	40	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Carex crinita</u>	20	Yes	OBL	<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 <input type="checkbox"/>																
2. <u>Onoclea sensibilis</u>	40	Yes	FACW																	
3. <u>Juncus effusus</u>	10	No	OBL																	
4. <u>Equisetum arvense</u>	1	No	FAC																	
5. <u>Juncus canadensis</u>	25	Yes	OBL																	
6. <u>Symphyotrichum puniceum</u>	1	No	OBL																	
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	97	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Not present</u>																				
2. _____																				
3. _____																				
4. _____																				
		=Total Cover																		

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

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

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20  
 Subregion (LRR or MLRA): LRR R Lat: 42.922722 Long: -72.897246 Datum: Upland  
 Soil Map Unit Name: Rawsonville-Hogback NWI classification: 2

Are climatic / hydrologic conditions on the site typical for this time of year? Yes x No      (If no, explain in Remarks.)  
 Are Vegetation     , Soil     , or Hydrology      significantly disturbed? Are "Normal Circumstances" present? Yes      No x  
 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>    </u> No <u>X</u> Hydric Soil Present? Yes <u>    </u> No <u>X</u> Wetland Hydrology Present? Yes <u>    </u> No <u>X</u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u> If yes, optional Wetland Site ID: <u>Wetland 706</u>
Remarks: (Explain alternative procedures here or in a separate report.) NH forest at edge of mowed ski slope	

**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)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>X</u>
--	---

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

Remarks:

**SOIL**

Sampling Point: 2

**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 4/6	100					loamy/clayey	
4-9	10yr 3/3	100					loamy/clayey	loose

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- 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)
- Marl (F10) (LRR K, L)

**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)
- 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: bedrock  
 Depth (inches): 9

Hydric Soil Present? Yes  No

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u><i>Fagus grandifolia</i></u>	45	Yes	FACU	<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>4</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>0.0%</u> (A/B)																
2. <u><i>Acer saccharum</i></u>	1	No	FACU																	
3. <u><i>Acer rubrum</i></u>	1	No	FAC																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	47	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Acer pensylvanicum</i></u>	30	Yes	FACU	<b>Prevalence Index worksheet:</b>  <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>2</u></td> <td>x 3 = <u>6</u></td> </tr> <tr> <td>FACU species <u>128</u></td> <td>x 4 = <u>512</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>130</u> (A)</td> <td><u>518</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.98</u></td> </tr> </table>	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>2</u>	x 3 = <u>6</u>	FACU species <u>128</u>	x 4 = <u>512</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>130</u> (A)	<u>518</u> (B)	Prevalence Index = B/A = <u>3.98</u>	
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>2</u>	x 3 = <u>6</u>																			
FACU species <u>128</u>	x 4 = <u>512</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>130</u> (A)	<u>518</u> (B)																			
Prevalence Index = B/A = <u>3.98</u>																				
2. <u><i>Fagus grandifolia</i></u>	1	No	FACU																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	31	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Parathelypteris noveboracensis</i></u>	1	No	FAC	<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is $\leq 3.0^1$ <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)																
2. <u><i>Fragaria virginiana</i></u>	1	No	FACU																	
3. <u><i>Acer saccharum</i></u>	20	Yes	FACU																	
4. <u><i>Dryopteris marginalis</i></u>	30	Yes	FACU																	
5. <u><i>Polygonum</i></u>	1	No																		
6. <u><i>Polygonatum</i></u>	1	No																		
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	54	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>																
=Total Cover																				

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/18/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): hillslope Local relief (concave, convex, none): none Slope (%): 20  
 Subregion (LRR or MLRA): LRR R Lat: 42.922545 Long: -72.897940 Datum: Wetland  
 Soil Map Unit Name: Rawsonville-Hogback NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland 706</u>
Remarks: (Explain alternative procedures here or in a separate report.) mowed ski slope	

### 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 checked="" 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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:

**SOIL**

Sampling Point: 1

**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 5/2	95	7.5yr 4/6	5	c	pl	sandy	Prominent redox concentrations

<sup>1</sup>Type: C=Concentration, D=Depletion, RM=Reduced Matrix, CS=Covered or Coated 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)

- Polyvalue Below Surface (S8) (LRR R, MLRA 149B)
- Thin Dark Surface (S9) (LRR R, MLRA 149B)
- High Chroma Sands (S11) (LRR K, L)
- 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)
- Marl (F10) (LRR K, L)

**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)
- 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: bedrock  
 Depth (inches): 5

Hydric Soil Present? Yes X No   

Remarks:  
 Data form is revised from Northcentral and Northeast Regional Supplement Version 2.0 to reflect the NRCS Field Indicators of Hydric Soils version 7.0 March 2013 Errata. (<http://soils.usda.gov/use/hydric>)

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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Not present</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>2</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="width:50%; text-align:center;">Total % Cover of:</td> <td style="width:50%; text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>46</u></td> <td>x 1 = <u>46</u></td> </tr> <tr> <td>FACW species <u>51</u></td> <td>x 2 = <u>102</u></td> </tr> <tr> <td>FAC species <u>1</u></td> <td>x 3 = <u>3</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>98</u> (A)</td> <td><u>151</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.54</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>46</u>	x 1 = <u>46</u>	FACW species <u>51</u>	x 2 = <u>102</u>	FAC species <u>1</u>	x 3 = <u>3</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>98</u> (A)	<u>151</u> (B)	Prevalence Index = B/A = <u>1.54</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>46</u>	x 1 = <u>46</u>																			
FACW species <u>51</u>	x 2 = <u>102</u>																			
FAC species <u>1</u>	x 3 = <u>3</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>98</u> (A)	<u>151</u> (B)																			
Prevalence Index = B/A = <u>1.54</u>																				
2. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
		=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Not present</u>				<b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> <u>2</u> - Dominance Test is >50% <input checked="" type="checkbox"/> <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>    </u> 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. _____																				
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
		=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Onoclea sensibilis</u>	50	Yes	FACW																	
2. <u>Carex crinita</u>	45	Yes	OBL																	
3. <u>Eutrochium maculatum</u>	1	No	OBL																	
4. <u>Doellingeria umbellata</u>	1	No	FACW																	
5. <u>Parathelypteris noveboracensis</u>	1	No	FAC																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	98	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Not present</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.  <b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																
2. _____																				
3. _____																				
4. _____																				
		=Total Cover																		

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



## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.926691 Long: -72.888481 Datum: Upland  
 Soil Map Unit Name: Mundal NWI classification: 2

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 checked="" type="checkbox"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland A15</u>
Hydric Soil Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Wetland Hydrology Present?	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>	
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest			

### 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)	<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)
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<b>Field Observations:</b> Surface Water Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Water Table Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ Saturation Present? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> Depth (inches): _____ (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:



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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</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>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>40.0%</u> (A/B)  <b>Prevalence Index worksheet:</b> <table style="width:100%; border-collapse: collapse;"> <tr> <td style="width:50%; text-align: center;">Total % Cover of:</td> <td style="width:50%; text-align: center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>40</u></td> <td>x 3 = <u>120</u></td> </tr> <tr> <td>FACU species <u>112</u></td> <td>x 4 = <u>448</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>152</u> (A)</td> <td><u>568</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align: center;">Prevalence Index = B/A = <u>3.74</u></td> </tr> </table> <b>Hydrophytic Vegetation Indicators:</b> <u>1</u> - Rapid Test for Hydrophytic Vegetation <u>2</u> - Dominance Test is >50% <u>3</u> - Prevalence Index is ≤3.0 <sup>1</sup> <u>4</u> - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <u>  </u> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.  <b>Definitions of Vegetation Strata:</b> <b>Tree</b> – Woody plants 3 in. (7.6 cm) or more in diameter at breast height (DBH), regardless of height. <b>Sapling/shrub</b> – Woody plants less than 3 in. DBH and greater than or equal to 3.28 ft (1 m) tall. <b>Herb</b> – All herbaceous (non-woody) plants, regardless of size, and woody plants less than 3.28 ft tall. <b>Woody vines</b> – All woody vines greater than 3.28 ft in height.  <b>Hydrophytic Vegetation Present?</b> Yes <u>  </u> No <u>  X  </u>	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>40</u>	x 3 = <u>120</u>	FACU species <u>112</u>	x 4 = <u>448</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>152</u> (A)	<u>568</u> (B)	Prevalence Index = B/A = <u>3.74</u>	
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>40</u>	x 3 = <u>120</u>																			
FACU species <u>112</u>	x 4 = <u>448</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>152</u> (A)	<u>568</u> (B)																			
Prevalence Index = B/A = <u>3.74</u>																				
1. <u><i>Pinus strobus</i></u>	<u>50</u>	<u>Yes</u>	<u>FACU</u>																	
2. <u><i>Betula papyrifera</i></u>	<u>10</u>	<u>No</u>	<u>FACU</u>																	
3. <u><i>Acer saccharum</i></u>	<u>40</u>	<u>Yes</u>	<u>FACU</u>																	
4. <u><i>Picea rubens</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
5. _____																				
6. _____																				
7. _____																				
	<u>101</u> =Total Cover																			
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Abies balsamea</i></u>	<u>10</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u><i>Picea rubens</i></u>	<u>1</u>	<u>No</u>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>11</u> =Total Cover																			
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Dryopteris intermedia</i></u>	<u>30</u>	<u>Yes</u>	<u>FAC</u>																	
2. <u><i>Acer saccharum</i></u>	<u>10</u>	<u>Yes</u>	<u>FACU</u>																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>40</u> =Total Cover																			
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></u>																				
2. _____																				
3. _____																				
4. _____																				
	_____ =Total Cover																			

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.926650 Long: -72.888658 Datum: Wetland  
 Soil Map Unit Name: Mundal NWI classification: 2

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

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

Hydrophytic Vegetation Present? Yes <u>X</u> No <u>    </u> Hydric Soil Present? Yes <u>X</u> No <u>    </u> Wetland Hydrology Present? Yes <u>X</u> No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>X</u> No <u>    </u> If yes, optional Wetland Site ID: <u>Wetland A15</u>
Remarks: (Explain alternative procedures here or in a separate report.) Red Spruce Hardwood Swamp	

**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)                                      ___ 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) ___ Geomorphic Position (D2) ___ Shallow Aquitard (D3) ___ Microtopographic Relief (D4) <u>X</u> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>x</u> No <u>    </u> Depth (inches): <u>gs</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>X</u> No <u>    </u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:



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

Sampling Point: 1

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u>Betula populifolia</u>	10	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>7</u> (A)  Total Number of Dominant Species Across All Strata: <u>7</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>100.0%</u> (A/B)																
2. <u>Abies balsamea</u>	10	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>20</u>	=Total Cover		<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>60</u></td> <td>x 1 = <u>60</u></td> </tr> <tr> <td>FACW species <u>61</u></td> <td>x 2 = <u>122</u></td> </tr> <tr> <td>FAC species <u>55</u></td> <td>x 3 = <u>165</u></td> </tr> <tr> <td>FACU species <u>0</u></td> <td>x 4 = <u>0</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>176</u></td> <td>(A) <u>347</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>1.97</u></td> </tr> </table>	Total % Cover of:	Multiply by:	OBL species <u>60</u>	x 1 = <u>60</u>	FACW species <u>61</u>	x 2 = <u>122</u>	FAC species <u>55</u>	x 3 = <u>165</u>	FACU species <u>0</u>	x 4 = <u>0</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>176</u>	(A) <u>347</u> (B)	Prevalence Index = B/A = <u>1.97</u>	
Total % Cover of:	Multiply by:																			
OBL species <u>60</u>	x 1 = <u>60</u>																			
FACW species <u>61</u>	x 2 = <u>122</u>																			
FAC species <u>55</u>	x 3 = <u>165</u>																			
FACU species <u>0</u>	x 4 = <u>0</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>176</u>	(A) <u>347</u> (B)																			
Prevalence Index = B/A = <u>1.97</u>																				
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u>Salix sp.</u>	30	Yes	FAC																	
2. <u>Spiraea alba</u>	20	Yes	FACW																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	<u>50</u>	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u>Eutrochium maculatum</u>	30	Yes	OBL	<b>Hydrophytic Vegetation Indicators:</b> <input type="checkbox"/> 1 - Rapid Test for Hydrophytic Vegetation <input checked="" type="checkbox"/> 2 - Dominance Test is >50% <input checked="" type="checkbox"/> 3 - Prevalence Index is ≤3.0 <sup>1</sup> <input type="checkbox"/> 4 - Morphological Adaptations <sup>1</sup> (Provide supporting data in Remarks or on a separate sheet) <input type="checkbox"/> Problematic Hydrophytic Vegetation <sup>1</sup> (Explain)  <sup>1</sup> Indicators of hydric soil and wetland hydrology must be present, unless disturbed or problematic.																
2. <u>Solidago gigantea</u>	20	No	FACW																	
3. <u>Carex crinita</u>	30	Yes	OBL																	
4. <u>Doellingeria umbellata</u>	1	No	FACW																	
5. <u>Phalaris arundinacea</u>	20	No	FACW																	
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	<u>101</u>	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u>Clematis virginiana</u>	5	Yes	FAC	<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>5</u>	=Total Cover																		
<b>Hydrophytic Vegetation Present?</b>				Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>																

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

## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 2  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): Hillslope Local relief (concave, convex, none): none Slope (%): 8  
 Subregion (LRR or MLRA): LRR R Lat: 42.928236 Long: -72.891889 Datum: Upland  
 Soil Map Unit Name: Mundal NWI classification: 2

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

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

Hydrophytic Vegetation Present?	Yes <u>X</u>	No <u>    </u>	<b>Is the Sampled Area within a Wetland?</b> Yes <u>    </u> No <u>X</u> If yes, optional Wetland Site ID: <u>Wetland A23</u>
Hydric Soil Present?	Yes <u>    </u>	No <u>X</u>	
Wetland Hydrology Present?	Yes <u>    </u>	No <u>X</u>	
Remarks: (Explain alternative procedures here or in a separate report.) NH Forest w/Spruce			

**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)
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<b>Field Observations:</b> Surface Water Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Water Table Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> Saturation Present? Yes <u>    </u> No <u>x</u> Depth (inches): <u>    </u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <u>    </u> No <u>X</u>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:  
 Bouldery Slope





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

Sampling Point: 2

	Absolute % Cover	Dominant Species?	Indicator Status																	
<b>Tree Stratum</b> (Plot size: <u>30' radius</u> )																				
1. <u><i>Abies balsamea</i></u>	15	Yes	FAC	<b>Dominance Test worksheet:</b> Number of Dominant Species That Are OBL, FACW, or FAC: <u>3</u> (A)  Total Number of Dominant Species Across All Strata: <u>5</u> (B)  Percent of Dominant Species That Are OBL, FACW, or FAC: <u>60.0%</u> (A/B)																
2. <u><i>Acer rubrum</i></u>	25	Yes	FAC																	
3. <u><i>Picea rubens</i></u>	30	Yes	FACU																	
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	70	=Total Cover																		
<b>Sapling/Shrub Stratum</b> (Plot size: <u>15' radius</u> )																				
1. <u><i>Picea rubens</i></u>	30	Yes	FACU	<b>Prevalence Index worksheet:</b> <table style="width:100%; border:none;"> <tr> <td style="text-align:right;">Total % Cover of:</td> <td style="text-align:center;">Multiply by:</td> </tr> <tr> <td>OBL species <u>0</u></td> <td>x 1 = <u>0</u></td> </tr> <tr> <td>FACW species <u>0</u></td> <td>x 2 = <u>0</u></td> </tr> <tr> <td>FAC species <u>51</u></td> <td>x 3 = <u>153</u></td> </tr> <tr> <td>FACU species <u>61</u></td> <td>x 4 = <u>244</u></td> </tr> <tr> <td>UPL species <u>0</u></td> <td>x 5 = <u>0</u></td> </tr> <tr> <td>Column Totals: <u>112</u> (A)</td> <td><u>397</u> (B)</td> </tr> <tr> <td colspan="2" style="text-align:center;">Prevalence Index = B/A = <u>3.54</u></td> </tr> </table>	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>51</u>	x 3 = <u>153</u>	FACU species <u>61</u>	x 4 = <u>244</u>	UPL species <u>0</u>	x 5 = <u>0</u>	Column Totals: <u>112</u> (A)	<u>397</u> (B)	Prevalence Index = B/A = <u>3.54</u>	
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>51</u>	x 3 = <u>153</u>																			
FACU species <u>61</u>	x 4 = <u>244</u>																			
UPL species <u>0</u>	x 5 = <u>0</u>																			
Column Totals: <u>112</u> (A)	<u>397</u> (B)																			
Prevalence Index = B/A = <u>3.54</u>																				
2. <u><i>Abies balsamea</i></u>	10	Yes	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
	40	=Total Cover																		
<b>Herb Stratum</b> (Plot size: <u>5' radius</u> )																				
1. <u><i>Picea rubens</i></u>	1	No	FACU	<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.																
2. <u><i>Dryopteris intermedia</i></u>	1	No	FAC																	
3. _____																				
4. _____																				
5. _____																				
6. _____																				
7. _____																				
8. _____																				
9. _____																				
10. _____																				
11. _____																				
12. _____																				
	2	=Total Cover																		
<b>Woody Vine Stratum</b> (Plot size: <u>30x30</u> )																				
1. <u><i>Not present</i></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. _____																				
				<b>Hydrophytic Vegetation Present?</b> Yes <u>X</u> No _____																

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





## WETLAND DETERMINATION DATA FORM – Northcentral and Northeast Region

Project/Site: Mountain Tract City/County: Dover Sampling Date: 9/19/14  
 Applicant/Owner: Hermitage/Haystack State: VT Sampling Point: 1  
 Investigator(s): DB Section, Township, Range: --  
 Landform (hillside, terrace, etc.): terrace Local relief (concave, convex, none): none Slope (%): 2  
 Subregion (LRR or MLRA): LRR R Lat: 42.928226 Long: -72.891705 Datum: Wetland  
 Soil Map Unit Name: Mundal NWI classification: 2

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 <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"/>	<b>Is the Sampled Area within a Wetland?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> If yes, optional Wetland Site ID: <u>Wetland A23</u>
Remarks: (Explain alternative procedures here or in a separate report.) Seep	

### 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) <input 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)	<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 checked="" type="checkbox"/> FAC-Neutral Test (D5)
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<b>Field Observations:</b> Surface Water Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>2</u> Water Table Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>7</u> Saturation Present? Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> Depth (inches): <u>gs</u> (includes capillary fringe)	<b>Wetland Hydrology Present?</b> Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
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Describe Recorded Data (stream gauge, monitoring well, aerial photos, previous inspections), if available:  
 NA

Remarks:  
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