

**THE STATE OF NEW HAMPSHIRE  
BEFORE THE  
NEW HAMPSHIRE  
SITE EVALUATION COMMITTEE**

**DOCKET NO. 2010-01**

**APPLICATION OF GROTON WIND, LLC  
FOR A CERTIFICATE OF SITE AND FACILITY**

**THIRD SUPPLEMENTAL PREFILED TESTIMONY OF  
NANCY B. RENDALL AND PETER J. WALKER  
ON BEHALF OF GROTON WIND, LLC**

**December 30, 2010**

1 **Qualifications of Peter J. Walker**

2  
3 **Q. Please state your name, business address and qualifications.**

4 A. My name is Peter J. Walker. My business address is 6 Bedford Farms Drive,  
5 Suite 607, Bedford, New Hampshire, 03110. My background and qualifications are set forth in  
6 my testimony filed in this docket on October 12, 2010 and have not changed since that time.

7 **Qualifications of Nancy B. Rendall**

8 **Q. Please state your name, business address and qualifications.**

9 A. My name is Nancy B. Rendall and my business address is 6 Bedford Farms Drive,  
10 Suite 607, Bedford, New Hampshire, 03110. My qualifications were included in my prefiled  
11 direct testimony which was submitted with the Groton Wind, LLC Application on March 26,  
12 2010 and have not changed since that time.

13 **Purpose of Third Supplemental Prefiled Testimony**

14 **Q. What is the purpose of this supplemental prefiled testimony?**

1           A.     The purpose of this testimony is to provide information concerning the potential  
2 impacts on wetlands, streams, vernal pools and water quality of the voltage step-up and other  
3 facilities that will be needed to interconnect the 34.5 kV line bringing power from the Groton  
4 Wind Project (“the Project”) with the regional power grid. These facilities are proposed to be  
5 located in Holderness and are described in the Third Prefiled Testimony of Edward Cherian. In  
6 addition, this testimony discusses potential impacts of the proposed facilities on wildlife and  
7 wildlife habitat.

8           **Q.     Have you conducted a field investigation of the property where the above-**  
9 **referenced interconnection facilities are proposed to be located?**

10          A.     Yes. The entire 25-acre “Prescott parcel” was field investigated over a one week  
11 period in mid-December. Soils were not frozen at the time of the field investigations and there  
12 was a temporary dusting of snow that did not interfere with the ability to identify herbaceous  
13 vegetation remnants. Photos were taken at the site and site characteristics were recorded using a  
14 Trimble ProXT GPS Receiver connected to a Trimble Yuma Field Computer.

15          **Q.     Have you prepared a report of your field investigation?**

16          A.     A written report summarizing our findings was prepared by Nancy B. Rendall and  
17 is attached to this prefiled testimony.

18          **Q.     Please explain whether the above-referenced interconnection facilities will**  
19 **have any impacts on wetlands, streams or vernal pools and, if so, whether those impacts**  
20 **can be avoided or minimized.**

21          A.     There are no vernal pools on the Prescott parcel, thus there will not be any  
22 impacts to vernal pools. Site conditions are such that both the voltage step-up facilities and the

1 transmission line can easily be located and constructed on the site without any direct and/or  
2 indirect impact to wetlands and/or streams.

3 **Q. Have you discussed the above-referenced interconnection facilities with any**  
4 **representatives of the New Hampshire Department of Environmental Services (“DES”)?**

5 A. No. There will not be a need to submit a wetland permit application to the NH  
6 Department of Environmental Services, Wetlands Bureau if the project does not impact any  
7 wetlands or streams. An Alteration of Terrain Permit will not be required unless the total  
8 footprint of the land to be disturbed for road construction and the facility is greater than 100,000  
9 square feet and/or if any of the land to be developed has a grade of greater than 25% and work  
10 will occur within 50’ of surface water. The total footprint for the facility, transmission line, and  
11 access road is estimated to be close to, but just under, 100,000 square feet and can be constructed  
12 without developing land with slopes greater than 25% in close proximity to (less than 50’)  
13 surface waters. An Alteration of Terrain Permit will be obtained if it becomes necessary to  
14 exceed either of these thresholds.

15 **Q. In your professional opinion, will the interconnection facilities have an**  
16 **unreasonable adverse effect on water quality, wetlands, vernal pools or streams?**

17 A. No. The facilities should not have unreasonable adverse effect on water quality,  
18 wetlands, vernal pools or streams. Such impacts, if any, should be minimal and temporary and  
19 can be avoided altogether. The construction of the facilities should not degrade water quality, if  
20 built according to standard best management practices.

1           **Q.    Have you assessed the interconnection facilities' impacts on wildlife and**  
2 **wildlife habitat?**

3           A.    Yes. The NH Natural Heritage Bureau was contacted to determine if there are  
4 threatened, endangered, or species of concern within the project area. There are no known  
5 occurrences of NHNHB listed species on the Prescott parcel. There are no vernal pools and the  
6 site has been extensively disturbed by the current use as an excavation pit.

7           **Q.    Does this conclude your testimony?**

8           A.    Yes.



**Memorandum**

To: Kristen Goland  
Ld/Sr Permit Manager  
Iberdrola Renewables  
1125 NW Couch St., Suite 700  
Portland, OR 97209

Date: December 28, 2010

Project No.: 52036

From: Nancy B Rendall, CWS, CSS  
Sr. Environmental Scientist

Re: Wetland Delineation Results for the  
Prescott Parcel in Holderness

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*Office Investigations & Findings*

The tax map for the Prescott parcel was used in combination with GIS data to create a background file upon which field data would be overlaid. USDA - NRCS soils and USGS contours were overlaid onto a background file for use in the field. GRANIT aerial orthophotos taken in the summer of 2009 were used as the background layer and closely represent existing conditions and extent of clearing on the parcel.

Soil types as mapped by the USDA - NRCS on the Prescott parcel are:

- 36B - Adams loamy sand, 3 to 8 percent slopes
- 36C - Adams loamy sand, 8 to 15 percent slopes
- 35E - Adams loamy sand, 15 to 60 percent slopes
- 61D - Tunbridge-Lyman-Rock outcrop complex, 15 to 25 percent slopes

The Adams soil series is a somewhat excessively drained map unit and depth to bedrock is typically greater than 60 inches. The sandy well drained soils are rapidly permeable and have high soil conductivity and low ability to retain nutrients and/or pollutants. The Tunbridge-Lyman-Rock outcrop complex was mapped in a band along the eastern edge of the Prescott parcel. This map unit is well drained to somewhat excessively drained and bedrock occurs at varying depths throughout the soil profile, ranging from 0 - 40 inches. The slopes associated with this map unit range from 15 - 25%, and there are a few inclusions of slopes greater than 25%.

Consistent with the presence of the somewhat excessively well drained sandy soils is the occurrence of a stratified drift aquifer of which a portion underlies the Prescott parcel. The extent of the aquifer is shown on the attached Figure 1.

The NH Natural Heritage Bureau online data check tool was used to request records of threatened, endangered and/or species of concern for this parcel. A response from the NHHNB is attached to this report stating that there are no known records for species of concern on this parcel.

### *Field Investigation Methods*

During the time period from December 14 to December 23, 2010, the entire 25-acre Prescott Parcel was inspected for wetlands and streams. At the time of the field investigations the soils were not frozen and the snow cover was sparse and temporary. Photos were taken of the site and representative photos are contained in the attached photo log.

Wetlands were delineated in accordance with the standards of the Interim Regional Supplement to the Corps of Engineers Wetland Delineation Manual: Northcentral and Northeast Region, USACE, October, 2009. This methodology uses a three parameter approach to identify wetlands, including the dominance of wetland plants, the presence of hydric soils, and evidence of hydrology. Hydric soil conditions were determined using "Field Indicators of Hydric Soils in the US: A Guide for Identifying and Delineating Hydric Soils, USDA-NRCS, Version 7.0, 2010. Dominance of wetland vegetation was assessed using the National List of Wetland Plant Species that Occur in Wetlands - Northeast; Region 1 (Porter B. Reed, Jr., 1988). Wetlands were classified using the USFWS Methodology, "Classification of Wetlands and Deepwater Habitats, (Cowardin et al, 1979)". Wetland boundaries were delineated in the field with pink flagging and located using a Trimble ProXT GPS Receiver connected to a Trimble Yuma Field Computer.

### *Site Description & Results of Field Investigations*

Much of the Prescott parcel is currently in use as an excavation pit. Soil augur and excavation pit observations are consistent with the soil types as mapped by the USDA-NRCS as well drained to excessively well drained sands. Photo Point 2 on the attached Figure 1 is a 360° degree panorama of the interior and excavated portion of the site. Eight photos were taken as representative of the existing conditions across much of the site. An access road has been completed to the interior of the site and many woods trails traverse the site. Where clearing and/or excavation has not yet occurred are upland forests where red oak, beech, hemlock and white pine as the dominant species. The understory is sparse. Bracken fern and winterberry are dominant species in the herbaceous layer. A detention pond is located on the adjacent property to the north, at the parcel property line in the northwest corner of the parcel. Fields with little bluestem and bracken fern as the dominant plants are located on the portion of the site close to Route 175.

One forested wetland and one intermittent stream were identified on the Prescott parcel. Photo Point 1 (PP1) is a representative photo of the forested wetland. The intermittent stream begins at the toe of slope of a steep ravine and eventually flows into the forested wetland but does not flow out of the wetland. This situation does not occur often but can occur in wetlands with a sandy substrate such as the wetland on this parcel. Such wetlands are valuable for groundwater recharge and this would be the principal valuable function of this wetland/stream system. This wetland and stream system parallels the southern boundary of the parcel and is contained to a small portion of the site. Given the sandy soils and limited extent of wetland resources on the site, it should not be difficult to avoid all impacts to wetlands and streams. It should also be fairly likely that the site can be developed in the sandy portion of the site and avoid the areas of shallow and/or exposed bedrock.



**To:** Nancy Rendall, VHB  
6 Bedford Farms Drive, Suite 607  
Bedford, NH 03110

**From:** NH Natural Heritage Bureau

**Date:** 12/28/2010 (valid for one year from this date)

**Re:** Review by NH Natural Heritage Bureau of request submitted 12/23/2010

**NHB File ID:** NHB10-3079

**Applicant:** Groton Wind, LLC

**Location:** Holderness  
Tax Maps: Tax Map 210, Lot 8

**Project**

**Description:** To construct a substation to connect to power grid.

The NH Natural Heritage database has been checked for records of rare species and exemplary natural communities near the area mapped below. The species considered include those listed as Threatened or Endangered by either the state of New Hampshire or the federal government. We currently have no recorded occurrences for sensitive species near this project area.

A negative result (no record in our database) does not mean that a sensitive species is not present. Our data can only tell you of known occurrences, based on information gathered by qualified biologists and reported to our office. However, many areas have never been surveyed, or have only been surveyed for certain species. An on-site survey would provide better information on what species and communities are indeed present.



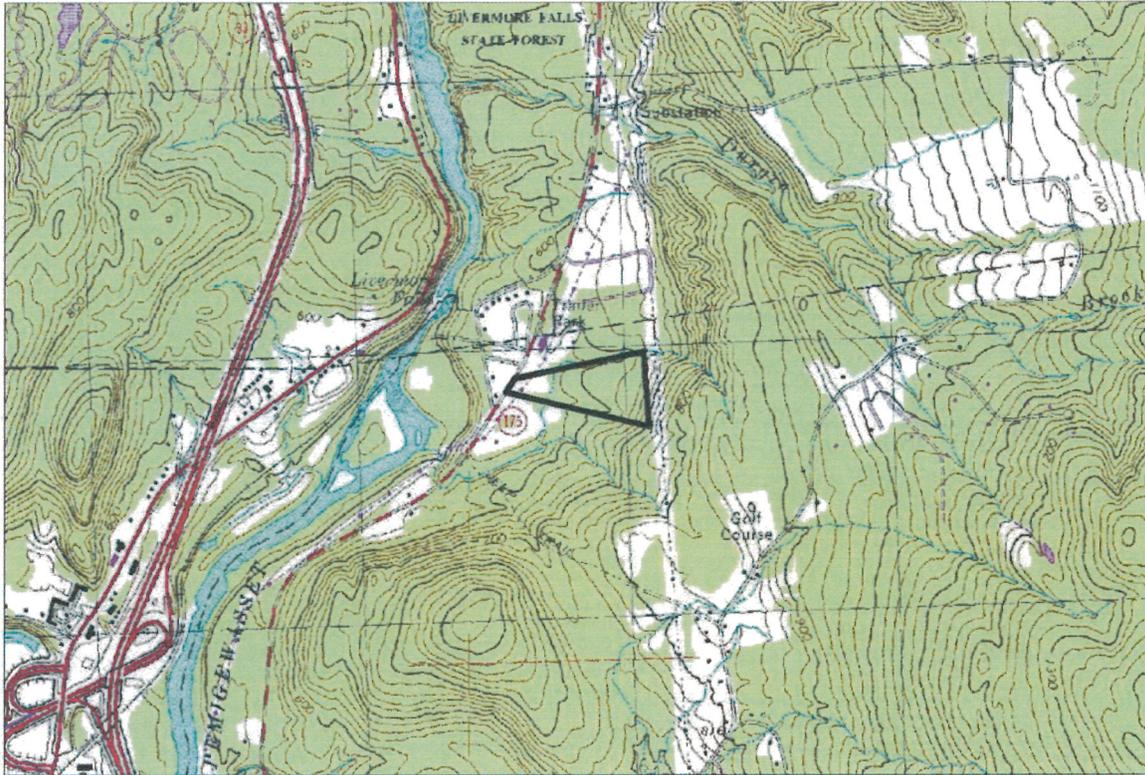
MAP OF PROJECT BOUNDARIES FOR: **NHB10-3079**



NHB10-3079



NH NATURAL HERITAGE BUREAU

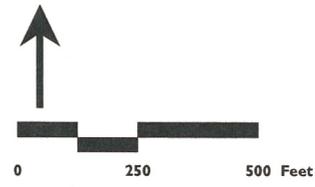


Valid for one year from this date 28 Dec 2010

Printing Date: Tuesday, December 28, 2010 10:08 AM  
 File: J:\503016.00\GIS\project\Conservation\Conservation.mxd Prepared By: dabbot\cortez@ebs.com



- Legend**
- VHB Delineated Wetlands
  - Wetland
  - Stream Centerline
  - Stream Centerline
  - Detention Basin
  - Existing Conservation Land
  - USGS Aquifer Boundaries
  - Medium to Fine Stratified-drift Deposits
  - Stratified-drift
  - Photo Point
  - USGS Contours
  - Index Contour - 100'
  - 20' interval
  - Prescott Property Boundary



**VHB** Yanasse Hangen Brustlin, Inc.

Figure 1  
**Prescott Property - Delineation**

Prescott Site  
 Holderness, NH



Photo Point 1 (PP1) – Wetland 1 @ Flag 1-1: PFO1E



Photo Point 2 (PP2) – 1 of 8 panorama – 360°



Photo Point 2 (PP2) – 2 of 8 panorama – 360°



Photo Point 2 (PP2) – 3 of 8 panorama – 360°



Photo Point 2 (PP2) – 4 of 8 panorama – 360°



Photo Point 2 (PP2) – of 8 panorama – 360°



Photo Point 2 (PP2) – 6 of 8 panorama – 360°



Photo Point 2 (PP2) – 7 of 8 panorama – 360°



Photo Point 2 (PP2) – 8 of 8 panorama – 360°